

ARCHAEOLOGY IN TURKEY: THE STONE, BRONZE & IRON AGES, 2002

TÜRKİYE'DE ARKEOLOJİ: TAŞ,
TUNÇ & DEMİR ÇAĞLARI 2002

*Alan M. GREAVES

**Barbara HELWING

Keywords: Archaeology, review, Anatolia, excavations, survey

Anahtar sözcükler: Arkeoloji, tekrar gözden geçirmek, Anadolu, kazılar, yüzey araştırmaları

2003 mart ayında ,memleket sathındaki tüm arkeolojik çalışmaların her türlü sorumluluk ve hakkın asahip Türkiye Cumhuriyeti Hükümeti, 'Anıtlar ve Müzeler Genel Müdürlüğü'nün' artık Kültür ve Turizm Bakanlığı'nın bir parçası olduğunu ilan etti. Arkeolojik çalışmaların aynı zamanda turizm işleri ile de uğraşan tek bir Bakanlığa yüklenmesinin içereceklerinin çok kapsamlı olacağı bir gerçektir. İyimser olursak, kültürel turizmin gelişimini önemseyen hükümet politikası böylelikle, arkeolojiyi Türkiye'de, en önemli gelir kaynağı olan turizmin ve endüstrinin kalbine yerleştirmektedir. (Herslag 1988, 77-78). Kötümser görüşle ise, bu yer değiştirme halkın ve politikanın ilgisini turizme daha yakın olan klasik yerleşmelere odaklamakta ve o kadar albenisi olmayan tarihöncesi yerleşmelerden bu ilgiyi uzaklaştırmaktadır. Avrupa Birliği bünyesinde, yenilerde, TEMPER adlı bir proje başlatmış ve Çatal Höyük projesi de buraya katılımcı üye olarak dahil olmuştur. Bu da tarihöncesi yerleşmeler için genel bir şablon oluşturmaktadır. Proje ile ilgili gelişimler bu web sitesinden takip edilebilir (www.temper-euromed.org).

In March 2003 it was announced that the General Directorate of Monuments and Museums of the Republic of Turkey, the government body that has responsibility for archaeology in the country, was to become part of a new joint Ministry of Culture and Tourism. The implications of placing archaeology under a single ministry that also has responsibility for tourism will be considerable. At best, this will allow for joined-up government that will oversee the development of cultural tourism and may potentially put archaeology at the heart of tourism in Turkey, an industry that is currently one of the country's largest earners (Herslag 1988: 77-78). At worst, the move may focus pub-

lic and political interest even further towards the tourist-friendly classical sites, for which Turkey is rightly famous, and away from the less photogenic prehistoric sites that are of interest to readers of an article such as this. The new European Union funded TEMPER project, of which the Çatal Höyük project is a participating member, may provide a template for presenting prehistoric sites to the public. Progress on the project can be followed via their web site (www.temper-euromed.org).

In the 2002 season of archaeological work in Turkey, there were major developments in the two most intensively explored areas of Turkey:

*School of Archaeology, Classics and Egyptology, Department of Archaeology, Hartley Building, Liverpool L69 3GS, U.K. greaves@liv.ac.uk

**Deutsches Archäologisches Institut, Eurasien Abteilung, Im Dol 2-6, D-14195 Berlin, Deutschland

the west coast and the south-east.

In recent years there has been a great deal of academic discussion surrounding the subject of the Hittite geography of western Anatolia (see Greaves and Helwing 2001: 465-466 for an overview). Many outstanding questions appear to have been solved following the excavations of Bronze Age Miletos by Wolf-Dietrich Niemeier, a new reading of the Karabel inscription by David Hawkins and the discovery of a Bronze Age citadel at Torbalı – Bademgediği Höyüğü by Recep Meriç (identified by him as the site of Puranda). However, the archaeology of Turkey is constantly surprising and in 2001 to 2002 new discoveries at Latmos (Greaves and Helwing 2003b: 94), the Aydın-Muğla survey (Greaves and Helwing 2003a: 143-5, see also below), Çeşme, Foça and Kuşadası-Kadı Kalesi (see below) have thrown up much new information which will continue to fuel debate on the subject of the later Bronze Age of western Anatolia for years to come.

The other main arena of archaeological exploration in Turkey is the south-east, and in particular the large dam building projects and the rescue excavations that these have necessitated. One major find of the 2002 season was the discovery of tablets at Ziyaret Tepe by Timothy Matney and his team (see below). The closing of Iraq to foreign scholars and the construction of the dams created in Turkey a research synergy that has attracted much academic interest and taught us much about the prehistory of this previously overlooked region. It will be interesting to see what the long-term effect of the much hoped for re-opening of Iraq to foreign scholars will be on the archaeology of this region of Turkey.

Conferences:

The annual International Symposium of Excavations, Surveys and Archaeometry was again held in Ankara at the National Library in May 2003. The results of excavations that were

conducted in 2001 and which were presented at that meeting are now published in the 24th edition of the *Kazı Sonuçları Toplantısı* series.

A roundtable conference held in Istanbul on the Bronze Age - Iron Age transition has already been published (Fischer, B., et al. 2003). Another conference of note, although only partly touching upon Turkey, included contributions devoted to the study of cultural contact between the Aegean and the Near East (Braun-Holzinger, E. A. and H. Matthäus 2002).

MIOCENE

Ankara-Sinap Formation: Excavations of nine million year old fossil beds near to Kazan, between the two hills Kavak Dere and Sinap Tepe, continued under the direction of Berna Alpagut. Research continued at the highly productive site known as Locality 12. Excavations revealed the fossilized remains of a wide range of fauna, including the in situ remains of an articulated elephant skeleton. Other species represented include suidae, equidae, bovidae, rodents, carnivores and ruminants. The most important find from the site remains the early hominid *Ankarapithecus meteai*, discovered in 1998.

Paşalar: The Miocene site of Paşalar (15 mya) continued to give important insights into the environment in which the early hominoids lived. In the 2002 season, Berna Alpagut's team recovered and catalogued 26 hominoid remains and 226 fossils from sediment beds. Study of the palaeoenvironment suggests a tropical or semi-tropical environment, with a high ratio of C3 to C4 stable isotopes suggesting an open habitat. Since excavations began in 1983, a total of 1723 fossils have been found, representing a rich diversity of animal fossils including suidae, equidae, ungulates and probosciadae, as well as hominids. A parallel within Turkey for the teeth found at Paşalar is the hominid jaw from Çandır. For an overview on the research thus far accomplished see the project's website at

<http://www.utexas.edu/cola/depts/anthropology/people/faculty/kappelman/sinapmain.html>, with a link to full bibliography of the site.

Çankırı-Çorakyerler: Ayla Sevim continued with excavations at the rich fossil bed at Çankırı-Çorakyerler. Besides the usual Late Miocene (8-7 mya) fauna with rhinoceros, elephant, giraffes, equids, pigs, tortoises, gazelle and caprids, several more teeth and mandible fragments of hominoidiae (primates) were found. A survey in the environs of Çankırı-Çorakyerler yielded only very few other fossil-bearing sites with few fossils. Çankırı-Çorakyerler thus holds a unique place as an extraordinary rich fossil deposit in this area.

PALAEOLITHIC

Ilisu Palaeolithic Survey: The Ilisu Palaeolithic Survey continued under the direction of Harun Taşkıran in the southern part of the Ilisu Dam area, between Bismil and Batman. Of the 22 sites recorded, none date to the Upper Palaeolithic or Epipalaeolithic period, while the Lower and Middle Palaeolithic are well represented. The collection allows by now to distinguish a different tradition of Levallois technique that has not been recorded elsewhere. Open-air sites concentrate along small streams, and some natural caves have also been occupied. Most of the latter have been re-used in the Late Roman period.

For a report on the 2000 season see Taşkıran (2002) and for the 2001 season, see Taşkıran and Kartal (2003).

Karain: For a report on the 2001 season see Yalçinkaya et al. (2003).

Öküzini: A report and a final report have appeared (Yalçinkaya, et al. 2002); (Otte, M., et al. 2003).

Üçağzlı Mağarası: In 2002, excavation were principally conducted at the western end of the cave of Üçağzlı Mağarası, which is the most

southerly archaeological site currently being explored in Turkey, located south of Antakya in Hatay Province. The directors Erskin Güleç and Steven Kuhn continued stratigraphic excavations in the area C-E, 4-6, where common finds included tools made of bone, horn and ivory. It appears that Palaeolithic technology was quickly replaced. The tool forms found do not appear to have changed from one area to another across the site. Levels B to I were investigated in 2002, with the terra rossa geology resulting in distinctive shades of red soils. Beneath Epipalaeolithic, nearly three meters of stratigraphy remained, including Upper Palaeolithic (B-D) and Initial Upper Palaeolithic (E-H) levels, dating back to about 35,000 BC. In this season, examples of Initial Upper Palaeolithic tool technology included only those made in the Levallois tradition. Faunal analysis showed that the amount of suids decreased into the Epipalaeolithic. A range of other animals was represented including turtle, fox, rabbit, ferret and lynx. Layers of charcoal represent the remains of hearths, but these were few in number. Micromorphology analysis is now also being applied.

For a report on the 2001 season, see Güleç et al. (2003).

Hatay Survey: In relation with the ongoing excavations at Üçağzlı Mağarası, Erskin Güleç also conducted a survey for further Palaeolithic sites in the neighborhood, an area that had formerly also been investigated by Enver Bostancı. Cave sites, abris and flint workshops yielded assemblages of animal bones and lithics dating from the Middle Palaeolithic to the Epipalaeolithic.

EARLIER NEOLITHIC

Karkamish Dam Rescue Excavations

Akarçay Tepe: For publications see Balkan-Atlı et al. (2002); (Balkan-Atlı et al. 2003a).

Fıstıklı Höyük: A report on the 2000 excavation season at Fıstıklı Höyük has appeared

(Bernbeck et al., 2002).

Mezraa Teleilat: Excavations at the large Neolithic site Mezraa Teleilat continued under the direction of Mehmet Özdoğan with large excavations in the western part of the mound as well as several smaller soundings.

The large excavations in the upper, Hassuna-related phase I yielded more cell-plan houses separated by narrow lanes, with several open workspaces between the houses. In one of the buildings, the skeletons of 6 pigs were uncovered. In the following, early Pottery Neolithic phase II the architecture consisted of corridor houses. In the rear part of the corridor houses, ovens were found, indicating that they had domestic function. From these houses came several marble bowls that are thought to have been used as offering bowls. The buildings were rebuilt three times, and there was an increasing quantity of pottery from the earliest phase to the latest. Below the corridor houses, another building, Level III, was uncovered beneath approximately 1.5 m of fill. This well-preserved burnt building level differed markedly from the upper levels as it consisted of round huts constructed of wood, reeds and mud. Stone and bone tool assemblages were noted to be different from those of the upper levels. The most remarkable finds were sitting male limestone figurines and about 100 lime stone phallic symbols. This level represents the transition from the Pre-Pottery Neolithic to the Pottery Neolithic. Rare fragments of Dark Faced Burnished Ware have been interpreted as imports by Mehmet Özdoğan. A radiocarbon date confirms that this level is contemporary with PPNC.

