

# Archaeology in Turkey

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Three concurrent patterns in Turkish archaeology can be understood from the following report on the 1995 season's activities.\* The first and most obvious is the recent dramatic increase in field projects (fig. 1). The annual reports published by the Turkish Ministry of Culture (in 1996, for the 1994 season) filled four bulging volumes, with some 1,000 pages on excavations and another 800 on surveys, despite enforced limits on manuscript length. This newsletter has therefore also swelled in size, and the western portion of its map has become a dense grid of points and place-names.

Second, the vigorous health of archaeological fieldwork is broadening complementary research on related questions, the projects inspiring or encouraging others to pursue similar or parallel issues. Research on Byzantine sites, for example, attracts each year a wider circle of participants, extending from Thrace and Constantinople to the Aegean, Lycian, and Black Sea coasts, and Cappadocia; and their scope is shifting from architectural and art historical questions to the tangible social and economic changes that transformed the late antique world into the medieval one. As noted in previous newsletters, Neolithic projects are multiplying, albeit more slowly, in the Aşıklı and Urfa regions, in surveys along the Black Sea, and with the revival of excavations at Köşk Höyük near Niğde. Analysis of ancient technologies is also coalescing into a more satisfactory, diachronic picture. The ceramic industry, especially, has invited the precise focus of several teams, investigating Hellenistic kilns on the Marmaris peninsula, classical to Byzantine amphora workshops around Sinop, Byzantine pottery production on the Sea of Marmara (and, indirectly, at Amorium in central Anatolia), and Ottoman ceramic centers at Iznik and Istanbul. It should be said that many of the recent projects were formed in response to cries of distress from those concerned

about sites threatened by industrial and demographic expansion (more on this below). Archaeological strategy is advancing on technical fronts, however, to address this urgency, and the information acquired can only be considered a fortunate harvest.

Third, to balance the enormous increase in data concerning all periods, one can now welcome new concerted efforts at synthesis. Anatolian archaeology has so far inspired fewer general studies and handbooks than other cultural areas of the Near East. Those in standard use are, at this stage, venerable classics—in a field where much has changed since their outlines were formulated: R. Naumann's *Architektur Kleinasiens* (Tübingen 1955, rev. 1971), U.B. Alkim's *Anatolia I* (Cleveland 1968), and S. Lloyd's *Ancient Turkey* (London 1989—but conceived much earlier). One must thus celebrate the courage of those who have succeeded in taking on this difficult challenge. M. Joukowsky has just published *Early Turkey: Anatolian Archaeology from Prehistory through the Lydian Period* (Dubuque 1996), setting up a thick framework for future overviews. M. Özdoğan, whose brilliant fieldwork in Thrace has reassembled the bridge between prehistoric Anatolia and its Balkan neighbors, is proposing a sequence of convincing models to explain Anatolian developments within their broader European and Near Eastern contexts (e.g., for pre-Bronze Age Anatolia in U. Magen and M. Rashad eds., *Vom Halys zum Euphrat* [Altertumskunde des Vorderen Orient 7, Münster 1996] 185–202; and for Neolithic Anatolia in *Poročilo o raziskovanju paleolitika, neolitika in eneolitika v Sloveniji* 22 [1995] 25–61). S. Harman-kaya and O. Tanındı have also undertaken an admirable and painstaking enterprise: the comprehensive index *Türkiye Arkeolojik Yerleşmeleri* or TAY (*Archaeological Sites in Turkey*), where each site is described and provided with pertinent bibliography, map, plan, and selected illustrations on separate

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\* This newsletter was in large part written from notes taken at the 18th Annual Archaeological Symposium in Ankara (27–31 May 1996), organized by the Turkish Ministry of Culture's General Directorate of Monuments and Museums. I am happy to acknowledge my gratitude to the speakers; to the colleagues who took the time to send me papers and photographs; to R. Ousterhout and S. Redford for their contributions on Byzantine surveys and Islamic sites, respectively; and to Y. Ersoy, M. Özdoğan, and V. Şahoğlu for prompt responses to inquiries. Among my Bil-

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kent colleagues, whose expertise was tapped on many occasions, A. Goldman, N. Karg, and İ. Özgen provided much help with bibliographical references. C.W. Gates attended three days of the survey sessions; his careful notes gave me the basis for most of the survey entries included here. As in past years, I am especially indebted to the *AJA*'s editors, especially Pamela Russell and Danielle Newland, for their exceptional patience and encouragement. Newland, who graciously revised the map of Turkey (fig. 1) originally drawn by Liesbeth Wenzel, deserves particular thanks.



loose-leaf pages. The work is assembled in a thick binder to allow periodic additions. The first installment, *TAY 1* (Istanbul 1996), covers the Palaeolithic through Epipalaeolithic periods; five other volumes will inventory the Neolithic through the Iron Age. Istanbul University, where both Özdoğan and the *TAY* project are based, must nurture such undertakings. Another great historical geography has recently emerged from the same university, although after a 50-year interval: Ronald Syme's *Anatolica. Studies in Strabo* (Oxford 1995), edited by A.R. Birley in large part from manuscripts that Syme wrote while teaching at the university in 1944 and 1945.

Within this broad picture, the 1995 fieldwork brought two key second-millennium puzzles to a conclusive resolution. W.D. Niemeier's excavations at Bronze Age Miletos produced Minoan and Mycenaean materials in such high percentages that the identification of the site as Millawanda, founded by Creans from Milatos, can now be securely argued on archaeological grounds. Kurunta, rival of his cousin Tudhaliya IV for the Hittite throne, made tentative steps over the past decade to reclaim his succession among the Hittite kings, first with the bronze treaty plaque found in 1986 outside the Sphinx Gate at Boğazköy, then with his sealings from the registry of bullae discovered in 1992 at Nişantepe. In 1996, he definitively emerged onto center stage: a rock relief ("Hatip Kaya") found a few kilometers south of Konya at Hatip proclaims him "Great King, son of Muwatalli, Great King"; the phrase is inscribed beside a kilted figure armed with a bow and spear. Thus, Šuppiluliuma II's extreme piety in honoring the memory of Tudhaliya IV can be understood more precisely as a righteous effort to strengthen his line's royal succession. H. Ekiz, O. Ermişler, and A. Dinçol will publish the relief in a forthcoming volume of *TürkArkDerg.* Other Hittite hieroglyphic/Luvian inscriptions of more modest nature, but great interest, came to light on seals or bullae with a wide geographic distribution: Metropolis/Torbali, Dorylaion, Troy, and Kilise Tepe, the latter two in earliest Iron Age contexts.

Less welcome news comes from the preservation front. A recently implemented regulation ranks different parts of individual archaeological sites according to three priority levels. While archaeological remains in a site's first-ranked sector continue to receive protection, those ranked third require that only the uppermost, subsurface remains be examined before construction begins. This ruling has been actively applied to places such as Tekirdağ, Klazomenai, and Phocaea/Foça, whose museum personnel and excavators immediately witnessed the dire im-

plications for their sites' early phases. When Manfred Korfmann won, on 30 September 1996, his long battle to have Troy and its environs declared a historic national park, he could indeed claim a major victory. Such measures, however, cannot be invoked everywhere.

#### BIBLIOGRAPHY

**Conferences.** The 1994 excavation reports delivered in Ankara at the 17th archaeological symposium (May–June 1995) were published in *XVII. Kazı Sonuçları Toplantısı I–II* (Ankara 1996), abbreviated here as *KST 17:1* and *17:2* (1996); reports for the same year on surveys and scientific research appeared in *XIII. Araştırma Sonuçları Toplantısı I–II* (Ankara 1996) and *XI. Arkeometri Sonuçları Toplantısı* (Ankara 1996), abbreviated here as *AraşST 13:1* and *13:2* (1996), and *ArkST 11* (1996). Reports on the 1995 fieldwork season, the subject of this newsletter, were presented on 27–31 May 1996, but will not be available in print until the 1997 symposium convenes.

Turkish museum personnel also stepped up their rescue and conservation efforts on needy sites of all periods within their provinces. Reports on their 1994 findings, presented at a separate conference earlier in 1995, were published in *VI. Müze Kurtarma Kazıları Semineri* (Ankara 1996), here *MKKS 6* (1996).

The Unesco-Habitat II conference took place with great fanfare in Istanbul, on 5–7 June 1996 as announced, drawing large crowds and international dignitaries. Papers on its archaeological issues can be found in Y. Şey ed., *Housing and Settlement in Anatolia: A Historical Perspective* (Istanbul 1996). Spring conferences are being hosted annually in Istanbul by the IFEA (Institut français d'études anatoliennes Georges Dumézil), in recent years on pottery production (1996: Anatolian Hellenistic–Roman ceramics); papers given at their 1993 CNRS roundtable on fortifications in classical Asia Minor have been published as combined issues (1–2) of *REA 96* (1994). Talks delivered at the 1994 ASOR meetings, in a session devoted to pre-Roman empires in Anatolia, fill the combined volume of *BASOR 299–300* (1995).

A specialized group also gathered in Çorum in mid-September to participate in six full days of lectures for the Third International Congress of Hittology. Because of an exceptionally gregarious 1996 conference year, it was decided to reschedule the Fourth International Iron Ages Symposium, on the Early Iron "Dark" Age in Cilicia, now announced for 19–23 May 1997 in Mersin.

**Journals and selected publications.** Two journals devoted to specific aspects of Anatolian archaeology were recently launched. *Halikarnassian Studies*,

the first volume of which was published in 1994, will serve as a forum for final reports about the renewed cycle of excavations in Mausolus's capital and related issues. *Anatolian Archaeology* (formerly *British Institute of Archaeology/Ankara [BIAA] Research Reports*)—here abbreviated as *AnatArch*—is an expanded and independent version of the annual BIAA project summaries that appeared in *AnatSt*; the first issue was published in 1994, and the second, with new title, became volume I (1995).

Because the *Newsletter for Anatolian Studies* provides full and frequent bibliographical coverage for pre-classical Turkey, the selection listed here favors later periods, and represents a sample rather than any pretense at completeness. For the prehistoric cultures of northeastern Turkey, C. Chataigner has published *La Transcaucasie au Néolithique et au Chalcolithique* (Oxford 1995), complementing A. Sagona's 1984 study of the region during the Early Bronze Age. Issues reflecting classical economic transactions are addressed directly in R. Ashton ed., *Studies in Ancient Coinage from Turkey* (Royal Numismatic Society Special Publications 29; BIAA Monograph 17, London 1996); and indirectly by Y. Tuna-Nörning in *Die attisch-schwarzfigurige Keramik und der attische Keramikexport nach Kleinasien* (Tübingen 1995). A. Farrington has outlined the particularities of Lycian bathing establishments in *The Roman Baths of Lycia: An Architectural Study* (BIAA Monograph 20, London 1995). Finally, the great urban projects of the Late Roman and Byzantine periods are analyzed by F.A. Bauer, *Stadt, Platz und Denkmal in der Spätantike* (Mainz 1996), a comparative study of Rome, Constantinople, and Ephesos; and historical questions are examined by M. Sartre, *L'Asie mineure et l'Anatolie d'Alexandre à Diocletien: IV<sup>e</sup> siècle av. J.-C.–III<sup>e</sup> siècle apr. J.-C.* (Paris 1995).

Published references to specific sites have been incorporated in the excavation and survey reports that follow. One final report needs to be mentioned here as well, however, to applaud its appearance and the dedication of its editor, D.H. Sanders: Theresa Goell et al., *Nemrud Dağı. The Hierothesion of Antiochus I of Commagene I–II* (Winona Lake 1996), a publication as impressive as the monument itself.

**Museum catalogues.** To accompany the "Troy Treasure" exhibition at the Pushkin Museum (16 April 1996–15 April 1997), I. Danilova and V. Tolstikov have edited a suitably lavish catalogue, *Il tesoro di Troia. Gli scavi di Heinrich Schliemann* (Moscow 1996). The "Lydian Treasure," repatriated to Turkey in 1993, can now be admired in an equally elegant publication, which includes detailed discussions of the contexts—findspots and cultural milieu—for this remarkable collection of grave goods: İ. Özgen and J. Öztürk,

*Heritage Recovered. The Lydian Treasure* (Ankara 1996), with contributions by M.J. Mellink, C.H. Greenewalt, jr., K. Akbıyıkoglu, and L.M. Kaye. After two years on display at Ankara's Museum of Anatolian Civilizations, the objects have returned to their province, and will be exhibited in the archaeological museum at Uşak within the near future.

**Festschrifts and memorials.** Lycian issues represent only one of the many interests celebrated by Jürgen Borchhardt's colleagues, students, and friends in the two-volume *Fremde Zeiten*, edited by F. Blakolmer et al. (Vienna 1996) to mark his 60th birthday. Contributions of similar geographical and chronological breadth characterize the articles honoring Thomas Beran: U. Magen and M. Rashad eds., *Vom Halys zum Euphrat* (Altertumskunde des Vorderen Orient 7, Münster 1996). Generations of his admirers applauded Hans G. Güterbock on 19 March 1996 when he was awarded the Medal of Merit by the American Oriental Society at their annual meeting in Philadelphia. On the same occasion, invited speakers presented him with a session of talks on Hittite affairs, all of them bearing the stamp of Güterbock's scholarship.

Anatolian archaeology lost three of its distinguished advocates in 1996. Seton Lloyd opened a new chapter in his career when he became founding director of the British Institute of Archaeology in Ankara (1949–1961) and carried out excavations at Sultantepe, Polatlı, Beycesultan, and Kayalıdere. Rudolf Naumann, whose association with Turkey began at Boğazköy in 1937, was, like Lloyd, an architect by training. As head of the German Archaeological Institute in Istanbul (1960–1976), he belonged to the DAI's great tradition of architectural historian-directors. Both Lloyd and Naumann, during their many active years, contributed lasting monuments to ancient Near Eastern studies. A lifespan of such length was not granted, alas, to Sevim Buluç, founding director of the museum at Middle East Technical University (Ankara), specialist on Phrygian Anatolia and Ankara's pre-Republican past, who was tragically killed in a traffic accident in March 1996.

#### MIOCENE ERA

**Paşalar.** Berna Alpagut together with Finnish and American colleagues embarked in 1995 on their second decade of excavations at the rich Middle Miocene deposits southwest of Bursa, where 15 million years ago a forested environment provided its denizens with a luxuriant mixed habitat. Continuing study of the fossil remains combined with geological sedimentary evidence indicates both steppe and tropical characteristics; analysis of the teeth that form

a high proportion of the primate fossil sample show that an abundance of fruit was available for the primate diet. Primate fossils in 1995 made up 5% of the total faunal finds, but in one square as much as 20%, and in general occurred in all of the excavated grids that were expanded from the 1993 and 1994 areas. The season also produced a near-complete lower maxillary and fragments of two others, the finest examples since the start of the project. These primates would relate to Sivapithecene rather than Kenyan types.

**Sinap Formation (Ankara).** In a seventh season of survey and salvage excavations conducted by the Museum of Anatolian Civilizations, Ankara, project director Berna Alpagut and her associates continued their successful efforts to place this Sinap Tepe region of central Anatolia within its global Middle Miocene to Early Pleistocene setting. Two of the more than 100 sites identified in previous seasons received concentrated attention in 1995. In particular, 34 squares opened at site 12, at the eastern edge of the survey region, uncovered a remarkable Middle Miocene sample of nearly articulated skeletons, which had been protected from post-depositional erosion by a volcanic seal. Artiodactyls (among them a high percentage of equids), carnivores, marsupials with southeast Asian links, and a complete tortoise carapace were found in dense concentrations. The sensational recovery of a complete hominoid skull, together with a radius, fibula, and phalanges of the same individual, represents the current project's first primate. It is being classified as *Ankara pithecus*. The site also shows traces of early Eocene deposits of 55 million years ago.

Reports coauthored by Alpagut, M. Fortelius, J. Kappelman, J.P. Lunkka, and İ. Temizsoy summarize the 1994 excavations and soundings in *KST* 17:1 (1996) 1–8 and *AraşST* 13:2 (1996) 5–9. For the Ankara pithecus finds, see *Nature* 382 (1996) 349–51. For a broader study of the formation's chronology and biostratigraphy, see Kappelman et al. in R.L. Bernor, V. Fahlbusch, and S. Rietschel eds., *Later Neogene European Biotic Evolution and Stratigraphic Correlation* (New York, forthcoming).

#### PALAEOLITHIC

**Karain and Öküzini.** The 1995 seasons at these two complementary sites, which together illustrate the long sequence from Lower and Middle Palaeolithic into the Epipalaeolithic of the western Taurus, continued under the directorship of Işın Yalçınkaya with an international and interdisciplinary team. The ongoing excavations in Karain chamber E ("Kökten Hall") are dividing more precisely its early occupa-

tional history into three major phases. The lowest reached so far, although sparsely represented, is characterized by crude thick Acheulian-type flakes of the Lower Palaeolithic. It was followed by a longer, "Proto-Charentian" phase to be dated well before 130,000 B.P., and, finally, the Middle Palaeolithic deposits with Levallois-Mousterian industries for which the cave is best known. The Palaeolithic inhabitants of Karain overlooked the sea, rather than the broad plain that today extends the coastline southeastward by 30 km. Through time, they shifted their technological orientations from Asia and the northern Levant to Europe, with western Anatolia acting as a border zone between evolving Neanderthal traditions.

Neighboring Öküzini enjoyed a different setting, at the foot of an easily accessible alluvial plain to the north of Karain. Its 4 m of occupational deposits, interspaced with occasional sterile layers, accumulated slowly over a period of 8,000 years spanning the latest Epipalaeolithic phase at Karain (16,500 B.P.) into the final Palaeolithic to Neolithic transition. Intrusive burials indicate a sporadic reuse of the cave, perhaps in Chalcolithic times. Research efforts to explain the gradual change in tool preference from the earlier microlithic industry to the polyhedric nuclei of the last Palaeolithic cultural stage have revealed a similar evolution in hunting preferences from fallow deer and ovicaprids (especially goat) to sheep. Climate, however, appears to have remained stable throughout the Epipalaeolithic period in this region and would not have been a factor in these developments. The local lithic industry resembles neither the Kebarian and Natufian of the Levant nor that of Epipalaeolithic Greece. Future research is planned to examine other contemporary sequences in the area, in caves such as Karain chamber B, in the hope of broadening the evidence for what may represent a Zagros-related culture from the Middle Palaeolithic period onward.

For recent summaries of these excavations, see *KST* 17:1 (1996) 49–70 (Karain, 1994) and 21–47 (Öküzini, 1993–1994). A general paper on the Middle Palaeolithic at Karain has been published by Yalçınkaya et al. in *Journal of Anthropological Research* 51 (1995) 287–99.

**Sakçagözü (Gaziantep) Regional Survey.** A team led by Andrew Garrard systematically surveyed this northern limit of the Levantine rift valley in 1995, the first season of a long-term project focusing on the region's early prehistory. Two open-air Lower Palaeolithic sites, and 13 Middle Palaeolithic localities associated in the majority with caves or rockshelters, hold good promise for future investigations. As in the Levantine Mt. Carmel sequence, evidence

for the Upper Palaeolithic appears more elusive, and human occupation seems to have reemerged only during the aceramic Neolithic (five sites) and later. The caves also showed intensive reuse, especially in the Chalcolithic–early EB and Late Roman–Ottoman periods. For a report on the project and its objectives, see *AnatArch* I (1995) 14–15, and *AnatSt* 46 (1996) 53–81.

**Beşparmak Dağı/Latmos.** The prehistoric paintings discovered by Anneliese Peschlow-Bindokat's survey team in caves and rock-shelters in the Latmos mountains have now been published, with color photographs, in *AA* 1996, 161–73. The 1995 season increased their number to seven separate locations, all on the range's northern slopes. The paintings share close stylistic features and appear to form a unified group. Estimated dates range from the Epipalaeolithic (ca. 10,000 B.C.) to the Chalcolithic period.

**Istanbul.** The area's earliest documented habitations are discussed by Ufuk Esin in Ö. Kırkpınar ed., *Semavi Eyice Armağani. İstanbul Yazıları* (Istanbul 1984 [1992]) 55–77.

#### EARLY NEOLITHIC

**Hallan Çemi.** The 1994 season is discussed in *Anatolica* 21 (1995) 1–12 and *KST* 17:1 (1996) 9–19. Excavations did not take place in 1995, but resumed in 1996.

**Nevalı Çori.** Continuing study of the stone sculptures from the late PPN-B shrine excavated in the 1980s permitted the reassembly of many of the fragments with birds (see *AJA* 97 [1993] 109–10, figs. 5–7) into one large pillar crowned by an eagle. The effect, Harald Hauptmann points out, recalls a totem pole. He also stresses that the shrine contained no references whatsoever to a female cult figure, but only to males and birds. The reconstructed shrine and its sculptures are being prepared for display at the Urfa Museum.

J.-D. Forest discusses the social character of PPN-B centers such as Nevalı Çori and Çayönü in *Anatolia Antiqua* 4 (1996) 1–31.

**Gürcütepe and Göbekli Tepe.** In order to expand the evidence for the Pre-Pottery Neolithic culture so brilliantly revealed by the excavations at Nevalı Çori, Harald Hauptmann turned his attention in 1995 to two related sites, at the northwestern end of the Harran plain on the outskirts of Şanlıurfa. Survey at Gürcütepe, five or more clustered mounds just southeast of the city, defined at least one settlement area dating to the same later PPN-B phase as Nevalı Çori. The site has unfortunately been extensively damaged, but limited soundings did reveal rectangular house plans with stone foundations. An-

other sector was occupied during the transition into the ceramic Neolithic phase.

Göbekli Tepe, in contrast, was an earlier PPN-B site located on one of the region's highest hills to the east of Urfa. It would have functioned both as settlement and cult center. Four weeks of soundings under the direction of Klaus Schmidt uncovered sections of a lower residential district whose substantial rectangular buildings were set on stone foundations and, in one case, on orthostats. On the broad plateau that overlooks this settlement bedrock cuttings for large circular structures, with sunken floors reached by rock-cut steps, suggest religious installations. Quantities of naturalistic stone carvings were found scattered over the elevation: they include representations of lizards and/or crocodiles, an ithyphallic man, and a pillar with a bear or lion holding a man's head between its paws, all part of a sculptural tradition otherwise known only from Nevalı Çori. Stone vessels incised with geometric patterns and a dog or fox recall similar items from Hallan Çemi.

A brief report has been published by C. Gerber in *Orient-Express* 1996, 43–45.

**Aksaray-Niğde Survey.** In connection with the ongoing Aşıklı Höyük excavations, a survey to document the region's Neolithic settlement patterns with the assistance of GIS technology is demonstrating the importance of this densely populated area in prehistoric and later times. Sevil Gürçay, who has been conducting the project for several seasons, intends to follow it through at a number of sites with selected soundings; these began in 1996.

**Cappadocian Obsidian Survey.** M.-C. Cauvin and N. Balkan-Atlı have published the preliminary findings (*Anatolia Antiqua* 4 [1996] 249–71) of a survey conducted in 1993 and 1995 to study Aceramic Neolithic obsidian quarries in Cappadocia. Analysis covers both in situ evidence for lithic industries (cores, debitage) and the technical characteristics of individual sources, with the objective of tracing more precisely the networks that supplied the Levant. Cauvin also presents an overview of the Neolithic obsidian trade in *Anatolica* 22 (1996) 1–31.

#### LATER NEOLITHIC

**Yumuktepe-Mersin.** The 1995 investigations directed by Veli Sevin (historic periods) and Isabella Caneva (prehistoric periods) continued for a third year to coordinate and expand Garstang's stratigraphic definitions of this significant coastal site. The prehistoric excavations again focused on two phases of the northwest trench A: the Ubaid-related levels XVI–XII B and the Neolithic levels farther down the slope. The Ubaid levels account for 4 m

of deposit; below them, another 5 m promise a long developmental sequence from the end of the Neolithic through the entire span of the Halaf. Broader exposure in the Neolithic levels corresponding to XXV and XXVI A, or immediately before, showed a clear architectural and cultural break between the two. The later phase (XXV) produced bowls and jars decorated with chevrons, zigzags, hooks, and dots in brown and black paint, and the stone foundations of a large wall, radiocarbon-dated to 5800 B.C. Pottery from the preceding level, ca. 6000 B.C., was black-burnished and incised with fingernail impressions, but never painted. It was found in the context of two rectangular rooms with carefully constructed stone foundations and white plastered niches. A corridor connected the two rooms. The deep sounding at the foot of the slope into the earliest Neolithic stage of occupation, ca. 7000 B.C., indicates that the Neolithic Mersin sequence occupies 8 m of deposit. As in previous seasons, the faunal remains recovered from all these phases were fully domesticated (the only exception being fish) and, together with the numerous pig bones, demonstrate that the Yumuktepe communities were, from the beginning, entirely sedentary. Their contacts outside the region brought them obsidian from central Anatolia and blade traditions affiliated with Levantine styles.

At the top of the mound, the area Z excavations revealed more of the major structures and fortifications of the 12th century A.D. (Garstang's level II A); and soundings proceeded further into the underlying strata as far as Iron Age level III. Reports on both projects for the 1994 season are found in *KST* 17:1 (1996) 71–86; for the 1995 prehistoric sector, see *Orient-Express* 1996, 5–7. C. Breniquet argues for a reanalysis of the site's periodization, and for an Ubaidian temple in Garstang's level XVI, in *Anatolia Antiqua* 3 (1995) 1–31.

**Köşk Höyük.** In 1995, Aliye Öztan reopened excavations at this large, 18-m-high Neolithic mound in the Niğde valley, after a four-year hiatus following the sudden death of its original excavator Uğur Silistreli. The two-month program included cleaning the previous trenches, reestablishing the topographic plan, and continuing the soundings in the northeastern part of the site, where cuttings for a recent water reservoir invited immediate attention. As observed in the initial seasons, the uppermost level dated to the Early Chalcolithic period. It produced—together with an Ubaid-like sherd—obsidian and bone tools, and evidence for copper working in the context of a round kiln or furnace. Below this stratum, two Neolithic architectural levels characterized by burnt rectangular structures

built of rubble and pisé, with good floors and juniper and pine ceilings, again corresponded closely with earlier findings. One structure contained a raised fireplace, a high niche with an inset goat horn, and more examples of the site's exceptional ceramic repertoire of dark brown- or black-burnished vessels: collared jars, square platters, a tankard with an antelope-head handle, and a pot in the shape of a turtle. This building was set on a terrace backed by a high stone wall. A second campaign took place in 1996. For the last report on the Silistreli campaigns, see *KST* 11:1 (1990) 91–97; the excavations were also summarized by J. Yakar in *Prehistoric Anatolia* (Jerusalem 1991) 190–94.

**Çatalhöyük.** During the 1995 season, a team under the direction of Ian Hodder completed the west mound topographic map and continued the magnetometer and surface survey of Çatal East. Surface scraping of the highest, north area of the east mound, where the 1994 campaign had traced evidence for an alley flanked by housing, unfortunately revealed that Hellenistic and Byzantine intrusions had obliterated the prehistoric remains. Where the alley might have led, thus, could not be determined. One rectangular unit partitioned into several rooms, at least one of them a later modification, was excavated in this area. The unit contained a platform with fish vertebrae on it; a bin or fire installation in one corner; a plaster box with an aurochs jaw and, on the wall above it, a partially preserved plaster figure; a plastered deer antler, fallen from its original setting; and a bench with an inset bucranium. Multiple replasterings of the floors and walls, as well as the phasing of its various features, indicate that the unit was in use over a long period. The obsidian tools and pottery from this context assign it to Mellaart's levels 6 and 5.

Continuing efforts to clean, record, and study Mellaart's trenches on the southwest side of the east mound have concentrated on possible diachronic shifts in the function of selected structures. Micromorphological analyses of sequential floors, for example, have noted at least one case of a domestic structure later transformed for cultic use, when domestic debris was replaced by clean floors and symbolic decoration. Architectural changes also affected use and restriction of space: many of the doorways connecting interior rooms were later bricked up and plastered over.

In connection with the excavation project, a site survey (conducted by D. Baird) has been tracking settlement patterns for all periods in the Konya region. For a report on the 1995 campaign, see *Anat-Arch* I (1995) 3–5, and 11–12 (survey). An overview

of the project's ongoing geomorphological study of the Konya plain is published by N. Roberts in *AraşST* 13:2 (1996) 373–84, and *AnatArch* I (1995) 18–19. T. Molleson et al. present their assessment of local diet, based on the ancient population's dentition, in *ArkST* 11 (1996) 141–50.

**Pınarbaşı/Konya Plain.** Trevor Watkins concentrated his team's 1995 efforts on the rock-shelter, labeled area B, where the previous year's soundings had recovered deposits contemporary with the settlements at Çatalhöyük. Investigations in two separate trenches recovered evidence for the shelter's specialized use: stone toolmaking, but nothing related to food preparation or storage (no ground stone implements or pottery), and dense concentrations of animal bones, but little botanical material other than wood charcoal. The faunal sample, which includes extinct equid and wild cattle, differs markedly from the Çatalhöyük repertoire. Future seasons may assess more precisely the relationship between the two sites and contrasting economic strategies among the populations in this plain. A 1995 report appears in *AnatArch* I (1995) 8–11.

**Bademağacı Höyük.** The operations at the northern end of this 200 × 120 m mound were somewhat expanded in 1995, revealing more of the final, Early Bronze occupation and the latest in a long sequence of Neolithic predecessors. Two Late Neolithic mudbrick houses with subrectangular plans and interior furnishings (hearths, bins, and platforms) contained in situ pottery. A third, very burnt pisé structure, rectangular in plan, was divided into six square compartments, perhaps serving for storage. Refik Duru considers this level's unpainted ceramic repertoire to be contemporary with, but culturally distinct from, neighboring Hacilar, despite their similar female terracotta figurines. Over 5 m of deposit still untested by excavation will connect this Neolithic culture, he hopes, back to the Epipalaeolithic of the Karain and Öküzini caves. For the 1994 season, see *KST* 17:1 (1996) 87–93.

**Orman Fidanlığı.** A preliminary report on the 1992–1994 salvage campaigns at this fifth-millennium, Balkan-related site near Eskişehir is published by Turan Efe in *KST* 17:1 (1996) 95–107; for an English version, see *The Vinča Culture: Its Role and Cultural Connections* (Timișoara 1996) 41–58. Excavations were concluded in 1994.

