SARDIS, OLD SMYRNA PYGROI: NEW LIGHT ON AND OLD PROBLEM

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It is a great privilege to take part in the celebration for a famous scholar and an old friend. Because Ekrem Akurgal has made many important contributions to our knowledge of intercultural connections of the Aegean, Anatolian and Near Eastern cultures I venture to present some notes on an intercultural problem involving Lydia, Ionia and Etruria. The "Old Problem" is Herodotus 1.94: "The Lydians have customs similar to those of the Greeks..." "They were the first among people of whom we have knowledge... to strike gold and silver..." Thus far it is Herodotus speaking for himself; but then he distances himself from his sources: "The Lydians themselves (hoi autoi Lydioi) say that they colonized Tyrrhenia (Etruria). After a famine, half of them came down to Smyrna and built ships... (then) they sailed away until they came to the Ombrici and (there they) live to this day."

The statement links Lydia (Sardis), Smyrna and Etruria. Smyrna has a pivotal role; to Smyrna the emigrating Lydians go to build ships: one wonders whether with or without the Smyrnians' permission; from Smyrna the future Etruscans sail forth to Italy.

What new light, what new evidence do we have that bears on the Lydians' story? We shall draw our material from Sardis, capital of Lydia, from the Aeolic-Ionian colony of Smyrna and from the port and sanctuary of Pyrgoi, the harbor of the great city of Caere in Etruria, all of which have been the scene of recent excavations (1).

In a manner of speaking, we have evidence for the starting point of the Lydian emigrants in Sardis, their maritime launching base in Old Smyrna, and in Pyrgoi a kind of South Etruscan port where they might have landed (2).

Language is a major criterion in judging the alleged Lydian exodus to Etruria. Before the American excavations at Sardis (Princeton: 1910-1914,
1922; Harvard-Cornell 1958-present) nothing was known of the Lydian language (3); it was expected to prove similar to Etruscan. Although masons’ marks and graffiti begin around 650 B.C., the real texts start ca. 600 B.C. As of now (1984), 108 texts are known (4). They include four Lydo-Greek bilinguals: the official dedications on the columns given by Croesus to Artemis in Ephesus (ca. 550 B.C.) and by Partaros to Athena in Pergamon, the dedication by Nannas to Artemis of Sardis, and an inscription from Falaka in the Cayster valley. Two bilingual inscriptions are in Lydian and Aramaic, the official language of the Persian Empire in the West. One of them is dated by regnal years of Artaxerxes II to 394 B.C. (5). The most extensive finds of Lydian texts are Maconia (Emre), east of Sardis, and Aphrodisias in Caria (6). Coastal sites include Ephesus, where the earliest Lydian coins were found, and Smyrna and Pergamon (7). The only Etruscan inscription found thus far outside Asia Minor is a graffito in the quarries of Sisili in Upper Egypt (8). No Lydian inscriptions have been found in Etruria.

Publication of texts found during the excavations in progress at Sardis has been entrusted to R. Gusmani who has kindly provided the following assessment of the Lydian-Etruscan linguistic problem (letter of August 31, 1984): “Lydian belongs to the Anatolian branch of the Indo-European linguistic family and is particularly close to the South Anatolian group (Luvian, Lycian). Compared with other Anatolian languages, it shows some morphological and lexical peculiarities. The reason may lie in its particular development that may have been conditioned by geographical, historical and cultural factors. It is conceivable that these peculiarities are a result of the prehistory of the Lydian language in the period before Lydians invaded Anatolia, at a time when they may have been in contact with other Indo-European groups.

As to the relation of Lydian and Etruscan, the number of lexical resemblances (Übereinstimmungen) has increased but remains very modest; besides, some may be due to chance. Morphological contacts remain highly questionable despite V. Georgiev’s efforts (9). Under these circumstances, at present, we cannot seriously consider the assumption of a genetic kinship.

Influences during the formative period of the Etruscan language may account for secondary correspondences (Entsprechungen) in the lexical field.” Thus Gusmani would allow that before the Indo-European invasion of Asia Minor (ca. 1800 B.C.) the Lydians and the Etruscans might have had some contacts in places unknown.