In one area a 15 meter stretch of massive enclosure wall, with a ditch outside, was uncovered. The wall has been rebuilt three times. The wall at Mezraa Teleilat dates to the PPN and is comparable to the famous Jericho fortification wall.

Several small soundings were dug on the outskirts of the mound in order to test the overall

extent of the settlement. However, because more settlement layers still remain to be investigated below a deep alluvial layer, the overall size of the site can still not be securely determined.

This year's finds comprise flint points and blades, very little obsidian, marble bowls with three small feet, basalt weights and bone awls, hooks and needles. The bone industry became much more sophisticated and varied during the PPN/PN transitional phase. Terracotta animal figurines occur only in the Pottery Neolithic layers.

For preliminary reports see Karul et al. (2002, 2003). A specific report on the lithics has also appeared (Coşkunsu 2002).

Batman/Ilısu Dam Rescue Excavations

Hakemi Use: The Neolithic mound of Hakemi Use, located on the right bank of the Tigris in the Batman River rescue area, has been under excavation since 2001. The director, Halil Tekin from Hacettepe University Ankara, kindly provided the following information:

Two Neolithic building levels could be distinguished, overlain by an Early Iron Age settlement that has been almost completely destroyed by cultivation. The upper Neolithic Building Level I yielded largely monochrome coarse ware, together with pottery with red or dark red slip, a small amount of dark-faced pottery and another small group of painted pottery in Samarra tradition (Figure 1). Below, the floor level of the second building level has not yet been reached, but the upper part of the fill contained large quantities of Hassuna pottery, especially incised Hassuna and Standard Hassuna painted ware. Human and animal figurines of baked clay were discovered in some pits, all of them in a broken and discarded state (Figure 2). Hakemi Use is of particular importance because it represents what is so far the only Pottery Neolithic site in the Upper Tigris valley.

For a preliminary report on the first season, see Tekin (2003).

Körtik Tepe: For a report on the 2000 season, see Özkaya et al (2002), for 2001 see Özkaya and San (2003).

Central Anatolia

Çatal Höyük: The Cambridge/Stanford team continued post-excavation on materials from the 1995-1999 seasons and conducted new excavations under the direction of Ian Hodder.

In Building 3, excavators reached the earliest levels of the building, reaching midden deposits. There were adult burials under platforms, child burials under floors and room dividers separating off food preparation areas. Three small rooms found to the south of Building 3 were found to have a range of functions. One such room was found to contain nine burials, with floors that were re-laid frequently. In the most recent floor a belt hook was found.

A Polish team continued excavations to the east of the southern excavation area. Here a 10m x 10m area was opened to reveal dense Byzantine burials, beneath which were late Hellenistic / early Roman buildings with a kiln at the north end. In turn, beneath these were late Neolithic / early Chalcolithic buildings. The aim of these excavations was to get a sample of the latest Neolithic levels on the Çatal East mound. The structures found so far differ from those found lower down in the mound in that they do not have double walls.

The construction of a large roofed shelter to cover the 1960's excavation area of James Mellaart, which had been suffering considerably from erosion, and to provide for future excavations in the same area, necessitated limited excavation for building foundations. These trenches gave glimpses into buildings and middens as well as stratigraphic information. Finds included burials beneath floors and a very large hoard of

obsidian, of the type usually found beside the ladder entrance to houses. Midden deposits in the upper mound included a number of female figurines, which are not usually found lower down in the mound. The large, graceful shelter now erected over the site will allow for the presentation of about 25 houses to the visiting public.

Kömürcü - Kaletepe: Excavations of the obsidian quarry Kömürcü - Kaletepe, that have been underway since 1997, were finally completed in 2002. In the preceding six years, a Neolithic obsidian workshop has been recorded with meticulous detail. In a neighboring valley, an eroded profile provided an insight to a Palaeolithic sequence that allowed five phases to be distinguished, with obsidian artifacts both in Mousterian tradition, but more especially, in Levallois technique. This sequence can be correlated to the Acigöl chronology.

For publications see (Balkan-Atlı and Binder 2003; Balkan-Atlı et al. 2003b).

Musular: For excavation report see Özbaşaran, et al. (2003) and for a report on the lithics see Kayacan (2003).

LATER NEOLITHIC TO CHALCOLITHIC

Southeastern Anatolia and Cilicia

Hasek Höyük: The second volume of the Hasek Höyük final publications is out (Helwing 2002).

Oylum Höyük: Excavation activities during the 2002 season at Oylum Höyük were restricted to two areas, one being the eastern step trench, where another building level of the Late Uruk period was unearthed, and the second the western summit, where a large building of the 1st millennium BC was investigated (see below). Besides excavation, study of the Middle Bronze Age pottery continued. Geomorphological studies of the Kilis plain were initiated, and the Kilis plain survey continued (see below).

The third building level of the Late Uruk period in the eastern step trench consists again of 2 rooms adjacent to a small street. The walls were constructed of mudbrick on a foundation of basalt boulders, and the floor showed traces of white plaster. Below the floor lay two burials of new born babies, comparable to the intramural infant burials known from Tell Sheikh Hassan, for example. One pit, cut into the street, contained a large amount of clay lumps made from a very pure, cured clay - possibly material prepared for use as sealings.

An interim publication summarizing archaeological work at the site in 1997-2000 has now been published by Özgen and Helwing (2001). For preliminary reports on activities at the excavation site see Özgen et al. (2003). There are now Oylum Höyük web sites at:

www.liv.ac.uk/sacos/research/projects/oylum/index.html and www.dainst.org/index_3012_de.html

Tell Kurdu: Work at Tell Kurdu concentrated on the study of material excavated in 2001. A preliminary report on that season is provided by Özbal et al. (2003).

Batman/İlisu rescue area

Aşağı Salat Tepe: For a preliminary report on the 2000 season see Şenyurt (2002), for a report on the geo-archaeological research at the site see Doğan (2003).

Salat Tepe: Tuba Ökse from Hacettepe University very kindly provided the following information on the 2000-2002 seasons on this multi-period settlement mound in the Upper Tigris - Ilisu-Dam rescue zone:

The site was explored by means of a narrow step trench on the south slope and larger exposures on the top of the mound. The step trench yielded a rectangular building structure associated with hand-made chaff-tempered simple ware, flint-scraped ware and Late Ubaidian painted ware comparable to assemblages from

other sites in southeastern Anatolia, North Syria and North Mesopotamia.

The broad exposure on the summit yielded four distinct phases. The lowermost phase IV consists of a building with fairly large walls built from standard size mudbricks of 33-34 x 33-34 x 9 cm with thick mud mortar, unfortunately heavily disturbed by later silos and graves. Those date from the Iron Age, the Hellenistic and the medieval period and contained mixed material with medieval combed and glazed wares, coarse and fine Hellenistic sherds, Eastern Terrasigillata, Late Assyrian common ware, Early Iron Age grooved and painted ware that relates to the Upper Euphrates, Middle Assyrian common ware, Middle Bronze Age monochrome and painted wares equally relating to the Upper Euphrates and the Malatya plain, Habur painted and Nuzi ware, black-rimmed Orange ware and Stone ware resembling the 3rd millennium BC ceramics from the Upper Habur. No related building levels have been unearthed so far on the mound, only a patch of floor uncovered in the step trench may date to the Middle Bronze Age, and Middle Bronze pottery was collected from a fill under the Hellenistic levels, probably used to form a foundation terrace. Phases III and II on the summit represent the Hellenistic occupation, and phase I is a large medieval complex with many fire places. No evidence for Roman layers could be found, although the silo fill contained coins and a small piece of marble sculpture of the Roman imperial period. Finally, the site was used as a cemetery in medieval times. For a preliminary report on the 2000 season, see Ökse and Alp (2002).

Türbe Höyük: Here, a first season of rescue excavations was carried out under the direction of Haluk Sağlamtemir. Türbe Höyük is located in Siirt Province in the Ilisu - Botan River flood zone, 2 km north of the confluence of the Botan River and the Tigris. Part of the mound has been destroyed by the river. Excavations began in six trenches on the western and eastern part of the mound.

As one would expect at a place called *Türbe Höyük*, the site yielded numerous medieval burials, mostly of children, oriented strictly E-W and equipped with modest glass beads and bracelets, in an upper layer. The second phase was represented by a massive Roman period fortification wall that seems to have been constructed on top of an earlier settlement mound of the Late Neolithic to Chalcolithic period. This wall and the building remains located to the east of it appear to be the cause of heavy disturbances of the older remains. Although numerous pottery fragments of the Ubaid and Halaf period were collected from the surface, excavations have so far failed to expose any substantial structural remains from these periods.

Kenan Tepe: For publications see Parker et al. (2002, 2003).

Eastern and Northern Anatolia

İkiztepe: The work of Önder Bilgi continued at İziztepe in 2002 with excavations, anthropological research and publications.

Finds from the Early Bronze Age mound included a bone idol, a bronze spatula, terracotta figurines, necklaces, and flints. The graves found were inhumations with grave goods. Anthropological and palaeopathology work was conducted on the many skeletons found in excavations at the site.

For a report on the 2001 season's works see Bilgi (2003a) and for a short note on the 2002 season see Bilgi (2003b).

Central Anatolia

Güvercinkaya: Situated south-west of Aksaray, the site of Güvercinkaya lies on a rock outcrop. The site has two roads, lined on either side with houses consisting of a single room with a rear partitioned area and a central hearth. In places, stone walls survive to a height of one metre. Excavations by Sevil Gülçür in 2002 were conducted on the north side of the site, where a large house with clay lined walls was found.

Relief pottery found here parallels that found at Köşk Höyük, with two examples bearing images of snakes, one with a stag. Other pottery parallels Can Hasan 2b. Finds included a few spindle whorls, animal figurines, beads, bone needles, a stone bowls, two polishing stones, and a 15 centimetre long obsidian blade.

Scientific analysis at the site includes fatty acid composition, isotope analysis, and radiocarbon dating of half a dozen samples that had a date range of 6135±25 to 5890±70 BP.

For publication of the 2001 season see Gülçür and Sağır (2003).

Köşk Höyük: The work by Aliye Öztan and her colleagues continued in 2002 in two major excavation areas, uncovering cultural remains from Periods I and II.

In the northwestern area, F9, the eastern part of a multi-room building of period I, with 2 sub-phases, was exposed. Apparently, this house had had a domestic function made evident by its rich inventory of pottery and ground stone implements. One room contained the burials of several children beneath the floor.

The second building phase, Ib, consisted of two houses separated by a corridor, with a plaster floor of extraordinary quality. Again, children's burials below the floor were a common feature of this building. North of the buildings, several pits had been dug into the ground. One pit contained lumps of clean clay, probably the residue of figurine production, since several fragments of anthropomorphic and zoomorphic figurines were found in the same pit.