**Ilıpınar.** The eighth excavation season at this Balkan-affiliated site in the Marmara area focused, as in the previous two years, on the earliest Neolithic levels in the large operation on the northeast; and on the Neolithic–Chalcolithic transitional phase ex-

posed on the southwest flank. J.J. Roodenberg, Leiden, kindly reports on his progress:

“A major goal of the 1995 season concerned clarifying the transition from the earliest phase X to IX, as previously exposed in the large northeastern trenches WX 12/13. The stratigraphic complications here can now be ascribed to peat-filled ditches, which encouraged the slippage and disjunction of later deposits. These ditches were associated with the houses of phase IX, following upon a great fire that brought phase X to a close. Despite the limited area that has been excavated, certain standard features of these successive Neolithic villages can be inferred with some certainty. The houses were one-room dwellings, ca. 30 m<sup>2</sup>, each one oriented northwest–southeast and occupying a plot of land roughly 100 m<sup>2</sup>. Together they could well have created a radial plan centered on the site's spring.

“The burials discovered in 1994 to the north of this housing were found to continue toward the east, thus part of an extramural cemetery that extended along the open periphery of the settlement. Traces of wood, found associated with the flexed skeletons, suggest that the deceased were buried on boards, or perhaps even in coffins. The population of the cemetery included all ages except for infants, who were inhumed in the yards beside the houses. Such practices, as noted already in 1994, followed Balkan funerary tradition and contrasted sharply with contemporaneous customs in central Anatolia.

“On the site's southwest flank, Ilıpınar's Final Neolithic to Early Chalcolithic transitional phase VI (mid-sixth millennium B.C.) was investigated in a deep stratigraphic probe in P9, and in adjacent squares with broader horizontal exposures. Phase VI now accounts for a 3.5-m-deep sequence of buildings, distinctively constructed with mudbrick rather than wattle and daub. Below these were traced 2 m of phases VIII–IX, with another 2 m expected for basal phase X in future seasons. At the boundary of the VI settlement, where an atypical house was excavated in 1994's square N9, the artificial embankment behind it was followed in 1995 over another 13 m. It was triangular in section, and formed a 1–1.5-m-high enclosure, perhaps originally topped with a fence, for the yard behind the house. In all likelihood, this enclosure marked the village's outer limits, and gave shelter to cattle at night, but was not intended to provide defense against intruders. It can be compared to the ditches surrounding Neolithic settlements in the Balkans, or to the low stone enclosure walls at Kuruçay, and in northern Iraq at Maghzalia. Dismantling the embankment revealed that it was made

up of contiguous, 3.5 × 4 m mudbrick compartments, separated by partitions two bricks wide. The three compartments excavated so far all contained two floors, with their furnishings abandoned in place when the building burned. On the lower floors were nests of pots, pisé silos, and adzes and chisels still hafted into their horn handles. The upper stories (or flat roofs), which were supported on wooden beams, produced more ceramic vessels, together with plastered baskets, quantities of grinding equipment, and an oven with incised chevron decorations. This unit represents the first nonresidential structure documented at Ilıpınar, and was certainly functioning for food processing on a large scale."

A report on the first five Ilıpınar seasons has been edited by J.J. Roodenberg, *The Ilıpınar Excavations I, Five Seasons of Fieldwork in NW Anatolia, 1987-1991* (Istanbul 1995); for the 1995 findings in the southwest sector, see *Anatolica* 22 (1996) 33-48 and F. Gérard in *Orient-Express* 1995, 72-75.

The Early Bronze settlement at Hacılartepi, the second of the Ilıpınar projects, is summarized below under "Chalcolithic and Bronze Age: Western and Coastal Anatolia."

**Kumtepe.** Investigations of the late sixth-millennium B.C. cemetery (Kumtepe A [IA]) were again carried out in 1995, under the umbrella of the Troia Project directed by Manfred Korfmann. In a related excavation area, a house complex dating to the Kumtepe B (IB) ("pre-Troy I phase") was found to extend over five rooms, one of them quite large at 5 × 7 m. The site has now been registered as a protected landmark, and its surrounding fields purchased by the project to prevent any encroachment by summer housing developments. Preliminary accounts are included with the 1994 and 1995 Troy progress reports in *KST* 17:1 (1996) 291-92 and *Studia Troica* 6 (forthcoming).

#### CHALCOLITHIC AND BRONZE AGE

##### *Southeastern Anatolia and Cilicia*

**Norşuntepe.** A final report on stone tools from this Chalcolithic, Bronze, and Iron Age site, excavated by H. Hauptmann during the Keban Dam salvage project, has been published by K. Schmidt, *Norşuntepe. Kleinfunde I: Die lithische Industrie* (Mainz 1996).

**Arslantepe-Malatya.** Another campaign at the late fourth-millennium B.C. palace and temple complex known as building IV (Arslantepe VIA/EB IA) provided director Marcella Frangipane with further views about its architectural evolution and enlarged its monumental plan toward the east. Building IV

extended over an area defined by two terraces (the higher one, with temple B, is on the north) that transformed the original mound's irregular contours into a broad platform for its many units. These functioned as a single complex and were centered on a large courtyard in the northwest quadrant of the current excavations; but the entire plan developed over a certain length of time, with several distinct stages of expansion and modifications.

To the east of the storerooms at the southeastern end of the long corridor, a second, parallel wing of rooms was found in 1995 on the opposite side of a rectangular courtyard. This east wing was probably also a storage unit. That it had been both converted and rebuilt was indicated by a blocked doorway, the stone foundations of its second building phase, and a cache of sealings discarded in a condemned part of the building. The sealings, many of them stamped with cylinder seals closely resembling examples from Susa and Gebel Aruda, are otherwise unmatched at Arslantepe; they must have been issued by a nearby office that acted as an independent administrative bureau, like others in building IV. The courtyard provided yet another example of the local ceramic industry imitating an imported Uruk vessel type: this one a high-collared jar with an incised, crosshatched band on the shoulder.

Excavations on the terrace to the east of temple B uncovered more of the monumental structure with stone slab foundations (incorrectly situated in *AJA* 100 [1996] 288), contemporary with temple B's first phase and linked to it by a gravel road. Together with the copper door socket found in situ in the previous season, the 1995 metal objects from this building again illustrated the technological skills characteristic of this phase and its apparent wealth. These objects compare closely with examples from other parts of the palace, with which this structure formed an architecturally distinct, but associated entity.

Conservation in the northern sector of building IV's long corridor exposed a further stretch of black and red paintings along the wall's lower register, below the band of impressed lozenges (see *AJA* 100 [1996] 287, fig. 5). The newly cleaned section shows two upright stylized animals (bulls?) with lozenge-shaped eyes, which will no doubt be joined by more, perhaps different, figures in future seasons. It is likely that many, if not all, of the walls in this complex were once painted. For the well-illustrated 1994 progress report, see *KST* 17:1 (1996) 169-82.

**Hacınebi Tepe.** In the course of a fourth rescue campaign, Hacınebi's later history was modestly extended into the Roman period with the discovery

of a small farmstead on the western spur of the mound, to join the Achaemenid–Hellenistic fortified settlements that represent the site’s only reoccupation after its fourth-millennium B.C. floruit. Thus, the factors that would appear to make this location so attractive, at a strategic crossing point of the Euphrates north of modern Birecik, were fully and successfully exploited during only one stage in the region’s long cultural development and were revived only briefly several thousand years later. Gil Stein, Northwestern University, generously provides the following report for his 1995 team’s progress:

“Achaemenid–Hellenistic remains (fifth–second centuries B.C.), recovered in all four campaigns over the three excavation areas of the mound, can now be separated into three phases. The earliest, characterized by massive mudbrick and stone architecture laid out in coordinated plans, was succeeded by unpretentious domestic structures containing household equipment and molded terracotta figurines of “Persian horsemen” and various female deities. The final, Hellenistic phase is represented by large pits originally intended for grain storage and frequently reused for rubbish disposal, as well as cist graves for individual burials accompanied by gifts that included food offerings. One such burial was covered with segments of three amphoras.

“The project’s goal, to investigate the impact of contacts between this region’s Late Chalcolithic culture and that of Uruk Period southern Mesopotamia, advanced in all three excavation areas. In the north, where previous seasons had produced concentrations of Uruk ceramics, cones, bullae, and tokens, a house still furnished with its domestic equipment reinforced our assessment of this area as a residential district for foreign merchants. Uruk ceramics, the first to be found in situ at Hacinebi, included a spouted jar, several beveled-rim bowls leaning against a wall and a bin, and a fragmentary wall cone dipped in bitumen. The house dates to the latest phase B (“Contact Phase”) level, suggesting that interaction with southern Mesopotamia lasted for several centuries. Pits below this building, and predating its construction, were filled with pottery of exclusively Uruk type, the debris from a lithics workshop or manufacturing area, a small, crudely carved limestone eye idol, and jar stoppers impressed with Uruk cylinder sealings. The two preceding architectural levels—well-preserved mudbrick houses with local wares—date early in phase B. The lower level overlies ash tips associated, on this operation’s eastern side, with the construction of its massive platforms, and confirms that these major terracing projects occurred before any Uruk contacts.

“Excavation along the east face of a niched and buttressed stone wall, first exposed in 1994 in the southeastern trenches, went down another 3 m to its 3-m-wide base, thus becoming the largest and best preserved instance of Late Chalcolithic architecture yet known here. It, too, appears to have been built in precontact phase A, perhaps as part of a monumental enclosure, and saw substantial repairs and modifications with the addition of a possible gateway and, later still, a massive mudbrick and stone platform. The wall remained standing into the latter part of phase B, when it enclosed a residential area rather than the public space for which it had originally been designed.

“On the western spur of the site, several trenches continued to investigate a sequence of phase A and precontact, early phase B domestic, storage, and industrial structures that were eventually covered with trash deposits and, finally, pits of the later phase B period. Several of these latest pits contained pottery exclusively of Uruk type, but wall cones and sealings were rare, in contrast to their frequency on the north side. Elsewhere in this sector, the later stage of phase B was represented by part of a well-constructed mudbrick building furnished on the inside with two niches, a bench, and local ceramics; to its north, a series of stone-built rooms backing onto a street or open area; and, set into this vacant lot, a flexed adult burial in a brick-lined pit—one of only two adult Late Chalcolithic graves so far discovered. Infant burials in jars are more common: one found below the floor of a phase A building contained a miniature pot, one copper ring and two silver earrings, among the earliest worked silver known from Anatolia. The earrings date to the early fourth millennium, since calibrated radiocarbon dates place phase B in the range of 3700–3400 B.C., with correspondences to the later Middle Uruk and possibly early Late Uruk assemblages.

“Results from the 1995 season suggest a strong cultural continuity throughout the Late Chalcolithic period at Hacinebi. Monumental architecture, a developed administrative system, and other tokens of a complex society were already in place before the appearance of Mesopotamian elements ca. 3700 B.C., and were maintained for the following centuries without notable disruption.”

A report for the 1994 season has been published in *KST* 17:1 (1996) 109–28; for 1995, see *Anatolica* 22 (1996) 85–128.

**Titriş Höyük.** Because the magnetometer survey in the 16-ha Outer Town corresponds well with the latest Early Bronze structures (last quarter of the third millennium B.C.) immediately below the sur-

face, it was possible to investigate 1,200 m<sup>2</sup> in this impressive residential district by the end of the 1995 season. Director Guillermo Algaze, University of California, San Diego, kindly furnished information for the following report as well as a photograph of the season's most surprising find.

The last phase of the Outer Town adhered to a careful layout that must reflect municipal control. In one area, four large houses now excavated on either side of a straight paved street shared common features in plan and construction materials. They would have been suitable for extended families involved in a broad range of activities. Since each house included several courts, Algaze would assign one nuclear family to every architectural sub-unit organized around an open space, and containing one hearth/oven. Also typical of these buildings were ashlar-lined intramural hypogea: articulated and disarticulated skeletons of adolescents to adults attest to a long duration of use by family groups. The largest house produced the tomb chamber with the greatest number of burials: seven individuals, whose accumulated gravegoods included a depas, and a vessel containing the mineralized remains of a thistle (fig. 2).

Algaze notes that the latest version of Titiş's Outer Town recalls housing and urban plans known from contemporary Mesopotamia, such as the late Akkadian levels at Tell Asmar; but he argues that the basic concept of rooms set around a central courtyard could well reflect similar responses to deep-rooted traditions in Near Eastern vernacular architecture, without any reference to direct outside involvements. This large provincial center did establish far-flung contacts with cultures in the south (at least Syria), with eastern Anatolia, and to the west with Cilicia, if not farther afield, as violin-shaped marble idols and the two depa from burials show. Variations in housing types will be tested in future seasons with broader excavations particularly in the Lower Town, where the magnetic survey anticipates significantly different neighborhoods.

For the 1994 season, see now *KST* 17:1 (1996) 129–50 and *Anatolica* 21 (1995) 13–64; for 1996, *Anatolica* 22 (1996) 129–43. A detailed discussion of mid-late Early Bronze urbanism at Titiş has been published by Algaze and T. Matney in *BASOR* 299–300 (1995) 33–52.

**Kazane Höyük.** The salvage project directed by Patricia Wattenmaker focused its fourth season on the processes that transformed this site on the southern outskirts of Şanlıurfa from small town to large urban center in the course of the third-millennium Early Bronze Age. Three operations were continued



Fig. 2. Titiş Höyük. Vase and mineralized thistle, from an intramural tomb in the Outer Town, late third millennium B.C. (Courtesy G. Algaze)

from the previous year: the step trench on the high mound, for the transition from Chalcolithic to EB I; and two in the low-lying eastern and southwestern terraces, to expand the plans of their later Early Bronze structures.

The results from the step trench suggest that fourth-millennium B.C. Kazane, despite its size for this period, enjoyed little contact with the Uruk spheres of influence. Several levels of domestic structures and a workshop for freshwater shell beads produced local Late Chalcolithic–EB I pottery, Canaanite blades, sealings impressed with stamp seals, clay tokens, and a stamp seal in the shape of an ape. Environmental data indicate that the surrounding countryside was forested, and the Urfa plain swampy and generously planted in reeds.

Excavations in the lower town to the east of the mound revealed more of Kazane's later urban character, which it acquired abruptly ca. 2500 B.C. The EB III monumental building complex first found in 1994, immediately below the surface, was expanded considerably. The 1-m-high stone foundations of its eastern enclosure wall were followed for 50 m, which included two projecting towers flanking a 13-m-wide gate. It gave access to a large mudbrick structure of which four rooms and two separate building phases have been recovered. The rooms, some equipped with ovens and ceramic basins and refloored several times, can be dated by associated pottery to a foundation before the Akkadian period; the second phase, with smeared-wash ware, would extend into the last centuries of the third millennium. In the southwestern part of the outer town, beside the city wall, the 1994 industrial quarter was connected in 1995 to another massive public building with a storage room containing vessels and clay sealings. These buildings, like those in the lower

town, were abandoned late in the Early Bronze Age, but apparently not because of environmental stress. Nor does Kazane's sophisticated EB III social system seem to have been imported from abroad; local, internal factors would have promoted its growth.

**Oylum Höyük.** In 1995, excavation was again undertaken by Engin Özgen at this very large site near the Syrian border, southwest of Gaziantep, to investigate varied components of the site's long and impressive settlement history. The step sounding on the high eastern slope, together with the other trenches opened in previous seasons, produced part of a large Iron Age building built of alternating white and brown bricks; contemporary finds of elegant workmanship such as a scarab and a cylinder seal; and elsewhere, a well-preserved level of Late Bronze housing. Further down the slope, two more EB III–IV chamber tombs with multiple burials were found undisturbed. The first, in a pit lined with mudbricks, contained the cremated remains of several adults and many children, with grave goods that included quantities of faience, silver, and carnelian or agate beads. The second tomb, whose many skeletal remains were much disturbed but probably also cremated, was built as a cist grave covered with large limestone slabs. A report on the 1994 season has been published in *KST* 17:1 (1996) 183–88.

**Tilbeşar.** The cultural sequence and distribution patterns noted in the previous year's preliminary survey at this 60-ha site, which the Crusader fortress of Turbessel oversees from the top of a 40-m-high mound, were both reinforced and expanded in the 1995 season's soundings and intensive survey by Christine Kepinski-Lecomte in collaboration with the Gaziantep Museum and its director Rifat Ergeç.

Three soundings were carried out in the northern part of the lower city, where survey had noted high concentrations of Early and Middle Bronze Age pottery. In all three, two shallow levels of well-preserved medieval stone foundations were found directly overlying Bronze Age architectural remains, tentatively dated to the Early–Middle Bronze transition, ca. 2000 B.C. The medieval levels span the 12th–13th centuries, ending with the Mamluke (rather than Mongol) conquest of 1263, according to pottery and finds that included a cache of 33 silver dirhams. Architectural remains consisted of residential structures with well-plastered floors and bins, and a fortification wall built on two occasions and connected to two separate phases of glacis. Halaf and Ubaid sherds found in the context of the city wall had eroded out of its superstructure's original brickwork, and their provenance has yet to be located. It is already clear, however, that the medieval

city achieved a size unmatched at the site after the underlying Middle Bronze period and that the Middle Bronze city existed on a comparable urban scale.

Intensive surface collection in the southern lower town, over alternating 20-m grids, resulted in a different assessment. The two streets and south gate still visible today postdate the 13th-century destruction, after which the northern lower town was left unoccupied. The only area with pre-medieval ceramics was in the southwest, where Early Bronze sherds were well represented. Otherwise, this entire southern terrace was apparently a 12th–13th century (and later, Ottoman) district, and the southeastern part exclusively so. Future seasons will turn to the citadel as well as to further lower city excavations. The 1994 survey is summarized in *AraşST* 13:2 (1996) 199–210; for the 1995 season, see *Orient-Express* 1995, 78. An overview of both campaigns appears in *Anatolia Antiqua* 4 (1996) 291–301.

**Domuztepe-Kahramanmaraş.** Two years of intensive regional survey in the valleys south of Kahramanmaraş led Elizabeth Carter, University of California, Los Angeles, and her team to focus their attention on the exceptionally large Halafian site of Domuztepe. She kindly reports on their first excavation season, which took place in 1995:

“Domuztepe, identified already in the 1993 survey as site KM-97, lies 35 km southeast of Kahramanmaraş in a fertile and well-watered basin, bordered by low hills with many springs and ready sources of basalt, flint, and limestone. It is also close to the pass through the Tutdağı range, thus on a natural route linking the Maraş plain's eastern and western sides. Unlike the small sites normally associated with the sixth–fifth millennium B.C. Halaf culture, Domuztepe was very large (18–20 ha), a scale otherwise attested only recently from survey results at Kazane outside Urfa (ca. 15 ha) and Takyan in the Cizre-Silopi plain (10 ha). Excavations here, therefore, promised an unprecedented insight into a major Halaf center.

“Soundings were undertaken in two locations on the mound, after a new systematic survey intended to determine occupational zones and potential specialized areas. In the south, where there appeared to be no Late Roman and medieval reoccupations, a 4 × 4 m test trench on the summit came down directly onto two building levels assigned to the Late Halaf period by associated pottery. Other finds included a stone vessel (upper level), a basalt spacer bead, a clay slingball, and two stamp seals (one square, the other hand-shaped). A larger trench on the southeast, beside a bulldozer cut, exposed five compressed building phases suggesting either ero-

sion or deliberate leveling before each new phase. Pisé architectural remains with occasional lime plastering, activity surfaces and trash pits, and portions of tholoi in the lower levels were accompanied by generous quantities of animal bones, stone tools and debitage, more stamp seals, and classic Halaf pottery, of which 50% is painted. The ground stone industry was manufacturing sophisticated items from locally available basalts. In contrast, the varieties in obsidian – both cores and tools – indicate that several different Anatolian sources were supplying Domuztepe with the Halaf culture's favorite material for lithics.

"The 1995 season also conducted a catchment or hinterland survey within a 21-km<sup>2</sup> area of the site. This region would have offered agricultural opportunities at close range, together with grazing and natural resources in the surrounding ridges. Domuztepe appears to have been relatively isolated in the Halaf period, when the region may have been much wetter than today. Only in the Late Roman and medieval periods was the area resettled, probably in connection with extensive drainage and irrigation systems." For a preliminary 1994 survey report, see *AraşST* 13:1 (1996) 289–305.

**Sirkeli.** The 1995 excavations on the hilltop above and west of the Hittite rock reliefs, in the area where cup marks were earlier noted by D. Ussishkin (*AnatSt* 25 [1975] 86 and figs. 4–6), produced evidence linking the reliefs to an architectural complex that recalls the layout at Gâvurkalesi. Barthel Hrouda, Munich, kindly offers the following commentary:

"Although the 1993 soundings on the plateau above the Muwatalli relief had proved fruitless, renewed efforts there in 1995 soon rewarded our search for architectural remains that could be associated with the rock carvings. A 2-m-wide stone foundation or platform wall, bedrock cuttings and the two libation bowls ("cup marks") were found to delineate a trapezoidal area 8.2–9.2 × 7.0–8.2 m, official rather than private in scale. This interpretation is reinforced by certain features associated with the structure: notably, a pedestal in its southeast corner; and a bovid skeleton (a species of zebu) deposited in front of the broad entranceway. A second room or court may have existed to the north. Whether it also extended to the west will be investigated in the coming season. It is tempting to interpret this complex as the funerary monument, the *hekur* or "stone house" (É.NA<sub>4</sub>), built for Muwatalli II, whose death occurred shortly after the battle of Qadesh in 1275 B.C. One hopes, however, for future epigraphical finds at Sirkeli to place these discoveries into a firmer historical context.

"Indications for Sirkeli's extended Mediterranean commerce were again suggested by small finds and ceramics, such as a Cypriot bone pin with a gold head in the shape of a pomegranate; Iron Age bichrome vessels; and numerous Hellenistic amphora handles with Rhodian stamps. Surveys in the area have also uncovered extensive Roman cemeteries – cist graves and chamber tombs – that were bordering the ancient roads between Yılan Kalesi to the north and the sea well to the south at the end of the Ceyhan's alluvial plain."

**Kinet Höyük.** During the fourth campaign under my direction at this coastal site on the Iskenderun Bay's eastern shore, a Middle Bronze level was unexpectedly discovered on the mound's low eastern skirt, in the first exploratory operation to be opened in that area. The uppermost architectural level there, a medieval residential structure and pathway dated by ceramics and coinage to the 13th century, was consistent with the latest occupation encountered in previous seasons on top of the mound. While the upper mound's medieval occupation was founded on wash layers eroded from the underlying Late Hellenistic phase, this residential terrace had been laid out on top of a 0.5-m-thick deposit of gravel and shells. Immediately below this gravel seal was found an intensely burnt mudbrick building of early MB II (18th century B.C.) date (fig. 3). Five rooms, none of them completely contained within the 50-m<sup>2</sup> trench, produced in situ kitchen furnishings for a large and prosperous household: at least 15 storage jars with a total capacity of over 900 liters; grinding equipment and spit supports; and tableware, particularly the hallmark Cilician Painted bowls and pitchers in monochrome and bichrome varieties (fig. 4). Several jars contained large quantities of very clean carbonized emmer wheat; floor spills suggest that more grain was stored in perishable containers. Other jars bear traces of liquids, and one still smells strongly of olive oil. The narrow walls of these rooms were constructed with rectangular bricks, but square bricks of twice this module in the building collapse suggest there are more impressive parts of this structure beyond the limits of the trench. Even in its current stage, however, it indicates that the mound was at its broadest during the Middle Bronze period, before contracting west to form a smaller site with the river estuary flowing against its southeastern edge. Future seasons will concentrate on uncovering an extensive area of this level.

Previous operations in Iron Age deposits on the mound's upper east and west sides and in Early to Middle Bronze transitional levels on the mound's lower west slope were continued in 1995. They suc-



Fig. 3. Kinet Höyük. Middle Bronze II building on eastern skirt of mound, with in situ vessels. (Photo T. Çakar)

ceeded, on the west, in expanding somewhat the plans of the Neo-Assyrian (eighth century B.C.) building and the monumental burnt structure that preceded it, and in sampling an Early Iron Age architectural phase of similar scale. A further 2 m separate it from the LB II building recovered lower down the west slope in 1994. Pottery introduced from the Greek world followed the pattern noted in previous seasons: after a trickle of Late Geometric imports (second half of the eighth century B.C.) in the late Middle Iron Age levels, connections took on significant frequency in the later seventh and sixth centuries and continued to flourish throughout the Late Iron Age—a chronological framework recently proposed for Al Mina also (R. Kearsley in *MeditArch* 8 [1995] 7–81). Fragments of several painted Middle Phrygian vessels from a Late Iron Age context on the upper east side represent more surprising finds, since there have so far been few tangible indices of contact between Kinet and the Anatolian plateau.

**Amuq Plain/Hatay Survey.** After a 57-year hiatus, the Oriental Institute returned to the Amuq in 1995 to undertake a second multidisciplinary, long-term

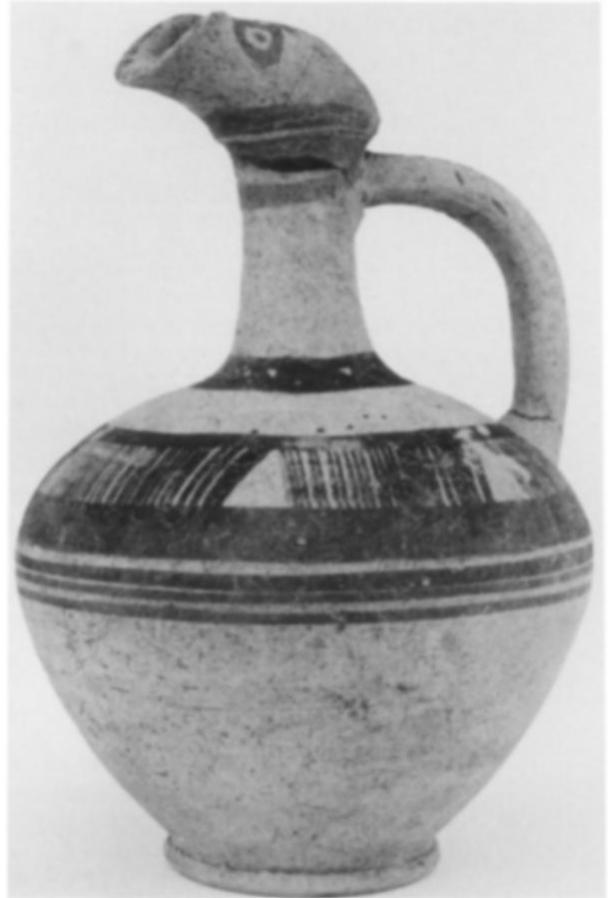


Fig. 4. Kinet Höyük. Cilician Painted ware pitcher from Middle Bronze II building. Height 20 cm. (Photo T. Çakar)

project. The new program will center on investigating the region's role in the emergence of complex metallurgy during the Chalcolithic period of the fourth millennium B.C. K. Aslıhan Yener, University of Chicago, offers the following assessment of her initial season, and of her associate T.J. Wilkinson's geomorphological research:

"Since crucibles and the oldest tin bronzes yet found in the Near East were discovered at Tell al-Judaidah in Amuq phase G (ca. 3000 B.C.), and metallurgical analyses indicate that mines in the neighboring Amanus and Bolkardağ (Taurus) ranges were supplying silver and copper ores to Chalcolithic and Bronze Age metalsmiths, the Amuq would seem to have played an important role in the shift from small-scale manufacturing of metal pins and beads to the complex larger industries of the Bronze Age. It was therefore pertinent to revive interest in this archaeologically rich region, especially when many of its sites are threatened or being destroyed by recently intensified agriculture.

"This first campaign attended to salvage excavations as an urgent priority. At Judaidah, where a bull-

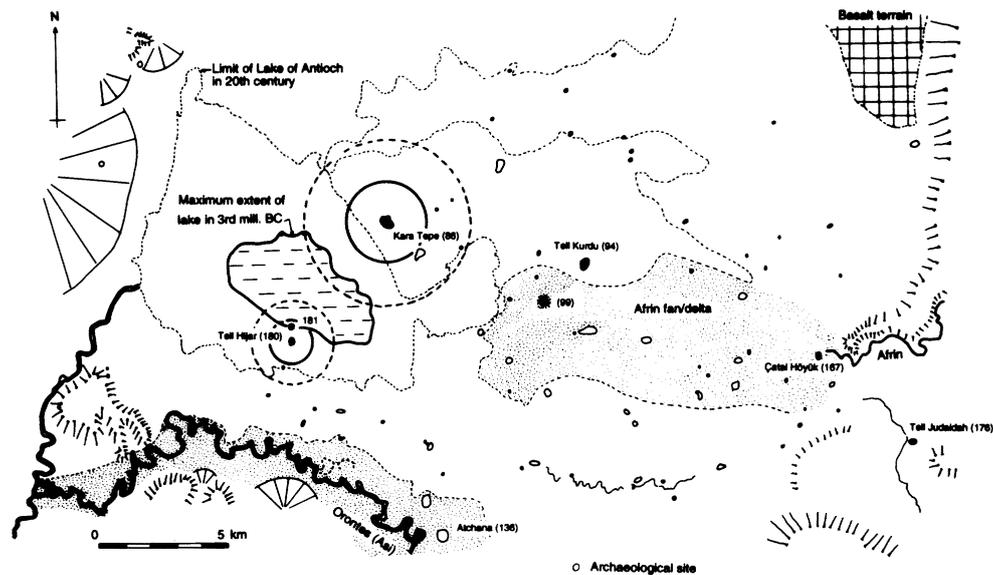


Fig. 5. Amuq Plain, ca. 3000 B.C. (T.J. Wilkinson, courtesy K.A. Yener)

dozer cut along the southeastern foot of the mound had exposed massive mudbrick walling, section cleaning and limited excavation produced three architectural levels with substantial preservation and rich in situ deposits. The lowest phase included a previously unattested version of Plain Simple storage jars, with an interior red wash and red painted decoration dribbled vertically over the outside surface. All three levels belong to Amuq G, with the lowest one early in this phase, or perhaps dating to an F-G transition. Future excavation efforts, however, will focus on a site with Chalcolithic material accessibly near the surface. An attractive candidate, also the victim of extensive bulldozing, is 12-ha Tell Kurdu, whose uppermost occupation belongs to Ubaid-affiliated Amuq F.