For the general theme of our inquiry— the results of contacts of Greeks and natives—it is important that in Lydia Greek won out over the Lydian language. Around the middle of the fifth century B.C. Herodotus talked to bilingual Lydians. It is perfectly plausible that the author Xanthus (ca. 450-430 B.C.?), who wrote Lydiaka, a would-be historical account of Lydia spiced with many anecdotes, was the son of a Greek father (hence his Greek name) and a Lydian mother (10). The Persian period made many Lydians trilingual; especially those who served with the Persian administration. We have already cited the two Lydian-Aramaic funerary inscriptions dated by the years of Artaxerxes II (394 B.C.); and in 367 (or 427?) B.C. the Persian satrap DIOphannes published an edict addressed to Iranians in Sardis. The original was presumably in Aramaic; we know it only in the Greek translation (11). We do not know whether it had a Lydian version. By mid-fourth century B.C. a man with the very good Lydian name of Nannas Bakivalis felt that he had to translate his Lydian dedication to Artemis of Sardis into Greek (12). The latest datable Lydian inscription was cut in the fifth year of Alexander the Great (329 B.C.). By 213 B.C. all official documents were in Greek (13).

Things went quite differently in Etruria. Spanning nearly seven centuries of writing (ca. 700-30 B.C.) and encompassing ca. 13,000 texts (against 108 Lydian), the Etruscan language is still imperfectly understood. But the dramatic discovery at Pyrgoi of three golden tablets, one in a Semitic (Punic) language and two in Etruscan, as well as an Etruscan bronce tablet, has given a great impetus to linguistic research as well as to the studies of syncretism (14). The tablets record that about mid-fifth century B.C. the ruler of Caere (Etruscan Kušri) had dedicated a shrine to the Carthaginian (Semitic) goddess Ashtart. The Etruscan texts call her Uni, who is usually equated with the goddess Hera of the Greeks. The Greek literary sources call her Leukothea (Ino), the divine sea nymph who saved Odysseus and helped him land on the Island of the Phaeacians (15). Apparently the goddess was envisaged by all three nations as Divine Saviour at Sea, like the medieval Virgin as Stella Maris.

That many Greeks did come to Etruria has been known from literary sources; and it has been very plausibly suggested that it was at the old capitals like Caere and Tarquinia and their ports that Greek myths and poems were translated into Etruscan (16). In the end, the encounter of Greek and native tongues ended with the victorious advance of Rome and its Latin over the Etruscans.

As to the origins of the Etruscan language and its relation to Lydian,
Pallottino has kindly summarized for me his present position (letter of September 5, 1984): "We are dealing here with traces of an idiom, the oldest nucleus of which certainly belongs to a pre-Indo-European group of which there are no survivors other than the stelae of Lemnos (17). I do not believe that there are any special connections with the Lydian, which is an Indo-European language."

Pallottino's view is that we know the Etruscan culture only as it manifests itself in Italy from ca. 900-50 B.C. He believes that the Etruscans were present in Italy already during the Villanovan Iron Age and earlier. Elements of their language were present in Italy in the Bronze age and even the Late Stone Age (18). Although widely accepted, Pallottino's theories have been challenged by M. Renard and other scholars who see the change of language, the rise of rich princely mound burials with stone chambers and the emergence of large cities as results of the arrival of an upper class of warriors in the eighth century B.C. (19). Yet another explanation, that of W. Martini, relies on social and commercial reasons: just when certain groups within the Villanovan culture sought to achieve higher status (expressed by richer grave goods) in emulation of Near Eastern cultures, Near Eastern prospectors (the Phoenicians) tried to gain metals from "Etruria Mineraria" (20). The Orientalizing impact was intensified when a number of Phoenician craftsmen fled to the West when Sargon II of Assyria conquered their homeland (21). The transition from a village-agricultural to an urban-commercial state is typical for cultures on the periphery of "high" cultures.