Further south, the extension of an existing trench previously excavated by U. Silistreli, revealed two more buildings, arranged according to patterns that appear to be a standard at Köşk Höyük, with a storage room on the back part of the building and a living area in front. The lower phase Ib of this building, separated from the upper phase by a plaster floor, was equipped with some built-in features such as

clay bins and storage boxes. The house yielded much pottery, including red polished and black burnished Köşk Höyük standards. The period II remains were badly damaged by later occupation, but the disturbed remains of what must have been burials were recovered. Small finds, such as beads made of bone and blue stone, and a seal pendant, must originate from these disturbed burials.

In the southeastern part of the site, a row of houses, aligned along a street, was uncovered. In this part of the site, Phase Ib ended in a conflagration, and consequently the room inventories are well preserved. Again, rooms could be distinguished according to function, with a storage area at the back and living quarters at the front. A female figurine was found, together with a blue-colored bead. The third house revealed the remains of sheep and goat horns, gathered together in a pit.

The pottery was grey and red in colour. Other finds included stone axes, obsidian blades, three moulds made of stone, and bone tools. Seven animal figurines were also found. These include a bull and a cow, made of grey clay and with distinct udders. In the third level, finds included pottery with relief decoration in the form of chevrons and figures, which parallel those of Tepecik Çiftlik, and a plastered skull.

Radiocarbon dates, provided by Tübingen University, dated the first level to 4911±102-58 BP; the third level to 5600-5300 BP; and the fourth level to 5600-5000BP.

Tepecik Çiftlik: In 2002, work continued at the site of Tepecik Çiftlik, under the direction of Erhan Bıçakçı of İstanbul University. Six excavation trenches now cover the top of this small (300m by 170m) low (nine meters high) mound. More relief decorated pottery was recovered from the site and motifs included a bull and a stag. Plentiful obsidian blades were found (the site lies to the south the important Cappadocia volcanics) as were animal bones. The local char-

acter of the culture at Tepecik Çiftlik is now starting to emerge.

For a report on the 2001 season, see Bıçakçı et al. (2003).

Western and Coastal Anatolia including Thrace

Bademağacı: During the 2002 season at Bademağacı Höyük, Refik Duru and Gülsün Umurtak continued with their excavations of the Early Neolithic and the Bronze Age layers (for the Bronze Age, see below).

During the 2002 season, the previously observed and recorded sequence of 9 Neolithic layers was exposed on a larger scale. The lowermost Early Neolithic level 9 yielded only faint traces of architecture, while level 8 consisted of a hard house floor. Levels 7-5 consisted of small huts constructed of reeds and mud. From level 4 onwards, small rectangular one-room houses measuring 7.5m by 3m with internal hearths appeared. One well-preserved example of these characteristic houses had walls standing up to 40 cm height and was completely uncovered in 2002. Unfortunately, almost no domestic equipment was found in situ on the house floor, except for a few grinding stones and charred grain.

Excavations of the grill-like structure on the SE-slope that probably represents the remains of an enclosure wall were expanded further south, but the EB megaron Building 12 had caused much disturbance in this area.

Botanic and faunal analysis, as well as radiocarbon dating, continued in 2002. Palaeobotanic finds from the Neolithic house floors included wild pear and acorns; cultivated chickpeas, peas and lentils; and emmer and einkorn.

For details on the results of the 2001 season, see Duru and Umurtak (2003) and for a discussion of the pottery from the Middle Bronze Age levels see Umurtak (2003).

Herakleia Latmos: During survey work on the inhospitable slopes of Beşparmak Dağ (ancient Mount Latmos) Anneliese Peschlow discovered three more of that region's enigmatic rock paintings. Of these three, one found by a waterfall and stream at Karkaya was the best preserved, with a female and two other figures still visible. Until now the many rock paintings located in this area had no clear cultural context. However, in 2002 the first prehistoric settlement site was identified, in a tiny valley above the ancient town of Latmos, at the site of a small Byzantine church. The remains of the settlement consist of four small rock shelters in the area around the church. Numerous obsidian and silex blades and waste from tool making were found, as well as typical Chalcolithic pottery. The pottery, which has parallels on Samos, typically has pierced rims. In cave 2 there were signs of burning, which may have been a cooking area, and outside the entrance to cave 4 was a grindstone.

These new discoveries answer the question of where the people who executed the many rock paintings on the mountain lived. Now that a provisional date can be allocated to the paintings, it may be possible to find parallels for them elsewhere, with the figurative art of Hacilar pottery being a possibility.

For a report on the 2001 season, see Peschlow (2003).

Ilıpınar: The investigations at Ilıpınar, that were originally initiated sixteen years ago with the aim of throwing new light on the little-understood Neolithic period and early farming stages in north-west Anatolia, have come to an end now.

As a net result, the excavator, J. Roodenberg, concludes that it can now be stated that the outlines have emerged of an early farming community, settled on the alluvial plain of Lake İznik 8000 years ago. This has provided information on the way of life and death of those farmers over a period of six centuries. There is now much better evidence on building and tool types; on the animals they bred and the plants

they grew. By investigating up to seven meters of archaeological deposits, it was possible to follow an evolution that was marked by changes in village planning and individual buildings, and in tool kits and food storage. Among other factors, these changes were the likely result of spectacular population growth: the village area had tripled in size in just a few centuries. This population growth appears to have been triggered by successful farming, judging from the considerable increase in storage facilities during the later occupation phases.

One of the major questions that arose during the course the Ilıpınar excavations was whether the collected data could be taken as a reliable sample of early farming community life in this part of Anatolia. Soundings at Menteşe near Yenışehir confirmed the results from Ilıpınar in a number of important aspects, and also made an unexpected extension to its chronology. Basal Menteşe had been established approximately four centuries before the occupation of Ilıpınar, making it the earliest radiocarbon-dated settlement in the eastern Marmara region found to date. The pottery from Menteşe and Fikirtepe shows strong similarities: Menteşe shows a development from the archaic phase of Fikirtepe into the classical phase, whereas early Ilıpınar shows parallels with classical Fikirtepe only. This leads us to a suggested chronology linking Basal Menteşe to archaic Fikirtepe, and classic Fikirtepe to early Ilıpınar. With the combined occupation histories of both Menteşe and Ilıpınar, we can lay out a millennium-long, apparently uninterrupted sequence (running from 6400 to 5400 cal. BC) of early farming settlements in the eastern Marmara region.

For a report on the 2001 season, see Roodenberg (2003).

Kırklareli - Aşağı Pınar: The first volume of a series of final publications has appeared (Karul et al. 2003).

Ulucak Höyük: For details of the 2003 season, see Derin and Çilingiroğlu (2003).

BRONZE AGE

Southeastern Anatolia and Cilicia Batman/Ilsu rescue area

Müslümantepe: Eyyüp Ay very kindly provided the following report:

"Müslümantepe is located in Şahintepe village in the district of Bismil in Diyarbakır province. The mound consists of two parts: the summit and the skirt. It measures 430m north-south, by 320m east-west. The elevation of the summit is 406.353m above sea level; 21m above the bottom of Tigris River. On the western and northern sides the mound is bounded by the Tigris, on the eastern side it is bounded by the Çoramezri Dere, which flows from the south into the Tigris; the mound has the appearance of a peninsula. Using sounding trenches, opened in the south skirt and in the west slope, the geomorphological structure of the mound was examined and some preliminary results were reached. The mound was evidently not established directly on the bed of the Tigris, but on a ten meter thick Late Pleistocene Terrace (for the skirt), and on a slope of five meter thick Holocene Terrace (for the summit), which had begun from 15 thousand years ago. "Müslümantepe was first visited by G. Algaze and his team during their survey of the Upper Tigris Valley. The preliminary results of the survey of the site carried out by our team in 1999 have now been published.

"In 2000, 2001 and 2002, excavation took place on the summit, in the skirt, and in the cemetery. On the summit, a step-trench was opened, oriented southwards and consisting of eight 5m by 5m trenches (Figure 3). On the skirt, twelve 5m by 5m trenches were opened; and in the cemetery, thirteen.

"On the top of the summit, under a thin Islamic level, 11-12th century medieval tombs were found. The tombs were mostly cist graves, covered with branches. In some of the medieval

tombs, there were Byzantine grave goods as well as pagan Roman traditional burial gifts. Besides glass bracelets, in the grave of a young woman, there was also a Venetian coin of the 12th century, in her mouth. After removing these tombs, the Middle/Late Assyrian period was reached. Here, beside two pieces of Nuzi pottery, an Assur goblet, of a type known as "palace ware", was found.

"As the field of the skirt was surveyed, ateliers, contemporary with the Assyrian level of the summit, were found right on the surface. The melting ovens of these ateliers were important for mining in the region. This level was also damaged by the medieval tombs and modern agricultural activity.

"A prehistoric cemetery was discovered covering a wide area to the south side of the mound. In irrigated and farmed field, the tombs are very badly damaged. Some of the tombs were scattered and many burial gifts were found out of context on the surface. The Early Bronze Age tombs were mostly in the form of cists, bonded with limestone blocks. Late Uruk/Ninivite 5 transition (in words of R. V. Gut, see Figure 4), Ninivite 5, and Metallic Ware were found as burial goods. In most of the tombs there were very few skeletal remains. In some, the bones had dissolved because of irrigation, and others had been robbed in ancient times and destroyed. The dead were most probably laid in the tombs in the hocker position. The Hellenistic tombs were mostly in pithoi.

"In 2003, work in the step-trench will intensify. On one hand the Middle/Late Assyrian levels will be examined, and on the other there will be general work on the stratigraphy of the mound." For further information on the excavations at Müslümantepe, see Ay (2001, 2002).

Ziyaret Tepe: For reports on the 2000 and 2001 seasons, see Matney et al. (2002) and Matney (2003), respectively.

Birecik and Karkamish Rescue Areas and Environs

Gre Virike: For a report on the 2000 season at Gre Virike see Ökse (2002) and for the 2001 season see Ökse and Bucak (2003).

Mezraa Höyük: Mezraa Höyük, one of the smaller mounds on the left bank of the Euphrates in the Karkamish dam rescue, has been subject to excavations since 2001 under the direction of Derya Yalçıklı of Hacettepe University. The site was occupied during the Late Chalcolithic to EB transition, and was later covered by a medieval settlement that also has substantial building remains.

Investigations of the earlier remains were carried out in several trenches arranged in steps on the southeastern slope. Late Chalcolithic occupation was represented by a sequence of domestic houses (Figure 5) and continued without interruption into the EB. During the EB period, an enclosure wall made from stone slabs was erected. The pottery assemblage associated with the excavated house units contained the usual mixture of local products and Uruk traits that are characteristic for the area (Figure 6). This pottery is comparable to the material known from sites such as Zeytinlibahçe Höyük.

For reports on the excavations at Mezraa Höyük, see Yalçıklı and Tekinalp (2002, 2003).