"In a parallel operation, Wilkinson carried out an archaeological and geomorphological survey from the Orontes valley inland to the Amuq's eastern border, with a particular view to evaluating the history of the Amuq or Antioch Lake as an environmental factor that affected the region's development. The discovery of archaeological sites within the former limits of the lake (which has been drained in recent times) proves that it was very small during the Early Bronze third millennium B.C. (fig. 5). Since that time, much of the plain has consisted of marshes interspersed with areas of open water, their variability partly linked to the three rivers—the Orontes, Afriin, and Kara Su—whose intermittent flooding deposited significant amounts of sedimentation. Such deposits will have buried much archaeological evidence: thus, at the foot of Tell Atchana/Alalakh, Late Chalcolithic levels were exposed under 3.5–4 m of

alluvium only thanks to recent cuttings for a drainage channel."

Progress reports have been published in *The Oriental Institute News and Notes* 148 (1996) 1–6, and *Anatolica* 22 (1996) 49–84.

#### *Eastern, Northern, and Central Anatolia*

**Sos Höyük-Erzurum.** This small mound, much disturbed in recent times (and subject in antiquity to frequent disasters of greater benefit to archaeologists), rewarded Antonio Sagona and his Erzurum Museum colleagues with a successful second campaign in 1995. To the medieval, Hellenistic, Iron, and Early Bronze levels of 1994 were added second-millennium B.C. finds, of particular interest to this project's investigations.

The plan of the preceding season's burnt Hellenistic building was expanded to reveal a main room with an antechamber, together over  $14.5 \times 18$  m, which apparently reused an earlier Iron Age structure. Its mudbrick walls were lime-plastered on the inside, and roofbeams fallen into the main room also preserved fragments of the plastered ceiling mats that once lined the underside of the roof. The main room focused on a platform—clearly not a hearth—with a plastered niche set opposite the entrance. The building had apparently been swept clean before it was abandoned and subsequently burnt, but related debris with Early Hellenistic pottery and glassware left no doubt about its date. Elsewhere, a stone-lined cist tomb of the same period was found to contain two superimposed burials, and, despite plundering, some representative gifts: two silver Alexander coins and silver bracelets. The underlying Iron Age levels

had also suffered devastating fires, in these cases resulting in good floor deposits that included reed baskets and ropes. Ceramics from the later phase can be connected with Achaemenid wares; vessels of the earlier level, however, from a floor dated ca. 900 B.C., were wheelmade and handmade black wares with mat-impressed bases.

For the Bronze Age, a small exposure down the mound slope followed a series of compact earth floors radiocarbon-dated to the second half of the second millennium B.C., and characterized by Trialeti combed and stamped wares. In another area, these were preceded by five levels related to the later Early Transcaucasian culture, with a comparable evolution in architectural forms from freestanding wattle-and-daub single-room structures, to subrectangular one- and two-room buildings of mudbrick on stone foundations. Courtyards were furnished with plastered features. The earliest level, radiocarbon-dated to the mid-third millennium, contained a stone platform into which was set a superb collection of typical highly burnished Karaz Ware vessels and an andiron. In addition to other Caucasian traditions illustrated by a Shengavit-type bowl, Nahchevan lugs, and graphite sheen, and by Martkhopi incised and painted pottery, connections with areas to the southwest were indicated by a ridged Keban-type potstand and—farther afield—a gray Syrian bottle. The local industry in obsidian (particularly scrapers) was supplied by a nearby source, however, north of Pasinler and 10 km from the site.

Reports on the 1994–1995 seasons appear in *KST* 17 (1996) 151–55, and *AnatSt* 45 (1995) 193–218 and 46 (1996) 27–52. A chronological and cultural reappraisal of the Transcaucasian Early Bronze Age and eastern Turkey is proposed by C. Edens in *BASOR* 299–300 (1995) 53–64.

**Sivas Survey.** Four years of archaeological survey in the province of Sivas have presented A. Tuba Ökse with pottery distribution patterns that suggest significant cultural boundaries. During the Early and Middle Bronze periods, the Kızılırmak/Halys River created a precise divider between central Anatolian and eastern wares; in sharp contrast, Iron Age painted ceramics were uniformly distributed on both sides of the river, and Phrygian gray wares, few in number, were confined to the southern limits of the region. For the 1994 results, see *AraşST* 13:1 (1996) 205–28.

**İkiztepe.** Önder Bilgi's continuing excavations of the burnt Early Bronze levels at this Black Sea site resulted in 1995 in another workshop—this one containing a skeleton along with more expected furnishings—as well as two unusual wooden build-

ings identified by postholes. The later of the two consisted of a square structure (30 m<sup>2</sup>) whose main room was flanked on two contiguous sides with a gallery of smaller compartments, one roof beam wide. Contents included a large number of loomweights, stone slingballs, and a deer antler, along with tubular-lugged ceramic vessels. Below this, a larger, 75-m<sup>2</sup> building of similar plan and equipment (in this case, 45 loomweights) could be securely dated by its EB I wares with knobbed and piecrust rims. The 1994 season is published in *KST* 17:1 (1996) 157–68.

**Amasya-Taşova Survey.** Mehmet Özsait's long-term project to survey prehistoric sites in the central and eastern Black Sea provinces focused, during its 1995 season, on the middle reaches of the Yeşil Irmak and its tributaries around Amasya. The earliest cultural material dates to the fifth millennium B.C. For settlements inventoried in 1994, see *AraşST* 13:2 (1996) 273–91.

**Kastamonu Survey.** C. Marro, A. Özdoğan, and A. Tibet explored, in a first survey campaign, the river valleys between Kastamonu and Taşkôprü for prehistoric sites. Despite dense vegetation and deceptive topography, a number of new findings from the Early Chalcolithic to the later Iron Age were recorded. Reports have appeared in *Orient-Express* 1995, 92–93, and *Anatolia Antiqua* 4 (1996) 273–90.

**Acemhöyük.** In 1995 ongoing geophysical surveys continued to give efficient guidance to director Aliye Öztan. She again divided the project's activities between the cemetery excavations begun in 1993 and the area northwest of the Hatipler palace, where Kültepe II period residential/service quarters, built of brick and wood with thick interior plastering, shared construction techniques with the palace.

The 118 tombs uncovered so far are beginning to form a distinctive pattern for Acemhöyük burial practices. They fall into three distinct phases, the earliest contemporary with level 3 on the mound. The early burials consisted of simple inhumations, occasionally laid out on a bed of sherds and/or covered with a sherd layer, and, more frequently, inhumations in jars resting in plain or sherd-lined pits. The jars, evidently recycled after household use, were sealed with a complete or broken plate, or a carefully laid sherd mosaic. Pots were placed as gifts either inside or outside the burial jar and were always deliberately broken. In the second phase, jars with cremations appeared side by side, and sometimes together with the inhumations, eventually replacing inhumations entirely in the uppermost phase. The cremation gifts were exceptionally rich: ivory objects; full-sized clay pitchers and miniature plates; simple

jewelry, such as stone and bone beads; and bronze pins and earrings. Beside the cemetery, a workshop area with pisé bins, bone tools, molds, and clay brushes may have been the manufacturing locus for these tomb gifts.

The shift in burial customs at Acemhöyük must reflect significant changes in the local population or in its religious beliefs. The cemetery also presents clear associations between cremation and more lavish funerary offerings. For the 1994 progress report, see *KST* 17:1 (1996) 209–13.

**Kültepe.** The 1995 season infused yet more life into what director Tahsın Özgüç describes as a city of successful capitalists, a cosmopolitan center conversant in five languages, and a royal capital—ancient Neša—fully worthy of being chosen for the heart of the first Hittite kingdom by Pithana and his son Anitta. Their palace was a great square structure surrounded by five temples, on top of the high mound that overlooked the lower town and its commercial district (*karum*). Their city's flourishing economy had, for decades, benefited from the convergence of internal and foreign trade routes: half of its commercial products were imported from abroad by enterprising Assyrian merchants willing to risk the six-month, 1,000-km journey in exchange for considerable profit.

The Assyrian presence, of course, stimulated local enterprise, which responded to the challenge by supplying the remarkable variety of household furnishings that Kültepe's preservation has transmitted in vivid detail. One level II metalsmith's workshop from this season produced a 2-kg cache of silver, still stored inside a pot beside the hearth or furnace where it would have been worked, as well as spouted crucibles, and molds to make small disks in graded sizes (rather resembling coins!). Other shops specialized in weapons, although never swords, which were apparently reserved for the palace—that, at least, is the only place where they have been found. Another contained a large cluster of crescentic loomweights, perhaps a sign that the indigenous weaving industry wished to compete with Mesopotamian fabrics. The most imaginative of Kültepe's craftsmen were surely the *karum* potters, whose repertoire was illustrated by the usual annual harvest of high-spouted pitchers (more decorative than functional and easily broken), zoomorphic rhyta, delicate quatrefoil goblets with strainers for beer, and bathtubs. Their wares were frequently stamped with the *signe royal*.

The 1995 season also increased the site inventories of sealings, often bearing cloth, reed, and string impressions from the packages and containers to which they had been affixed, and of tablets from lev-

els II and Ib. Although the archives mention precious metal items among the goods from specific households, none has been found in the houses themselves, perhaps because their owners removed them when warned of an impending disaster. Examples have fortunately been supplied by the tombs, however; they include an agate boar's head inlaid with faience and lapis, apparently a finial for a rod or staff, gold-plated silver pins, and gold-plated copper and silver rings, the latter as much a testament to subterfuge as to the Kültepe jewelers' craft.

A new study on commercial transactions in Middle Bronze Anatolia has been published by J.G. Dercksen, *The Old Assyrian Copper Trade in Anatolia* (Leiden 1996); for another installment of excavated Kültepe texts, edited by E. Bilgiç and C. Günbattı, see *Ankaraner Kültepe-Texte* III (Stuttgart 1995).

**Kaman-Kalehöyük.** As in past campaigns, Sachihiro Omura conducted excavations on two fronts: on the high mound's southern half, intended to expose 6,000 m<sup>2</sup> of the Ottoman settlement that represents Kalehöyük's last occupation (Kaman level I); and in the north, to continue and broaden the stratigraphic probe for its Iron Age (Kaman II) and Middle–Late Bronze phases (Kaman III). Iron Age levels are also being exposed below the Ottoman settlement in the southern excavation area's north squares.

Kaman's long Iron Age span has now been subdivided into 18 levels. The 1995 investigations concentrated on its classic Phrygian phase, with megaron-like buildings on stone foundations and well-preserved mudbrick crosswalls; and on the underlying layers of wattle-and-daub pit dwellings. A clear transition from the earliest Iron Age handmade pottery tradition to a more mature Phrygian stage was marked by the introduction of painted wares in the upper level of pit dwellings. Finds included molds for producing fibulae, as well as the fibulae themselves, stone seals, and faience Egyptianizing objects (scarabs and a wedjat eye).

The second-millennium settlements that preceded them cover its three major historical periods: Hittite Empire (Kaman IIIa), Old Hittite (IIIb), and Assyrian Colony (IIIc). Efforts in 1995 concentrated primarily on the burnt residential level encountered in 1994, now redated to the Kaman IIIb/Old Hittite period on the basis of new findings. These included a large stone- and plaster-lined enclosure, 4 m deep and cobbled along its base. Although originally functioning as a cistern or silo, it was found filled with 15th-century B.C. debris, pottery, and bullae.

Reports on the 1994 season can be found in *KST* 17:1 (1996) 189–208; on the 1994 regional survey, in



Fig. 6. Boğazköy. Fortifications at Büyükkaya, viewed from the north. (Courtesy J. Seeher)

*AraşST* 13:2 (1996) 243–72; and on the 1995 excavations and survey, in *Kaman-Kalehöyük 5* (Anatolian Archaeological Studies 5, 1996) 1–69 and 71–129 (in Japanese; the volume also presents a number of specialized studies discussing the site and its region in all periods, and articles in English on the conservation of finds and metallurgical analyses). For a summary of the 1989–1993 seasons, see *Essays on Ancient Anatolia and Its Surrounding Civilizations* (Bulletin of the Middle Eastern Cultural Center in Japan 8, 1995) 1–42, and related articles in the same volume.

**Kıvık-Kastamonu.** In a second season at the bulldozed gravel quarry where the 1990 Kastamonu hoard of Hittite metal vessels was discovered—a provenance confirmed by over 260 more examples found in 1994 during formal excavations—Aykut Çınaroğlu opened another trench in the hope of clarifying the nature of this unusual site. It produced two levels, the lower one apparently contemporary with the metalwork and perhaps providing evidence for its manufacture. Two ovens filled with charcoal were associated with deposits containing bone and stone tools, a crucible, and numerous terracotta “loom-weights” together with broken pottery. The area was also riddled with pits cut deep into the bedrock and containing fills whose pungency may be due to a high

concentration of sulfurous ores. The trench’s upper deposit pointed to a reoccupation of the site in the later Iron Age, dated by black-burnished wares and Phrygian pottery to the sixth century B.C.

R.M. Czichon discusses the hunting frieze on the silver bowl dedicated by Taprammi and the possible influence of such Hittite artistic themes on Neo-Assyrian reliefs, in *IstMitt* 45 (1995) 5–12.

**Boğazköy.** Continuing work on the Büyükkaya citadel is presenting a more nuanced appraisal of its Phrygian, Hittite, and earlier phases; and, for today’s visitor, Boğazköy’s clearest illustration of Hittite fortifications, characterized by casemates, towers, and gates (fig. 6). Jürgen Seeher, German Archaeological Institute, Istanbul, kindly summarizes his progress in 1995:

“The four-month field season again turned to Büyükkaya for its major focus, with operations totaling some 1,000 m<sup>2</sup>. Exposure and restoration of the entire northern stretch of the citadel wall were completed with the last remaining section of the inner wall from towers 13 to 14. South of and inside the North Gate, the previously unexcavated portion of a large circular feature was cleared, revealing a Late Hittite collecting tank connected to the system of channels and the small-scale ceramic and ironwork-

ing industrial quarter found in 1994. The water tank was also stratigraphically associated with two domed kilns, one of them containing miniature vessels, the other constructed against an earlier, Hittite wall. This industrial area became active after the North Gate had been condemned and blocked, in an apparent retrenchment onto the citadel at the twilight of the Hittite empire.

“Investigations were expanded in the western part of the lower plateau, where geophysical anomalies had led to the discovery of a monumental Late Hittite building in 1993. They uncovered the foundations of further large structures resting on bedrock, whose living surfaces had long been lost to later pitting and severe erosion. Preservation was somewhat better to the east, where two separate Old Hittite and Empire building levels could be distinguished. The two phases can also be recognized on the structural terraces that lined the slope 20–30 m outside the northern fortification enclosure.

“Excavations in various places on the middle and upper plateaus encountered several square, straight-sided pits, 8–10 m on a side, as much as 2 m deep, and paved with cobbles. Two others were already known from the 1952 excavations in the same area. The pits contained no finds whatsoever, but their wall surfaces still bore traces of unburnt organic fibers, as if the remains of wood paneling or matting. In the center of one pit’s cobbled floor was a neat depression, perhaps to support a post for a roof. These pits belonged to the final years of the Hittite Empire, but their function cannot as yet be determined. They precede the Phrygian resettlement here, which in turn occurred earlier than in other excavated sectors of Boğazköy, such as Büyükkale’s level II.

“The earliest Phrygian phase has been found in all of the Büyükkaya operations, both on the plateau and extending down its slopes. Its settlement consisted of modest, often single-roomed structures, whose residents dug many pits in the open areas between the buildings. They represent a single occupation, with occasional architectural subphases; the later Iron Age exists here only as stray material on the surface.

“In another significant development, a Chalcolithic occupation on Büyükkaya was indeed confirmed in 1995 by the discovery of compact stratified lenses, unfortunately much disturbed by the energetic building program of the Old Hittite period.

“Restoration work was carried out throughout the site: on the ‘sacred lake’ east of the south citadel (Südburg); on the building complex beside Nişantepe; on the east plateau’s Hittite fortress and Phry-

gian successor; on Büyükkale, where building E’s burnt mudbrick walling, exposed to the elements for 90 years, was at last encased in a protective mantle; and at the King’s Gate, including the installation of a new cast of the gate-god relief to replace the much-degraded version that has been greeting visitors since 1967 (the original relief is in the Museum of Anatolian Civilizations, Ankara).”

Finds from the 1995 season included, in Phrygian fills, a stone duck-shaped weight of 4.128 kg, dating to the Assyrian Colony period, and 10 Late Hittite tablet fragments (from a library, according to H. Otten). A new stela of Tudhaliya IV, perhaps a building inscription, was also discovered reused in a village house at Delihasanlı, 10 km southwest of Boğazköy; four others by the same king were already known from the capital itself. Reports for 1994 activities can be found in *KST* 17:1 (1996) 249–61 and *AA* 1995, 597–625; for 1995, see *AA* 1996, 333–62. Outstanding events in the life of Šuppiliuma II, as he recorded them in the Südburg’s chamber 2, have been translated with full commentary by J. David Hawkins, *The Hieroglyphic Inscription of the Sacred Pool Complex at Hattusa (Südburg)* (Studien zu den Boğazköy-Texten 3, Wiesbaden 1995); an introduction by P. Neve discusses the inscription’s archaeological and cultic context.

**Alaca Höyük.** In cooperation with the Çorum Museum, Hatçe Baltacıoğlu made soundings outside and south of the Sphinx Gate, where various sculptural pieces, including a lion, had been discovered during the Arık-Koşay excavations of the 1940s and again in 1974. The 1995 investigations netted another unfinished block with a lion protome, further evidence for a sculpted gate outside and aligned with the Sphinx Gate. Beyond it would have extended Alaca’s Late Hittite lower city, and probably its Middle Bronze predecessor as well. Chalcolithic and Early Bronze sherds from the fill found in the soundings allude to an early settlement in the immediate vicinity. Unfortunately, this location has now been claimed by the recently constructed site museum, which will severely restrict broad excavations in this key area. For preliminary research carried out in 1994, see *MKKS* 6 (1996) 91–106.

**Alışar-Konaksu Valley.** Reports on the 1993–1994 surveys and related finds appear in *Anatolica* 22 (1996) 145–58 (S.A. Branting on surveys) and 159–79 (M.C. Chernoff and T.M. Harnischfeger on botanical remains from Çadır Höyük).

**Ortaköy-Çorum.** In 1995, the spotlight shifted away from the temple (building A), and its massive Cyclopean masonry in the best Imperial Hittite tradition, to another large, contemporary structure, 150 m to

the east, whose contents were preserved when fire devastated the site, ancient Šapinuwa.

Director Aygül Süel's continuing efforts in building A concentrated on its northeastern and southern enclosure walls, which were significantly disturbed by stone robbing since they lie immediately below the current ground surface. Nonetheless, the associated fill produced several hundred more tablets and tablet fragments, bringing to over 3,000 the number recovered from this building's archives. The wall foundations belonged to a basement story, since there were no doorways communicating between the rooms. It is no doubt due to their considerable height that they became protective containers for the contents of the building's superstructure, which collapsed into the basement when the temple burned.

In contrast, the newly discovered building lies in an area without later architectural remains, and only the top has been disturbed by plowing. A 15 × 15 m trench came down immediately on a large magazine, its massive wall foundations built with squared stone blocks for a mudbrick superstructure still preserved several courses high. The room contained some 30 pithoi, averaging 1.15 m in diameter, and set in clusters of five or six into low benches of plastered bricks. Narrow walkways between the benches were filled with collapsed debris, which included fine tablewares such as burnished pitchers, the monochrome plates typical of the Hittite Empire's ceramic industry, and numerous carbonized beams. Geophysical prospection indicates that the magazine comprised only a small sector of an extensive complex, to be pursued further in future seasons. For a progress report on the 1994 findings, see *KST* 17:1 (1996) 263–82.

**Kuşaklı.** The perspective that this provincial center, ancient Sarissa, is affording on Hittite urban standards, even at a good remove from the Hittite capital, was further sharpened in the course of the 1995 campaign. Aerial photography, geophysical survey, and broad excavations revealed more elements that mirror, in unprecedented fashion, 14th–13th century B.C. Hattuša in its most distinctive aspects: choice of terrain, layout and plan of its fortifications, and architectural features and scale of its monumental buildings. Andreas Müller-Karpe, Philipps-Universität, Marburg, kindly provided the illustration for the following report on the successes of his third season.

Excavations were carried out in three parts of the 18-ha site. On the north terrace, research in temple I (36 × 54 m, and 51 rather than 54 rooms as previously reported in this newsletter) was limited to sounding one sequence of floors, with rich returns:

the lower of three superposed clay floorings produced a bulla and Aleppo pine beams with a dendrochronological date of 1384 B.C. The season's major efforts were transferred to the acropolis building, source of the 1994 discovery of several dozen tablets and Kuşaklı's Hittite name. The northern extension of the structure proved to be far better preserved, without the Iron Age overlay that affected the previous season's excavated sectors. The building seems to be a second temple (temple II), now exposed over 50 m (fig. 7): the north wing contained a large rectangular central room—the cella—on the northeast, flanked by smaller rooms. A line of terracotta water pipes was followed west from the main room to a stone-lined drain between two walls. One of the pipes was incised with a triangular potmark, a standard practice in the later Hittite ceramic industry and apparently appropriate for architectural materials as well. Finds included four more tablet fragments dealing with ritual affairs, a small portion of a stone relief sculpture, and bullae (one impressed with the *signe royal*). Like all of the other Hittite structures so far discovered at the site, temple II was destroyed in a great fire. It was repaired early in the Iron Age, with several stages of reuse lasting into the seventh and sixth centuries B.C.

Soundings were also dug along the acropolis's lower west slope, where two occupational phases were encountered: the upper one, badly eroded and difficult to assess, was preceded by a level of irregularly planned workshops involved in metallurgy. On the fortified enclosure's east side, geophysical survey located a new city gate, with a triangular anomaly inside it. The survey, combining geoelectrical and geomagnetic prospection, will eventually cover and plan the entire site. A comprehensive article with splendid illustrations has been published in *AntW* 27 (1996) 305–12; for 1995, see *MDOG* 128 (1996) 69–94 (excavations) and 95–133 (texts).

**Kilise Tepe.** J. Nicholas Postgate, University of Cambridge, carried on, for a second season, with his efforts to salvage the significant components of this Bronze–Iron Age, Hellenistic, and finally Byzantine mound in the Göksu Valley, whose dramatic landscapes and ancient human occupation will be replaced in the near future by an artificial lake behind a hydroelectric dam. The 1995 campaign progressed on three fronts: a continuation of the northwest stratigraphic trench; further excavation of the Late Bronze–Early Iron Age levels located in 1994; and horizontal exposure of the Byzantine occupation that accounts for the upper 2 m of deposit.

The northwest trench was deepened by a narrow sounding nearly to the base of the mound: its three architectural phases are dated to the later Early

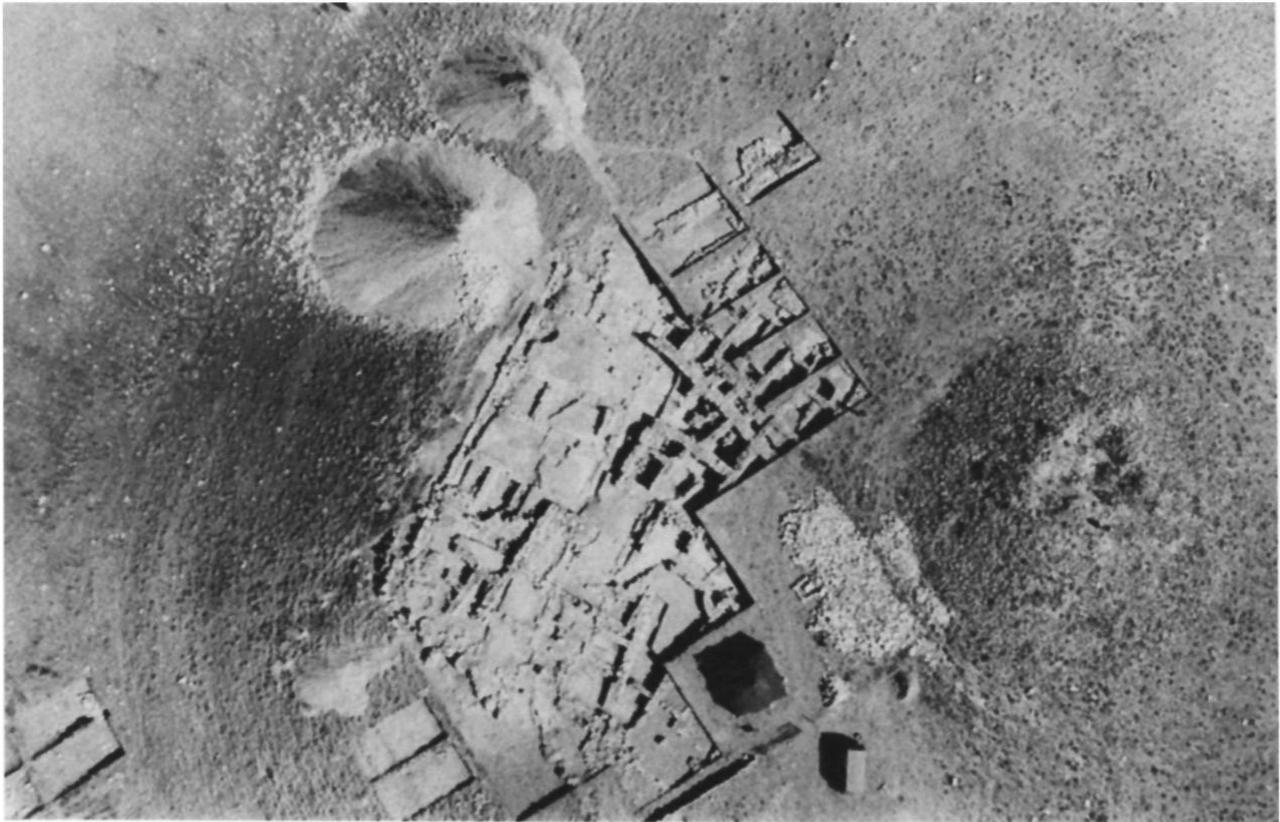


Fig. 7. Kuşaklı. Aerial view of temple II on the acropolis (Hittite Empire, with Phrygian overlay in the upper right). (Courtesy A. Müller-Karpe)

Bronze period by red-cross bowls, smeared-wash wares, a Syrian bottle, and an incised cup of Vounos type. Metalworking is indicated by a mold for making chisels. These lowest phases were succeeded by a late EB–early MB burnt architectural level encountered in 1994 when a storeroom filled with unbaked clay vessels was excavated; its 1995 extension produced more of these and many loomweights.

Excavations in the later of the northwest trench's 1994 Late Bronze buildings revealed a very burnt courtyard, which contained an oven and over 1 kg of carbonized figs (many of them pierced for stringing) and hazelnuts. Associated pottery such as fine red-burnished wares and more examples of "libation arms" again showed close links with the Hittite central Anatolian highlands. These were reinforced by the discovery of a second button seal, this one inscribed in Hittite hieroglyphs with the PN Minuwazi. It was not found in this stratigraphic context, however, but in a successor perhaps straddling the close of the Bronze Age (for a similar holdover at Troy, see below, under "Western and Coastal Anatolia"). Ties with the Aegean in the form of Mycenaean LH IIIB sherds were unfortunately without similar chronological precision since they were found in a pit. Between this Late Bronze phase and the well-

defined Middle Iron Age strata lies one or perhaps two levels, including a burnt building stripped of all its contents. The levels can reasonably be assigned to the Early Iron Age, since the presence elsewhere on the site of coarse vessels with inexpertly painted red hatched decoration, some of them handmade, belong to this cultural horizon at places like Kaman and Porsuk.

Broad soundings to define the Byzantine settlement on top of the mound succeeded in locating an/the eponymous church in shallow soil near its highest elevation. Much of its stonework had been robbed out—a capital, for example, was reused in a neighboring elementary school—but the diagnostic plan with central nave, two aisles, and a bema was still visible. It was contemporary with the housing and workshops excavated to the north, source of a varied collection of cooking pots and "Alahan monastic ware."

The full discussion of the 1994 season appears in *AnatSt* 45 (1995) 139–91, and a summary in *KST* 17:1 (1996) 419–31; for a 1995 progress report, see *AnatArch* I (1995) 7–8.

**Yalburt-İlgin.** The Tudhaliya IV inscription accidentally discovered in 1970 and published by M. Poetto, *L'iscrizione luvio-geroglifica di Yalburt: Nuove acquisizi-*

oni relative alla geografia dell'Anatolia sud-occidentale (Studia mediterranea 8, Pavia 1993) is now commented upon in an extensive appendix by J.D. Hawkins in *The Hieroglyphic Inscription of the Sacred Pool Complex at Hattusa (Südburg)* (Studien zu den Boğazköy-Texten 3, Wiesbaden 1995).

#### *Western and Coastal Anatolia*

**Aşağı Pınar-Kırklareli.** In 1995, the joint Turkish-German project recording the prehistoric cultures of eastern Thrace devoted its third season to exposing a broad area of Aşağı Pınar's Middle Chalcolithic levels (later fifth millennium B.C., or Middle Neolithic in Balkan chronology). Mehmet Özdoğan, Istanbul University, kindly offers the following illustrated reports for the two excavations he conducted with his colleague Hermann Parzinger:

"Eight trenches sampled a total of 400 m<sup>2</sup> outside the round enclosure wall that protected the Hellenistic tumulus and the moat that delimited the Iron Age sacrificial area. They confirmed that this area was entirely occupied by rectangular houses, laid out side by side in rows. The houses were built primarily of wood coated with a thick plaster and were furnished with silos and hearths. An open area or yard beyond them was bordered by a wooden fence and contained flimsy huts. Large numbers of malachite beads, so far unique in Thracian and Balkan assemblages, suggest that the yard might have hosted a specialized workshop. Ceramic finds still showed close affinities with Balkan Vinča pottery production, especially in the taste for incised, punctate, and relief decoration, anthropomorphic shapes, and zoomorphic handles. The many terracotta female figurines fall into three categories: an armless phi-shaped type with pellets for the navel and breasts; a cylindrical type; and a more naturalistic version, well-paralleled at Toptepe, with hands clutched to the breasts (fig. 8).