Urbanism and City Walls:

The three cities we are discussing represent differing types of siting. Sardis is very much an inland site of the acropolis type with the acropolis eminence dominating the very fertile plain created by the widening of the Hermus river (Fig. 1). Two major roads serving the caravan type of trade crossed at the ford over the Pactolus brook. Individual objects of the Early Bronze (Troy I-II) and Hititite times (ca. 1500-1200 B.C.) have been found within the city area. The deepest soundings (prior to 1985) had reached a round hut and a cremation burial underneath (ca. 1400-1300 B.C.?). Somewhat higher, a burned wall and some local pottery reflecting Submycenaean and Protogeometric models of the 12th-10th centuries B.C. has been connected with the arrival of "the sons of Herakles", presumably Greek Achaeans. The same term was applied to Dorian invaders in mainland Greece (22). We catch a glimpse of what may have been an elaborate set of "urbanistic" rituals in the story of King Meles, the last of "the sons of Herakles" dynasty, who carried a lion cub prior to building the earliest defensive wall on the Acropolis (23), presumably ca. 700 B.C. This should be compared to the Greek rituals at the foundation of a colony (24) and the very elaborate Latin-Etruscan rites prescribed for the foundation of a city (25).

Archaeologically, urban traits become palpable at the industrial-commercial area of the "Lydian Trench" ("House of Bronzes") where sizeable, contiguous houses may have done double duty as dwellings and workshops; and at the "Pactolus North", on the east bank of the Pactolus, where a gold refining workshop precinct and at least one street can be distinguished (26). None of the structures known thus far attains the elegance and sophistication of the double-megara, possibly double-storied houses in Old Smyrna (27). Until 213 B.C. there is no trace of a plan regulateur as it is known in Smyrna and Pyrgoi (28).

As excavations at Sardis progress, notions of the presumable urban area are fluid (Fig. 1). The tentative plan, kindly drawn by Th. Howe, takes into account results through 1984. An estimate of the area made some time ago gave Sardis 350 acres (ca. 142 hectares) as against Old Smyrna's 17.5 plus acres (6.7 hectares). Pyrgoi covered 27 acres (ca. 10 hectares), and the city it served, Caere, 375 acres (ca. 135 hectares) (29).

Socially, spiritually and architecturally Sardis was dominated by the King's palace and castle. Traces of terraces in monumental masonry of limestone suggest imposition of a grand design. The early use of such masonry is one important technological achievement of the Lydians in the service of king and court. Far more important for the economic history of mankind is the Lydian ability to purify gold ore and separate gold and silver. This technology is concretely attested by one workshop precinct, "PN" found in the lower city on the east bank of the Pactolus brook (Fig. 1). It was active in the late seventh and sixth centuries B.C. (30).

Old Smyrna is of the typical Greek settlement type: a promontory on the sea with a small port. Akurgal has enumerated the many parallels on the coast of Asia Minor. A Ti-smurra of Hititite archives may refer to a Bronze Age king. A prehistoric Troy I-II settlement existed but settlement by Aeolians and subsequently by Ionians occurred around 1050 B.C. Smyrna too had its plain, but much of its living came from the sea through fishing and trade. It is the unique merit of Smyrna that we can here trace the urbanistic development of a Greek polis from a village of oval huts to a regularly planned, densely built up city boasting such refinements as baths
and peristaseis (isolating spaces between houses). This, as well as the introduction of polygonal masonry, are the achievements of the Orientalizing period of ca. 640-600 B.C., before the partial destruction by the Lydian king Alyattes (610-600 B.C.).

Smyrna was a classic example of the Greek colonial urban settlement on a promontory over the sea (Fig. 2). Founded according to Greek historians in 1046 B.C., Smyrna by the late seventh century B.C. displayed a plan regulateur, a checkerboard plan. Akurgal argues that it resulted from the preferred north-south orientation of the houses and was thus climatically conditioned. This phase of dynamic urbanism (650-610 B.C.) culminated in the construction of the most important building of the city, the temple of Athena, situated on the periphery of the urban complex (Fig. 7, the later phase, ca. 690 B.C.;) (31).

Founded around 600 B.C., Pyrgoi, at the edge of the coastal plain (Fig. 3), had as its raison d'être its service as a harbor for the mighty city of Caere (Kusri), 8 km. inland. It well illustrates the principle enunciated by Aristotle that a city should have a port but be far enough from the sea to be safe from pirates. Here, in Smyrna, the most important architectural complex was the amazingly cosmopolitan sanctuary of a goddess. She was Uni to the Etruscans (usually the equivalent of Hera), Ashtart to the Punic traders under Leukothea to the Greeks; presumably a kind of Stella Maris protecting the seafaring folk as Ino-Leukothea had protected Odysseus (32).