Şaraga Höyük: The focus of excavations by M. Kemal Sertok in 2002 was levels 3 and 4 of the site and included a sondage and a step trench. In trenches K18 and L18 were found the remains of Middle Bronze Age building, made of mud-brick construction with stone foundations. Here, a burnt area with in situ pottery was interpreted as a kitchen. Immediately below this building was a very similar building, evidently a house, which contained a tandır. This building had been burnt. Finds included beads and pottery, dating to the 16th to 14th centuries BC. The fourth building level dates to the early Iron Age.

The well preserved remains of this level included a surfaced road and fragments of a building. The results of the 2000 season are now published by Sertok and Kulakoğlu (2002).

Surtepe: See Fuensanta et al. (2003a).

Şavi Höyük: Two reports on the short-term excavations at Şavi Höyük have appeared (Dittmann et al. 2002; Dittmann 2003).

Tilbes Höyük & Tilvez Höyük: See Fuensanta et al. (2003b).

Zeytinli Bahçe Höyük: For publication of the 2000 season, see Frangipane et al. (2002).

Kilis-Hatay-Cilicia

Hatay - Adana - Şanlıurfa Survey of Megalithic monuments: The survey of megalithic monuments begun by Bakiye Yükmén was continued in 2002 by Tülin Arslanoğlu. More Dolmen-type tombs were found and recorded in Hatay, Maraş and Şanlıurfa, bringing the total number of sites to 75. A Hittite warrior rock relief was also found at Gökçedan.

Kilis Survey: The first stage of an archaeological survey of Kilis province was completed in 2002 with another 43 sites being located in the easternmost and westernmost outskirts of Kilis province, bringing the total number of sites registered so far to 144. As in previous years, the Early to Middle Bronze Age and Late Roman to Byzantine flat settlements were best represented in the record. Pre-Bronze Age sites are still rare for reasons that are as yet not clear.

For a preliminary report on the 2001 season see Özgen et al. (2003).

Kinet Höyük: For a preliminary report on the 2001 season, see Gates (2003).

Porsuk Höyük: For an overview on the site and work in 2001, see Pelon (2003).

Tell Atçana-Alalakh/Amuq Valley Regional Project: Aslihan Yener continued with her preparations to excavate at Tell Atçana - Alalakh, aiming in the long run to expose the western wing of the level VII Yarim-Lim palace. However, before this work has even started, research on the old Woolley study collection in the depots has yielded surprisingly rich and previously unpublished finds. These included semi-circular bronze lumps, lion shaped weights, Mycenaean vessels among other things. Of particular importance are a group of 519 cuneiform tablets that are now being prepared for publication. Isotope analysis suggests that the tin from the bronzes originated from the Bolkardağ mines. All these finds are to be moved from the old Woolley depot to Antakya Museum where they will be prepared for exhibition. A topographic map of the mound has been prepared in readiness for the renewed excavations.

A geoarchaeological survey of the Amuq Plain, conducted by Tony Wilkinson, focussed on the higher elevations to the east of Antakya and close to the littoral. New sites were recorded dating from the 3rd millennium BC to the Islamic period, with the Hellenistic/Roman period being particularly well represented.

Tell Tayinat: Timothy Harrison conducted geo-magnetic investigations at Tell Tayinat. Work concentrated in the lower town, where densely arranged houses were visible, and around Gateway III, where the wall could be traced over a considerable area.

Tilmen Höyük: Originally excavated in the 1960's by U. Bahadır Alkım, Tilmen Höyük is a medium-sized settlement mound occupied from the Late Ubaid period to the 2nd millennium BC., at which time it was the capital of a small kingdom. In 2002, Refik Duru began conservation and clearance work of the 2nd mill. BC buildings, with the aim of turning the site into an open air museum. Work has so far concentrated on two areas: the palace and the fortification wall.

The fortification wall was constructed of cyclopean blocks using the *kastenmauer* method. Restoration began at the main gate. This was once accessible via a staircase of 17 steps but it is now largely destroyed. The palace was a large building complex consisting of a hall with pillars and a Hilani style temple. Work began here with the clearance of the Hilani temple area. A new book on the site has been published by Refik Duru (2003).

Other Sites

Gre Dimse: The results of the last season of excavations carried out at Gre Dimse in 2000 by the late Norbert Karg have been posthumously published (Karg 2002). Much of the material found in that season was Hellenistic, with some Neo- and Post Assyrian pottery.

Giricano: For publications see Schachner (2002) and Schachner & Schachner (2003).

Kuşaklı Höyük - Sarissa: For a detailed report on the 2001 season see Müller-Karpe (2002) and for a report on the work from 1999-2001 see Müller-Karpe (2003).

Sos Höyük-Erzurum: The upper levels of Sos Höyük have been given reconsideration in a recent article by excavators Antonio and Claudia Sagona (2003).

Karatepe-Aslantaş: Restoration work continued at the twin sites of Aslantaş and Domuztepe under the direction of Halet Çambel. Restoration and reconstruction work was conducted on the north and south gates and defensive walls and turrets of Aslantaş. At Domuztepe, a number of large sculptural fragments were located and removed to safe storage. The sculptures included two large human statues, a tree of life scene, a figure with a horned crown and three lions, one of which was unfinished. For details on the 2001 season see Çambel et al. (2003). The first volume of the final publication from Karatepe-Aslantaş excavations has finally

appeared (Çambel and Özyar 2003).

Eastern, Northern and Central Anatolia

Acemhöyük: For a report on the 2001 season see Öztan (2003).

Alaca Höyük: Excavations in 2002, under the direction of Aykut Çınaroğlu, concentrated on two areas: the continued excavations on the western side of the mound and a Hittite dam to the south-east of the mound itself.

In the area behind the Mavi Saray (Blue Palace), a remarkable quantity of well preserved pottery was discovered in the latest Phrygian layer. The finds included pottery decorated with animals, such as fish; a complete belly amphora; and stone beads. The discovery of burials suggests the existence of a Phrygian necropolis. In one burial two skeletons were found foot-to-foot, and another inhumation was in the hocker position. From lower down in the Phrygian levels came a seal, pierced animal bones and early Phrygian pottery.

Excavations extended to the north and discovered a new room, measuring 12m by 17m. This was possibly a grain depot. Finds included a miniature bull figurine of Old Hittite date and a hieroglyphic impressed bulla. To the north of the silo was a metal working area. Finds here included *Signe Royale* pottery, two small pieces of gold and bronze pins and nails.

To the south-east of the main mound, was found a 13th century BC dam. The dam wall was 110 metres long and had a complex design consisting of a wall, parallel to which ran a channel, a pool, and then another channel. Outside of the dam, an iron knife was found. The reservoir was emptied and refilled with water.

For publication of the 2001 season, see Çilingiroğlu and Genç (2003).

Boğazköy: Investigation of the Hittite capital continued under the direction of Jürgen Seeher with excavations in the western part of the Upper City to the north-west of the Sarı Kale.

Here, resistivity survey had revealed blocks. On excavation, a Roman-Byzantine terrace wall, which had been built to prevent soil erosion was found. Below this, in the east of the excavated area was a building complex with rectangular rooms made with stone foundations and mudbrick walls. The complete plan of the building, which appears to have been a Hittite lodge was recovered. Finds included a knife, spear heads, a Neolithic clay stamp seal, and sea shells, some of which were still closed, that must have been imported from the Mediterranean or Black Sea.

In a second excavation area, to the south, a layer of deep colluvium covered the remains. Here, the archaeological levels were cut by deep pits. The remains included a cellar level with *in situ* pottery, including spindle bottles and a fragment of a relief vase with a musician. Other finds included seal impressions and seals, knives, bronze moulds, and a spade-like bronze item with no known parallel.

Cores were taken of lacustrine deposits in a pond 600 metres away from the King's Gate. It is hoped that analysis of the cores will reveal pollen evidence for the environment of the site in Hittite times.

For a report on activities in 2001 see Seeher (2002; 2003).

Hüseyindede Tepesi: Since 1997, excavations at the important Hittite cult centre of Hüseyindede have continued under the direction of Tunç Sipahi and have greatly helped to further our understanding of western central Anatolia.

In 2002, a new building was found in the west of the main excavation area. Here a road, flanked by buildings, runs north-west to south-east through the site. Fragments of Old Kingdom Hittite pottery were found. At the eastern end of this road, two ovens were found in the middle of the road. On the south side of the road, rectangular buildings were found. Here, in Building II, more fragments of the relief pottery,

for which the site is famous, were found. These include four fragments with animal figures; one figure of a male head, with cap and fringe; one of an arm, which parallels an acrobat found at Boğazköy; and one of a lion with detailed mane. Other finds included many spindle whorls and a bronze belt buckle with parallels at Ortaköy and Boğazköy.

Surface survey of the environs of Hüseyindede has now begun. For publication of the 2001 season's work see Yıldırım and Sipahi (2003).

İkiztepe: Önder Bilgi of Istanbul University continued with excavations at İkiztepe mound I, where work was resumed in 2000, following investigations of the EB cemetery between 1975 and 1986. An extension of trench M, running parallel to the northern slope, allowed 6 layers to be distinguished, a total of 1.8 meters of cultural deposits, with layers 6-4 dating to EB II, and 3-1 to the EB III period. This sequence consists largely of a floor level with almost no other architectural remains. Layer 4 yielded evidence of a wooden construction below the floor, apparently a frame of some kind. Thirteen simple inhumations were recorded in the excavated area, some with lead and bronze jewelry and other modest artifacts.

For reports, see (Bilgi 2003a, 2003b).

Kaman-Kalehöyük: In 2002, excavations under the direction of Sachihito Omura continued with the same objectives as previous seasons, namely to explore the stratigraphy of the northern trench and to further expose the Iron Age levels in the southern area, as well as to continue geo-magnetic investigation in the lower town.

In the northern area it was possible to distinguish four separate building levels, numbered I to IV from top to bottom. Level I was Ottoman in date and overlay three Iron Age building phases (IIa-c). IIb-c were dated by scarab seals to the middle of the 8th-7th centuries BC. Level IIc revealed some interesting architectural details, such as five ovens and a sherd-paved floor. Level III consisted of large round grain

silos, 15 m in diameter and 4.5 m deep. The walls of the silos are 2.5 m thick and were built of stone, with slightly inclining walls and a plastered lining. One silo had five column pits on the floor. All of the silos contained large amounts of charred wheat. Judging by the enormous size of the silos, Kaman may have acted as a regional grain depot in the Old Hittite period. The late Early Bronze Age is represented by the Level IV buildings, with a number of new rooms being uncovered, adding to our understanding of the plan of the settlement in that period. One of these rooms was a semi-subterranean building, similar to those found previously at the site. Five sub-phases could be distinguished. The upper three contained wheel-thrown and handmade pottery, while the lower levels yielded almost exclusively handmade pottery. Level IV therefore dates to the transition from Early Bronze to Middle Bronze Age.