"The site's Early Chalcolithic phases were exposed over a limited area (40 m<sup>2</sup>) of surfaces with hearths and pits, but few architectural remains. They represent a culture distinct from their successors at the site, although again in line with contemporary Balkan traditions and northwestern Anatolia. The figurines, for example, have the fused legs known from the later stage of the 'Porsuk culture' at Orman Fidanlığı and from Ilıpınar VI, to be dated in the mid-fifth millennium B.C. Several braziers with excised and white-inlaid incised chevron designs are the first examples of this familiar western Balkan item to be found in Thrace. Finally, the underlying Neolithic deposits, first reached in 1994 at the base of one sounding, were also located in a second trench.



Fig. 8. Aşağı Pınar. Middle Chalcolithic terracotta figurine of Toptepe type. (Courtesy M. Özdoğan)

These earliest occupations will become the focus of future seasons." Relevant publications are listed below, under "Kanlıgeçit-Kırklareli."

**Kanlıgeçit-Kırklareli.** The second of the Özdoğan-Parzinger excavations was conducted at Kanlıgeçit, to follow up on the EB III deposits sampled immediately below the surface on the western edge of the site during the first season in 1994.

"A broad area (Kanlıgeçit North) was opened in 1995 well to the north of the previous soundings. These trenches uncovered a series of neatly aligned megarons with stone foundations (fig. 9), a construction technique otherwise unattested in the region. The associated pottery also points to the Troad and west-central Anatolia. It now spans the Troy I-V sequence over at least two levels. Finds included some unorthodox vessels, however, such as a squared double-spouted pitcher with geometric panels incised and picked out in white inlay (fig. 10).

"A stratigraphic sounding to investigate the site's earlier cultural history now indicates that this EB II-III megaron phase was founded immediately on top of an Early Bronze level with Balkan ceramics



Fig. 9. Kanlıgeçit North. Early Bronze Age megarons with stone foundations. (Courtesy M. Özdoğan)

belonging to the Ezero cultural horizon. This level was in turn preceded by well-preserved Chalcolithic deposits (Balkan Later Neolithic) with pre-Cucuteni/Karanovo V parallels, as recorded also in the first season. The excavators therefore propose the existence here of an Anatolian-sponsored colony, implanted on Thracian territory toward the middle of the third millennium B.C.”

General progress reports on the Kırklareli regional project has appeared in *BerRGK* 76 (1995) 5–29, and in *XI. Türk Tarih Kongresi I* (Ankara 1994) 69–79. Chronological and cultural issues shared by the Balkans and Anatolia are surveyed by S. Steadman in *BASOR* 299–300 (1995) 13–32. For M. Özdoğan’s reassessment of eastern Thrace before the Bronze Age, see U. Magen and M. Rashad eds., *Vom Halys zum Euphrat. Thomas Beran zu Ehren* (Altertumskunde des Vorderen Orients 7, Münster 1996) 185–202.

**Eastern Thrace Survey.** A 1995 survey to record prehistoric settlement patterns in the Edirne region is summarized by B. Erdoğru in *Orient-Express* 1995, 97–98, and in *AnatSt* 45 (1995) 267–72. Sites ranged from Balkan Late Neolithic (= Anatolian Chalcolithic) onward, with the usual gap during the fourth millennium B.C.

**Harmanören.** Mehmet Özsait continued his salvage operations, begun in 1993, in the mainly Early Bronze cemetery located on top of Tavşan Tepe, near Bursa. Burials conformed to three different practices: inhumations in pithoi set into stone-lined pits; in-

humations in cist graves lined with stones; and cremations in jars oriented north or south, and covered with a vessel and/or large stones. Ceramic and bronze gifts were usually placed inside the tomb beside the deceased. A small number of Late Chalcolithic and Middle Bronze tombs have also been reported.

**Hacılar-tepe.** Excavations continued for a third season at the Early Bronze site that used the neighboring, uninhabited mound of Ilıpınar for its cemetery. J.J. Roodenberg, Leiden, kindly offers the following report on the 1995 results:

“Virgin soil was reached in the western half of the 7 × 9 m sounding, at a depth of 4.5 m below the surface of the mound. Several tamped surfaces and two north–south oriented buildings accounted for its lower 2 m of archaeological deposits. The buildings were constructed in the post-wall technique, had been refloored on several occasions, and were furnished with a basin-like feature that may have served as a fireplace.

“Hacılar-tepe’s series of occupations was previously assigned, on the basis of cultural affiliations, to the first centuries of the Early Bronze Age. This assumption now runs contrary to associated radiocarbon determinations, which indicate dates ca. 2400 B.C. Thus, it will be necessary to collect more radiocarbon samples from the occupational layers and submit the large ceramic assemblage to further analysis in order to clarify this site’s position within the Anatolian Early Bronze sequence.”



Fig. 10. Kanlıgeçit North. Early Bronze Age pitcher. (Courtesy M. Özdoğan)

For the concurrent project at Ilıpınar, see above, under “Later Neolithic.”

**Şarhöyük/Dorylaion.** The Hittite levels of this site, on the outskirts of Eskişehir, are summarized below, under “Iron Age: Central and Western Anatolia.”

**Kaklık Mevkii-Afyon.** The results of salvage excavations carried out in 1983 and 1984 at this late fourth-millennium site, 14 km north of Afyon, have been published by T. Efe et al. in *Studia Troica* 5 (1995) 357–99. Its two phases of occupation spanned the transition from Late Chalcolithic into EB I. Cultural features, notably pottery, belonged to an extensive western Anatolian tradition well illustrated at Beycesultan, but otherwise attested in the Afyon-Eskişehir area only from survey.

**Kuruçay.** Refik Duru has published a final report (with English summary) on its Late Chalcolithic and Early Bronze levels in *Kuruçay II: 1978–1988 Kazılarının Sonuçları. Geç Kalkolitik ve İlk Tunç Çağı Yerleşmeleri* (Ankara 1996).

**Korkuteli Survey.** Mehmet Özsait’s 1994 survey of prehistoric sites on the highland border between

Lycia and Pisidia is published in *Araştırma* 13:2 (1996) 293–311.

**Troy.** The eighth season of the Troia Project successfully trained its (now familiar) monumental enterprise toward basic questions relating to the Troad’s pre- and protohistoric cultural horizons. Manfred Korfmann, Tübingen University, kindly assesses the discoveries from the 1995 campaign:

“Further confirmation for the relative cultural position of Troy II was reached in the course of continued excavations into the sequence of buildings on the citadel. Although the onset of the Troy II period was, in the past, made to coincide with the appearance of a distinctive buff wheelmade pottery used especially for plates, this ware can now be shown to have been introduced somewhat earlier, in the context of five or six building levels intercalated between Troy I<sub>k</sub> and Troy II. This newly defined Final Troy I’ phase would represent an overlap (or transition) into the next major period. In any case, the ceramic assemblages of Troy II and even Troy III belonged to a continuous tradition stemming from Troy I and, even earlier, from the recently excavated occupational phase now labeled ‘pre-Troy I,’ which corresponds to the nearby settlement of Kumtepe B (IB).

“This uninterrupted tradition can also be recognized in the citadel’s architectural sequence, and especially in the succession of a dozen or so fortification walls and gates. Thus, the two-phased Troy III city wall, as already indicated in 1994, represented an addition to the so-called Late Troy II citadel and the final installation in the gateway and was probably still using the Troy II stone ramp. Therefore, the Troy I–III periods should be considered a unified cultural horizon and named the ‘Maritime Troy Culture’ to reflect its affinities with the Marmara coast and the Aegean.

“In contrast, the following Troy IV–V period marked a sharp departure from previous patterns in many significant respects. The striking differences were again highlighted in one of the 1995 operations (D7/8), where Troy IV phases, constructed just above those of Troy III, illustrated the changes clearly. Thus, building plans that shared party walls, the occurrence of domed ovens, a new ceramic technology (differences in organic temper), the appearance of central Anatolian pottery types such as red-cross bowls, cut-away beaked spouts and trefoil mouths, and the increased reliance on hunting in the diet—all point to stronger connections with the interior. It seems appropriate, therefore, to label this distinct cultural stage the ‘Anatolian Troy Culture.’

“The 1995 season also produced some particularly significant findings about the configuration of the

middle Troy VI–early Troy VII (Late Bronze Age) defenses in the Lower Town. Especially important was the discovery of its long-awaited circuit wall, a well-preserved mudbrick superstructure on stone foundations built up against the Northeast Bastion. The latter can now be understood as having combined the functions of watchtower, protection for the nearby city gate, and water reservoir supplying the Lower Town. At the Lower Town's southern end, excavations focused on two 3-m-wide defensive ditches cut into the limestone bedrock. Further exposure of the northern ditch, which was already known from previous seasons, revealed a 10-m interruption in the circuit, where a causeway would have acted as a bridge (fig. 11). To the north and 3.5 m behind the ditch were found the cuttings for a palisade, again interrupted for a 5.2-m-wide gateway in alignment with the ditch's causeway (fig. 11, middle ground on the right). These defenses can be assigned to Troy VI, but at least the lower part of the ditch appears to have been filled in during the 15th century B.C. A second ditch was also discovered 80–100 m to the south and dates generally to the same period and defensive system. It was probably filled in toward the end of Troy VI or during Troy VII (an intrusive Roman ditch disturbed the stratigraphic evidence here). Outside Troy proper, regional defense may have been ensured by military stations on hilltops such as Eski Hisarlık and Küçük Fiğla, which survey data date to the end of the second millennium.

“The Troy VIIa Lower Town was eventually subjected to a hostile event attested by a densely burnt layer, again encountered in 1995 in its southwest residential districts. Finds from this period included a bronze figurine of Hittite type, the first to be found at the site. The subsequent retrenchment onto the citadel in Troy VIIb saw the local ceramic assemblage, such as Gray Minyan ware, coexisting alongside Sub-Mycenaean/Protogeometric types, ‘Barbarian ware,’ and Knobbed ware (Buckelkeramik). This assemblage, with its strong Balkan component, must be recognized as a new cultural entity at Troy during the 12th–11th centuries B.C. or ‘Dark Age.’ It included unexpected finds: from a house built over the Troy VI citadel wall was recovered a biconvex bronze seal inscribed in Hittite/Luvian hieroglyphs with a man's PN and the title ‘scribe’ on one side, a woman's PN on the other. Its archaeological context seems secure within this period. (For comparable seals from the same period at Kilise Tepe, see above “Chalcolithic and Bronze Age: Eastern, Northern, and Central Anatolia”)

“Fifteen sectors at Troy and in the area have at last been registered as protected cultural monuments,

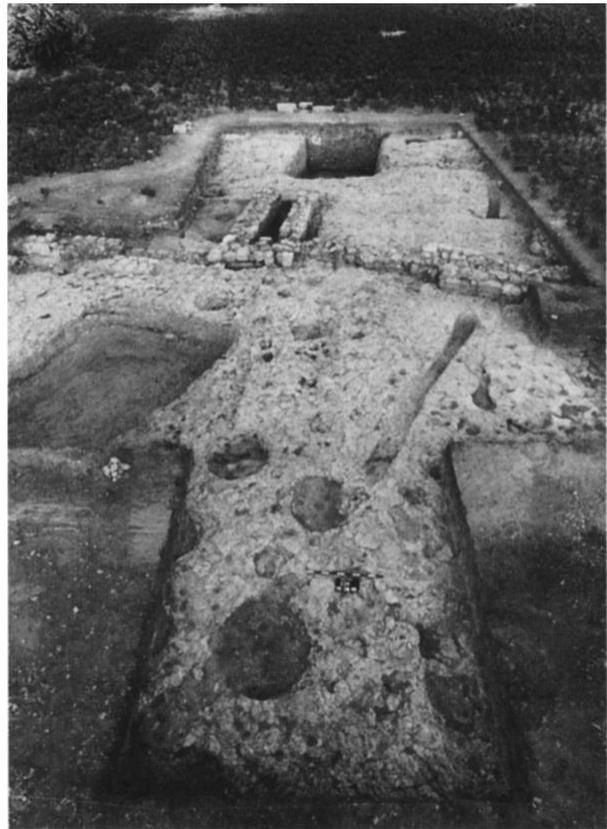


Fig. 11. Troy, southern defenses of Lower Town. Troy VI palisade cuttings (right) and ditch (left), looking west. Width of ditch 3 m. Wall foundations in the middle ground date to the Hellenistic period. (Courtesy M. Korfmann)

but this is not enough to preserve the region as a whole. We continue to urge the creation here of a Historic National Park and UNESCO recognition of Troy as a ‘Cultural Monument of Mankind.’ In the meantime, the Troia Project's conservation and restoration of the site's ancient buildings continue on an unprecedented scale.” Troy and its region were declared a Turkish National Park on 30 September 1996.

Reports on the 1994 season are published in *KST* 17:1 (1996) 283–303, and in *Studia Troica* 5 (1995); for 1995, see *Studia Troica* 6 (1996) 1–64. For Kumtepe, see above, under “Later Neolithic”; for results of the 1995 post-Bronze Age investigations at Troy, see below, under “Classical, Hellenistic, and Roman: Troad.”

**Panaztepe.** A second season of research into the diachronic settlement patterns at Panaztepe gave director Armağan Erkanal a sharper perception of the populations whose funerary customs her team has systematically documented since 1985. The distribution of cemeteries shows marked shifts throughout the site's history: thus, the LB/LH III cemeteries were located well outside it to the west and north

of the acropolis; an Archaic–Classical one was set on the acropolis top; and a/the Roman cemetery was situated along the acropolis's west slope. The settlements themselves followed more conservative tendencies. The eastern slope of the acropolis appears to have served for the site's formal constructions, no doubt because it afforded protection from the strong prevailing north wind. Less distinguished residential districts were located on the southwest, near the harbor.

In 1995, expansion of previous eastern excavation areas significantly enlarged the site's Byzantine monastic complex, medieval ceramic repertoire (often containing graffiti), and collection of wood samples from pits. Below it and an Early Iron Age deposit without associated architecture, was found a Late Bronze level exactly contemporary with the 14th–13th century B.C. cemetery. Here, too, the primary building material was wood, traceable from postholes cut into bedrock, and belonging to a major building on a scale appropriate for civic rather than residential purposes. In another trench, the gravel court of an early Middle Bronze structure produced a number of smashed vessels in the gray fabric that would later evolve into true Minyan ware. One spouted vessel in this fabric was decorated with a ram's head applied in protome fashion beside the spout, a style perhaps inspired by inland Anatolian Assyrian Colony period types. For a progress report on the 1994 season, see *KST* 17:1 (1996) 329–35. A final publication of the Late Bronze cemeteries is under preparation.

**Ulucak-Izmir.** A project aimed at analyzing the ancient configuration of the Izmir Bay in conjunction with prehistoric settlements was begun in 1995 by an Ege University team of palaeogeographers and archaeologists, headed by Z. Derin and E. Öner. Soundings were carried out at the low mound at Ulucak, 10 km east of Izmir near Kemal Paşa. The site appears to have been founded in the Middle Chalcolithic period, according to pottery that included two sherds of Balkan type. The EB I–II periods are also well represented, as is the Middle Bronze Age. Surface occupation ends in the Classical period. Although Ulucak today lies in a plain bordered by mountains, this topography resulted from recent sedimentation. The prehistoric site, at least, was situated on a coastline.

**Liman Tepe.**<sup>1</sup> Hayat Erkanal focused his 1995 season on the Early Bronze settlements that used the twin-bayed harbor at Urla, classical Klazomenai, for their livelihood. Further excavations were carried



Fig. 12. Liman Tepe. Foundations of Early Bronze/Troy II "corridor house," from the west. (Courtesy H. Erkanal)

out in the EB II/III "corridor house" (fig. 12) whose high stone foundations were first encountered in the previous campaign. The building showed at least two phases of use: in the newly excavated sector, the original, well-built storage compartment was later modified to serve as a kitchen with a hearth in its eastern corner. This second storeroom (the first was excavated in 1994) produced another rich collection of vessels with Troy II parallels, a ceramic frying pan, and stone objects combining phallic and zoomorphic elements – one with a monkey head (fig. 13).

Investigations were also pursued on the massive fortification system delimiting the southern border of the site. On top of its rubble rampart was excavated a curved section of walling with three external buttresses. Narrower stone walls radiating from its inner face divided the interior into several rooms. They contained EB I domestic deposits (fig. 14) that would date the entire system, or at least an early version. Underwater research on offshore walling par-

<sup>1</sup> Vasif Şahoğlu kindly supplied photographs and corrections for Liman Tepe and Bakla Tepe.



Fig. 13. Liman Tepe. Stone object with monkey head, from Troy II "corridor house." Height ca. 13.5 cm. (Courtesy H. Erkanal)

allel to the current harbor, previously detected in aerial photographs of the bay, was successful in tracing the outlines of a broad bastion and fortification wall, as well as a jetty. Their stone construction technique assigns them to the EB II-III period, contemporary with the "corridor house." For a 1994 progress report, see *KST* 17:1 (1996) 305–27. An article on Early Bronze Age urbanism in the western Aegean, with a discussion of the architectural finds at Liman Tepe and Bakla Tepe, has been published by H. Erkanal in Y. Şey ed., *Housing and Settlement in Anatolia: A Historical Perspective* (Istanbul 1996) 70–82.

**Bakla Tepe.** A dam now under construction south of Izmir will flood the small Tahtalı valley in which the prehistoric mound of Bakla Tepe is located, close to the village of Bulgurca. This fertile region's prosperity in classical antiquity, well attested by nearby Claros, was enhanced by easy access to the peninsula's central Cuma plain on the north and by its situation on the direct route linking the bays of Izmir and Ephesos. Bronze Age settlements must have benefited from similar advantages, but they have received scant attention. It was thus with urgent interest that Hayat Erkanal and the Izmir Museum's director Turan Özkan began, in 1995, the first of three projected



Fig. 14. Liman Tepe. Black-burnished cup with tab handles, from Early Bronze I domestic context inside the fortification wall. (Courtesy H. Erkanal)

seasons to document this large site before it disappears underwater.

Although the top of the mound has suffered considerable disturbance, in part the result of a WW I heavy artillery installation, broad excavations were successful in coming down on a well-preserved EB II architectural level of large rectangular houses, whose plastered dry stone walls still stand 2 m high. Standardized plans, which included a hearth in the central room and a square outdoor shed, compare well with residential structures at Thermi, Aphrodisias, and Beycesultan. Finds ranged from a homogeneous assemblage of pottery with Troy Ia6 parallels, spindle whorls, and figurines, to a casting mold for a dagger, and a silver "amphoriskos-head" pin of Naxian type, otherwise unattested in Anatolia. Excavations continued in 1996. The 1995 discoveries are discussed and illustrated by H. Erkanal in Y. Şey ed., *Housing and Settlement in Anatolia: A Historical Perspective* (Istanbul 1996) 70–82.

**Miletos.** The second season of research focusing on the Bronze Age settlements at Miletos resolved the technical difficulties of excavating below the water table, and thus made remarkable advances in clarifying the Aegean orientation of this site. Wolf-Dietrich Niemeier, Heidelberg University, generously offers this report on his 1995 project's well-coordinated progress:

"Excavations continued for seven weeks in the area south of the Athena temple, where the previous season had succeeded in locating an LM IB–LM II destruction level with Minoan pottery and fresco fragments. This season, an expanded operation in the area of the 1994 Late Geometric house found that, here, it almost directly overlay another destruction level, this one to be dated by pottery to the very end

of LH IIIA:2, with only fleeting remains of an intervening LH IIIB–C ceramic assemblage between them. This second destruction level produced the southern half of a house, whose northern half had already been excavated in 1957. Its completed plan conforms comfortably with G. Hiesel's 'oikos 2' Mycenaean domestic building type. Three more potters' kilns (fig. 15), now bringing the level's total to seven, indicate that pottery production was an important industry in Late Bronze Miletos. Even more significantly, the overwhelming majority of this industry involved Mycenaean types, both for fine decorated wares and domestic wares: only ca. 2% of the ceramic sample from this destruction level showed affinities with southwestern Anatolia, as typified by the Beycesultan III assemblage. This phase thus exhibits a markedly different character from contemporary assemblages at other western Aegean coastal sites with Mycenaean imports, such as Troy VI, Panaztepe, and Liman Tepe. It appears to represent a true Mycenaean settlement, probably indeed Millawanda of the Hittite sources. The inhabitants of Millawanda are known to have been subjects of the king of Ahhiyawa, most likely based in mainland Greece, and were themselves Mycenaean Greeks. In addition, the big conflagration that brought this phase to an end can now be dated in absolute terms to the late 14th century B.C., thanks to new dendrochronological evidence from the Uluburun shipwreck for comparable pottery. This destruction's archaeological dating correlates well with the historical record that Millawanda was destroyed by the troops of the Hittite king Muršili II toward the end of the 14th century.

"For the preceding architectural phase ('first building period'), the plan of the 1994 building with fresco fragments was expanded, indicating—as do the frescoes—an important building. The masonry technique used for its foundations was typically Minoan: stones were smoothed only on their outer face to create a visible straight edge, while the inner side remained irregular (fig. 16, outer wall on the right). Ceramic finds again demonstrated an almost exclusively Minoan character: imported decorated LM IB palatial ware (including Marine Style) coexisted with a locally produced repertoire of household wares such as conical cups, tripod cooking pots, firestands, scuttles, and discoid loomweights. Less than 5% belonged to the southwestern Anatolian assemblage of Beycesultan IV. Thus, Miletos in this first building period was a Minoan settlement, and the tradition that Miletos was settled by Cretans from Milatos appears confirmed. In this connection, the 1995 season's most sensational discovery was three adjoining sherds from a large vessel (a pithos or jug) on which a Linear



Fig. 15. Miletos. Second building period: Late Bronze/ Mycenaean (Late Helladic IIIA) potters' kilns. (Courtesy W.D. Niemeier)

A inscription had been incised before firing (fig. 17). It indicates that Linear A was in use at this site.

"Cores into the underlying fills suggest the presence of another 1–1.5 m of occupational deposits before reaching bedrock. Stray finds such as Chalcolithic sherds, an Early Bronze marble figurine, and a spindle whorl of Early–Middle Bronze type also point to earlier occupations in this area. They will be investigated in the near future."

The post–Bronze Age excavations at Miletos are presented below, under "Classical, Hellenistic, and Roman: Ionia."

**Beycesultan.** Another volume in the site's series of final reports has been published by J. Mellaart and A. Murray: *Beycesultan 3, II: Late Bronze Age and Phrygian Pottery, and Middle and Late Bronze Age Small Finds* (London 1995).

**Kaş-Uluburun Shipwreck.** A report on the final 1994 season has now appeared in *KST* 17:1 (1996) 215–28; for a well-illustrated popular summary, see *Sanat ve Tarih* 71 (1996) 4–25.

#### DENDROCHRONOLOGY

Correlations proposed by Peter I. Kuniholm and his colleagues between a tree-ring sequence on timbers from Porsuk and the Thera eruption to be dated in 1628 B.C. have now been published in *Nature* 381 (1996) 780–83. The repercussions of their findings on absolute and relative chronologies from the later third millennium to the eighth century B.C. are in some cases considerable and in others (notably for the Aegean) revolutionary. Like all revolutions, they will require some time to settle in. But some den-



Fig. 16. Miletos. First building period: wall foundations for a large Minoan building, dating to the Late Minoan IB–Late Minoan II transition. (Courtesy W.D. Niemeier)

drochronological dates now fall reassuringly in line with more traditional reckoning: the most recent tree in the great tumulus at Gordion, for instance, was felled in 718 B.C., a date that coincides far better with the archaeological evidence and with the historical figure of King Midas. The same can be said for synchronisms between the Waršama palace at Kültepe (after 1810 B.C.), the Sarıkaya palace at Acemhöyük (after 1752 B.C.), and the Old Assyrian and Old Babylonian dynasties in Mesopotamia: they would place Šamši-adad I and Hammurabi together more comfortably in the latter half of the 18th century B.C. (which is indeed where they should be).

Kuniholm also reported that the 1995 summer tour, his 23rd consecutive season for the Aegean Dendrochronology Project, netted another 2,000 samples for processing. Late Neolithic Köşk Höyük, Troy VIIa, and Hellenistic Sos Höyük provided large collections to fill notable lacunae, and the results are eagerly awaited. In the meantime, highlights of the 1993–1995 discoveries can be found in *ArkST* 11 (1996) 181–201. An overview of the project's success toward assembling a continuous eastern Mediterranean tree-ring chronology from the present back to 7500 B.C. appears in *Archaeometry* 94 (1996) 401–409 (see below).

#### ARCHAEOOMETRY

Selected papers from the 29th International Symposium on Archaeometry, which took place in Ankara in May 1994, have been published in a generous volume (in English) edited by Ş. Demirci, A.M.



Fig. 17. Miletos. Fragments of a large vessel incised with Linear A signs. (Courtesy W.D. Niemeier)

Özer, and G.D. Summers: *Archaeometry* 94 (Ankara 1996). Nearly half of the 71 entries relate to Anatolian studies ranging from metallurgy and stone (with seven papers on obsidian) to ceramics and organic materials. Many of the other papers also bear on Anatolian issues.

Archaeometallurgical research projects relating to the Göltepe/Kestel mining center (A. Yener) and Arslantepe (A. Palmieri et al.) are published in *ArkST* 11 (1996) 91–104; and 105–15, 167–80, respectively. Surveys in the central Taurus Cilician mining districts around Hadim and the sources of the Göksu are reported by K. Sertok and O. Ermişler in *MKKS* 6 (1996) 315–34.

#### ARCHAEOBOTANY

A summary of 39 excavations with archaeobotanical remains, all of them currently under study by some 30 archaeobotanists, has been published by Mark Nesbitt and Delwen Samuel in *Orient-Express* 1996, 91–96. The authors suggest that these projects—to which they contribute significantly—put Turkish archaeology in the forefront of Near Eastern archaeobotanical research.

#### IRON AGE

##### *Eastern Anatolia*

**Anzaf.** Oktay Belli carried out his 1995 excavations both in the lower fortified stronghold founded by the late ninth-century B.C. Urartian king Işpuini, and on the upper citadel, which commanded a strate-

gic view of routes heading toward Lake Van. The upper citadel can now be assigned to Išpuini's son and successor Menua. Further clearing inside its north gate produced many more articulated animal skeletons, the total now numbering ca. 80 cattle and over 450 sheep and goats. They appear to have smothered in the fire that destroyed the gate. Inside the gate and its flanking tower, investigations extended to a large structure resembling a garrison: it was divided into narrow rooms, each one containing a fireplace with a flue against its north wall. Another victim in the destruction was a square single-room structure with projecting corner buttresses, its mudbrick superstructure vitrified by fire. It has been identified as a sanctuary to the god Haldi, head of the Urartian pantheon, thanks to the inscription on a splendid bronze shield dedicated by Išpuini. The shield was decorated with relief bands depicting a procession of lions bearing soldiers in their maws; warriors riding their horses over enemy dead; and a parade of deities standing on the backs of their symbolic animals. Haldi is represented as a striding figure with a sunburst halo. For the 1994 report, see *KST* 17:1 (1996) 379–408.

**Ayanis Kalesi.** In the later, seventh-century B.C. Urartian citadel of Rusa II, whose monumental works have been reemerging since 1989 thanks to the excavations of Altan Çilingiroğlu, the great pillared hall in the upper citadel was opened up across a fourth, final pier to its eastern wall. Whether a second, parallel row of four piers lies to the south will await a coming season; in the previously excavated center of the room, the piers had apparently been robbed out during the Middle Ages. Walls preserved to a height of 4 m were painted blue along their lower half, and white above. They enclosed a rich collection of objects: in 1995, the area beside the fourth pier produced a limestone basin, more iron and bronze weapons such as spearheads and a shield, bronze and iron eagle-head nails, and a bronze lion head covered in gold leaf. The excavator proposes that all these finds, which are primarily military in purpose, served in religious ceremonies or as votives appropriate to Haldi, patron god of warfare. Elements for floor mosaics made of concentric bronze and limestone rings, and gilding for decorative rosettes indicate that their original setting was opulent. It may have been located on an upper story, however, according to stratification in the collapse. Thus the many timbers found in this hall were not roof beams, but parts of the ceiling.

The huge magazines on the citadel's west side were also followed farther toward its outer enclosure wall in 1995. The new wings contained the expected fur-

nishings: an additional 35 pithoi, still preserving traces of their cloth lids, which were sealed with clay tags listing volume and contents; many smaller vessels (pitchers, bowls) wedged between them; and a great bronze cauldron. Less expected were large, typically Urartian ashlar blocks found collapsed at one end. Were they recycled in a later structure – or do they indicate a superstructure for what was, in fact, a storage basement? These puzzles will be pursued in a future season. For the well-illustrated 1994 interim report, see *KST* 17:1 (1996) 363–77. Çilingiroğlu and M. Salvini discuss the site and Rusa II's building program in *SMEA* 35 (1995) 111–24.

**Karagündüz-Van.** While the river systems feeding the Van and Erçek lakes continued to flood low-lying districts in the entire region, Veli Sevin stepped up his program to salvage evidence from the mound at Karagündüz, which he would situate in the original heartland of Early Iron Age Urartian culture. This second, 1995 season expanded previous soundings into three of the mound's major components: the medieval cemetery that overlies it; the Urartian level, with Hasanlu IIIB ceramic parallels but a local pottery tradition, and large-scale architectural remains; and the 8-m-thick, Early Bronze/Early Transcaucasian phase with walls preserved nearly 2 m high.

In the Iron Age necropolis several kilometers east of the mound, the project's longer-term research was again guided by geoelectrical prospection. On the basis of this information, it was decided to open only one tomb, which indeed proved to be a previously unattested variant of the standard dromos and chamber type. At the back of the main chamber, which contained 15 individuals, a small niche led to a second, smaller room with another eight burials. Numerous gifts accompanied the deceased: many iron objects, including jewelry, and vessels for food offerings. Comparable finds from the necropolis in 1994, together with results from the mound excavations, are presented in *KST* 17:1 (1996) 337–61 and *Bulleten* 60:227 (1996) 1–20; for radiographic analysis of the metal finds, see *ArkST* 9 (1996) 75–89.

Paul Zimansky recently argued the need for research into local Urartian settlements, to assess by contrast the formal cultural trappings of state administration (*BASOR* 299–300 [1995] 103–15). The Karagündüz excavations are providing precisely this type of information, as Sevin explains in *Orient-Express* 1996, 89–92.