City Walls:
For the Greeks, city walls were a distinctive feature of poleis in contrast to villages (komai) (33). In Lydia, at Sardis, it was thought until quite recently that the citadel was fortified while the lower city was undefended. Now, the gigantic city wall of the lower city (fig. 4) has been found, with a stone rubble glacis and a mudbrick wall rising over 40 feet. From the ceramic finds the wall seems to have been built in the time of Lydia's most militant king, Alyattes (ca. 610?–560 B.C.), who specialized in mighty structures (34). The sudden appearance of such advanced military architecture as the city wall at Sardis was probably achieved in direct emulation of massive Urartian and Mesopotamian defensive walls, which in turn resulted from the offensive military technology developed by the Assyrians (35).

For Smyrna, R. V. Nicholls has argued that its walls were part of what had developed from Greek mainland Mycenaean fortresses well-known to Ionians emigrating from Athens and Pylos (Tyrtaios). As a colony in hostile territory, Smyrna was probably fortified perhaps initially by earthworks and palisades like the wall protecting the Achaeans in ships in the Iliad. The earliest city wall excavated belongs to the mid-ninth century B.C. while the latest and mightiest wall (Fig. 5) was completed just prior to the capture of Smyrna by Alyattes (ca. 610-600? B.C.). The structure consisted of a rubble base faced with polygonal masonry and surmounted by a tall mudbrick wall. Apart from the polygonal masonry of the base, this wall seems to represent the same type of defensive work as the much larger wall of Sardis (Fig. 4) (36).

Nothing precise seems to be known about the city wall of archaic Pyrgoi. The preserved stone masonry wall of the mother city of Caere is of the fourth century B.C. It is known, however, that the earliest of all Etruscan city walls, that at Roselle (ca. 600 B.C.), was of mudbrick (37). Ward-Perkins has specifically compared the wall at Roselle to the walls of Smyrna.

In general, the development of city walls in the Etruscan sphere seems to have been independent of the Near East and Anatolia. The form progressed from an earthwork with palisade (agger) to small stone and eventually ashlar (Rome) or even gigantic polygonal (Cortona) masonry (38).

Temples:
Thus far excavations have failed to locate an archaic temple at Sardis. However, there was found a very detailed model of an archaic Ionic temple and image, probably of Cybele based on the lions shown on one side (Fig. 6). The piece dates to around 550 B.C. (39). In an unparalleled Near Eastern manner the walls had three zones of reliefs. The model may represent the very temple that the Ionians allegedly burned in 499 B.C.

The entire urban configuration of Old Smyrna was dominated by the temple and precinct of Athena, protectress of the Ionians. In its latest version, from around 590 B.C., it was a limestone temple with Orientalizing cushion bases and Acocic capitals carved with incredible, one might say even lyric, delicacy. In its overall design the temple also seems to have gone its own experimental way (Fig. 7, a tentative reconstruction) (40).
The surprise at Pyrgoi is that two temples were found: Temple A, of the traditional deep-porch Etruscan plan (late archaic), and Temple B, of the mid-fifth century B.C. colonnaded Greek plan (Fig. 8). Recently some twenty small rooms may have been found which may have housed hierodoulai (41).

The main conclusion is that prior to the emergence of orders, the seventh and the early sixth centuries were a period of experimentation. Use was made of a great variety of solutions for temple and altar plans (Ephesus) and for wall decoration (Sardis). This was the period during which the Etruscan temple plan and the Tuscan order emerged to meet the requirements of Etruscan religious rituals, while Lydian and Ionian experiments with the Ionic-Aeolic style go closely together. Both Lydian and Etruscan temples, however, depend on Greek leadership (42).

Decoration of structures, both secular and religious, by terracotta revetments came into use very quickly in Ionia, Lydia and even Phrygia. The fashion may have originated in Corinth, the city pivotal for traffic to the West (South Italy, Tuscany, Cumae, already by 835 B.C.) to the East (Ionia, Aeolis, Attica, the Cyclades) and inland into Anatolia (Sardis, Gordion, Akalan). In Aeolis, Ionia and Lydia terracotta friezes prevail and no terracotta pediments are attested, whereas in Pyrgoi a great, gigantomachy pediment of ca. 480-410 B.C. has been found (43).