For a report on the excavations in 2001 see Omura (2003a). For a report on geo-archaeological work at the site and its surroundings, which included coring of Lake Seyfe and alluvial fans in the area with the aim of tracing environmental change in the Central Anatolia region, see Omura and Kashima (2003).

The Central Anatolian Survey: The Central Anatolia Survey has been conducted in conjunction with the Kaman Kalehöyük excavations and was extended in 2002 to revisit the province of Kırşehir, a region previously investigated by the same team in 1986-88. Out of the 158 sites recorded, 115 were tumuli, the others were settlement mounds and flat settlements. The oldest sites date to the Late Chalcolithic period, and so far no evidence for Neolithic settlement has been found. The Chalcolithic pottery was handmade, with incised and impressed decoration and is comparable to that of Alişar. Settlement density seems to have increased considerably during the Early Bronze Age, when Alişar III painted ware and intermediate style ware occur, similar to that of level Kaman-Kalehöyük IVa. A different type of site is characteristic of the Late Bronze Age, when flat slope settlements appear

to have been preferred to mounded sites. For a report on the 2001 survey activities see Omura (2003b).

Kovuklukaya: The construction of the Black Sea highway necessitated rescue excavations at the Bronze Age settlement Kovuklukaya, on the route from Cankiri to Sinop. The work took place in the summer of 2002 through cooperation between Sinop Museum and the University of Istanbul. The site covers an eastern facing slope and measures about 300m by 400m. Seven trenches and two soundings were made, revealing a sequence of building layers, the uppermost of which is of Byzantine date, with the lower ones being from the Bronze Age. The most striking feature was a large, roughly pentagonal semi-subterranean building in Layer 5, constructed from flat sand stone slabs set into the ground, measuring approximately 7m by 8m. This building appears to date from the EB period, while later fill found inside the ruins contained wheel thrown pottery typical of the MB period.

The oldest remains were uncovered in the step trench, Trench 7. Here, four layers were observed, running from the Late Chalcolithic to the EB II period, with material comparable to Yassıkaya and İkiztepe. For a short report, see Özcan, et al. (2003).

Küllüoba: Located in western Central Anatolia, 35 km south of Eskişehir, the Early Bronze Age ten metre high mound of Küllüoba is being excavated by Turan Efe. In the past seven years, the excellently preserved mudbrick architecture has revealed a highly unusual settlement plan. These mudbrick walls with stone foundations are very important for the architectural history of western Anatolia. In 2002, excavations concentrated on the east trench, where an elaborate gate system is being uncovered.

Entrance to the site was convoluted and made by means of a series of rooms, through which those entering would have to zig-zag to gain access to the site. This complex entry system

would lead on south, then east, then south again, before opening into a large court. The entrance also had a small side chamber that would have helped to control entry to the site. Across the courtyard from the East Gate, on the west side, was a large megaron complex. On the north side of the courtyard there were depots. On the south side were found a possible road and two kitchens with burnt *in situ* pottery. The pottery included a chevron decorated jar and jug, Beycesultan EBI style fragments and two figurines.

South of the east trench a second large (22 metres long) megaron complex was found. In front of this second megaron, to the west, was an open courtyard with grey clay packing, dug into which were graves containing skeletons. Further research will be needed to find out how this clay came to be here.

Excavations at Küllüoba have shown that this was an important centre with a probable EBII palace complex and wide ranging contacts, with parallels to Troy and Beycesultan. For publication of the 2001 season's work see Efe (2003).

Külhöyük: Excavations have continued at this Hittite site near Ankara. A third cylinder seal has now been found and published (Çetin 2003b). For a report on the 2001 and 2002 seasons see Çetin (2003a) and Denizli et al. (2003), respectively.

Kultepe-Kanish: The 2002 season of excavations at Kültepe-Kanish, under the direction of Tahsin Özgüç, concentrated on the second building level of the burnt lower town. As in previously excavated areas, the houses uncovered were arranged along stone paved streets with water channels covered with stone slabs running through them. Below the floors of the houses were burials, most of which had already been looted in antiquity. Several of the houses contained small archives. Some of the texts were still inside envelopes and some bore the impressions of cylinder seals.

Among the finds from this year's season, animal shaped rhyta and silver jewelry are of particular note. Despite the looting, the graves still yielded bronze weapons and jewelry as well as cylinder seals and seal impressions.

The first in a series of publications letters previously recovered from the site has been published by Larsen (2003).

Ortaköy-Şapinuva: Excavations by Aygül Süel continued in 2002, focussing on the south-west corner of the site where a gate complex was found.

The gate was flanked by two orthostats and a four centimetre deep gate hinge. On one orthostat was the lower half of a god figure with a bow, but the other was too badly damaged to be discernable. Inside the gate, on the north side were a series of four 2m by 4m depot rooms that contained complete pots, including large storage jars, numerous seal impressions and cuneiform tablets. On the south side was a 5m by 5m room, which contained five pithoi and other small pots, which were restored. Inside the gate, a conical bronze helmet was found and sent for conservation in Ankara Museum. Also found were burnt bronze plates, axe heads and spear heads, inscribed with the name of the Great King and a group of obsidian artefacts.

Analysis of the plastered coating of the mud-brick walls of the site has also been conducted (Güdücü et al. 2003).

Paphlagonia Survey: A report on the 2001 season has now been published by Roger Matthews (2003).

Van - Ağrı - Iğdır Survey: Aynur Özfirat's ongoing survey project in Eastern Anatolia was joined in 2002 by Catherine Marro from the CNRS Lyon. They were able to record 23 sites in the plains of Iğdır and Doğubeyazıt as well as the eastern slope of Ağrı Dağı. These included settlement mounds on the high plains that date

from the Late Chalcolithic to Early Bronze Age period. The Late Chalcolithic pottery is chaff-tempered and is related to the well-studied Syro-Anatolian Late Chalcolithic style. According to C. Marro, it is comparable to assemblages from Northern Syria, the Balikh Valley and Amuq F. The Early Bronze Age material is painted and burnished.

Castles with cyclopean or semi-cyclopean walls sit on top of rocks overlooking the plains. These are usually associated with cemeteries that extend onto the lower slopes, a pattern that appears to be characteristic for most of Transcaucasia, for example in the Alagöz Dağ area. Grave types are either shallow kurgans or round stone cairns, covered by stone slabs. All of these graves had been looted, but some red slipped Urartian pottery was retrieved from their fill. Material collected from the castles and the cemeteries dates from the Middle Bronze Age to the Iron Age. Most remarkable of all is the occurrence of grooved ware characteristic of the Late Bronze to Early Iron Age.

Western and Coastal Anatolia

Aydın and Muğla Survey: See Günel (2003a, 2003b) for reports on results from the 2001 season.

Bademağacı: The extension of trenches on the SE slope allowed the plan Building 12 to be fully exposed as a typical EB II megaron. Extending the EB trenches revealed a stone pavement that extended further to the northwest. Close to the church, stone wall remnants of MB date were recorded together with occasional finds of bronze pins and similar artefacts. For the Neolithic period, see above.

Çavlum Köyü Mezarlık: For a recent report, see Bilgen (2003).

Çeşme-Bağlararası: A new excavation site was opened next to the modern harbour of Çeşme in 2001. The excavations lead by Hayat Erkanal uncovered Middle Bronze Age levels that included Minoan pottery.

The first architectural level consisted of three wall fragments and 16 rubbish pits. Local MBA pottery forms from this level included a pyxis and single handled cups. There was also Minoanising pottery painted with spirals. Imported pottery included true Minoan pottery, including ripple pattern of the LMIIa period, and Cypriot white painted ware. Discoid loom-weights were also found.

The second architectural level consisted of blocks of houses (nine so far) and two streets. Unusually, the architecture incorporated occasional rounded corners and, in one case, a triangular house. The walls were preserved in places to a height of one meter and one wall was plastered, with the fine plaster coat being only millimeters thick. Domestic installations include ovens and an installation for wine production.

Foça: Excavations in the modern town of Foça (ancient Phokaia) have been conducted for a number of years by Ömer Özyiğit. Until now these excavations have revealed the classical period remains of the town, but in 2001 Bronze Age levels were encountered.

The third millennium Early Bronze Age levels consisted of a paved surface and a stone axe. The Middle Bronze Age levels were more substantial and included an oval building and second millennium pottery. Above these there were considerable early Iron Age remains.

Gökçeada (Yenibademli Höyük): Excavations continued in 2002 at the site of Yenibademli Höyük under the direction of Halime Hürýılmaz. The site lies in a small valley on the north coast of the island of Gökçeada (Imbros). More of the architectural levels uncovered in previous years were revealed. Palaeobotanic, geographic and geomorphological analysis was also conducted on the remains from the site and its surroundings. For publication of the 2001 season, see Hürýılmaz (2003).

Kuşadası - Kadı Kalesi: Excavations by Zeynep Mercangöz at the Byzantine castle of Kadı Kalesi near Kuşadası, held unexpected surprises for Bronze Age scholars in 2001. During excavations in front of the south-west side of the castle, an eight centimetre high bronze figurine of a Hittite god, with his right arm raised in a smiting position was found. In a sondage inside the south-eastern gate of the castle, Mycenaean LH IIIc pottery was found. The pottery has a scene of birds taking flight. The site of Kadı Kalesi lies 25km south of Ephesos, presumed to be the site known as Aspasa in the Hittite texts.

Panaztepe: The site of Panaztepe, excavated by Armağan Erkanal-Öktü, consists of three large areas: an acropolis, a harbour town, and a necropolis to the west. It is this cemetery area that has been the focus of recent research and which continued to be the site of excavations in 2002.

Finds from the necropolis in recent years have included a north-west/south-east oriented boundary wall, Mycenaean-style tholos tombs and a stone platform. It was to the south of that stone platform that the major find of the 2002 season came, in the form of a built stone chamber, measuring 2.2 meters in length (east to west). This tomb was cut by the stone platform and had a dromos/stomion entrance. Finds from the tomb included well preserved Middle Bronze Age pottery (Panaztepe Period 3), beads, spindle whorls, astragali and a scarab. Previously, two pithos burials at the site were found to contain scarabs and this new one appears to date from the same period: the 12th century BC. In the dromos were found fragments of a silver plaque with impressed decoration.

In addition to the tomb chamber, two new cist graves were found. The necropolis of Panaztepe has now been found to contain pithos burials, cist graves, tholos tombs and now built chambered tombs.

In 2001, a regional survey was begun in the area

around Panaztepe. The results of this survey are presented by Erkanal-Öktü et al. (2003). For a report on the 2001 season, see Erkanal-Öktü and Güler (2003). Non-destructive analysis (X-ray, Neutron radiography, penetrant testing) of three arefacts was conducted to assess the effects of corrosion and discovered that the bronze sword had also included other materials (Tuğrul and Erkanal 2003).