#### *Cilicia*

**Karatepe and Domuztepe.** An illustrated progress report on excavation and conservation work carried out during the 1993–1994 seasons has appeared in



Fig. 18. Kerkenes Dağ. Area D, magnetic map. (L. Somers-GEOSCAN, courtesy G. and F. Summers)

*KST* 17:1 (1996) 229–47. For research on which Domuztepe basalt sources furnished Karatepe with the raw materials for its orthostats and sculptures, see H. Çambel et al. in *Archaeometry* 94 (1996) 575–84.

**Kinet Höyük.** See above, under “Chalcolithic and Bronze Age: Southeastern Anatolia and Cilicia.”

#### *Central and Western Anatolia*

**Kerkenes Dağ.** Geoffrey and Françoise Summers’s third season of archaeological and geophysical survey, coordinating balloon photographs taken in previous years with ground-level topographic and subsurface features, brought further precision to the scale and character of this enormous Late Iron Age (second quarter of the sixth century B.C.) fortified city in the Cappadocian highlands east of Yozgat. They generously offer the following review of the 1995 results:

“The city plan can now be subdivided into different functional zones, whose buildings covered the entire 2.5-km<sup>2</sup> walled area. In contrast to the formal urban block layout and careful planning in the southern districts, structures within the lower area’s blocks were unaffected by controlling standards. Subsurface geomagnetic survey has documented the typical elements of these urban blocks with remarkable clarity. In area D, the large urban block’s enclosure walls

(fig. 18, left side) were visible on the surface and in balloon photographs, but its internal configuration, came as a complete surprise, since its many structures (modest two-room compounds with courtyards, and other units of rooms) are now buried. This and similar images from other areas show that the site consisted of a single building phase. Although the lower area’s blocks were fully occupied, the resident population cannot have numbered more than a few thousand, whose main role was to ensure the strategic and administrative control of the Anatolian plateau east of the Halys. City defenses and military installations had already been abandoned by the time the city was entirely devastated by fire, a conflagration that the subsurface survey has detected everywhere at the site.

“Regional survey was also conducted within a 5-km radius of Kerkenes, with the intention of charting settlement patterns from prehistoric periods through Achaemenid times. The earliest visible settlements were small, Late Chalcolithic/EB I sites located on higher ground, unaffected by the erosion that must have buried predecessors and larger contemporaneous sites on valley floors. Settlement was restricted to the lower valley during the later Early Bronze Age and was maintained in succeeding periods. In Achaemenid times, a presence at Kerkenes was confined

to the fortress on its summit, reinforced by strongholds on the surrounding peaks.”

A full, illustrated report on the Iron Age city, based on results of the 1993–1995 seasons, has appeared in *AnatSt* 46 (1996) 201–34, and a summary for 1995 in *AnatArch* I (1995) 22–23; for 1994, see now *AraşST* 13:1 (1996) 99–122.<sup>2</sup> Arguments supporting the identification of Kerkenes with Median Pteria will be presented in *JNES* 56 (1997), forthcoming. O.R. Gurney, in *AnatSt* 45 (1995) 69–71, proposes Kerkenes Dağ and neighboring Kuşaklı-Yozgat (to be distinguished from Kuşaklı-Sivas) as likely candidates for Hittite Mount Daha and Zippalanda, respectively.

**Göllüdağ.** The 1993–1994 survey seasons conducted by Wulf Schirmer at this late eighth-century B.C. fortified city high above Niğde are summarized in *AraşST* 13:2 (1996) 335–43.

**Gordion.** In 1995, G. Kenneth Sams again coordinated the Gordion project's many facets (environmental and ethnographic studies, publication research, excavation, conservation, and restoration) that are situating the site more firmly into its ancient human landscape. Field director Mary M. Voigt, College of William and Mary, kindly offers the following evaluation of the season's progress:

“Research since 1993 can now assess the growth and character of Gordion's urban system during the Middle and Late Phrygian periods (700–330 B.C.), when the city reached its maximum extent with three topographic zones covering more than 1 km<sup>2</sup>. The site's refounding in 700 B.C., after the catastrophic fires lit by Cimmerian raiders, involved ambitious planning. The Citadel Mound, for instance, was created by combining two preexisting high mounds into one broad expanse by means of a thick clay packing. This vast terrace then served to support two districts, separated by a street and with different functions: an elite quarter again on the east, with ashlar buildings enclosed in substantial walls; and a residential western district, for which no evidence for a protective enclosure has yet emerged. The new settlement also created a fortified lower town below and to the south of the citadel for a total of ca. 25 ha and extended over an outer town, now principally on the opposite bank of the Sakarya.

“The 1995 excavations took place in all three zones. In the lower town, two operations north and west of the Küçük Höyük produced evidence for the first occupations in several well-preserved architectural levels dated to the seventh and first half of the sixth centuries B.C. The earliest Middle Phrygian construc-

tion, to the north, involved the rubble foundations and massive ashlar walling for a formal building or terrace (fig. 19, far wall). It was razed and its ashlar recycled for a new building later in the same period. In contrast, the western area's Middle Phrygian pisé houses were built on more modest cobble footings, and laid out as units of rectangular rooms and courtyards, with little space between the buildings. A steatite mold for casting small jewelry suggests that one courtyard housed a workshop. During the Late Phrygian period (530–300 B.C.), all these buildings were replaced and cut into by a series of pit houses (fig. 20). Hearths found on the sunken floors of several confirmed that these were indeed semi-subterranean quarters rather than basements. At the bottom of a large trash pit were found three unconventional burials: a child and two adults—one of them pinned down by two large grinding stones—accompanied by a bronze bracelet, an iron knife, and many sheep/goat knucklebones or gaming pieces.

“Pit houses were also constructed during the Late Phrygian period on the Citadel Mound, where excavations in the western area traced a series spanning the entire phase. These gave important indications about the economy of Gordion as an Achaemenid city, when it expanded its manufacturing activities and became part of a long-distance trading network. Small workshops from this and previous seasons appear to have been distributed throughout the settlement. They processed a variety of materials, some locally available such as alabaster and antler, and others imported, such as gold, copper, and ivory. Surprising quantities of Attic and Lydian pottery, and rare Achaemenid imports together with their local imitations, were supplementing the native ceramic industry. The Persians also left their mark on weaponry: the large collection of metal arrowheads included bronze and occasionally iron socketed trilobates, a familiar type at contemporary sites in Iran. Public installations on the Late Phrygian citadel were less extensive, on the other hand, and their interpretation has proved problematic. For this season in particular, excavations on the south edge near the Mosaic Building (dug in the 1950s) discovered massive foundations for a wall with semi-circular engaged columns, perhaps its portico and part of an administrative complex.

“By the fourth century, however, Gordion was becoming increasingly Hellenized, in a process that eventually transformed the site's plan after Alexander's visit in 333/2 B.C. The street that had since

<sup>2</sup> The 1994 summary in *AJA* 100 (1996) 309 misrepresented the extramural temple's dimensions, which should

be revised to 25 m per side.



Fig. 19. Gordion. Lower town, north of Küçük Höyük. Middle Phrygian ashlar buildings, with earlier level in center at back. (Courtesy M.M. Voigt)

Middle Phrygian times divided the high mound into two districts was filled in to create a single citadel. Two phases of the Hellenistic town were excavated on the northwest slope overlooking the river. The town's earlier, residential level of stone and mudbrick houses was later buried under thick trash dumped by some nearby metallurgical industry. Toward the

mid-third century B.C., this area was redesigned with the construction of a huge wall and an ashlar building, which remained in use into Galatian times. The area of the lower town was abandoned and replaced by a cemetery. In 1995 the first of its formal (rather than sacrificial) Late Hellenistic burials was found, a wooden coffin for a young woman whose gold lion-



Fig. 20. Gordion. Lower town, west of Küçük Höyük. Late Phrygian pit houses in lower right and upper left, cut into a level of Middle Phrygian houses. (Courtesy M.M. Voigt)

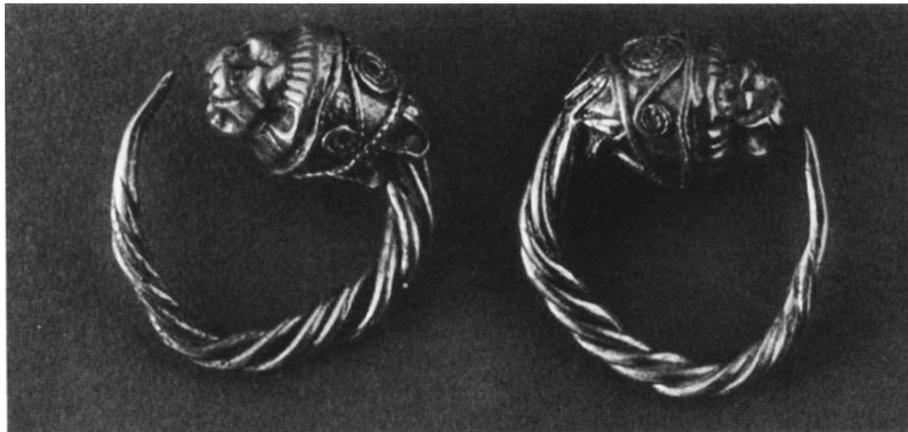


Fig. 21. Gordion. Gold earrings, from a burial in the Late Hellenistic cemetery overlying the Phrygian lower town. (Courtesy M.M. Voigt)

head earrings (fig. 21) match a type already known from the Galatian level on the citadel. The Late Phrygian residential outer town also went out of use at this time and became a cemetery, although its date has yet to be established. Gordion continued on this reduced scale throughout the Roman period after its refounding during the reign of Augustus.”

For a report on the activities of the 1994 season, see *KST* 17:1 (1996) 433–52. Another specialized study has appeared in the Gordion series: Irene B. Romano, *The Terracotta Figurines and Related Vessels* (Gordion Special Studies 2. University Museum Monograph 89, Philadelphia 1995). O.W. Muscarella coordinates the creation of the Phrygian state with Gordion’s late ninth-century monumental building program in *BASOR* 299–300 (1995) 91–101. Gordion’s Archaic roof tiles and reconstructed roofing systems are analyzed by M. Glendinning in *Hesperia* 65 (1996) 99–119.

**Şarhöyük/Dorylaion.** The 1995 season conducted by A. Muhibbe Darga continued to sound the north, west, and southwest slopes of this large, multiperiod site on the outskirts of Eskişehir. The Byzantine fortress crowning the mound was constructed immediately above and inside Late Roman housing, whose well-preserved plans included courtyards with silos, ovens, and bins. Several successive stages of Roman settlements were in turn founded on top of a Phrygian town of long duration, its eight levels on the western slope well synchronized with phasing at Gordion. Fine Ionian bowls and Wave-line wares also show that close ties existed with the Aegean coast during the Middle Phrygian period.

The earliest Phrygian settlement in the western trenches was constructed on bedrock and must correspond to a shift or expansion of the site in the Iron Age. An earlier, Bronze Age site lay to the south, where it was first exposed by a modern road up the

mound’s southern flank. Excavations here have uncovered very burnt housing dated by monochrome “drab ware” to the later Hittite Empire. Their building materials included generous use of wood, which contributed both to the severity of the fires and to the subsequent preservation of household furnishings. Among the finds from this period (but in Roman fill) was a clay bulla stamped with the hieroglyphic seal of a local ruler, who claimed the title LUGAL.KUR.

**Daskyleion.** This extensive site’s cosmopolitan character, already well established when the Persians chose it for a satrapal capital, continues to emerge with each of Tomris Bakır-Akbaşoğlu’s excavation campaigns. The 1995 season focused on the sanctuary to Cybele at Hisartepe, the earliest levels of which date to the Early Phrygian period (ninth–eighth centuries B.C.). In the mid-fifth century B.C., during the reigns of Artaxerxes I and the satrap Pharnabazos I, it underwent a complete transformation, perhaps for a fire altar more appropriate to Persian worship. Architectural changes included a more monumental scale, as observed from the construction of a massive temenos wall.

**Kaman-Kalehöyük.** The Iron Age phases are discussed above under “Chalcolithic and Bronze Age: Eastern, Northern, and Central Anatolia.”

**Pessinus.** For finds relating to the Phrygian period, see below, under “Classical, Hellenistic, and Roman: Phrygia.”

#### CLASSICAL, HELLENISTIC, AND ROMAN

##### *Pamphylia, Pisidia*

**Perge.** The 1995 campaign directed by Haluk Abbaşoğlu concentrated its efforts on the Hellenistic and Roman lower city, the necropolis, and the pre-

Hellenistic acropolis, with certain new components to the previous research areas. It also marked the jubilee of Arif Müfid Mansel's first investigations at Perge, a date celebrated by the completion of a new comprehensive site plan.

Stratigraphic soundings in the area of the towered gateway and oval court confirmed that the gate's flanking Hellenistic towers did indeed antedate the court, whose splendid original pavement and drainage system were partially revealed in the process. Immediately inside this impressive entrance, excavations continued in the block of two-storied Late Roman housing begun in 1989; the block is now tightly filled by five houses, two of them of atrium type. This neighborhood was continuously inhabited through the Early Byzantine period and has produced an exceptional collection of household and commercial furnishings, including glassware, more than 130 terracotta lamps, and unguentaria from the last decades of Perge's prosperity in the sixth-seventh centuries A.D.

Research in the necropolis was directed, as in recent years, to salvaging information left behind by illicit digging. After a fine sarcophagus lid carved with a woman reclining on cushions (the "Ariadne type") was found in a local garden during the winter, the Perge team returned to probe its findspot in the hope of recovering the woman's missing head. They came down instead on an apsidal crypt paved in mosaics, with an ashlar-lined cist grave cut into the floor of the apse. The sarcophagus lid would have sealed this grave. A second sarcophagus, this one of the garland type and with its lid intact, was also found nearby.

Soundings and survey were again carried out on Perge's acropolis in search of a Hittite settlement, whose existence is implied by a similar toponym on the bronze treaty tablet found at Boğazköy one decade ago. Bronze Age material was not forthcoming, but the project afforded a continuing opportunity to investigate the Hellenistic citadel walling. More evidence for a pre-Hellenistic presence came from wall spolia, notably a marble Herakles herm.

A combined report on the 1993 and 1994 seasons appears in *KST* 17:2 (1996) 107–20; the acropolis survey, begun in 1994 in collaboration with W. Martini, is summarized separately in the same volume, pp. 121–27. For the pottery from the southern bath complex, see N. Atik, *Die Keramik aus den Südthermen von Perge* (Tübingen 1995). Jale İnan's restoration project in the theater—still in progress despite earlier optimistic reports on its completion—is resulting in a precise evaluation of its building history in the Antonine–Severan periods, with repairs

in cheaper materials and the addition of a third story under the emperor Tacitus (A.D. 275–276); and in the identification of individual sculptural workshops, which show strong Syrian and eastern Anatolian influence.

**Silyon.** Michael Küpper began in 1995 a comprehensive survey of this elevated classical city and its associated countryside, 30 km northeast of Antalya. Some of the pottery would predate the earliest mention of the site in the fourth century B.C. A preliminary report has been published in *AA* 1996, 259–68.

**Side.** Ülkü İzmirligil's project to restore the entire theater proceeded in 1995 from the 24 diazoma staircases into the upper cavea. The problems that have pitted archaeologists and the ancient monuments against the tourism industry here will be alleviated by an official 1996 decision to declare the entire site, including the modern town, a protected zone.

**Sagalassos.** In the course of the 1995 season at this high Pisidian city, survey, cartography, environmental and geomorphological research, and the analysis of subsistence patterns and exploited resources proceeded in tandem with the more standard activities of excavation, conservation, restoration, and processing of finds. The vast scale and diverse results of this interdisciplinary archaeological program easily rival the largest archaeological projects in Turkey. Marc Waelkens, Catholic University, Louvain, kindly reports on his carefully orchestrated campaign:

"Excavations in 1995 again concentrated on this prosperous city's public monuments and civic areas, in a continuation of previous projects. At the northern end of the Upper Agora was exposed a larger section of its earliest structure, a Late Hellenistic 'market building' with storage rooms, together with an extension of its Doric, porticoed facade. Only the eastern 10 m of this building still stand, but it may once have spanned the entire width of the agora. Inside it ran a 1-m-wide vaulted tunnel made of large ashlar blocks (fig. 22) and set at a steep slope for a length of over 25 m (the end was not reached). A drain in front of its entrance suggests that the tunnel belonged to a water or sewage system. The building was later revetted with a pseudo-isodomic facade, and finally concealed by the ornate nymphaeum (A.D. 160–180), whose western half was excavated in 1994.

"The Upper Agora's nymphaeum was entirely cleared during this season (fig. 23), and its aediculated facade, created by alternating podia and niches on either side of a semicircular fountain, was



Fig. 22. Sagalassos. Upper Agora, north end. Tunnel inside the Hellenistic “market building.” Height 1.6 m, width 1 m. (Courtesy M. Waelkens)

fully defined and confirmed. Less expected were the conclusions regarding the nymphaeum’s subsequent modifications, particularly with respect to its sculptural decoration. Three more marble statues were found in association with the nymphaeum’s three eastern aediculae. The first, representing Asklepios (fig. 24), was sculpted by the same Glykon from Do-

kimeion who carved the Nemesis found in 1994. The second (fig. 25), a draped but headless woman, bore a dedication to Asklepios by Aurelian Neon. Finally, the corner aedicula—like its mirror on the west end—had contained a second Dionysus and satyr group (fig. 26), the largest of all these sculptures at nearly 3.10 m high. None of these, apparently, belonged to the original second-century facade display, as already indicated by variations in their sizes and the recutting of the aediculae to accommodate them. Statue bases and pedestals were also squeezed into the niches, which had not been intended to contain statuary, and the statues themselves form a disparate group collected from other monuments in the city. Since their inscriptions refer to the illustrious family of T. Flavius Severianus Neon, who constructed the Sagalassos library (ca. A.D. 125), it is tempting to see their descendants undertaking the reembellishment of this nymphaeum at the same time as the library itself was restored. The likeliest circumstance would be the brief pagan revival promoted by the emperor Julian (A.D. 360–364), when sculptures referring to the cults of antiquity could be resurrected from storage and put back in public view. But they too were soon pulled down, the corner aediculae were condemned, and the fountain was permanently exorcised by Christian symbols and an appropriate inscription.

“Work in the Lower Agora continued for a second year at its two extremities: on the large Roman bath complex that lined its northeastern corner, and at the agora’s south gate. A long stretch of the bath’s west facade, standing 15 m high and separated from the agora shops by a street, was freed of massive col-



Fig. 23. Sagalassos. Upper Agora, north end. Antonine nymphaeum (A.D. 160–180). (Courtesy M. Waelkens)



Fig. 24. Sagalassos. Upper Agora, north end. Asklepios statue from the Antonine nymphaeum. Preserved height 1.8 m. (Courtesy M. Waelkens)



Fig. 25. Sagalassos. Upper Agora, north end. Female statue dedicated to Asklepios, from the Antonine nymphaeum. Preserved height 1.6 m. (Courtesy M. Waelkens)

lapse, which was also masking the building's layout. Its ground floor appears to have functioned as a covered market independent of the upper complex, although the plan will become clearer once it is opened up in a coming season. The baths proper were installed on the upper story, where a hypocaust system was discovered on the floor of a large room on the southwestern side. Two vaulted passageways led down from it to the ground floor and to a network of corridors. The inner structure of the complex was supported by enormous brick vaults, still largely intact, while its stone revetment reused elements of Doric architraves from another building. At the southern end of the agora, more large-scale clearing allowed the completion of excavations around its formal gateway, which can be dated stylistically to the reign of Tiberius in the early first century A.D. It rose up at the top of a monumental stairway connecting to the city's main street (fig. 27)

and was maintained with repairs until the cataclysmic earthquake of the mid-seventh century.

"In the northwest sector of the city, a second season at the monument with the frieze of dancing girls clarified both its architectural features and its date. It consisted of a tall naiskos, 7.5 m per side and 3 m high, with a distyle-in-antis facade. Corinthian pilasters framed the four corners, and a tendril frieze ran along the top of the walls, as ground line for the chain of dancing girls that crowned the structure. A few more fragments were recovered for the 4-m-tall statue whose head was found in 1994. He can probably still be identified as Alexander the Great, since the city's eponymous hero was depicted on coinage in the guise of a soldier. The date for this hero, however, must be revised to the Augustan period because of the newly discovered architectural sculpture. The monument was repaired in the following century. Later still, a simple gate was erected



Fig. 26. Sagalassos. Upper Agora, north end. Second Dionysus and satyr group, from the Antonine nymphaeum's east corner aedicula. Preserved height ca. 3.1 m. (Courtesy M. Waelkens)

against its front, the first step in a slow conversion that concluded with the incorporation of the heroon and its neighbor, the Kakasbos temple, into the fifth-century fortifications and the reorganization of the water supply system.

"Sagalassos's water supplies and resources remain a long-term research project within the excavation's program, including a geological assessment of springs on the slopes east of the city and a geomorphological evaluation of erosion patterns, particularly where they affected the eastern aqueduct. Erosion would have accelerated during the later centuries of the Roman Empire, when pollen analysis indicates large-scale deforestation of native juniper, pine, cedar, oak, and olive forests, no doubt to feed local metalworking furnaces. The 1995 archaeological survey in the region identified some 40 previously unrecorded sites ranging from the Neolithic to Byzantine times and three Hellenistic watch towers that defended blind spots in the approaches to the city. Three potentially early rock-shelters in the region were also

tested with soundings, but they gave little evidence for pre-Roman use. Others in the future may prove more rewarding.

"Restoration of the city's outstanding monuments represents the final step in the project's excavation process. Thus, while the library and its neighboring Late Hellenistic fountainhouse (fig. 28) are nearly finished, attention has now turned to the Upper Agora's nymphaeum, to its statuary (some already on view in the Burdur Museum), and to the Roman bath." Progress reports on all aspects of the project have been collected in *Sagalassos 4* (in press).

**Pisidian Survey.** During a month of survey and planning in the highlands south of Burdur, Stephen Mitchell and his team concentrated on the three classical cities of Panemoteichos (Boğazköy), Sia, and Kaynar Kale (ancient Kodrula?) and their territories. All three preserve impressive elements of their Hellenistic and later fortifications, and the buildings they protected. On the acropolis above Panemoteichos was discovered a separate, earlier walled settlement, which is dated by the pottery to the seventh–sixth centuries B.C. This would be the first site from the earlier first millennium to be recognized in the entire region between Burdur and Antalya. Other finds included chipped stone blades typologically intermediate between Epipalaeolithic Karain and Neolithic Bademağacı. West of Panemoteichos, a fortress of atypical plan may represent a second-century B.C. garrison built by the Attalids to control the overland route toward the Aegean coast.

Final checks for the imminent publication of earlier surveys at Ariassos, especially its inscriptions, were also carried out on site; see now S. Cormack, *AnatSt* 46 (1996) 1–26. The 1995 findings are discussed in *AnatArch* I (1995) 15–18. For the 1994 Oinoanda and Balboura surveys, see *AraşST* 13:2 (1996) 71–80. The monument that displayed statuary to honor Demosthenes and his relatives at Oinoanda has now been identified and published by N.P. Milner and S. Hill in *AnatSt* 45 (1995) 91–104 and 46 (1996) 111–44; for the inscription, see now M.F. Smith, *The Philosophical Inscription of Diogenes of Oinoanda* (Vienna 1996).

#### Lycia

**Limyra.** Efforts to preserve Lycia's ancient and more recent past again marked the pace of the 1995 Limyra season, which was devoted to salvaging the ruins from old and new destructions, to excavation and conservation, and to replicating in wood the original architecture that the site's chamber tombs were themselves imitating. Wooden barns of this type were still being built in the region in this century.



Fig. 27. Sagalassos. Lower Agora, south end. Monumental stairway to Tiberian gate in its final, sixth-century A.D. version. (Courtesy M. Waelkens)



Fig. 28. Sagalassos. Late Hellenistic fountainhouse with restoration nearly completed. (Courtesy M. Waelkens)

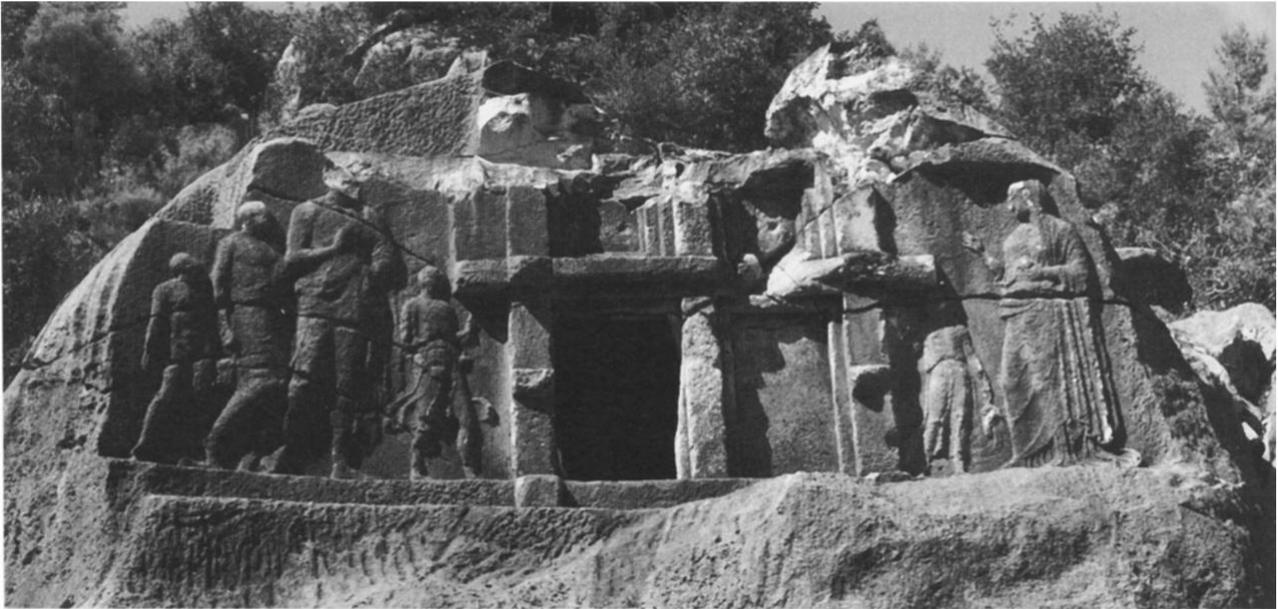


Fig. 29. Limyra. Rock-cut tomb in the Delicedere necropolis. (Photo N. Gail)

At Limyra, they are being reconstructed for display within the grounds of the site museum. In a similarly elegant and instructive gesture, the many colleagues, students, and friends of Jürgen Borchhardt celebrated his achievements (and 60th birthday) with a two-volume festschrift, *Fremde Zeiten* (Vienna 1996), edited by F. Blakolmer et al. Contributions cover the wide spectrum of Borchhardt's interests, from Lycia and Asia Minor to Greece, Italy, and the Roman provinces. Together with Martin Seyer, University of Vienna, he kindly offers this summary of the year's progress:

"One of the most ornate rock-cut tombs in the territory of Limyra, a freestanding monument whose architectonic facade is flanked by relief figures and supported a sarcophagus, was damaged by dynamiting during the last decade (fig. 29). This vandalism did draw attention to the tomb, however, and the 1995 investigation of its immediate surroundings discovered that it was laid out as a heroon. A gate, for which a gable fragment was found, gave access to a ramp leading up to the platform in front of the monument. Drainage channels cut along the side of the platform indicate that funerary sacrifices would have taken place there on an outdoor altar.

"Excavations continued on all phases of the ancient city. In necropolis V, the monumental free-standing tomb chamber 88, and tomb facade 89 to its east, were more fully exposed. Work also began on the Late Antique houses in the northwest district, to the west of the theater. The eastern, Byzantine sector was again investigated in the zone between

the episcopal church and the bishop's palace by opening up a longer section of the porticoed street, 10.85 m wide and oriented east-west, which first appeared in the 1994 soundings. It was found to intersect with a 5.6-m-wide crossroad leading south. The restoration program for the episcopal church also extended to its west wall, where three doors were freed from a mass of accumulated debris. Similar cleaning carried out along the Byzantine city's east gate uncovered a stele depicting an under-life-size, togate figure; the base still stood in situ beside the entrance, the upper sections fallen just beyond it (fig. 30).

"The ongoing survey to demarcate Limyra's territory returned to the area of Bonda Tepesi in the mountainous terrain between Beylemek and Finike. Research focused on the site of Ortasarı, where a large Hellenistic structure is surrounded by sarcophagi of Lycian type." Results of the 1994 season are reported in *KST* 17:2 (1996) 135-57.

**Letoon-Xanthos.** During Christian Le Roy's concluding season as director of the Xanthos project, excavations resumed in the Letoon to resolve questions still pending with regard to the historical sequences and plans of its monuments. In addition to continuing the inventory of hundreds of architectural fragments from the large temple's superstructure, a sounding against the north side of its stereobate gave clues of pre-Roman predecessors. Bedrock cuttings, followed by an independent phase of polygonal masonry, can be dated by the many finds from associated fill: especially Late Geometric, Oriental-

izing, Attic black-figure, and Hellenistic pottery, found together with metal objects and large quantities of animal bones. In the theater beyond the temenos, soundings to determine whether a stage building had in fact existed appear to have demonstrated its presence. A section in the central lower cavea also revealed six rows of seats, the Roman tribune, and a drainage system added in the third century A.D., when a rising water table was already causing difficulties.

Research also proceeded in many sectors of greater and central Xanthos, much of it in preparation for final publications. The supra-urban fifth-century A.D. villas, found in the course of the 1994 fortification survey, sparked an interest in reexamining comparable peristyle houses on the Lycian acropolis—the latter now preserved only in the excavation notebooks of the 1950s and 1960s, however. A study combining observations about these two residential districts is now in progress, while the ongoing survey continues to increase their documentation as well as the city's upper defenses. Excavations in the foundations of the Late Roman stoa demonstrated that they rested on bedrock, without any underlying precursors. In the Roman acropolis, however, soundings inside the fortification wall uncovered not only an inscribed Roman sarcophagus, but masonry and associated ceramics confirming that this area was included in the Classical and Hellenistic city. Restoration and conservation projects throughout the site were continued from previous seasons, particularly in the Byzantine church where the war against destructive weeds has yet to be won.