Money and Metals:

The two pictures of little jars spilling treasure in the form of coins (Figs. 9 and 10) present a most striking illustration of an epochal change in the world's history. On the left (Fig. 9) is a typical Lydian vase, a so-called lydion, usually thought of as an oil or perfume container (44) that was widely exported from Lydia. This little jar was concealed in the corner of a wrecked Lydian chamber tomb, perhaps before the Persians captured Sardis in 547 B.C. It was discovered in 1922 by T. L. Shear, Sr. during his brief 1922 campaign at Sardis. The pot is now in the Metropolitan Museum, New York, along with the six gold coins of the famous Lydian king Croesus (560-547/545 B.C.). Croesus was the first to strike coins of both gold and silver (45). Originally there were thirty staters; the others are in the Archaeological Museum in Istanbul.

An even more typically Lydian banded lydion was found at Smyrna in a context pointing to ca. 540-520 B.C. (Fig. 10). It contained some twenty (silver) coins, among them a number of coins of Smyrna with the head of Athena (46). The find is a striking illustration of the speed with which the Lydian invention of coinage spread from Sardis to Smyrna. It also indicates that the lydions, little perfume jars with an oil named bakkaris, apparently were used as a kind of purse or money container, at least when they were concealed. Here Sardis and Smyrna on the one hand and Pyrgoi on the other part company. For no Etruscan coins are thought to be as early as the sixth century B.C. (47). Pyrgoi, to be sure, did produce a small coin treasure of silver coins in Temple A. But those coins were brought from Athens in the fifth century B.C. (48).

Lydia as well as Etruria were countries with great resources of metals. Lydia had gold, silver and iron along with easy access to copper and lead. Etruria had silver, copper and iron but no gold; like iron it may have been brought from the island of Elba (49). A workshop for processing electrum ore into gold and silver has been found in Sardis (50) and an industrial area where iron ore from Elba was treated to yield iron (and bronze) has been discovered at Populonia (51). How were these valuable assets distributed and exported? And what did the Lydians and the Etruscans get in exchange?

An interesting contrast in the matter of imports of Greek pottery exists between Sardis and Smyrna on one side and the old Etruscan cities of Etruria (Pyrgoi-Caere, Tarquinia and also Vetulonia) on the other. I have just seen the manuscript on Greek imports by J. A. Schaeffer (Corinthian, 252 items), C.H. Greenwalt, Jr. (Laconian, 11 items) and N. H. Ramage (Attic, 640 items). For Greek mainland luxury ceramics, including the late black glaze, Smyrna with Sophilos and C-Painter as well as good Corinthian has more to offer. Yet if we exclude the Eastern Greek wares the amounts found at Sardis are very small compared to the wave of Greek luxury wares, beginning with masterpieces of Protocorinthian (Chigi vase), and continuing with the incredible riches in Corinthian, Eastern Greek and above all Attic black figure (François vase) and Attic red figure (52). It is very striking that under Croesus the Lydians exported treasures of gold and silver of the "unproductive" kind, used principally for divine images and dedications to Greek gods and that despite the advantages of their inventions of electrum and then of bimetallic coinage they show little taste for luxury ceramic wares (53).

The Etruscans, on the other hand, may have used their wealth in bronze and iron to pay for what may have often been "special orders" placed either directly or through intermediaries with Athenian potters.
Something of the range of Etruscan sea trade is beginning to emerge from von Hase’s research on the presence of Etruscan bucchero and other Italic and Etruscan objects in Greece. That it was the Greeks who carried the ceramic and metal trade to and from Etruria is indicated by Greek inscriptions written on Etruscan bucchero and dedicated to Hera at Perachora (Corinth) (54). Old Smyrna was certainly one of the places whence Lydian gold and silver and ointments and perfumes were shipped out to many places in the Greek world. Still, the Etruscan and Lydian trade areas may have touched: Etruscan bucchero is reported at Samos and Lydian coins have been found at Ephesus which still had a sizeable Lydian (or Macedonian?) population (55).