Isparta - Harmanören Mezarlık: Excavations of the Middle Bronze Age cemetery continued under the direction of Mehmet Özsaıt. Burials were in large pithoi, with small handles, sealed with stones or an inverted pot and often found lying on their sides. In 2002, ten burials were found in a single trench. In one area there was evidence of the stratigraphic inter-cutting of two graves, where a Middle Bronze Age burial had cut into an EB2 one, containing a gargara pot and a weight. The most common finds in the MBA graves are pottery (especially jugs) and spindle whorls. The pithoi were cleaned and removed to Isparta Museum.

For a report on the 2001 season, see Özsaıt (2003).

Liman Tepe: The extensive program of excavations and archaeological research at the prehistoric site of Liman Tepe continued in 2001, under the direction of Hayat Erkanal. Underwater excavations on the north-western end of the submerged harbor walls below the early bronze age city, made using an air lift system to remove sediment, recovered archaic pottery. On the summit of the mound itself, to the north of the road that divides the excavated areas in two, a Roman burial complex was found. There was also further excavation of the EB corridor house and other prehistoric buildings in this area. For publication of the 2001 season see Erkanal et al. (2003).

Miletos: The excavation of Bronze Age Miletos by W-D Niemeier resumed in 2002. A late Roman taverna, apparently reused in the Byzantine period, and a large Hellenistic pit had

disturbed the Bronze Age stratigraphy to the west of the main trench. However, to the north of the taverna undisturbed LHIIIa2 strata were found. This is the level that Niemeier equates with the destruction of Millawanda by the Hittite king Mursilli II. A remarkable find was a pottery kiln (the eighth now found), which was sub-rectangular with a series of channels. Pottery finds included stirrup jars. Peter Kuniholm analysed fragments of carbonised wood found in association with what is assumed to be Theran tephra but was unable to ascertain a date. Pottery restoration work was also carried out.

A recent book by the author (AG), which includes a chapter on the Bronze Age of Miletos, has now been translated into Turkish (Greaves 2002, 2003).

Torbalı - Bademgediği Höyüğü: Excavations at the Bronze Age site on the İzmir-Aydın motorway, near the classical city of Metropolis, continued in 2002 under the direction of Recep Meriç.

Archaeological deposits at Bademgediği Höyüğü date from the Middle and Late Bronze Ages and the early Iron Age. There were entrances to the site on the north and south sides. In 2002, there were good results from the excavations on the north side. Here four levels were identified.

The first level dated from the early Iron Age and included local greyware pottery of Aegean type, with parallels to the archaic and geometric pottery on the island of Chios. The second level included numerous examples of Late Bronze age pottery of the Mycenaean LHIIIc style, identified by Penelope Mountjoy. In the third level was pottery of the Minoan LMIIIa2 style and other grey pottery. Finally, from the lowest level was red Middle Bronze Age pottery, which finds parallels at Beycesultan and Aphrodisias, and a fragment of Minoan LMIIa ripple pattern pottery. For a report on the 2001 season see Meriç et al. (2003).

Troy (Troia): In 2002 archaeological research continued at Troy (Troia) under the continuing direction of Manfred Korfmann. The inter-disciplinary project combines excavation, geophysics and many other scientific and archaeological approaches to the study of the site. Despite now being in his fifteenth year of work at the site, the stratigraphic problems thrown up by Korfmann's research continue to both enlighten and challenge. He kindly provided the following information: "In the area of Gate FO, Early and Middle Bronze Age levels were investigated. In area FG5/6 a number of Period IV houses were uncovered. From G5 came a face-lid of exceptional quality, associated with a Troia IV burnt deposit. It was observed that there had been significant leveling off to create flat areas in late Troia IV, earlier than had previously been expected. A rare find was strata containing early Tan-Ware shapes with forms previously unknown at Troy (Troia), which Penelope Mountjoy has associated with Mycenaean LH III A1 types (c. 1400-1375 BC).

"In Quadrant zA1, excavations in the rear of the large Courtyard House a fill was found to contain remains of pithoi, sling bullets, and the remains of a large bull vessel with a wheel-made body. This piece demonstrates how Anatolian features can be combined with Mycenaean at Troy (Troia), with the eyes and sculpted parts being Anatolian but the decoration Mycenaean. Similar cult items have been found at Hattusa and Kuşaklı-Şarissa."

It is pleasing to note the large number of Turkish colleagues involved in the 2002 season at Troy (Troia), marking this out as a truly international research project. Works designed to make Troy (Troia) more accessible to visitors continues, with the water caverns and cisterns being a particular focus of attention this year.

For a report on the 2001 season see Korfmann (2002, 2003). For a discussion of Troy in a wider context, compare Sperlich (2001). A conference devoted to the scientific methods applied with-

in the context of the Troy Project has appeared (Wagner et al. (eds.) 2003).

A clear summary and balanced discussion of the recent highly-charged Troy debate has been presented by supporters of Manfred Korfmann and is a welcome addition and possible endpoint to that particular topic (Easton, D. F., et al. 2002).

IRON AGE

Eastern Anatolia

Anzaf Kalesi: Oktay Belli continued with his investigations of the Haldi temple area at the Urartian fortress of Yukarı Anzaf Kalesi in 2002 by concentrating solely on the temple depot area located on the highest point of the mountain. The temple depot consisted of storage rooms with or without pithoi, separated from each other by corridors. Five rooms, corridors and a large hall were have so far been uncovered. Finds collected from the rooms and corridors include one cuneiform tablet with seal impression, and a collection of iron and bronze points. For a report on the 2001 season, see Belli and Ceylan (2003).

Ayanis: The citadel of Ayanis lies 35 km north of Van and is being excavated by Altan Çilingiroğlu.

In the middle of the 450m by 150m citadel lies a temple complex, measuring 30m to a side. In the temple court a narrow entrance was found on the east side, with three alabaster threshold blocks. These blocks continued under the mud-brick wall where the doorway had been narrowed, perhaps as the result of earthquake damage. On the south side of the central cella were found three pots and some burnt timbers. It is possible that fire cult had been practiced here, a practice that finds parallels in Iran. Examples of finds from this trench include: four bronze helmets, of a type with known parallels in Russia; iron nails, arrowheads and spearheads; and a cauldron stand, possibly for a pithos.

For a report on the 2002 season see Çilingiroğlu and Sağlamtimur (2003).

Giricano. See above.

Hakkari: For a summary on the detection of the Hakkari stelae, see Sevin and Özfirat 2001. A discussion of the pottery related to the graves is provided by Özfirat (2001, 2002). The anthropological analysis of the bones from the Hakkari tombs is published by Gözlük et al. (2003).

Oylum Höyük: In 2002 excavations were renewed on the summit of the mound at Oylum Höyük, under the direction of Engin Özgen. Here a series of bell-shaped pits, apparently used for storage and dating from the Iron Age, were found. Above this Iron Age material was a large building of mudbrick construction of unknown date. The Iron Age levels and the mudbrick building had been cut into by Hellenistic pits and a large Roman ditch, resulting in a complex stratigraphic sequence for the uppermost layers of this very large and long-lived settlement mound.

Tavium survey: A report on the 2001 season, which includes some Early Bronze Age sites, has been published (Strobel and Gerber 2003). Also, a detailed report on the pottery has appeared (Gerber, C. 2003).

Upper Euphrates Survey: Ertuğrul Danık reported several Urartian castles from his surveying in Elazığ and Tunceli provinces that covered the flooding zones of two small dam projects. Within the Konaktepe Dam area, Ambar Kalesi is an Urartian castle re-used in medieval times, associated with Urartian rock graves. Sinan Kalesi in the district of Pülümür was equally used since the Iron Age and again in Hellenistic/Roman and Medieval times, and Pertek Kalesi in the Uzunçayır Dam flooding zone equally goes back to the Urartian period.

Van Yoncatepe: The 2002 season at Yoncatepe,

under the direction of Oktay Belli of Istanbul University, continued with extensive excavations on the summit of the mound and with an investigation of the cemetery.

On the summit of the mound, a large stone-paved courtyard and adjacent rooms were uncovered. The courtyard was surrounded by a wall constructed of stone and mudbrick. The interior face of this wall had been plastered with clay. A wide gate located at the northern end of the eastern wall gave access to the court. Among the smaller rooms adjacent to the courtyard, a storeroom filled with pithoi is of interest. Some of the rooms appear to have had walls painted dark red.

In the cemetery, one intact stone cist grave was uncovered, containing the hocker burial of a child. Five more simple inhumations were recorded. Elsewhere in the graveyard, the graves had been disturbed, and human bones and dog bones occurred in mixed contexts.

For a report on the 2001 season, see Belli (2003a); for a short note on the 2002 season see also Belli (2003b).

Central and Western Anatolia

Gordion: Large-scale conservation and some excavation work continued at the Phrygian capital, under the direction of Kenneth Sams. In the tomb now known to be erroneously called the Midas Mound, a massive steel-framed support system was installed to relieve the burden on the centuries-old juniper logs of the inner burial chamber, which are currently bearing much of the weight of the mound overhead. The installation of this frame necessitated the digging of a number of small pits adjacent to the tomb chamber. These small sondages revealed important new information about the construction techniques used to build the tomb, and uncovered stone foundations. Excavation work also continued on the mound itself.

For a report on the work in 2001 see Sams and Voigt (2003).

Kerkenes Dağ: In what is now the tenth season of archaeological research at Kerkenes, systematic geophysical survey continued together with excavation, under the direction of Geoff Summers and his colleagues.

With the completion of the complete geomagnetic survey of the site and the on-going resistivity and GIS work, analysis of the urban dynamics of this large site can now begin in earnest. In areas of the lower part of the city it was possible to discern urban blocks with streets between them. The blocks appear to be crammed with various types of buildings.

Excavation of the Palace Complex by David Stronach further uncovered a monumental gateway and a columned Audience Hall. The gateway appears to have been grand, judging by the remains of a sandstone column base. A pair of bronze plaques showing rampant ibex, that had probably once adorned the gateway, were found lying directly on the pavement. On the opposite side of an open courtyard to the monumental gateway was the Audience Hall. This was a very large building with an anteroom. The hall, measuring 20m by 20m, had two rows of wooden columns, 1m in diameter, on carved sandstone bases. There appear to have originally been five bases per row, but some have since been robbed out.

For an interim report on the Ashlar Building see Stronach and Summers (2003), for a report on the 2001 season see Summers et al. (2003).

Klazomenai: Güven Bakır continued excavations in the Protogeometric settlement under the so-called Elmalı Tarla and in the classical Akpınar necropolis at Klazomenai. The Elmalı Tarla area must have been densely settled at this time. Two building levels were exposed, the upper one of Geometric date. Below the Geometric fill, stone cist graves of the late

Protogeometric period were uncovered. In the southwestern part of the site, and partly disturbed by the late Protogeometric graves lay an apsidal building of the submycenaean/early Protogeometric period.

Kaman- Kalehöyük: See above, under Bronze Age.

Dascylium: See Bakır et al. (2003).