A detailed publication of the Byzantine basilica on the high acropolis at Xanthos by H. Canbilien, P. Lebouteiller, and J.-P. Sodini appears in *Anatolia Antiqua* 4 (1996) 201–29.

**Patara.** In conjunction with the 1995 city excavations, directed by Fahri Işık, which concentrated on the roadway near the Harbor Baths and on the fortifications enclosing the classical and later city, a third year of survey on the region's rich cemeteries gained momentum because of intensive development projects for holiday villages and especially access roads. Thus, Havva Yılmaz and her team were able to investigate five intact tombs whose dromoi had been exposed by a road cut. Together they illustrate, in good detail, the funerary customs practiced by Patarans during the Early Roman Empire.

Each dromos led down to one or several plain rock-cut chambers, their doorways blocked with squared stones. The tombs sheltered multiple burials, from eight to as many as 20 adults and children. The de-



Fig. 30. Limyra. Upper parts of stele with togate figure, in situ. (Photo N. Gail)

ceased were occasionally laid out on a bed of tiles, probably reserved for the latest occupants of the tomb. In all the chambers, however, one individual was also found lying in a cist cut into the floor and covered with a thin layer of earth. There were no cremations. Numerous grave goods allude both to religious beliefs and to the prosperity of their owners: terracotta figurines variously depicting doves, Aphrodite, and other deities; numerous unguentaria (one tomb contained more than 50) and glass amphoriskoi; metal objects—strigils, mirrors, and the lock from a box whose wood had perished; and several gold rings with bezel seals. Two individuals had been equipped for their voyage to the other world with a coin in their mouth: one of Germanicus, the other Trajanic. The others must have been left to rely on their wits, persuasion, or barter.

A full report on the 1994 findings has been published in *KST* 17:2 (1996) 159–84; it includes photographs of the inscribed blocks from the monument of Q. Veranius, where the local name of Trimili for Lycia is again confirmed. For discussion of a Mount Patara in the Lukka-lands, and Lycian Late Bronze geography, see M. Poetto, *L'iscrizione luvio-geroglifica di Yalburt: Nuove acquisizioni relative alla geografia dell'Anatolia sud-occidentale* (Studia mediterranea 8,

Pavia 1993); J.D. Hawkins, *The Hieroglyphic Inscription of the Sacred Pool Complex at Hattusa (Südburg)* (Studien zu den Boğazköy-Texten 3, Wiesbaden 1995); and O. Carruba, in F. Blakolmer et al. eds., *Fremde Zeiten* (Vienna 1996) 25–39.

**Arykanda.** Cevdet Bayburtluoğlu and his colleagues conducted limited excavations in the Late Antique and Byzantine housing districts on the central and southern terraces, and restoration in several areas, notably the Odeon. The site's decline in Late Byzantine times, in contrast to its elegance and prosperity in the earlier Byzantine period, is apparent throughout the site. For the 1994 season, see *KST* 17:2 (1996) 129–34.

**Hacimusalar-Elmalı.** In 1995, a second excavation season, conducted by İlknur Özgen at the largest mound in the central Lycian plateau, uncovered further remains of the site's latest occupations. Domestic structures built of mudbrick on stone foundations and furnished with storage vessels and sheds can be dated to the Late Roman–Early Byzantine transition by associated pottery and coins. This settlement, to be identified with Byzantine Choma, was fortified at least on its western side. Cist burials were cut into the mound's eastern slope during the same (or a slightly later?) period. Marble architectural fragments and a large terracotta foot shod in a sandal—all recovered from mixed fill—promise that earlier phases here will illustrate the monumental features of a classical urban center. The sophistication of its residents was already well illustrated by the many tombs with fine funerary sculpture and inscriptions found in the hills that ring the plateau. Survey also located highland industrial sites with pottery kilns.

**Kyaneai.** The fourth, 1994 installment of Frank Kolb's intensive survey in Kyaneai and its territory appears in *AraşST* 13:1 (1996) 245–69.

**Tlos.** A survey of the area controlled by this distinguished highland city, 10 km upstream from Xanthos, was begun by Havva Yılmaz and her Patara colleagues in 1994 and continued in 1995. The first report is published in *AraşST* 13:1 (1996) 185–203.

### *Caria*

**Kaunos.** Large-scale conservation and restoration projects were the focus of the 1995 season, in the line of the past few campaigns to resurrect this city's classical monuments from later rebuildings and unchecked vegetation. Thus, Cengiz Işık retrieved two more fragments of the Protogenes monument from a Byzantine house wall and spolia from other monuments and buildings of the fourth century B.C., the time of Kaunos's great expansion. Soundings along the sacred road to the acropolis revealed portions

of isodomic terrace walls for a temple; although its attribution is at present unknown, textual references to an Apollo cult somewhere within the city might refer to this structure. Several monuments in the extensive extramural necropolis, today in the midst of olive groves, were freed from choking undergrowth. Finally, the systematic cleaning of debris accumulated over the centuries in the Roman baths made good progress toward converting the building into an official museum and storage facility. For the 1994 report, see *KST* 17:2 (1996) 229–39.

**Burgaz-Datça.** Numan Tuna's third salvage excavation campaign, at the site proposed by Bean and Cook to be the precursor for Hellenistic Knidos, recovered more examples of urban residential structures and paved streets with sequences dating to the Archaic and Classical periods, and a fortification system constructed ca. 400 B.C. Sherd scatters from erosion layers, and from mixed Classical fills, extended the site's occupation back to the Late Geometric eighth century B.C. In later periods, the settlement took on a less formal character. The Hellenistic remains belonged to farmsteads with storage facilities; a large press (for wine or perhaps perfume), excavated in a northern sector overlooking the sea, was part of such an establishment. The Roman site was primarily a cemetery.

Geophysical survey, also carried out in 1995, located a northern harbor that was attached to the extensive lower town and would have supplemented the port facilities flanking the base of the acropolis. The artificial moles for all of these harbors date to the fourth century B.C. and functioned at least through the Hellenistic period. Skeletal remains from an intact Roman tomb excavated in 1994 are analyzed by A. Sevim in *ArkST* 11 (1996) 1–17.

**Knidos.** The 1995 season was devoted primarily to cleaning and maintenance of the main site and its southern promontory, with occasional soundings to check the street grid and arrangement of terraces. Ramazan Özgan also supervised the removal of non-inventoried finds, spanning 25 years of excavation, from their site depot to the Bodrum Museum's store-rooms. In the process were noted a large collection of molds for "megarian" bowls.

**Hisarönü-Marmaris.** Ersin Doğer spent a third season documenting one center of the Rhodian Peraea's amphora industry to the southwest of Marmaris, where road cuts, asphaltting, and dense forest would have defeated systematic investigation were it not for highly successful geophysical prospection. The 1995 excavations recovered further evidence for the potters' workshop(s) that spanned most of the third century B.C. Their dumps produced ca. 2,200

stamped handles (and as many plain), providing the names of some 60 Rhodian magistrates. The earliest potters attested here were Astos and Antileon. They were followed by Hierotheles, whose 18 different stamps would account for 44 years of participation in the amphora enterprise. His final years, ca. 215–210 B.C., overlapped with the start of Dionysios's production. The stamps of other potters active during the same period were also found in these dumps: Anaksilas, Nikolaos, Kallikrates, Lysandros, and Pausanias, in this order but with overlaps as well. Most of their stamps were round, the designs standardized and slowly modified over the decades, as the Hierotheles series illustrates with precision. The deposits ended ca. 200 B.C., when these factories ceased to operate for at least one century. Curiously, the dumps contained only handles and bases, but no body sherds, which must have been recycled as sherds or ground up for temper.

**Bodrum/Halikarnassos.** The 1994 season, as described in *KST* 17:2 (1996) 241–43, was devoted to conservation and prepublication analysis. Poul Pedersen also announced the inauguration of *Halikarnassian Studies*, a journal whose first volume was published in 1994. It includes articles on the intact tomb discovered in 1989, said to belong to Mausolus's sister Ada. Forthcoming issues will contain final reports on the recent cycle of excavations. The city's fortifications are discussed in *REA* 96 (1994) 215–36. W. Hoepfner reviews Pliny's commentary on the Mausoleum in the light of these excavations in *AA* 1996, 95–114.

**Iasos.** Italian-Turkish cooperation was officially celebrated at Iasos on 13 August 1995 when its new museum opened in the restored Roman mausoleum known as the "Fish Market." Over 200 objects from the site and the region have been put on display, with sculptures and inscribed monuments given pride of place. A museum guide is promised for 1997.

Fede Berti, project director, also reported the results of E. La Rocca's collaborative research in the extramural sanctuary on the acropolis of Çanacık Tepe. An inscription found in 1995 conclusively identified its deity as the goddess Cybele, whose statue, now in the Milas Museum, shows her flanked by rams. The statue would have been set up in the cella over a spot marked by a rubble-filled hole, perhaps of cultic nature, that was cut into the floor. Soundings at the base of the sanctuary's access steps uncovered a rectangular structure aligned with the temple's axis, interpreted as the temple platform. A Hellenistic coin dates the first constructional phase of this sanctuary. For a 1994 summary, see *KST* 17:2 (1996) 199–207.

**Stratonikeia.** Yusuf Boysal and his team turned their attention in 1995 beyond the classical city to a necropolis 6 km away, where a lignite mine and looters had already wreaked much havoc. Only one tomb was found still intact. Like its less fortunate neighbors, it consisted of a dromos leading to a chamber, both of them dug into soil, and was lined with ashlar for the door frame and chamber. The tomb housed inhumations and cremations in pots. Pottery gifts date the burial to the end of the Hellenistic period.

Survey in the region followed a nicely paved ancient road over several kilometers, from the city proper to the necropolis and to several springs, in the direction of Turgut.

**Lagina.** Ahmet Tirpan's third season in the Stratonikeian sanctuary to Hekate of the Crossroads, whose name is invoked by inscriptions along the sacred road linking the city to Lagina, cleared and restored more of the area around its propylon. The sacred road can now be seen to have ended in a semicircular, apse-like portico. From here, steps led up to the raised gateway and down again into the temenos proper, where a paved road led to the sanctuary's altar. Architectural fragments date the portico's construction to the mid-second century A.D. Further cleaning was also carried out in the temple proper, and a few of its columns were reassembled.

In the necropolis that lined the sacred roadway, the salvage excavation of one disturbed Roman burial afforded the opportunity to examine this typical chamber tomb fully; a dromos led to a marble-lined chamber that contained a kline and many terracotta lamps. A summary report on the two previous seasons has been published in *KST* 17:2 (1996) 209–27.

**Milas.** Standing monuments in Mausolus's first capital at ancient Mylasa, together with the fortresses, cemeteries, and aqueducts in its surrounding territory, are being inventoried and planned in a survey project conducted by Frank Rumscheid since 1994. Results of his first season are summarized in *AraçST* 13:1 (1996) 77–98. Salvage excavations undertaken in the region by the Milas Museum are reported in *MKKS* 6 (1996) 243–53 (a marble peristyle basin) and 255–71 (an intact Hellenistic chamber tomb).

**Nysa.** Vedat İdil spent another season clearing vegetation and earthquake collapse in the university town where young Strabo received instruction. For Strabo's commentary about preclassical Carian burial practices in the region, notably in caves, see R. Marchese in *Anatolica* 22 (1996) 227–35.

**Aphrodisias.** In 1995, remote sensing was added to the battery of methods that the current Aphrodisias project, directed by R.R.R. Smith and C. Ratté,

has been applying to analyze the ancient city's urban system. Geophysical (especially resistivity) survey of the unexcavated 4 ha that separate the Aphrodité temple from the stadium revealed the street grid plan continuing without interruption from the layout documented in previous seasons. A slight shift in orientation occurred only at the northern end, where a major road was made to run parallel to the stadium. Soundings here both confirmed the survey's accuracy and provided further precision regarding the reorganized city; its blocks were based on a square module of 120 Roman ft (35.5 m), and the new grid program can be assigned to the time of Julius Caesar and Octavian. The North Agora and bouleterion ("Odeion") were designed together as part of this program, since they shared the same central axis. Their adherence to the new grid was reconfirmed by a 1995 trench in the North Agora's unexcavated southwest corner, whose stylobate came to light exactly where it was anticipated. Further investigation of the civic buildings framing the bouleterion also clarified seeming irregularities in their adjustment to the grid; they were reusing two L-shaped stoas belonging to the preceding urban plan and realigning them to fit the new system. A plan of the civic buildings and their modifications over six centuries of use was completed during the season.

Other 1995 projects carried out by a team of more than 40 specialists involved mapping, continuing analysis of previously excavated materials, and site and finds conservation, the latter encouraged by an ongoing systematic inventory of thousands of sculptural fragments being reshelved in the newly built depot. Notable discoveries included missing limbs for the Old Fisherman from the Hadrianic baths; two toes for the large Satyr; and a fragment of decorated shield for the Zoilos Frieze's Andreia ("Bravery"). A new restoration of the "Young Togatus" (ca. A.D. 120–140) required a creative and more accurate solution to compensate for his missing foot and plinth. This local aristocrat, whose soft boots and ring identified him as a member of the equestrian class, has at last resumed his proper stance in the site museum's display room. An additional report on the 1994 season has appeared in *KST* 17:2 (1996) 185–97, a shortened version of *AJA* 100 (1996) 5–33; for the 1989–1992 campaigns and specialized studies on Aphrodisian topics—some of them presented in the Fourth International Aphrodisias Colloquium (1992)—see *Aphrodisias Papers* 3 (*JRA* Suppl. 20, 1996) and for the 1995 campaign, *AJA* 101 (1997) 1–22.

**Herakleia am Latmos.** Anneliese Peschlow-Bindokat proceeded in the 1995 campaign with her survey program of past seasons, following the roads

that led from the classical city up to remote sanctuaries in the Mt. Latmos/Beşparmağı range and investigating the many sanctuaries themselves, strongholds of Carian cults that flourished on what must have been considered a sacred mountain. The 1994 season is reviewed in *AA* 1995, 789–92, and a comprehensive publication about the ancient Latmos area has appeared: A. Peschlow-Bindokat, *Der Latmos. Eine unbekannte Gebirgslandschaft an der türkischen Westküste* (Mainz 1996).

For symbolic manifestations of a more remote era—the prehistoric cave paintings discovered by the survey in 1994 and 1995—see above, under "Palaeolithic."

**Harpasa/Esenköy.** The Franco-Turkish epigraphic and archaeological survey led by Enver Varinlioğlu and P. Debord continued its comprehensive mission of epigraphical research, topographical and architectural planning, and selective soundings in the Akçay (Harpasus) Valley west of Aphrodisias. Documentation of the major center at Harpasa/Esenköy was completed in 1995, and a comparable two-year project was begun 40 km to the southwest, at Haydere. This second city consisted of a fortified fourth-century B.C. acropolis reworked in the Hellenistic period, and, beyond it to the northeast, a sacred enclosure with several shrines. Inscribed statues, found in past years and now in the Aydın Museum, could identify the site as ancient Piginda, a Greek deme and seat of a Ptolemaios clan. A 1994 progress report has been published in *AraşST* 13:1 (1996) 123–30.

#### *Ionia*

**Didyma.** The 1995 season conducted by Klaus Tuchelt maintained its double program of previous years: large-scale preservation efforts concentrated on the Apollo temple and its immediate vicinity; and excavation and survey along the Sacred Road, which Milesians followed in their annual pilgrimage to the oracular deity's sanctuary. Both areas illustrate the complexities involved in unraveling the history of a cult center where successive generations sought to erect increasingly elaborate testimonials of their devotion. Thus, at the northern entrance into the sanctuary, near the Yenihisar mosque, traces of a large Roman building leading into the festival square were much modified by Byzantine porticoes and burials connected with the mosque's first incarnation as a church. A layer of plastered blocks associated with Archaic pottery and followed in 1995 from inside the mosque to outside its walls can still be suggested as the altar of a much earlier temple. Possible architectural elements for such a temple, or another, smaller sacred structure, have come to light over the

many years of excavations: frieze elements depicting a Gorgon and lions in the Istanbul and Berlin museums; a lotus and palmette sima block; and another fragmentary lion head in the same Archaic style, found reused in the foundations of an Early Hellenistic monument on the west side of the Sacred Road. Assigning a precise location to this Archaic building remains a greater challenge. Other project efforts, e.g., to reconstruct the diachronic water supply systems to the sanctuary, its regional network of ancient sites, and some of its rituals (notably through faunal analysis of discarded animal sacrifices, for which cattle were the preferred offering) are providing more immediate returns.

Conservation of the standing temple involved, as in past seasons, redressing the damage of earlier restoration programs and of poorly conceived site enhancement. Iron clamps to attach electrical cables for night illumination have rusted and exploded the marble into which they were drilled. Vegetation has caused similar harm, although its removal and the resetting of stylobate blocks have been rewarded by the discovery of coins placed between them during construction. Finally, the temple's collapsed enclosure wall needs rebuilding, which cannot be attended to so long as a modern road continues to run on top of it. It will be necessary to redefine Didyma's official historic district before any broader program can begin. For the 1994 season, see *KST* 17:2 (1996) 75–84 and *AA* 1995, 786–88.

**Miletos.** The Archaic settlement at Miletos acquired a more precise definition on several fronts in 1995, thanks in part to guidance and support provided by rediscovered daybooks from the 1906–1907 excavations. Volkmar von Graeve, Ruhr-Universität, Bochum, kindly offers the following remarks on this and other aspects of his 1995 season:

“Research on Archaic Kalabaktepe progressed to conclusive results in three separate areas. The rediscovery of A. von Salis's 90-year-old notes about his unpublished excavations on the summit's northwest edge led directly to its circuit wall, for which a further well-preserved and representative section was exposed this season. It was built of mudbricks on a 1.2-m-wide stone foundation toward the middle of the sixth century B.C. and destroyed at some point in the ensuing decades. A subsequent level of flimsy domestic structures, resembling a squatter occupation, was in turn replaced by a new fortification system datable to the late fifth century B.C. Marble construction blocks and a fragmentary marble basin reused by the squatters suggest that an Archaic sacred or public building, as yet undiscovered, was located nearby.

“The 1906–1907 notebooks also facilitated the re-investigation of A. von Gerkan's trenches on Kalabaktepe's east terrace, where he claimed to have identified a temple to Artemis Chitone. His foundations can now be interpreted as a residential structure; however, east of it were uncovered traces of a much larger construction (ca. 11 × 20 m), for which a sacred purpose can indeed be argued. This building was preserved only by bedrock cuttings and two parallel rows of relocated tufa-like blocks. The large terracotta sima now in Berlin also belongs to this monument, rather than to von Gerkan's. The remainder of the building's superstructure had been robbed out to build, i.e., a flight of steps scaling the terrace's enclosure wall to reach the post-Archaic occupation that overlay it. A deep sounding dug against the terrace wall recovered secondary deposits with Geometric pottery, indicating intensive use of the terrace as early as the eighth century, and a fragmentary bronze Archaic vessel inscribed with a dedication to Artemis. Thus, it seems reasonable to endorse—with modifications—von Gerkan's attribution of this terrace to her cult, which Kallimachos claimed was established in Miletos at the time of the city's foundation. The contemporary Aphrodite sanctuary on Zeytintepe is today far better documented, however, through excavation and especially because of the richness of its deposits; the 1994 salvage work alone produced ca. 1,500 inventoried objects, all of them votives offered by two centuries of pious Milesians.

“The fortified enclosure of the Archaic residential district on Kalabaktepe's south slope, where excavations have continued since 1993, was expanded this season by a large brick platform extending inside and up to the southwestern gate. Broader exposure in the northwest district, on the slope overlooking the Early Archaic kilns from previous campaigns, uncovered two surprisingly complete house plans spanning the second half of the seventh to the late sixth centuries B.C. Floors, hearths, post-holes, and other furnishings could be attributed to three distinct phases. Numerous elements of a terracotta sima with molded decoration, from the final phase of one house, indicate the precise assembly and ornate design of its late sixth-century roofing system.

“Von Salis's rediscovered daybooks also provided valuable assistance in completing the excavation and conservation project in the Kazartepe necropolis, since they offered an efficient identification of all 67 burials that he had found in 1906. Their reexamination, and an additional 55 newly recorded tombs, now form an extensive source on Ionian burial prac-

tices of the Archaic to Hellenistic periods. (The necropolis and its monuments are being arranged as an open-air museum for tourists.)

“Efforts to find concrete evidence for a long wall linking Kalabaktepe to the main city’s fortification system proved less successful. Geophysical research carried out in the previous season was followed up with two soundings in 1995. Exceptionally swampy conditions and a high water table in the area of the first sounding, outside the Sacred Gate, obscured the archaeological situation such that results were inconclusive. The second sounding, however, on higher ground, produced Archaic deposits in connection with a deep foundation cut, but its building stones had long since been robbed out by later builders.

“Other projects took geophysical, geomorphological, and conservation specialists to various areas both within Miletos and throughout its territory, as in the past few years. One important issue now being tested through cores involves dating the formation of the Milesian peninsula and determining whether Bronze Age Miletos was established on an island rather than attached to the coastal land mass. One can also announce major progress toward resolving the problem of the site’s annual winter flooding; it may be possible to divert the water flow, without unduly sophisticated engineering, into an old bed of the Meander.”

A summary of botanical, faunal, geophysical, and related studies (U. Yalçın) appears in *ArkST* 11 (1996) 151–80; for chemical analyses of amphora clays, and the import-export trade in pre-Classical Miletos (M. Seifert and U. Yalçın) see *ArkST* 11 (1996) 117–38.

**Priene.** The program of prepublication research, restoration, and regional survey directed by Wolf Koenigs continued in 1995. For the previous season, see *AraşST* 13:2 (1996) 345–71. The Early Christian church is presented below under “Byzantine Surveys.”

**Magnesia ad Meandrum.** Cleaning and inventorying the many collapsed elements of Hermogenes’s Artemision led Orhan Bingöl to review its roof construction in 1995. The curious block with sloping cornice and door frame, which Humann placed in the center of the pediment to display a statue of the deity, could, in fact, represent an open window through which (moon)light would have shone on the cult statue inside the cella. This window would have been situated most effectively in the roof, although light wells or impluvia of this sort are otherwise attested only in wood. In the theater, energetic clearing of vegetation and alluvial deposits produced several finds (a votive plaque, a lead sheet, and another, gilded one) inscribed with the name of Aphrodite

Leukophryene, whose festivals may have used this gathering place also. Less cultic, but essential to the proper maintenance of this popular pilgrimage center, was a well-appointed public latrine located outside the temple enclosure to the northwest; after several years of excavation, its restoration was begun in the course of this season. A progress report on the 1994 campaign appears in *KST* 17:2 (1996) 85–94.

**Ephesos.** The Ephesos excavations celebrated their centenary in 1995, their 42nd continuous season, with a team of nearly 100 members under the directorship of Stefan Karwiese. He also marked the occasion by welcoming students from 22 countries for a three-day symposium on the recovery and rebuilding of this ancient port—a more appropriate event than the use to which the Selçuk municipality would put it: camel-wrestling festivals in the stadium, for example, or renting out the theater for weddings. At a site that already receives unusually high numbers of tourists, any exceptional strain on its monuments must be considered intolerable.

The excavation project, nevertheless, has devoted its past decades to making Ephesos more comprehensible to visitors. Conservation and restoration efforts focused in 1995 on the Augustan Doric gateway—never completed, but reflecting the city’s ambitious growth during the Early Empire—to the commercial agora, where soundings into its earlier phases produced wasters from a nearby kiln that manufactured “megarian bowls”; on the west end of the main street or Embolos, where city notables dedicated honorific monuments and tombs beside the Hellenistic Androkloneion; and on the harbor gates, once again revealed thanks to the removal of exuberant shrubbery. The stadium also claimed renewed attention; excavations begun at its elliptical, eastern end were rewarded by good preservation and a coin hoard dating from the reign of Domitian to the mid-third century. Excavations in the Artemision and the Church of St. Mary were suspended for this season.

Other projects included continuing geomorphological investigation of the harbor and the completion of a comprehensive guidebook: S. Karwiese, *Groß ist die Artemis von Ephesos* (Vienna 1995). Karwiese has also published a first installment of the site’s numismatic history: *Die Münzprägung von Ephesos 1. Die Anfänge: Die ältesten Prägungen und der Beginn der Münzprägung überhaupt* (Vienna 1995). For the 1994 campaign in brief, see *KST* 17:1 (1996) 475–86. A trio of marble portraits are reassigned by S. Dillon to the illustrious mid-second-century A.D. Ephesian Publius Vedius Antoninus in *JRA* 9 (1996) 261–74.

**Claros.** Juliette de la Genière and her colleagues succeeded in recovering further aspects of the Ar-

chaic phase of the Artemis and Apollo sanctuaries, which ambitious restructuring in the second century B.C. concealed but fortunately did not obliterate. The northern, Artemis sanctuary can now be traced back to its formal, mid-sixth century B.C. elements: the altar, as demonstrated in 1994, occupying the same position as its (two) Hellenistic successors; and a building to its west, of which two rooms were exposed in 1995. The eastern room was laid out nearly square (8.0 × 7.5 m) with orthostat foundations for a mud-brick superstructure and a pair of interior columns; in a later stage, the east facade was reworked for two corner and two median columns, and the floor was raised to support four columns inside the room. The entire structure was condemned and filled in by the fourth or early third century B.C. It was in the context of this Archaic structure that Timonax, son of Theodoros, dedicated to Artemis the inscribed kore discovered during L. Robert's excavations and now in the Izmir museum. His dedication was unexpectedly increased in 1995 by the chance discovery of a second inscribed statue, this one male and for Apollo. In a sounding intended to expose the southern access into the sanctuary and beside an honorific monument to L. Valerius Flaccus, son of Caius—perhaps already damaged when an earthquake devastated this street in A.D. 40—were found two colossal Ionian kouroi, which were incomplete when they were carefully laid to rest in this spot. Timonax's kouros is preserved from waist to knees, enough to include the inscription along his left thigh. The other, anonymous but similar, is missing only his arms and lower legs and would originally have stood ca. 2.10 m tall. Like the kouros found in earlier excavations and displayed in the Izmir museum, he once held a small animal for sacrifice.

The extravagant sacrifices intended for Apollo in the reorganized second-century B.C. sanctuary can be fully appreciated with the conclusive discovery in 1995 of the complete extent of tethering blocks: four parallel rows extended in a north-south alignment over a full 50 m in front of the temples, with the Apollo temple as their central axis. A bull would have been tethered to each block. For a summary of recent campaigns (including 1995 and photographs of the new kouroi), see *Anatolia Antiqua* 4 (1996) 303–309; the 1994 season is outlined in *KST* 17:2 (1996) 47–55. J. Marcadé discusses the colossal statue triad from the Apollo temple and their reconstruction, in *REA* 96 (1994) 447–63.

**Colophon.** Juliette de la Genière questions whether the city of Colophon remained unwallled until the later fourth century B.C. in *REA* 96 (1994) 137–40.

**Klazomenai.** The results of Güven Bakır's 1995

excavations in Klazomenai's Akpınar pre-Classical necropolis provided startling evidence for redating the painted terracotta sarcophagi for which the site is famous and a secure sequence for the shift in burial practices from cremation to inhumation. Intact burials of both types contained gifts that permit precise correlations with mainland and East Greek ceramic styles. Thus, the sarcophagi contained Early Corinthian and Wild Goat Style vessels (primarily alabastra and aryballoi) that date them securely to the last quarter of the seventh century B.C., an assessment independent of their painted style and a full century earlier than previously thought. Similar criteria and archaeological contexts demonstrate that cremation ceded to inhumation in these sarcophagi ca. 625–600 B.C., earlier than in comparable cemeteries such as Rhodes.

Four terracotta sarcophagi, together with their burial gifts, were discovered in the course of the season. The first was covered with a gabled lid (in several sections) painted with birds and a funerary scene: a four-wheeled cart, pulled by two horses and bearing the deceased flanked by two mourning women and a second male figure. A second sarcophagus, also rectangular, was decorated with a fanciful animal flanked by two lions. The third sarcophagus was designed to imitate a wooden box, painted on its sides with separate scenes of a lion hunt and a boar hunt, and rosette fillers. The fourth, an apsidal version, was entirely painted—inside and outside—with floral motifs. It contained the most remarkable vessel from the entire inventory of gifts: a splendid, shiny gray Corinthian aryballos, its spout modeled and incised to represent a female head and its overall effect resembling metal. The excavators suggest that imitation also determined the appearance of the sarcophagi themselves: they seem to be a local adaptation in clay of wooden coffins, and the apsidal form a specific reminder of Egyptian coffins. When the cemetery was revived in the fourth century B.C., inhumations occasionally occurred in amphoras.

The campaign also continued its research from previous years in the Archaic district that housed an olive oil factory and in the ancient harbor, now submerged and requiring underwater survey. A report on the harbor is published in *AraşST* 13:2 (1996) 43–49.

**Metropolis/Torbali.** In 1995, Recep Meriç and his team confirmed many of their findings from previous seasons regarding the site's occupational history and two of its monumental structures. Another stratigraphic sounding on the acropolis, inside the Hellenistic fortress, cut through mixed deposits that nonetheless pointed to some Early and Middle

Bronze settlement preceding the known Iron Age phases; a gap for the fifth and fourth centuries B.C., as noted elsewhere; and, after a flourishing Hellenistic period, a decline during the Roman era. The acropolis was then reoccupied in Late Byzantine times and finally abandoned ca. 1300. A similar sequence had been noted in the lower city. Thus, new excavations in the Byzantine church, whose apse was promptly located, gave unexpected chronological results; associated coins and pottery place its construction in the Justinianic period, much earlier than research in other parts of the site would have suggested.

Metropolis achieved its most ambitious architectural moment during the Hellenistic period, as illustrated by the exceptionally well preserved theater and fine stoa. The 1995 clearing of the cavea's western sector revealed another chair, carved in relief with griffins on the sides and a palmette at the back, for a city dignitary. Work on the stoa, built in the third century B.C., progressed from excavation to analysis. A preliminary report for 1994 has been published in *KST* 17:2 (1996) 37–46.

**Bayraklı-Old Smyrna.** The program of recent years was maintained by Meral Akurgal for the 1995 season, with excavation in the lower reaches of the Archaic fountain uncovering more of its piping system below the present water table. Careful study of Archaic spolia recycled into the later sanctuary's eastern podium wall produced further elements for its sixth-century B.C. predecessor; it is now attested by seven volute capitals, fragments of bases with similar size but three different profiles, and frieze blocks with floral decorative motifs. For an illustrated discussion of the fountain and the Archaic temple, see *KST* 17:2 (1996) 27–36.