Let us now sum up the positions that have emerged under the “New Light” of discoveries and research. In questions of language Lydian has become more clearly associated with Lycian and Lydian. It probably appeared in Anatolia in the Middle Bronze (Hittite) period. Opinions are still divided about when the Etruscans appeared in Etruria. Discovery of a Greek settlement on Pythecousai (Iscia) along with the famous Nestor cup inscription has confirmed that the Etruscan alphabet was derived from the Western-Greek, specifically the Chalcidian-Cumaean, alphabet around 700 B.C. (56) There is no close relation between the two languages.

The rise of urbanism as well as the building of strong defensive walls and the princely burials in chamber tombs can still be debated. A considerable body of opinion bolstered by many facts holds that the introduction of these features is a matter of social change in Etruria and Greece with additional impulses provided by the immigration at first of Phoenician and North Syrian (eighth and seventh centuries B.C.) and subsequently of Corinthian (Demaratus, ca. 650 B.C.?) and Eastern Greek artists who were fleeing from the Persian conquest during which Sardis was captured and Smyrna was destroyed (57).

Finally, archaeological discoveries at Sardis, Smyrna, Pyrgoi and other sites along with cooperation with geologists, ceramicists, metallurgists and underwater archaeologists have proved that phallic and trilingual international groups-Phoenicians, Carthaginians, Etruscans and Greeks-were engaged in production and long-range distribution in the east and west Mediterranean. These groups were willing to cooperate not only in war and business (Caere and Carthage) (58) but also in religion, where the Etruscan Uni could be Hera or Leukothoia to the Greeks and Ashhtar of Carthage was worshipped by the Etruscan ruler of Caere.

POSTSCRIPT

I have not done justice to old Smyrna and its illustrious explorer. Etruscan bucchero was found in old Smyrna as H.W. von Hase kindly confirms: whether it was brought there by Etruscan pirates or curio-hunting Ionian sailors is a matter we cannot know.

FOOTNOTES

1) The three sites have been the subject of recent syntheses: G. A. H. Mann and W. E. Mierse, Sardinia, from Prehistoric to Roman Times (Cambridge, Ma., 1933); hereafter SPR; E. A. Kaurel, Alt-Smyrna I: Die Wohnsiedlungen und der Athenentempel (Ankara 1983); hereafter A.S. 1; for literary traditions on Smyrna, C.J. Cadoux, Smyrna (Oxford 1938) 53-84; G. Colani, “La dea di Pyrgi: Bilancio aggiornato dei dati archeologici,” in Die Göttin Pyrgi (Symposium Tübingen, Istituto di Studi Etruschi ed Italiani, Biblioteca di Studi Etruschi (Florence 1981)); hereafter Göttn.

2) A similar claim could be made for Gravica, the port of the oldest Etruscan city, Tarquinia, 8 km. from that city. Gravica had a shrine of the Etruscan goddess Turan and a Greek sacred precinct of Hera where some forty East Greek (Ionian?) graffiti have been found, as well as a marble anchor dedicated to Apollo of Argos by Strato, one of Greece’s wealthiest merchants. Cf. Herodorus 4.152 (ca. 500 B.C.), M. Torrelli, “I santuari di Hera a Gravica,” La Parola del Passato 136 (1971) 44-67; M. Torrelli in R. Stutele et al., Princeton Encyclopedia of Classical Sites (Princeton 1976) 367; hereafter PECIS.

3) The first comprehensive publication of Lydian inscriptions excavated from 1910-1914 was made by W. H. Buckler, Sardis VI: Lydian Inscriptions, Part 2 (Leiden 1924); hereafter Buckler.

4) R. Usanishvili, Lydischer Worterbuch (Heidelberg 1964; hereafter LW, with Guissan’s numbers); R. Usanishvili, Lydischer Worterbuch: Ergänzungsband Lieferung 1 (Heidelberg 1980), like LW, provided with an introduction to Lydian; R. Usanishvili, Sardis M3, Neue epigraphische Schriftzeugnisse aus Sardis (1958-1971) (Cambridge, Ma., 1975); the volume includes Lydian, a near-Lybian unknown dialect (“Syracuse轻松 Incription” and Carian.


8) Graffiti in a quarry at Silius in Upper Egypt, Buckler, no. 49, LW, no. 49.