DENDROCHRONOLOGY

Peter Ian Kuniholm summarized the results of another 600 dendrochronological samples collected in 2002, covering a timespan from the 5th millennium BC to the Phrygian time. Despite the high amount of samples that the Aegean Dendrochronology Project has collected so far, not all periods are represented equally: no samples are available for the Chalcolithic period, and the classical and Roman period has failed so far to provide large enough samples.

ARCHAEOOMETRY

Tarsus: Hadi Özbal has presented the results of new metallurgical analysis on EBA II metal seals from Tarsus. These were made from a copper-antimony alloy. Neither antimony nor arsenic occurs naturally in the vicinity of Tarsus, although lead, silver and gold are found. It could not be determined whether the antimony alloy from Tarsus was the product of smelting an antimony-rich copper ore, or whether the antimony had been deliberately added.

Çavlum cemetery: Metal artifacts from the Bronze Age Çavlum cemetery have been analyzed by Ergun Kaptan. The assemblage consisted of tin bronzes with a high tin content, copper-tin-lead alloys and some objects made of pure lead.

REFERENCES

- ARIK, R., 2003
"Kubad-Abad 2001 Yılı Kazı Çalışmaları". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 299-306.
- AY, E., 2001
Yukarı Dicle Vadisi 1999 Yılı Yüzeysel Araştırmaları/Upper Tigris Valley Survey: 1999 Season Ilisu ve Karkamış Baraj Çalışmaları-Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 1999, N. TUNA, J. ÖZTÜRK, J. VELİBEYOĞLU (eds.) Ankara, METU, 695-728.
- AY, E., 2002
"2000 Excavations at Müslüman Tepe (Şahintepe)". *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 507-515.
- BAKIR, T., GÜRTEKİN-DEMİR, G., TANRIVER, C., 2003
"Daskyleion 2001". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 491-500.
- BALKAN-ALTI, N., F. BORELL, R. BUXO, G. DURU, J. JIBANEZ, O. MAEDE, M. MOLIST, M. ÖZBAŞARAN, R. PIQUET, M. SANA, J. WATTEZ, 2002
"Akarçay Tepe 2000". *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 309-318.
- BALKAN-ATLI, N., D. BINDER, 2003
"Kaletpe 2002". *Anatolica Antiqua* 11, 379-384.
- BALKAN-ATLI, N., E. BUCAK, G. DURU and M. MOLIST, 2003a
"Akarçay Tepe 2001 yılı çalışmaları". *Kazı Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 223-242.
- 2003b
"Kömürcü/Kaletpe Obsidiyen Atölyesi Kazısı 2001 Yılı". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 195-204.
- BELLİ, O., 2003a
"2001 Yılı Van - Yoncatepe Kalesi ve Nekropolü kazısı". *Kazı Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 385-392.
- 2003b
"Yoncatepe Kalesi ve Nekropolü 2002 Yılı Kazı Çalışmaları". *Türk Eskiçağ Bilimler Enstitüsü Haberler* 15, 14-15.
- BELLİ, O., A. CEYLAN, 2003
"2001 Yılı Aşağı ve Yukarı Anzaf Urartu Kaleleri Kazısı". *Kazı Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 393-404.
- BIÇAKÇI, E., Ç. ALTINBILEK, E. FAYDALI, 2003
"Tepecik-Çiflik 2000 Yılı Çalışmaları". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 397-404.
- BİLGİN, A.N., 2003
"2001 Yılı Çavlım Köyü Mezarlık Kazısı". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 389-396.
- BİLGİ, Ö., 2001
Metallurgists of the Central Black Sea Region: A New Perspective on the question of the Indo-Europeans' Original Homeland, İstanbul, TASK.
- BİLGİ, Ö., 2003a
"İkiztepe Kazılarının 2001 Dönemi Sonuçları". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 17-28.
- 2003b
"İkiztepe Kazı Raporu-2002". *Türk Eskiçağ Bilimler Enstitüsü Haberler* 15, 13-14.
- BRAUN-HOLZINGER, E. A., H. MATTHÄUS (Eds.), 2002
Die nahöstlichen Kulturen und Griechenland an der Wende vom 1. zum 2. Jahrtausend v. Chr. Kontinuität und Wandel von Strukturen und Mechanismen kultureller Interaktion. Kolloquium des Sonderforschungsbereiches 295 "Kulturelle und sprachliche Kontakte", der Johannes Gutenberg-Universität Mainz, 11.-12. Dezember 1998.
- COŞKUNSU, G., 2002
"Mezra-Teleilat Chipped Stone Industry, 2000". *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 153-158.
- ÇAMBEL, H. A. ÖZYAR, 2003
Karatepe - Aslantaş. Azatiyataya, Die Bildwerke, Mainz, Philip von Zabern.
- ÇAMBEL, H., J.E. KNUDSTAD, M. AKMAN, 2003
"Karatepe-Aslantaş ve Domuztepe 2000 ve 2001 Yılları Çalışmaları". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 485-490.
- ÇETİN, N., 2003a
"2001 Yılı Küllüyük Kazı Çalışmaları". *Müze Çalışmaları ve Kurtarma Kazıları Sempozyumu* 13, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 85-92.
- 2003b
"Küllüyük Silindirik Mühürü Üzerine Bir Araştırma". *Anadolu Medeniyetleri Müzesi 2002 Yıllığı* 2003, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 90-100.
- ÇİLINGİROĞLU, A., H. SAĞLAMTİMUR, 2003
"Van-Ayanis 2001 Yılı Çalışmaları". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 465-472.
- ÇİLINGİROĞLU, A., E. GENÇ, 2003
"Alaca Höyük 2001 Yılı Kazı Çalışmaları". *Kazı Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 509-518.
- DENİZLİ, H., V. KAYA, N. ÇETİN, 2003
"2002 Yılı Küllüyük Kazı Çalışmaları". *Anadolu Medeniyetleri Müzesi 2002 Yıllığı*, 5-27.
- DERİN, Z., ÇİLINGİROĞLU, A., 2003
"Ulucak Höyük Kazısı 2001". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 185-194.
- DITTMANN, R., S. HUH, Th. MITSCHANG, E. MÜLLER, U. RÖTTIGER, C. SCHMIDT, D. WICKE, 2002
"Report on the first Campaign of Excavations at Şavi Höyük in 2000". *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 233-240.
- DITTMANN, R., 2003
"Excavations at Şavi Höyük 2000-2001". *Kazı Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 247-258.
- DOĞAN, U., 2003
"Aşağı Salat Höyüğü'nün Jeoarkeolojisi". *Arkeometri Sonuçları Toplantısı* 18, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 131-140.
- DURU, R., 2003
Tilmen: A Forgotten Capital, İstanbul, TÜRSAB.
- DURU, R., G. UMURTAK, 2003
"Bademağacı Kazıları 2001". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 319-328.
- EASTON, D. F., J. D. HAWKINS, A. G. SHERRATT, E. S. SHERRATT, 2002
"Troy in recent perspective". *Anatolian Studies* 52, 75-109.
- EFE, T., 2003
"Küllüoba 2001 Yılı Kazı Çalışmaları". *Kazı Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 461-466.
- ERKANAL ÖKTÜ, A., B. GÜRLER, 2003
"2001 Yılı Panaztepe Kazıları". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 227-233.
- ERKANAL-ÖKTÜ, A., A.G. AKALIN, K. İREN, C. LICHTER, 2003
"2001 Kuzey İzmir-Menemen Ovası Yüzeysel Araştırması". *Araştırma Sonuçları Toplantısı* 20/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 301-314.
- ERKANAL, H., M. ARTIZY, O., KOUKA, 2003
"2001 Yılı Liman Tepe Kazıları". *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 423-436.