**Manisa.** Regional epigraphical material from the classical period has been published by H. Malay, *Greek and Latin Inscriptions in the Manisa Museum* (Vienna 1994). Malay also edits *Arkeoloji Dergisi*, a journal devoted to epigraphical and related archaeological studies produced by his department at Ege University (Izmir). Volume 4 appeared in 1996, with contributions in Turkish, German, and English.

### *Lydia*

**Sardis.** The Sardis Expedition pursued its ongoing projects of conservation, remote sensing, topographic survey, and specialist studies in conjunction with excavation of the Lydian capital's massive fortifications and its elegant Late Roman residences. C.H. Greenewalt, jr., University of California, Berkeley, kindly reports on the 1995 campaign, which produced—as is customary at Sardis—its share of unexpected discoveries:

“Roman Sardis revealed more of its features from several different angles during the course of the season. Geophysical survey, backed up with soundings, detected architectural remains dating to the Roman period in a valley 600 m west of the Pactolus, where Herodotus and surface material have promised a far earlier occupation. A Late Roman district was also discovered 200 m east of the Bath-Gymnasium Complex by using the same techniques, which duly noted a street lined with buildings lying immediately below the modern surface. These findings, and a marble grave monument with a Latin epitaph from a western necropolis, can now be placed within the broad context of greater Sardis with unprecedented visual precision, thanks to a magnificent series of newly released 1:2,000 topographic site maps, covering over 100 km<sup>2</sup> and the entire extent of its cemeteries.

“In the Late Roman (fourth–seventh centuries) suburb at the northwest foot of the Acropolis, excavation on the south side of the colonnaded street proceeded, exposing parts or all of a residence's four interconnected rooms (fig. 31). The entrance hall (fig. 31, lower right) was furnished with a water tank and embellished with figural paintings (fig. 32), of which fragments were recovered from a wall above its arched window. The hall gave access to a large room, perhaps a triclinium, whose shallow dais was marked off by an opus sectile border. A broken but complete marble sigma table (fig. 33) was found collapsed onto the dais, which—curiously—was paved not in marble but with perforated tiles. Tableware included African Red Slip and Asia Minor Light Colored plates and dishes, and a molded pilgrim flask showing St. John the Baptist (fig. 34) and, on the other side, the Virgin and Child. This room was also plastered and painted with a dado imitating variegated stone and designs, some of them floral, in the upper zone(s).

“Continued excavation of the Archaic stratum, which underlies the Late Roman suburb, articulated further elements of its massive Lydian fortification system. Two earlier phases in its construction are to be dated by associated finds to the later seventh or early sixth century B.C., as indicated by the results of a sounding in the corner of the large, west side recess. The remains of staggered faces were also found on the west side and on the east side in another sounding. These suggest that the wall was equipped, at least in certain places, with three parodoi or wall-walks: thus, a lower walk flanking either side of a high, central one. Although such an arrangement appears unprecedented for the period, the Sardis wall's 20-m base was certainly thick enough to support them. Weapons connected with its mid-



Fig. 31. Sardis. Late Roman residential unit, looking west. (Courtesy C.H. Greenewalt, jr.)

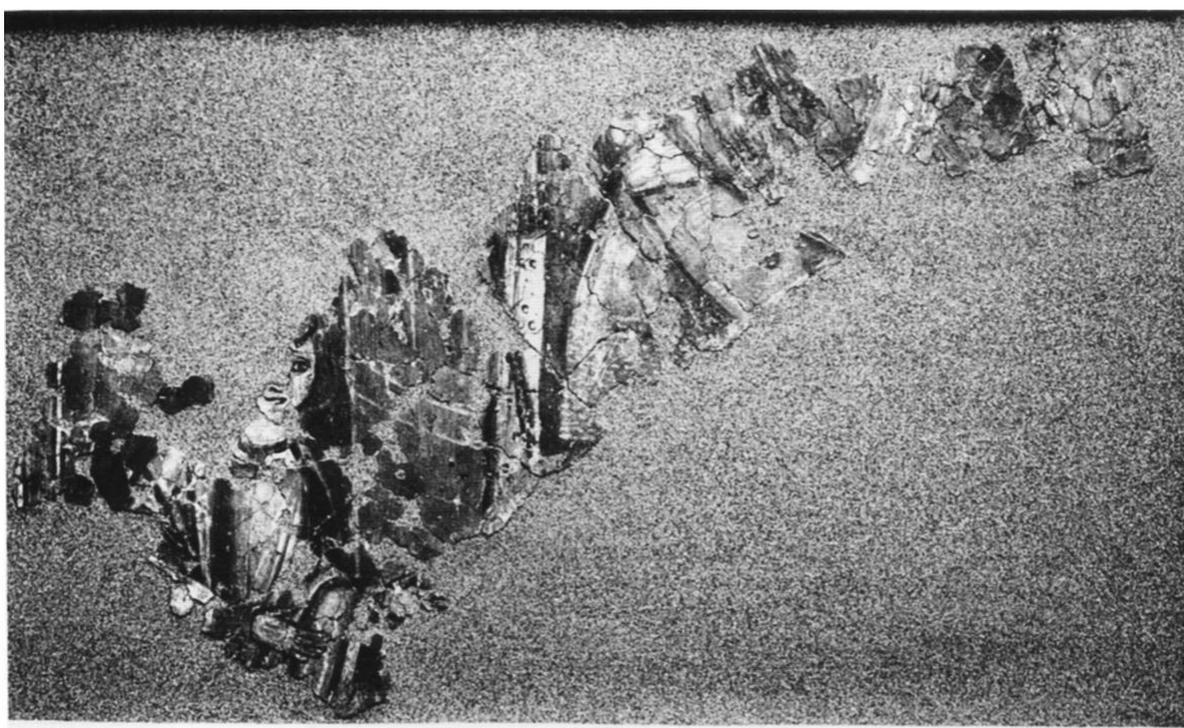


Fig. 32. Sardis. Wall painting from Late Roman residential unit. (Courtesy C.H. Greenewalt, jr.)



Fig. 33. Sardis. Marble sigma table, restored. Width ca. 1.3 m. (Courtesy C.H. Greenewalt, jr.)

sixth century B.C. destruction were recovered for the first time in 1995: 127 arrowheads (the majority iron, the others bronze), clustered over a restricted area near the gate, belonged to a wide range of common, East Mediterranean and Near Eastern types of the sixth–fifth centuries. Far more exceptional was an iron saber (fig. 35), lying under destruction debris near the fortification’s deep recess on the east side. Such sabers are rare outside Etruria, although they are attested in Classical art and literary sources as weaponry for Greek and Asiatic infantry. A similar example was discovered years ago in a Bayraklı tomb containing mid-sixth-century Lydian pottery.

“Other 1995 achievements included perspective reconstructions and 1:20 pencil drawings of the Artemis temple’s 16 column foundations in the east porch (F. Yegül); an expanded collection of marble samples, this year from four quarries in the Hermus valley,<sup>3</sup> but again without matches for Sardis’s Archaic Lydian monuments (M. Ramage); and, at Bin Tepe, geophysical survey and coring of the three largest tumuli.” For the 1994 season, see *KST* 17:1 (1996) 409–18.

**Tmolus Survey.** A team headed by Stephen Sachs investigated and mapped two Lydian sanctuaries, whose origins in the Archaic period can now be demonstrated by architectural and other finds. The

<sup>3</sup> The 1994 summary for Sardis (*AJA* 100 [1996] 322) contains a regrettable error in transcription, for which



Fig. 34. Sardis. Ceramic pilgrim flask with St. John the Baptist, from the Late Roman residential unit. (Courtesy C.H. Greenewalt, jr.)

first, on the ridge between the twin peaks of Kel Dağ (ancient Mt. Tmolus), celebrates the traditional birthplace of Zeus and Dionysos. The second, 5 km to its south at Ovacık, on the ancient road leading from Sardis to Hypaepa (above Ödemiş), consisted of a large temple that literary sources attribute to Apollo Karios. It is discussed by R.L. Bengisu in E.N. Lane ed., *Cybele, Attis and Related Cults: Studies in Memory of M.J. Vermaseren* (Leiden 1996).

**Güre-Uşak Tumuli.** Salvage investigations conducted by the Uşak Museum at the İkiztepe and Top-tepe tumuli, findspots of the “Lydian Treasure” returned to Turkey by the Metropolitan Museum of Art in 1993, are reported in *MKKS* 6 (1996) 163–76.

#### *Aeolis-Mysia*

**Pergamon.** The 1995 season devoted its long-sustained energy to the continuing investigation of the Hellenistic city’s urban layout; to meticulous analysis of the pottery and architectural details recovered from the previous year’s probes into the foundations of the Great Altar of Zeus—its date still fixed ca. 170 B.C.; and to conservation work on Peristyle Building Z and the Trajaneum’s terrace facade. Wolfgang Radt, German Archaeological Institute, Istanbul, most kindly assesses this campaign’s accomplishments:

“The program of soundings aimed at determin-

Gates assumes full responsibility: the inscription from a quarry in the region should read “ΟΡΟΣ (“boundary”).



Fig. 35. Sardis. Iron saber from destruction debris of the Archaic fortification. Length 65 cm. (Courtesy C.H. Greene-walt, jr.)

ing Pergamon's Early Hellenistic urban system by tracing its network of streets extended in 1995 to the outer (eastern) limit of the unexcavated lower city's northeastern sector, where a steep street, following the edge of the cliff, was exposed over an intact stretch of unprecedented length (fig. 36). Like others to its west, its steps were paved with broad slabs, which also sealed off a sunken water channel/drain running along one side. Their narrow breadth (ca. 1.8 m, the width of one person with arms extended to the sides), entirely contained between the high walls of the housing blocks, would have made these streets impassable for more than one laden pack animal at a time. There would also have been little space between the individual houses, the majority no doubt two storied and crowded together on the slopes. The most favorable feature of these streets must have been the shade they would have created during the hot summer months, since ease of access to individual households was apparently not considered important. Some concession to safety is indicated by the fact that slabs were scored to reduce slipping. Less obvious, however, was the purpose behind the letters incised on the slabs. Many of the newly excavated street's slabs were marked with a crude sigma, while the two parallel streets uncovered in previous years to the west were respectively labeled chi and epsilon. In general, however, the urbanistic principles of the Philetairan city's residential neighborhoods can now be understood. The street grid and especially its drainage system were constructed at the first stage of Pergamon's new foundation, even to the very limits of the city's enclosure wall, since winter rainfall had to be carefully channeled to prevent dangerous overflows farther down the slope. City blocks were laid out in modules of roughly 70 m per side, with the north-south streets diverging into diagonals to conform with irregularities in the topography. Still lacking in this study are the east-west cross streets, but it is already known that they were not equipped with drains; these streets will be probed in the coming years.

"Conservation projects accounted for much of the season's focus. They ranged from the painstaking

reassembly of Peristyle Building Z's painted stuccoes and finalized plans for a protective structure above the excavated building, whose stuccoes and mosaics will be displayed in situ, to large-scale efforts beside the Trajaneum, which still demanded attention despite its official completion in 1994. One last attempt to find evidence for the latter's Hellenistic precursors led to cutting two small soundings below the pavement of the Trajaneum's east court. Unfortunately, they both contained the terracing's structural arches just below its paving stones and were immediately resealed. Restoring a collapsed section in the revetment of the Trajaneum's terrace took considerably longer, however, and involved both structural and visual challenges. This section had already been repaired on several occasions in the



Fig. 36. Pergamon. Hellenistic street in northeastern district of Philetairan city. (Photo E. Steiner)

past (fig. 37): first in the Late Antique period, then once and perhaps twice in Byzantine times — the last version enduring until winter 1988-1989, when part of it was brought down by a small earthquake (fig. 38). Careful research into the terracing's construction, preliminary to the 1995 repair, could not explain why the revetment had repeatedly sheered off in this precise spot, although how it occurred was obvious; great care had attended the building of the terrace's massive *opus caementicium* core (its masonry properly graded from base to top), but the ashlar revetment wall was not keyed into it at any point despite its considerable height, nor was any consideration given to diverting water infiltrations. These issues were taken into account in the new reconstruction, which included reinforced concrete clamps linking the restored revetment and core and an interior drainage tunnel. It was also decided to replicate as closely as possible the latest historical repair of the facade — its Late Byzantine version — rather than returning it to the original, Roman ashlar facing. The repairs were completed after five months of intensive work."

Concurrent analyses of previous excavation results, especially relating to the Altar of Zeus and Peristyle Building Z, were carried through in preparation for final publications. Preliminary comments on the 1994 season have now appeared in *KST* 17:2 (1996) 57-73; the 1995 campaign is reported in *AA* 1996, 443-54. For ancient commentaries on the Altar and its architectural debt to the Mausoleum, see W. Hoefner in *AA* 1996, 115-34; Hoefner also discusses the Pergamon library and ancient libraries generally, in *AA* 1996, 25-36, as does H. Mielsch in *AA* 1995, 765-79. O. Deubner proposes an explanation for the foundations in the atlantid-caryatid hall of the "Kızıl Avlu" in *IstMitt* 45 (1995) 175-77.

**Phocaea.** Ömer Özyiğit's heroic efforts to rescue the earlier phases of this ancient harbor's long occupational sequence faced yet another setback in 1995, when much of Foça was reclassified to permit *only* shallow subsurface archaeological investigation before a new building is constructed. Concrete is now quickly and irretrievably sealing off the Hellenistic, Classical, and pre-Classical levels that previous soundings had shown to underlie the uppermost Roman stratum throughout the site. The potential impact of this crisis was well illustrated during the season's soundings in the city center, where an orthostat megaron building of the seventh-sixth century B.C., recalling plans and construction techniques at Bayraklı (and, now, the Archaic Artemis temple at Claros), was discovered well below the current street level. (A Subgeometric phase was also found underneath

the megaron.) The Archaic building, which produced superb black-figure pottery, had fallen into disrepair by the fifth century B.C.; a terracotta sarcophagus containing a lekythos of that date suggests that the place became a vacant lot and a cemetery. In the Hellenistic period, the area served as a dump for a neighborhood ceramic industry specializing in figurines.

Excavations also continued in the Roman and earlier residential district under investigation since 1993 and in the Archaic-Roman sequence of housing near the theater. It is still hoped that an ongoing program of selected monument restoration and explanatory panels will, despite every discouragement, arouse interest among Foça's residents in the history of their precursors. The 1994 season is discussed in *KST* 17:2 (1996) 1-26.

**Kyme.** Sebastiana Lagona and her Czech and Turkish colleagues were rewarded in their search for Kyme's Archaic phases by finds in several sectors of the ancient city. The long-term project to plan and conserve the Classical harbor and its many transformations into medieval times found a fragmentary stele, over 1 m high and reused in later masonry. Preserved on the stele were two human and four bull's legs carved in relief, and an inscription for Astianaktos, son of the Samian Hyblesios. It dates to the Archaic or Early Classical period. An Aeolic capital was also recovered from a Hellenistic porticoed building in the southeastern part of the residential district near the harbor, and a Late Archaic building was reached in a deep sounding on one of the acropolises. Work also continued in the theater and on the south acropolis, where an Izmir Museum team excavated a Hellenistic house containing a blue-and-white mosaic with geometric designs and dolphins.

#### *Troad*

**Troy.** C. Brian Rose, University of Cincinnati, kindly reports on post-Bronze Age developments in the context of the 1995 Troia excavation project:

"Although the post-Bronze Age contingent at Troy spent the 1995 campaign in a full study season, excavations investigating earlier periods at the site also uncovered deposits of direct interest to its later history. In a square below the upper cavea of the Roman odeion, e.g., a house destroyed at the end of Troy VIIb:2 was found to have been reconstructed in the Protogeometric period, with the appropriate pottery in stratified contexts. Investigations in the northeastern corner of the classical Athena temenos, which gave hope for more precision in dating its porticoes, proved less conclusive. They also presented an opportunity, however, to apply conservation measures here, which will prevent the sanctuary's soft



Fig. 37. Pergamon. Trajaneum terrace: revetment wall in 1976, showing Late Antique and Byzantine repairs. (Photo E. Steiner)



Fig. 38. Pergamon. Trajaneum terrace: collapsed section of the revetment wall, at the start of 1995 restorations. (Photo E. Steiner)

marl foundations from further degradation. The Lower City yielded several more features of its Roman settlement: sections of the Roman (and to a lesser extent, Hellenistic) drainage system, cut into the Bronze Age ditch, and Roman housing, often built on bedrock because of persistent erosion in this sector of the site. One operation here uncovered a broad street, and, alongside it, a house with courtyard and well, and a Hellenistic house underneath. Below the street was found a deposit of 25 coins, the majority Hellenistic; one Claudian coin and the pottery from this fill indicate, however, that the lot was buried in the first century A.D. Surface finds included an inscription to the Samothracian gods and a small gold ring with an engraving of Athena beside a column. The Lower City, like the public areas, was profoundly damaged by an earthquake in the late fifth century A.D. Thereafter it was used for occasional burials and finally worked as terraced farmland in Late Byzantine times." The 1994 report is published in *Studia Troica* 5 (1995) 81–105, and *KST* 17:1 (1996) 289–91; for 1996, see *Studia Troica* 6 (1996) 97–102.

**Biga-Çanakkale.** The Polyxena sarcophagus discovered during the Çanakkale Museum's salvage operations in a Late Archaic necropolis at Gümüşçay near Biga (ancient Granikos) has been published by its excavator, Nurten Sevinç, in *MKKS* 6 (1996) 443–49; *Arkeoloji ve Sanat* 72 (1996) 24–30; and *Studia Troica* 6 (1996) 251–64.

**Assos.** In the course of his 15th excavation campaign, Ümit Serdaroğlu and his colleagues continued clearing the Late Roman–Byzantine residential district on the south terrace below the gymnasium, began research on a neighboring basilica, and made progress in restoring the theater. Excavations in the further reaches of the necropolis recovered several intact tombs. The richest, a plain stone sarcophagus of Early Hellenistic date, contained the remains of two adolescent girls and some 60 gifts. The girls were buried wearing gold jewelry: a necklace and diadem for the older, 13 year old, and large button-shaped earrings for both. They were accompanied by several dozen terracotta figurines: an entire orchestra of nude, seated women playing a variety of instruments for two twirling dancers (one holding aloft a panpipe); three examples of a nude woman seated on a siren with a peacock tail; another woman, this one pulling aside her veil while riding on a goat; a few conventional horsemen (one identical to an Assos figurine now in the Museum of Fine Arts, Boston); a grotesque dwarf wearing a mask; and a boar, together with a sow nursing her piglets. Other gifts included a series of terracotta female masks in archaizing style; a molded perfume flask represent-

ing a blue-eyed, blond, and bearded man; and two black-glazed West Slope lekythoi. A second tomb contained figurines of a man reclining on a couch and a fat boy with his dog.

**Smintheon.** In 1995, Coşkun Özgünel put finishing touches to his restoration of the Apollo temple and its immediate environs and reactivated an Ottoman fountain beside the olive oil mill that now houses the site museum. F. Rumscheid discusses the relationship of the temple to regional architectural traditions, two or three generations before Hermogenes, in *IstMitt* 45 (1995) 25–55.

**Alexandria Troas.** C. Özgünel and E. Schwertheim conducted a third survey season intended to examine, in part, whether the Hellenistic city represented a new foundation or the refounding of an earlier settlement. Concerning other issues, the 1995 research determined that the famous baths commissioned by Herodes Atticus in fact consisted of three separate structures, rather than a single complex as previously thought. A possible sacred road leading to the Smintheon was also identified thanks to an inscribed column base. For a preliminary report by M. Riel on the site's numerous inscriptions, see *AraşST* 13:1 (1996) 7–13. A second volume in the regional study of this site and Neandria has been edited by Schwertheim and H. Wiegartz: *Die Troas. Neue Forschungen zu Neandria und Alexandria Troas II* (Bonn 1996).

#### *Propontis, Bithynia, Pontus*

**Cyzicus.** Despite the overwhelming enterprise required to release the Temple of Hadrian from centuries of fill—in some places 4 m deep—and reuse into the medieval period, Abdullah Yaylı and his team continued their slow and patient progress around the temple platform. Fragments of the eastern frieze illustrate the emperor's apotheosis. Roadwork around the peninsula also speeded up the team's topographical survey by uncovering a variety of finds (an altar, fragmentary statuary, and funerary monuments) and portions of the ancient water supply system. The 1994 achievements are reported in *KST* 17:2 (1996) 311–35; A. Barattolo assesses the temple's date (entirely Hadrianic) and similarities to the Olympeion in Athens and the Temple of Venus and Roma in *IstMitt* 45 (1995) 57–108.

**Iznik.** B. Yalman's 1994 progress report on Nicaea's ornate Trajanic theater has been published in *KST* 17:2 (1996) 337–60. Excavations also took place in 1995.

**Zeytinlik-Sinop.** The documentation of Sinop's Hellenistic amphora industry, located on the eastern district's south shore, was pursued during a sec-

ond salvage season by Yvon Garlan in collaboration with the Sinop Museum's director İsmail Tatlıcan. Soundings to the east of the 1994 trenches came down on thick layers of ceramic discards, dumped from kilns that must have been located only a few meters to the north, where they now underlie a modern building. The dump had shifted over time from east to west, so that the amphora stamps were found in two chronologically distinct sectors of the soundings. The stratigraphy in these soundings again showed that the area was essentially abandoned after the early second century B.C., probably linking Pharnaces I's conquest of the city (ca. 183 B.C.) with the collapse of this district.

The sequence of amphora stamps recovered from these investigations in general coincided well with the chronology established by Grakov; on the other hand, seriation of these stamps is complicated by the number of concurrent potters operating several different workshops. The earliest attested potters began manufacturing amphoras and tiles ca. 310–300 B.C., 15 years before the close of Grakov's Group III; their successors maintained production for somewhat over a century, represented by Grakov's Groups IV–VI. Fifty potters are now known, and as many as five were active under the same magistrate. A rare example of a stamp recarved to name a second potter implies that the latter began to work in mid-magistracy. The kilns also manufactured coarse kitchen vessels, according to molds found in the dumps. Finer glazed wares and a molded Demeter plaque should be understood as the potters' personal belongings. The 1994 findings are summarized by İ. Tatlıcan in *MKKS* 6 (1996) 335–41.

**Demirci-Sinop.** A tandem salvage project at Demirci, 18 km south of Sinop, has been recording evidence for another extensive ceramic industrial center, covering a broader period of activity from the second quarter of the fourth century B.C. (the workshop of the potter Batiskos) to the late sixth century A.D. Dominique Kassab Tezgör, French Institute of Anatolian Studies, Istanbul, kindly provided the illustration for the following report on her second season.

The 1995 excavations shifted to zone B on the northern side of the Demirci Bay, where a geophysical anomaly had again announced the presence of subsurface remains. The first proved to be well-constructed stone and brick walls enclosing a stone slab pavement, apparently the cellar for a building of late fourth–fifth century A.D. date. It was encased in a thick packing of amphora wasters and sherds (such as the diagnostic carrot-shaped type), lamp molds, and assorted debris including a fragmentary Hellenistic inscribed tombstone—all of this mate-



Fig. 39. Demirci-Sinop. Two superposed potters' kilns in zone B (late fourth and sixth centuries A.D.). (Courtesy D. Kassab Tezgör)

rial serving to ensure proper drainage for the building. A sounding below the pavement showed that it was constructed on a thick layer of yellow clay, which in turn sealed a deposit containing Bronze Age pottery. No function can as yet be assigned to the building. Trenches 20 m northwest of it, however, uncovered two superposed kilns (fig. 39). Associated coinage indicates that the earlier one was contemporary with the building, whereas its successor, which produced round corrugated amphoras, was still functioning or reactivated in the third quarter of the sixth century A.D. Both kilns incorporated fixtures made from reused amphoras: bases for flue pipes, nested necks for drainage channels, and layers of sherds for ground leveling and packing. The doorway of the upper kiln still contained its door—a large volcanic slab (1.30 m wide) certainly chosen for its heat-refracting qualities. Kiln props scattered around the door were inscribed with the abbreviated names of four potters. Another two possible kilns were partially revealed in these trenches.

A detailed progress report on the 1994 and 1995 seasons has been published in *Anatolia Antiqua* 4

(1996) 335–354; for the 1993 regional survey of potters' workshops, see 325–334 in the same volume. Technical aspects of the amphora clays are presented by S. Demirci and A. Akyol in *ArkST* 11 (1996) 53–62.

**Çorum, Amasya-Roman Roads.** David French spent the 1995 season of his long-term Roman road survey tracing the Roman—and perhaps Hittite—network between Boğazköy and Ortaköy, and between Amasya and Zile. Potential routes between Alaca and Ortaköy proved elusive, as in the region northeast of Çorum; the Boğazköy-Amasya artery must have passed through Ortaköy as early as the Hittite period. For his 1994 survey of milestones in the provinces of Tokat, Amasya, Yozgat, Antalya, and Izmir, see *AraşST* 13:1 (1996) 1–6.

### *Phrygia*

**Aizanoi.** Klaus Rheidt, his colleagues, and indeed ancient Aizanoi, noted their sadness at the death of Rudolf Naumann, whose research and excavations (1978–1984) brought conclusive definition to many of this site's major architectural monuments: the Temple of Zeus and its associated subterranean cult of Meter Steunene, the two baths, the stadium, and the other civic structures characteristic of a Roman Anatolian city.

This decade's projects have moved to the later city districts on the eastern side of the river, where excavation of its porticoed street, Aizanoi's last monumental architectural project in the Late Antique period, has reached the final stages of restoration. The portico reused materials from an Early Imperial temple to Artemis. Marble elements recovered in 1995 included inscribed architrave and console cornice blocks, and it can now be reconstructed on paper as a small temple of Hermogenian type and Claudian date, with a large window in the center of its pediment. The 1995 excavations also made soundings linking the broad area between the porticoed street and the Macellum, the latter restored ca. 400 when the street was constructed. The earlier levels in this area date to the Hellenistic and Early Imperial periods, with, i.a., lead-glazed bowls of local manufacture.

Ongoing regional survey recorded more monuments, some of them transported from Aizanoi proper, such as a marble altar carved in rustic style to show an eagle in front of an overflowing basket. The 1994 season is reported in *KST* 17:2 (1996) 293–309; for full reports on the 1992–1993 excavations, inscriptions, pottery, and the satyr statue from the porticoed street, see *AA* 1995, 693–753.

**Pessinus.** The 1995 excavations progressed in their current program to investigate precursors for the Tiberian Sebasteion, which still stands as the site's most visible landmark. John Devreker now suggests

that the famous Phrygian cult center may have been located well to the east, since the earliest, Middle-Late Phrygian deposits in the Roman temple area proved entirely domestic. Soundings along the temple's north flank uncovered Hellenistic architectural remains forming an enclosure wall with a tower and two gateways linked by a cobbled road. They may have belonged to a citadel complex, which was demolished (perhaps in a deliberate gesture) to make way for a monument to the imperial cult.

In the center of the modern village, below several levels of Byzantine and Late Roman housing, excavations came down on portions of a paved area flanked by a monumental marble portico, and, behind it, what promise to be shops. Since the portico shares its alignment with the neighboring Tiberian temple, and associated pottery dates to the time of Augustus, this structure may represent the Roman forum. It will be investigated further in future seasons. Other 1995 projects included survey in the İstiklâlbağı area north of Pessinus, source of the water and marble that ensured the city's prosperity in Roman times, restoration in the temple theater, and salvage research on an extramural third-century A.D. marble chamber tomb, long since robbed. Full preliminary reports on multiple aspects of the Pessinus project have been published in *Anatolia Antiqua* 3 (1995) 125–64 and 4 (1996) 67–109; see also *KST* 17:1 (1996) 453–74 for the 1994 results.

**Hierapolis.** In 1995 Daria De Bernardi Ferrero and her many colleagues again matched the scale of their restoration projects to the Roman and Byzantine monumentality of the site, with work continuing in the North Agora, along the colonnaded Frontinus street as far as the Byzantine citadel, in the Severan theater, the northern necropolis, and the high medieval fortress. Excavations associated with these projects recovered, as in previous seasons, many significant finds, among them an elegant (if headless) marble statue of a fifth-century A.D. togate dignitary. More sculptural elements of the elaborate Nymphaeum of the Tritons, now inside the Byzantine city gate, also came to light: relief friezes representing an amazonomachy, personified springs, and an equestrian figure brandishing an axe; fragments of a fine marble balustrade; and blocks bearing an inscription of the Severan period. A summary for 1994 appears in *KST* 17:2 (1996) 95–105; for the coordinated Denizli Museum projects in the southern part of the site, see *MKKS* 6 (1996) 121–61.

### *Cappadocia*

**Tyana/Kemerhisar.** Hellenistic and Roman Tyana, which today underlies the village of Kemerhisar 4 km south of Bor, prospered from its location on a

major commercial and military route leading down from the southwestern Cappadocian highlands to the Cilician Gates and the Mediterranean coast. The city had already flourished during the later Iron Age, when it was the capital of King Warpalawa, vassal of Phrygian Midas, and immortalized by his rock relief at Ivriz. Dietrich Berges, who began the first of several projected survey seasons here in 1994, reports that little remains of the Iron Age site (a few gray burnished sherds, a column base) because massive Roman foundations cut deep into the 10-m-high mound. Marble console and frieze fragments and Ionic capitals, both on site and in the Niğde Museum, belong to a temple of West Anatolian type. The site is also a rich source of inscriptions from the time of the third-century B.C. Cappadocian kingdom, and the later Roman empire. For the 1994 season, see *AraşST* 13:2 (1996) 225–30.

**Aksaray Survey.** E. Equini Schneider has published the results of her 1993 survey, which investigated military installations, settlements, and cemeteries in the territory of Hellenistic and Roman Garsaura/Aksaray, in *Scienze dell'antichità* 6–7 (1992–1993) 387–407; for the 1994 campaign, see *AraşST* 13:1 (1996) 15–33.