12. Buckler, no. 20; LW, no. 20.


15. Odyssey 5.333-353.


19. Pallottino's multiple origin theory has been challenged by M. Renard, Initiation à l'etrusco (Brussels 1943) 11-17 and by R. Bloch, The Etruscans (New York 1963) 63. E. Richardson, The Etruscans (Chicago 1964) 19-20 gives a clear review of conflicting ancient sources, including Pylades' theory of the migration of the Near East.


21. C. Cantalamessa, Aufnahme, 55-56. Initially, the Phoenicians may have brought their gold with them. R.D. Barnett, The Nimrud Ivories (London 1957) 50. Gold ingot inscribed "gold from Ophir".


23. Herodotus 1.84. SPR, 43.


30. SPR, 33-50, figs. 5-6; terraces found in excavations of 1983-1984.

31. A.S. I, 63-96, figs. 34-80, especially the reconstructions, figs. 73-75, and fig. 2 for location.

32. Pyrgoi: M. Pallottino, "Scoperta e prima valutazione delle tavole incise," Archeologia Classica 16 (1964) 50-117 with discussion of gold tablets (Etruscan) 76-104; Scullard, 102-104, pl. 35; Göttingen, 123-164 (Bloch, Kruszwik, von Vacano).

33. Martin, chapters 1, 11 are fundamental on virtually all important elements of Greek urbanism.


38. ERA, 82-97, figs. 56 (plan of Pyrgoi with Roman colony), 57-63. For Caere: Scullard, 97-104, fig. 10 (plan); M. Torelli in PECS, 180 s.v. "Caere".

40. A.S. I, 76-99, figs. 59-72, 74-75, pls. 138-175.

41. G. Colonna, *Archeologia Classica* 18 (1966) 269-278, figs. 1-2 gives a detailed discussion of capital fragments with an "ovoid" or "basket" capital. Neither this form nor the regular Tuscan (Proto-Doric) capital appear in archaic Lydia. See Sardis R2, nos. 6-7, figs. 17-20, 26 both Ionic.

42. Pyrgoi: Temple A, 500 B.C.: Tuscan deep-porch plan with Greek type terracotta giganteramace plaque constituting the rectangular Etruscan columns suspended from the top of podiaeval space. G. Colonna, *Archeologia Classica* 18 (1966) 256-258, pls. 82-83, reconstruction with suspended column: plan with peristyle columns, our fig. 8.

43. Temple B: ibid., 98, pls. 41, 42, 89, Göttin, 24-27, pls. 15-18, on columns and antiapses, with the new date of 510-500 B.C.

44. For the requirements of the Etruscan ritual observation of the sky and early Tuscan temples: Hill, 182-183, 231-238. She placed the development of the Tuscan deep-porch temple in the first half of the seventh century B.C. and that of the triple triloba cells type in the late sixth century B.C.

45. Tuscan temple order: Vitruvius 3.3.9, 4.7.9; Hill, 179, 182-188, 231-241; B. Wesenberg, *Kapitelle und Basen* (Düsseldorf 1971) 60, figs. 113-114, early Tuscan capital from Rome. Wesenberg rightly argues that the Tuscan order must have branched off from the very early Doric capital form represented on a Proto-Corinthian scyphos from Perachora (this fig. 111). For the forerunners and experimental forms of the Ionic order, ibid., 87-140, Sardis: 111, 114; Sardis R2, nos. 6-7. Wesenberg did not realize that Sardis no. 6 has a plain shaft and an Ionic capital with three "eels", and no. 7 a fluted shaft, a large echinus and an Ionic capital: Sardis R2, figs. 17-19, 26.


50. Etruscan coins: the earliest mint in Populonia was inspired by Phocaean types and belongs to the fifth century B.C.; Snaidre, 184; Hans Becker, "Etrurian Veitese Bronzes of Populonia," in S. Doerring, D.G. Mitten and A. Steinberg, eds., *Art and Technology* (Cambridge, Ma. 1970) 195, figs. 1-2. I do not know whether any Lydian coins have been found in Etruria, where they could have been brought by the Phocaean or other refugees from the Persian conquest.

51. Göttin, 30-31, pl. 21b. Pyrgoi was destroyed by Dionysius of Syracuse in 384 B.C. He brought back loot worth 1,000 talents: Diodorus 15.14; Aristotle *Oeconomica* 2.1240b. Göttin, 43-44, 49-50 (Pyrgoi).