#### *Cilicia*

**Kelenderis.** The 1995 season at this ancient harbor, on the western border of Rough Cilicia, was again devoted to conservation projects: on the Late Antique villa with a mosaic that depicts ships sailing into Kelenderis's port and on a small Ottoman bath building to its east. Levent Zoroğlu also turned his attention to the site's eastern necropolis, where square tomb chambers were cut into bedrock at regular intervals on either side of a road. None of them had been spared by tomb robbers, but scattered among their debris were enough unguentaria and vessels of West Slope ware to assign a Hellenistic date to the cemetery. Its road could belong to an earlier period and perhaps led to a high sanctuary. Mortises cut along the edges of the road may have served to display stelae. For the 1994 results, see *KST* 17:2 (1996) 263–76.

**Korykos.** In a third campaign to plan the harbors of Turkey's eastern Mediterranean coast, Robert L. Vann, University of Maryland, spent his 1995 season surveying Roman and later Korykos (modern Kızıkalesi). He kindly summarizes his team's findings:

"Previous documentation of this important classical and medieval site, notably by Herzfeld and Guyer in 1907 (published in 1930), had concentrated on its well-preserved monuments, particularly the many churches scattered along the coastline between two promontories lying 500 m apart. Beaufort's interest was in the harbor, but his 1812 visit was brief,

and the 1993 project's comparison of his plans for Pompeiopolis with the actual remains had noted discrepancies that required correcting (see *AraşST* 12 [1995] 529–34). The current survey therefore focused on three objectives: to plan the conspicuous 85-m-long breakwater heading southwest from the southern corner of the 12th-century A.D. Land Castle, to record any other features related to this harbor facility, and to examine other potential harbors that may have silted in. It could not be determined whether the breakwater did indeed extend as far as the bay's offshore island. A possible second breakwater on an underwater ridge to the west, however, should repay further investigation, and portions of sea walls, many steps, mooring points, quarries, and signs of small-scale industrial activities were discovered along the shoreline. A round tower at the southeastern end of the sea wall, like the collapsed one noted by Beaufort at the southwestern end, may have served as a signal point. Finally, soil and topography suggest that the area's earliest anchorages were in natural coves both north and southeast of the Land Castle. These probably shifted to the west of the breakwater, when the Roman period's increased traffic and larger vessels required expanded facilities."

**Elaiussa Sebaste.** Eugenia Equini Schneider initiated in 1995 a long-term field project to analyze through aerial photography, topographic survey, and selective excavations this Hellenistic and later port city, whose impressive standing ruins extend over several kilometers along the coastal road midway between Silifke and Mersin. Soundings were carried out in the theater, where the stage building was found to have been reused by constructing partition walls against it. A road at the back led to a nearby aqueduct. Southwest of the theater, a well-preserved Byzantine church and a city gate with Corinthian pilasters were also investigated. The city's fortification wall, visible especially on the south and west sides of the site, was first constructed in a combined polygonal and ashlar technique characteristic of Late Hellenistic masonry and maintained with repairs into the Roman and Byzantine periods. The project intends to carry out extensive conservation throughout the site in coming seasons.

**Rough Cilician Surveys.** Results of a 1988 survey conducted jointly by the Kelenderis and Medancıkale teams in their highland territories are summarized by A. Davesne in *Anatolia Antiqua* 4 (1996) 147–79; see also 111–19 for O. Casabonne's historical appraisal of this region during the Persian period. Serra Durugönül has, since 1994, been recording Hellenistic signal towers, hillforts, and funerary reliefs in the area between Uzuncaburç (ancient Olba/Diocaesarea), 30 km north of Silifke, and the coast.

Yasemin Er Scarborough is conducting a similar survey in the northwestern highlands (Hadim-Bozkrı area) around ancient Isaura, rich in rustic funerary reliefs of the later Roman period; for 1994, see *AraşST* 13 (1996) 339–55.

**Cumhuriyet Square-Tarsus.** A third salvage season of research into the ancient urban systems underlying modern Tarsus's municipal center conclusively resolved their tight stratigraphic sequence. Levent Zoroğlu and his colleagues now date the elegant porticoed street to the Hadrianic period and its predecessor, tested in soundings, to the Early Hellenistic. The Hadrianic street was considerably reworked in medieval times, when shops installed behind it reused its columns, and the efficient Roman water channels were adapted to the higher road level. A detailed report on the 1994 season has been published in *KST* 17:2 (1996) 245–62.

**Tarsus Hoard.** A fourth-century B.C. Achaemenian hoard, containing coins issued by the satrap Mazaios and discovered in construction fill for the Tarsus–Mersin highway in 1992, has been published by O. Öçmen and A. Davesne in *Anatolia Antiqua* 4 (1996) 181–89. This coinage and other questions relating to Persian Cilicia are addressed by O. Casabonne in the same journal, 121–45.

**Küçük Burnaz.** A survey report on the anonymous but well-preserved Roman port in the northern tip of Iskenderun Bay has now been published by Jennifer Tobin in *AraşST* 13:3 (1996) 151–64.

#### *Southeast Anatolia*

**Zeugma-Apameia.** The heroic challenge of rescuing information from this important Euphratic frontier city before it is lost to flooding at the end of this century was picked up by Catherine Abadie-Reynal in 1995, in collaboration with the Gaziantep Museum. The first season concentrated on assessing, through surface survey, eventual strategies for recovering urban settlement patterns, water supply systems, fortifications, and the bridge linking the east bank's Apameia to Seleucia across the river. Excavations at this key juncture between the Hellenistic–Roman and eastern worlds began in 1996. For the new project's initial results, see *Anatolia Antiqua* 4 (1996) 311–24. The Gaziantep Museum's excavations of a second-century A.D. Roman villa are reported in *MKKS* 6 (1996) 357–69; S. Campbell comments on its mosaic, which depicts the marriage of Dionysus and Ariadne, in *Bulletin of the Asia Institute* 8 (1994) 311–12.

**Hilar-Ergani.** A 1991 survey of the classical site at Hilar and its many neighboring rock-cut funerary monuments and inscriptions has been published by

E. Equini Schneider et al. in *Scienze dell'antichità* 6–7 (1992–1993) 341–85. The cemeteries illustrate an eclectic fusion of Greek names, Syriac scripts, and Parthian–Sasanian artistic traditions.

**Nemrud Dağı.** The definitive publication of Theresa Goell's herculean research (1953–1973) at the funerary temple of Antiochus I, the Commagenian monarch who acclaimed Hellenism and the East with ultimate oriental splendor, has appeared in two appropriately lavish volumes, edited by D.H. Sanders with contributions by H.-G. Bachmann et al.: *Nemrud Dağı. The Hierothesion of Antiochus I of Commagene. Results of the American Excavations Directed by Theresa B. Goell I–II* (Winona Lake 1996).

#### BYZANTINE

**Amorium.** Investigations at this major Byzantine city in central Anatolia continued for the eighth consecutive season in 1995, as director C.S. Lightfoot kindly reports:

“This campaign saw progress in the three areas of the site where excavations had concentrated in previous seasons. In the Lower City church, the remaining post-Christian deposits on the north side



Fig. 40. Amorium. Lower City church, phase II: staircase parapet from Middle Byzantine ambo. (Courtesy C.S. Lightfoot)

of the naos and in the north aisle's center bay made it possible to clarify further the chronology and reuse of the building during the Seljuk and Ottoman periods. At the same time, exposure of the naos's final 70 m<sup>2</sup> section of opus sectile pavement allowed the study and planning of the entire floor of the bema and naos in its Middle Byzantine reconstruction (phase II). It was also decided to restore the church's original appearance and ambiance by removing the Seljuk rubble partition walls that had been erected between the nave and aisles. All of these operations presented valuable evidence for the building's long history, from the late fifth to the 13th century. The destruction by fire of the phase I basilica was attested by extensive shattered and smoke-blackened areas on its inside walls. These were later sealed by the phase II church's piers, hidden under the earliest layer of fresco and in some places patched with plaster.

"More evidence about the church's structural and interior furnishings appeared in these newly excavated sectors. A number of fragmentary molded plaster window frames, fallen into Seljuk deposits from recesses in the main north wall, and window glass from the church confirmed that the production of Byzantine window glass existed independently from western, stained-glass traditions. The glass belonged to two types, one darker and thicker, the other a lighter crown glass to be associated with the phase II rebuilding. Among the 1995 inventory of carved stonework, one of the most significant finds was a substantially intact staircase parapet from the Middle Byzantine ambo (fig. 40), to which can now be attributed a large number of previously discovered elements (see *AJA* 99 [1995] 253, fig. 39). These matching bluish-gray marble slabs, many recarved from Late Antique door frames, offer a welcome addition to the small repertoire of known Middle Byzantine examples.

"The second, continuing project concerned the Lower City gateway, which a sounding traced down to the base of its foundations, built directly on bedrock. The Late Antique road of compacted earth and gravel (no paving stones) was then followed into the city. To its north were excavated a number of rooms set immediately behind the city wall. Four 11th-century Byzantine coins and various ceramic and metal finds reinforced previous observations that this area of the Lower City was reoccupied during the century-long Byzantine revival preceding the battle of Manzikurt.

"On the Upper City Mound, below the Seljuk–Early Ottoman occupation uncovered in 1994, came evidence for another sector of the Middle Byzantine



Fig. 41. Amorium. Upper City mound: Middle Byzantine potters' kiln. (Courtesy C.S. Lightfoot)

community at Amorium. A lively manufacturing center here was apparently producing pottery, for which a kiln (fig. 41, the only known example in central Anatolia from the late ninth–11th centuries), together with wasters and chemical analysis of associated ceramic finds, will provide significant information for the period's local industries. Near the kiln were placed two large storage jars, one of them exceptional in having been stamped (twice) with the owner's or maker's name.

"Research continued on the pottery assemblages, which include residual Roman fine wares (and 'Sagalassos ware') along with a substantial and significant collection of Byzantine coarse, painted, and glazed ceramics from stratified contexts. Over 1,000 inventoried examples of glass bracelets, one third of them found in 1995, are also giving important typological indices for this widespread item; the first example inscribed with an invocation, from this season's excavations, matches an inscribed bracelet from Corinth. Among the season's 28 coins is one example of a new class of 11th-century anonymous follis, now published in *NCirc* 103 (1995) 376.

"Finally, a rescue operation was conducted on an underground rock-cut tomb located 0.5 km outside and to the southwest of the Lower City gateway. It

was partially carved out of a limestone outcrop to create a typical Roman arcosolium structure, with a short dromos and vertical entrance shaft, and three interior couches. Frequent ransacking had nonetheless spared a large number of human skeletal remains; a minimum of 15 individuals, including children and adolescents, suggested that the tomb was used over an extended period. Few grave goods remained, but they, too, spanned several hundred years, from the Late Roman fifth–seventh centuries to the Byzantine late eighth century: pottery, a fragmentary earring, a wooden comb, and a ‘Syracuse’ bronze belt buckle (Byzantine manufacture, ca. 600). The tomb retained no traces of decoration nor any inscription identifying its owners.”

Reports on the 1994 campaign have appeared in *AnatSt* 45 (1995) 105–36, *KST* 17:2 (1996) 361–73, and *Bulletin of British Byzantine Studies* 22 (1996) 34–39 and passim; for 1995, see *AnatArch* I (1995) 5–7, and *AnatSt* 46 (1996) 91–110.

**Kilise Tepe.** For the Byzantine church, see above, under “Chalcolithic and Bronze Age: Eastern, Northern, and Central Anatolia.”

**Çiftlik-Sinop.** Rescue operations proceeded with increased urgency for a second consecutive season at this Early Byzantine church and monastic complex, which had lost another (fortunately, excavated) portion to the Black Sea over the intervening winter. Stephen Hill and his collaborators from the Sinop Museum therefore concentrated on the fifth-century church in the southern part of the site and its modifications over the following 900 years. A summary of the 1995 findings, which include evidence for more recent agricultural practices when the church served as a barn, can be found in *AnatArch* I (1995) 2–3. For 1994, see *AnatSt* 45 (1995) 219–31.

**Amasra.** The massive and well-preserved fortification system that protected the Byzantine harbor at Amasra/ancient Amastris is presented and discussed by J. Crow and S. Hill in *AnatSt* 45 (1996) 251–65.

**Gemiler Ada-Fethiye.** Shigebumi Tsuji and Kazuo Asano continued their excavations of the Byzantine pilgrimage island off the Lycian coast near Ölüdeniz and survey of Byzantine sites on the coastal mainland. In 1995, work resumed on the third of the island’s four churches, located at the site’s highest central point and commanding its finest view. This church 3 would also have focused the attention of pilgrims arriving from the sea (the only access route). It should, therefore, be identified with the Church of St. Nicholas mentioned in navigational texts as the island’s landmark, especially since a formal route with terraces, flights of steps, and vaulted corridors led directly from the harbor up to the church. The

apse, with marble synthronon, produced fragments of figural mosaics, wall frescoes, and some 200 examples of architectural sculpture: among these, the bema’s four thin columns, capitals, and carved marble screens, and an Early Byzantine Corinthian pilaster capital representing a deer in the midst of an acanthus thicket. Stratigraphic deposits tentatively assign a first destruction in the Middle Byzantine period, after which the church was again reused. For the concurrent survey of Byzantine churches on the mainland across from the island, see *AraşST* 13:2 (1996) 231–41.

**Demre/Myra.** S. Yıldız Ötügen and her team proceeded in 1995 to an independent structure immediately to the north and outside the Church of St. Nicholas. It appears to be a two-storied example of sixth-century civilian architecture, with two square rooms connected by doorways to the open square in front of the church and arcades in their south walls. She also suggests that the domed structure adjoining the church, immediately to the east, be compared to St. John’s tomb at Ephesus. It would date to the church’s third constructional phase. As in previous seasons, many fragments of marble architectural sculpture attested to the Early Byzantine church’s cosmopolitan style. For the 1994 season, see *KST* 17:2 (1996) 375–87.

**Xanthos.** For Byzantine remains, see above, under “Classical, Hellenistic, and Roman: Lycia.”

**Bursa.** S. Yıldız Ötügen has published an extended study of Late Antique and Byzantine monuments from the Bursa area in *Forschungen in nordwestlichen Kleinasien. Antike und byzantinische Denkmäler in der Provinz Bursa (IstMitt-BH* 41, Istanbul 1995).

**Ganos/Gaziköy-Tekirdağ.** For N. Günsenin’s research on the Middle Byzantine pottery and amphora workshops on the Sea of Marmara and offshore shipwrecks containing thousands of their products, see *Anatolia Antiqua* 3 (1995) 165–78 (1992–1993 excavation reports) and 179–201 (the kilns and their glazed pottery industry); the 1994 season is summarized in *AraşST* 13:1 (1996) 357–73. Chemical analysis has confirmed that these amphoras were also found in the 11th-century Serçe Liman shipwreck.

**Yassı Ada Shipwreck.** A metrological study of cylindrical amphoras from the early seventh-century A.D. ship excavated in the 1960s off the coast of Bodrum has been published by P.G. van Alfen in *JRA* 9 (1996) 189–213. He suggests that the amphoras illustrate a Byzantine administrative effort to increase economic regulation.

**Selimiye-Bozburun Shipwreck.** A new project of the Institute of Nautical Archaeology was launched in 1995 by Frederick Hocker to investigate yet an-



Fig. 42. Thracian Long Walls. Byzantine aqueduct at Kurşunlugerme. Height 30 m. (Photo B. Williams)

other victim of the dangerous waters around the Datça peninsula. This ship and its cargo are expected to fill the Middle Byzantine chronological slot bracketed by the Yassı Ada and Serçe Limanı wrecks.

**Anastasian Wall Project, Thrace.** The 50-km circuit of long walls first built by Anastasius I (491–518) to enclose the western territory of Constantinople was surveyed for a second season in 1995. Alessandra Ricci, Bilkent University, kindly offers the following summary of the fieldwork she is conducting in collaboration with James Crow:

“This project’s objectives are threefold: to record and investigate surviving sectors of the wall, its associated forts, and other structures involved in the defense of the Byzantine city; to study the systems that supplied the fourth–11th century city with water; and to develop a conservation strategy for the wall and its natural environment, in cooperation with local authorities. In 1995, the team investigated the more forested areas in the circuit’s northern half, particularly the large tower at Derviş Kapı, a small fort (“Küçük Bedesten”) to its north, and additional sectors inland from Evcik on the Black Sea. In the Derviş Kapı area, the wall incorporated a regular pattern of rectangular and polygonal prow-shaped towers, the latter located wherever the curtain wall took a

significant change in direction. The Black Sea sector of towers, all of them rectangular and showing considerable variety in the orientation and structure of their doorways, would appear to be later—perhaps restored in the sixth century under Justinian. The team was also invited to study the well-preserved, early fifth-century fortifications at Perinthos/Marmara Ereğlisi, constructed in line with Theodosius I and Arcadius’s efforts to protect this and neighboring cities.

“Water from a source west of Vize was channeled to Constantinople by the city’s main aqueduct, at 1,000 stades (185 km) the longest and last great aqueduct of antiquity (see M.H. Sayar’s epigraphic finds in *AraşST* 10 [1993] 159–61). The 1995 survey followed its network of water channels over many kilometers in the area of Kurşunlugerme, which also preserves remains of the largest of its aqueducts (fig. 42). Many of its arches and footings were incised with crosses and christograms to provide a spiritual protection for the structure. It was one of two concurrent water supplies functioning here by the fifth century, variously adapting to the terrain and supplementary sources by combining aqueducts and vaulted tunnels. Another portion was investigated to its west, at Ballıgerme, where evidence for two major repairs

might be historically linked to the eighth and 11th centuries.

"In addition, attention was drawn to a small Middle Byzantine church at Evcik Kalesi, at the northern limit of the Anastasian Wall on a cliff overlooking the Black Sea. Both illegal excavations and winter storms are undermining this isolated structure, which may be identified from textual references as a ninth–10th century church of St. George, reworked on two occasions in later centuries." An initial summary of the 1995 results has appeared in *AnatArch* I (1995) 12–14; for salvage excavations carried out by the Tekirdağ Museum and M. Akif Işın at Perinthos in 1994, see *MKKS* 6 (1996) 383–97.

#### *Byzantine Surveys*

The following summaries of 1995 Byzantine-period archaeological surveys were generously contributed by Robert Ousterhout, University of Illinois at Urbana-Champaign.

**Artvin.** A new project to document Georgian religious architecture in northeastern Turkey was begun in 1995 by Mine Kadiroğlu, who recorded many small chapels with some fresco decoration. Her work is being complemented by Kemalettin Köroğlu's new survey in the Ardahan area, where he located a number of medieval castles.

**Akören.** Gabriele Mietke conducted a second campaign of research in this well-preserved northern Cilician town, dating in large part to the fifth–sixth centuries but including at least a necropolis of the Roman period. The 1995 season produced a catalogue of visible sculpture, detailed measurements of five monuments, and a plan of the settlement. Its city wall suggests two occupational phases for the site: one corresponding to the masonry of the fifth–sixth century churches, and an older (classical?) polygonal foundation. In the west facade of the north church, a niche still contains a faint fresco of the baptism of Christ set above a water basin; the painting's style would date to the later sixth or possibly seventh century. For a preliminary report on the 1994 season, see *AraşST* 13:1 (1996) 35–48.

**Çanlı Kilise-Akhisar.** Robert Ousterhout reports on his second season of survey around the church of Çanlı Kilise in western Cappadocia:

"In 1995, the project's topographic and architectural plan (fig. 43) was extended for 1 km northwest of the church, to record another continuous line of rock-cut residential units. The typical residence had rooms organized around a courtyard carved into a layer of volcanic tuff on the slope of the hill, with the major formal spaces and a portico along the main

facade and a chapel set off to one side (fig. 43, west end). Although these complexes are usually called 'courtyard monasteries,' it now seems more likely that they were houses for extended families. The site should therefore be identified as a town or *kome*, rather than a monastic settlement as is often claimed. If this interpretation is correct, then Cappadocia becomes an untapped resource for the study of Byzantine domestic architecture.

"Some 18 of these household units were mapped and studied, and dated to the 10th–11th centuries. The area also included 25 churches or chapels, with varying plans and occasionally preserving frescoes; many were equipped for burials. Three of these churches proved, on cleaning, to have masonry foundations, demonstrating that Çanlı Kilise proper was not the site's only formal building of this type. Finally, two of the so-called 'underground cities' previously announced for this site proved, on further investigation, to be courtyard residences buried by landslide and subsequently converted into places of refuge by adding entry tunnels and rolling-stone doors." For 1994, see *AraşST* 13:2 (1996) 165–80.

**Viranşehir.** The Early Byzantine settlement of Mokisos, modern Viranşehir in the eastern Aksaray region, was also surveyed for a second season, in 1995, by a team headed by Albrecht Berger. This large town, comprising over 1,000 houses and 20 churches, was destroyed in the ninth century and abandoned. A 1994 progress report appears in *AraşST* 13:2 (1996) 115–26.

**Cappadocian Underground Cities Survey.** Results of their 1994 survey of underground cities and their water systems have been published by Roberto Bixio and his colleagues in *AraşST* 13:1 (1996) 271–87; for an overview of the hydrogeological principles involved, see V. Castellani in *Journal of Ancient Topography* 3 (1993 [1995]) 207–16.

**Priene.** The 1995 research project at classical Priene, directed by Wolf Koenigs, included the so-called Bishop's Church near the theater. Three different Early Christian phases could be distinguished in its construction, corresponding to the transformation of the basilica's supports from columns to piers. Portions of the first phase's simple mosaic flooring and wall frescoes were cleaned and stabilized, and ambo fragments were restored. For the classical site, see above, under "Classical, Hellenistic, and Roman: Ionia."

**Meander Valley.** Mark Whittow's five-year project to document Byzantine castles along the central Aegean lowland turned in 1995 to Çardak Kalesi, on the main road between Denizli and Dinar. This small



Fig. 43. Çanlı Kilise-Akhisar. Plan of Middle Byzantine settlement. (Courtesy R. Ousterhout)

castle filled a hiatus in their previously recorded sample, since its two phases date rather earlier than the majority surveyed so far: the first version of the fortress was apparently set up in the eighth–ninth century and reinforced for brief reuse in the 12th. Like many of these strongholds, Çardak had also been occupied in the Roman period, according to residual Roman pottery scattered throughout the site. Survey of its hinterland found another two Roman villages and two Byzantine localities. Sites such as these point to the general trends that transformed this region from a Roman into a Byzantine economic system. The 1995 season's findings are summarized in *AnatArch* I (1995) 23–25.

**Gökçe Ada.** In 1995, Robert Ousterhout and Winfried Held carried out their first survey season on Imbros/Gökçe Ada, off the tip of the Dardanelles, to focus on later periods in the island's history. Research in the Kaleköy area recorded sites ranging from an Early Bronze mound to a Late Byzantine

castle. Among other finds of particular interest were numerous Early Christian and Middle Byzantine sculptures reused in the post-Byzantine church of Hagia Marina.

**Küçükyalı-Istanbul.** In 1995, Alessandra Ricci conducted a field study of the Byzantine complex on Istanbul's Asian shore, where previous scholarship had identified the Bryas Palace built by the early ninth-century emperor Theophilos. Although the site has regularly been cited to illustrate the influence of Abbasid palace architecture on Constantinople, she can now demonstrate that this interpretation needs revision, in the light of new sectors revealed by neighboring construction projects in the past several decades. Detailed examination of the visible remains indicated that the complex's lower level— a centrally planned hall with piers and a circular hall— comprised of a substructure with cisterns for the building's original architectural system, rather than a later conversion. The entire complex seems to have

been surrounded by two levels of arcades with columnar decoration. Most importantly, the upper level included the remains of three apses on the east side and lateral porches north and south of what had previously been considered the audience hall of the palace. Thus, the main part of this complex was a church, resembling the 11th-century St. George in the Mangana in many of its aspects, including the large atrium. The Monastery of Satyros could be argued as a better attribution for these remains, which will repay continued examination. A comprehensive discussion will appear in L. Brubacker ed., *Dead or Alive? Byzantium in the Ninth Century* (Society for the Promotion of Byzantine Studies Publications 4, forthcoming).

**Great Imperial Palace-Istanbul.** E. Bolognesi Recchi-Franceschini's ongoing project to unravel the architectural history of the Byzantine emperors' palaces turned in 1995 to the lower level, site of the so-called Bukoleon. There she identified several phases of construction, beginning with the extension of the Theodosian Wall under Justinian and the related shift of the palatial complex's main focus away from the Hippodrome. Later phases would be attributed to the periods of Justinian II and Theophilos (including the stair towers), with the palace finally reduced under Nikephoros II to a fortified place above the harbor. Reports for the 1993 and 1994 seasons have appeared in *AraşST* 13:2 (1996) 127–37.

**Harbors of Istanbul.** The posthumous publication of W. Müller-Wiener's diachronic study of Istanbul's ports, *Die Häfen von Byzantion-Konstantinopolis-Istanbul* (Tübingen 1994), completed his detailed architectural survey of the city in all of its periods (see also his *Bildlexikon zur Topographie Istanbul's*, Tübingen 1977).

**Kırklareli, Vize.** Roman and Byzantine remains in eastern Thrace are being surveyed by Özkan Ertuğrul, who in 1995 recorded several rock-cut monasteries in the area. The church at Vize, currently under restoration, contains both mosaics and architectural sculpture. Less fortunate is another at Yalıköy, whose fine Byzantine frescoes and inscriptions were both revealed and damaged by illegal digging.

#### ISLAMIC

The following summaries of excavations carried out in 1995 at medieval Anatolian sites were generously prepared by Scott Redford, Georgetown University.

**Alanya Citadel.** M. Oluş Arık continued, in an abbreviated season, to plan architectural remains of

the Seljuk palace's ceremonial court. His progress in 1992–1993 is outlined in *KST* 17:2 (1996) 389–91.

**Seljuk Kiosks and Gardens, Alanya.** In 1995, Scott Redford succeeded in expanding his regional survey of pavilions and garden enclosures, built in and around Alanya by the mid-13th-century Seljuks, to a total of nine structures and three enclosures. The largest of these was Hasbahçe, followed by a previously unknown kiosk, bath, and enclosure complex in Alanya's Sugözü district and an enclosure near the mouth of the Dim Çayı. These structures demonstrate that the development of the Alanya and Obaplains was synchronized with the Seljuk fortification and expansion of Alanya proper. The kiosk at Hacı Baba, surveyed in 1994, is discussed in *AraşST* 13:2 (1996) 147–50.

**Kubadabad.** The 1995 excavations headed by Rüçhan Arık continued in the area southeast of the smaller palace. They followed the enclosure wall to a possible entrance leading into the courtyard. This sector produced fewer tiles and small finds than those uncovered in previous seasons. For the 1993 and 1994 illustrated reports, see *KST* 17:2 (1996) 393–409.

**Erciş Fortress-Çelebibağı Cemetery.** Abdüsselam Uluçam continued his urgent efforts to rescue from Lake Van's rising waters the late 12th–early 15th century cemetery that once extended at the foot of Erciş Castle. Today, the cemetery is on an island and remains the only part of the site that has not been submerged. Pre-Islamic levels underlying the necropolis were also sounded in a step trench by Veli Sevin. For a well-illustrated account of the 1994 season and the ornately carved tombs reinstalled on top of the island, see *KST* 17:2 (1996) 429–51.

**Ani.** The 1995 excavations directed by Beyhan Karamağaralı focused on two related structures. The first, primarily uncovered in 1994, consisted of a large basement for a structure originally rising several stories high; a street running outside it was cleared this season. A second building, located near the mosque, was excavated in 1995: a house constructed of regularly cut stone blocks and planned around an *eyvan*—a long hall-like room or *sofa*—with stone bases for four wooden columns and a fireplace. Size and masonry would suggest that both buildings were residences for members of the administrative class. Pottery included lusterware, sgraffiato, and sherds of an unglazed, red-slipped (Late Roman?) ware stamped with human, bird, and animal figures. Reports on the 1992–1994 investigations have appeared in *KST* 17:2 (1996) 493–512. Ongoing restoration of Ani's city walls is being carried out without the excavators' cooperation.

**Harran.** The 1995 campaign, headed by Nurettin Yardımcı, saw further progress in clearing massive building collapse from the floor of the celebrated Umayyad mosque. Elsewhere, excavations continued in domestic levels dating to the Ayyubid period. A 20 × 20 m area contained two courtyard houses, their walls and floors built of baked brick with stone reserved for entranceways. One courtyard was equipped with an octagonal wellhead. Finds included underglaze-painted wares in an artificial paste, and a furniture leg made of molded and glazed clay. For the 1994 season, see *KST* 17:2 (1996) 453–68.

**Aksaray.** Bekir Deniz carried out a second season of excavations at the *zaviye*, or sufi convent, built by Melik Mahmud Gazi in the 13th century. In clearing the building's otherwise ruinous exterior, its southeastern quadrant was found to have been restored in the 1970s by the Vakıflar Müdürlüğü (Ministry of Pious Foundations). A detailed preliminary report on the 1994 season has been published in *KST* 17:2 (1996) 469–92.

**Beçin.** After a long hiatus, O.A. Arık's earlier fieldwork at the 14th-century Mentеше stronghold (usually referred to as Peçin Kale) 5 km south of Milas was revived in 1995 by Rahmi Hüseyin Ünal. Two partially standing extramural structures were cleared and planned. The first proved to contain an apodyterium and furnace room, and was thus readily identifiable as a bath building. The other structure consisted of two large and several smaller rooms, and a granary. They may represent the ground floor of a large residence, possibly for a local potentate or

bey. Beçin's best-known monument is the fine medrese constructed by Ahmet Gazi.

**Iznik Kilns.** In another season of research to document Iznik's distinguished Ottoman ceramic industry, Ara Altun continued in the potters' district near the Hacı Hamza baths. The 1995 excavations recovered thousands of unfired vessels from one deposit and the remains of a fifth kiln. Most of the glazed pottery assemblage was decorated in blue on a white ground. Examples of "Miletus ware" suggest that this type was locally produced; they are illustrated, together with other 1994 discoveries, in *KST* 17:2 (1996) 411–28. V. François offers a comprehensive study of the industry in *Anatolia Antiqua* 4 (1996) 231–45.

**Ottoman Kilns, Istanbul.** Filiz Yenişehirli returned, in 1995, to her project's objective— Istanbul's Ottoman ceramic industry—by excavating another sounding in the Tekfur Sarayı, where her team recovered a kiln, sherds, roof tiles, and workshop debris from the area's occupation by Ottoman potters. Her ethnoarchaeological research of the previous year also led, this season, to investigating a promising plot in Eyüp; it produced sherds dating to the late 19th century.

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