- FISCHER, B., H. GENZ, É. JEAN, K. KÖROĞLU (Eds.), 2003
Identifying Changes: The transition from Bronze to Iron Ages in Anatolia and its neighbouring regions. Türk Eskiçağ Bilimleri Enstitüsü Yayınları, İstanbul, Ege Yayınları.
- FRANGIPANE, M., A. ALVARO, F. BALOSI, G. SIRACUSANO, 2002
 "The 2000 Campaign at Zeytinlibahçe Höyük", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 83-99.
- FUENSANTA, J.G., P. CHARVAT, E. BUCAK, M.A. IMENEZ, P. KVEITNA, F. VELINSKY,
 2003a "2001 Suntepe Höyük Salvage Excavation Report", *Kazi Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 105-112.
- 2003b "2001 Tilbes and Tilvez Höyük Salvage Excavation Report", *Kazi Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 369-376.
- GATES, M.H., 2003
 "2001 Season at Kinet Höyük (Yeşil Dörtöl-Hatay)", *Kazi Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 283-298.
- GERBER, C., 2003
 "Die Keramikgruppen von Tavium/Büyüknemes", *Anatolica Antiqua*, 11, 223-252.
- GÖZLÜK, P., H. YILMAZ, A. YİĞİT, A. AÇIKKOL, A. SEVİM, 2003
 "Hakkâri Erken Demir Çağı İskeletlerinin Paleocritopolojik Açısından İncelenmesi", *Arkeometri Sonuçları Toplantısı* 18, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 31-40.
- GREAVES, A.M., 2002
Miletos: A History. London, Routledge.
- GREAVES, A.M., 2003
Miletos: Bir Tarih. İstanbul, Homer Kitabevi.
- GREAVES, A. M., B. HELWING, 2001
 "Archaeology in Turkey: The Stone, Bronze, and Iron Ages, 1997-1999", *American Journal of Archaeology* 105, 463-511.
- GREAVES, A. M., B. HELWING,
 2003a "Archaeology in Turkey: The Stone, Bronze and Iron Ages, 2001", *TÜBA-AR: Turkish Academy of Sciences Journal of Archaeology* 6, 125-157.
- 2003b "Archaeology in Turkey, The Stone, Bronze, and Iron Ages, 2000", *American Journal of Archaeology* 107, 71-103.
- GÜDÜCÜ, G., E.N. CANER-SALTIK, Ş. DEMİRCİ, 2003
 "Ortaköy Şapınuva Hitit Kenti Şifalarının Arkeometrik Yöntem İncelenmesi", *Arkeometri Sonuçları Toplantısı* 18, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 109-116.
- GÜLEÇ, E., S. L. KUHN, İ. ÖZER, M. C. STİNER, 2003
 "The 2001 Excavation Season at Üçağazlı Cave", *Kazi Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 473-484.
- GÜLÇUR, S., G. SAĞIR, 2003
 "Güvercinçayası 2001 Yılı Kazısı", *Kazi Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 49-58.
- GÜNEL, S.,
 2003a "Aydın ve Muğla İlleri 2001 Yılı Yüzey Araştırmaları", *Araştırma Sonuçları Toplantısı* 20/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 113-126.
- 2003b "Vorbericht über die Oberflächenbegehungen in den Provinzen Aydın und Muğla", *Anatolia Antiqua* 11, 75-100.
- HELWING, B., 2002
 Hassek Höyük, Die spätchalkolithische Keramik. *Istanbul Forschungen* 45, Tübingen, Ernst Wasmuth Verlag.
- HERSHLAG, 1988
The Contemporary Turkish Economy. London, Routledge.
- HÜRYILMAZ, H., 2003
 "2001 Yılı Yenibademli Kazısı Sonuçları", *Kazi Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 95-104.
- KARG, N., 2002
 "Sounding at Gre Dimse 2000", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 723-737.
- KARUL, N., A. AYHAN, M. ÖZDOĞAN, 2002
 "Mezraa-Teleilat 2000", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 130-141.
- KARUL, N., A. AYHAN, M. ÖZDOĞAN, 2003
 "2001 Yılı Mezraa-Teleilat Kazısı", *Kazi Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 159-170.
- KARUL, N., Z. ERES, M. ÖZDOĞAN, H. PARZINGER, 2003
Asağı Pınar I, Archäologie in Eurasien 15, Mainz am Rhein, Verlag Philip von Zabern.
- KAYACAN, N., 2003
 "Chipped Stone Industry of the Neolithic Site of Musular (Cappadocia): Preliminary Results", *Anatolia Antiqua* 11, 1-10.
- KORFMANN, M., 2002
 "Die Arbeiten in Troia-Wilusa 2001", *Studia Troica* 12, 3-33.
- KORFMANN, M., 2003
 "Troia-Wilusa Kazısı Sonuçları", *Kazi Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 113-124.
- LARSEN, M. T., 2002
The Assur-nadi Archive: Old Assyrian Archives Volume 1. Leiden, Nederlands Instituut Voor Het Nabije Oosten.
- MATNEY, T., M. ROAF, J. MacGINNIS, 2002
 "Archaeological Excavation at Ziyaret Tepe, Diyarbakir Province, 2000", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 535-547.
- MATNEY, T., 2003
 "Fifth Preliminary Report on Excavations at Ziyaret Tepe (Diyarbakir Province) 2001 Season", *Kazi Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 233-243.
- MATTHEWS, R., 2003
 "Project Paphlagonia: Regional Survey in Çankırı and Karabük Provinces, 2001", *Araştırma Sonuçları Toplantısı* 20/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 219-222.
- MERİÇ, R., ÖZ, A.K., and EKİN-MERİÇ, A., 2003
 "Metropolis 2001 Yılı Raporu", *Kazi Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 11-16.
- MÜLLER-KARPE, A., 2002
 "Untersuchungen in Kuşaklı 2001", *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin* 134, 331-351.
- MÜLLER-KARPE, A., 2003
 "1999-2001 Yıllarında Kuşaklı-Sarıssa'da Yapılan Kazı ve Araştırmalar", *Kazi Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 437-448.
- OMURA, S.,
 2003a "2001 Yılı Kaman-Kalehöyük Kazıları", *Kazi Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 11-16.
- 2003b "2001 Yılı İç Anadolu'da Yürütülen Yüzey Araştırmaları", *Araştırma Sonuçları Toplantısı* 20/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 271-274.
- OMURA, S., K. KASHIMA, 2003
 "The Geo-Archaeological Research Project at Kaman-Kalehöyük and Surroundings in 2001", *Arkeometri Sonuçları Toplantısı* 18, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 69-74.
- ÖKSE, A.T., 2002
 "Excavations at Gre Virike in 2000", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 270-285.
- ÖKSE, A.T., O. ALP, 2002
 "2000 Excavations at Saka Tepe", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam*

- Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 662-670.
- ÖKSE, A.T., E. BUCAK, 2003
"Karkamış Baraj - Gri Virike 2001 Kazısı", *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 359-376.
- OTTE, M., I. LÓPEZ BAYON, P. NOIRET, O. BAR-YOSEF, I. I. YALÇINKAYA, M. KARTAL, J.-M. LÉOTARD, P. PETITIT, 2003
"Sedimentary deposition rates and carbon-14, The Epi-Paleolithic sequence of Öküzini Cave (Southwest Turkey)", *Journal of Archaeological Science*, 30, 325-341.
- ÖZBAL, R., F. GERRITSEN, K.A. YENER, 2003
"2001 Tell Kurdu Kazıları", *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 501-512.
- ÖZBAŞARAN, M., G. DURU, H. BUTTENHUIS, N. KAYACAN, CHRISTIDOU, 2003
"Musular 2001 Yılı Kazısı", *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 259-268.
- ÖZCAN, M., F. DERELİ, Ş. DÖNMEZ, 2003
"Kovuklukaya Kurtama Kazısı", *Türk Eskiçağ Bilimler Enstitüsü Haberler* 15, 21-22.
- ÖZFIRAT, A., 2002
"Van-Urmia painted pottery from Hakkari", *Archäologische Mitteilungen aus Iran und Turan* 34, 209-228.
- ÖZGEN, E. B. HELWING, 2001
"Ausgrabungen auf dem Oylum Höyük, 1997-2000. Zweiter vorläufiger Bericht", *Istanbul Mitteilungen* 51, 61-136.
- ÖZGEN, E., B. HELWING, A. ENGİN, 2003
"Oylum Höyük, 2001", *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 345-354.
- ÖZGEN, E., B. HELWING, L. HERLING, A. ENGİN, 2003
"The Oylum Höyük Regional Project: Results of the 2001 Prospection Season", *Araştırma Sonuçları Toplantısı* 20/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 151-158.
- ÖZKAYA, V., O. SAN, H. YILDIZHAN, 2002
"Excavations at Köntik Tepe: 2000", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 752-759.
- ÖZKAYA, V., SAN, O., 2003
"Köntik Tepe 2001 Kazısı", *Kazı Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 423-436.
- ÖZSAIT, M., 2003
"2001 Yılı Harmanören (Göndürle Höyük) Mezarlık Kazısı", *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 307-318.
- ÖZTAN, A., 2003
"2001 Yılı Acemhöyük Kazıları", *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 39-48.
- PARKER, B., A. CREEKMORE, E. MOSEMAN, R. SASAKI, 2002
"The Upper Tigris Archaeological Research Project (UTARP): A Preliminary Report from the Year 2000, Excavations at Kenan Tepe", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 631-643.
- PARKER, B.J., A., CREEKMORE, L.S. DOOD, R. PAINE, M. ABRAHAM, 2003
"The Upper Tigris Archaeological Research Project (UTARP): An Overview of Archaeological Research Conducted at Kenan Tepe During the 2001 Field Season", *Kazı Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 1-20.
- PELON, O., 2003
"Reflections About Fifteen Excavation Campaigns at Porsuk Höyük (Zeyve)", *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 419-422.
- PESCHLOW, A., 2003
"Die Arbeiten des Jahres 2001 in Herakleia am Latmos und Umgebung (Bafa Gölü-Besparmak)", *Araştırma Sonuçları Toplantısı* 20/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 261-270.
- ROODENBERG, J., 2003
"2001 Yılı Ilımar Kazı Sezonu", *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 461-464.
- SAGONA, A., SAGONA, C., 2003
"The Upper Levels at Sos Höyük, Erzurum, A Reinterpretation of the 1987 Campaign", *Anatolia Antiqua* 11, 101-110.
- SAMS, K., VOIGT, M., 2003
"Gordion 2001", *Kazı Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 139-148.
- SCHACHNER, A., 2002
"Vorläufiger Bericht über die Ausgrabungen in Giricano (Diyarbakır-Türkei) 2000", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 587-611.
- SCHACHNER, A., SCHACHNER, Ş., 2003
"2000-2001 Yılı Giricano", *Kazı Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 447-460.
- SEEHER, J., 2002
"Die Ausgrabungen in Boğazköy-Hattusa 2001", *Archäologischer Anzeiger* 2001/1, 59-78.
- SEEHER, J., 2003
"Boğazköy-Hattusa 2001 Yılı Çalışmaları", *Kazı Sonuçları Toplantısı* 24/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 105-112.
- SERTOK, K., KULAKOĞLU, F., 2002
"Şaraya Höyük 2000", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 370-381.
- SEVİN, V., ÖZFIRAT, A., 2001
"Die Stelen aus Hakkari, Steppennomaden in Vorderasien", *Istanbul Mitteilungen* 51, 11-26.
- SPELICH, W., 2001
Troja war nicht allein, Stuttgart, Thorbecke.
- STROBEL, K., GERBER, C., 2003
"Feldforschungen in Tavium: Bericht über die Kampagne 2001", *Araştırma Sonuçları Toplantısı* 20/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 223-230.
- STRONACH, D., SUMMERS, G., 2003
"The Ashlar Building at Kerkenes Dağ, An Interim Report", *Anatolia Antiqua*, 11, 111-130.
- SUMMERS, G., SUMMERS, F., STRONACH, D., 2003
"Kerkenes Dağ Projesi 2001", *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 449-460.
- ŞENYURT, S.Y., 2002
"2000 Excavations at Aşağı Salat", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 688-697.
- TAŞKIRAN, H., 2002
"The Palaeolithic Survey in the Carchemish Dam Reservoir Region: 2000 Season", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 413-429.
- TAŞKIRAN, H., KARTAL, M., 2003
"2001 Yılı Ilisu Barajı Gölü Alanı Paleolitik Çağ Yüzey Araştırması", *Araştırma Sonuçları Toplantısı* 20/2, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 191-202.
- TEKİN, H., 2003
"Hakemi Use 2001 Kazısı", *Kazı Sonuçları Toplantısı* 24/1, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 59-70.
- TUĞRUL, B., ERKANAL, A., 2003
"Panztepe Bulunan Eserlerin Tahratsız Muayene Metotları ile İncelenmesi", *Arkeometri Sonuçları Toplantısı* 18, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 61-68.
- UMURTAK, G., 2003
"A Study of a Group of Pottery Finds from the MBA Deposits at Bademağacı", *Anatolia Antiqua*, 11, 53-74.

WAGNER, G. A., E. PERNICKA, H.-P. UERPMANN (Eds.), 2003

Troia and the Troad. Scientific approaches. Heidelberg: Springer.

YALÇIKLI, D., TEKİNALP, V.M., 2002

"Mezraa Höyük Excavations, 2000", *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000*, N. TUNA, J. VELİBEYOĞLU (Eds.), Ankara, METU, 188-210.

YALÇIKLI, D., TEKİNALP, V.M., 2003

"Mezraa Höyük 2000-2001 Yılı Kurtarma Kazıları", *Kazı Sonuçları Toplantısı 24/1*, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 171-184.

YALÇINKAYA, I. I., M. OTTE, J. KOZLOWSKI, O. BAR-YOSEF, 2002

La grotte d'Öküzini: évolution du paléolithique final du sud-ouest de l'Anatolie.

YALÇINKAYA, I., H. TAŞKIRAN, M. KARTAL, M.B. KÖSEM,

C.M. EREK, 2003

"2001 Yılı Karain Kazıları", *Kazı Sonuçları Toplantısı 24/2*, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 159-170.

YILDIRIM, T., T. SİPAHI, 2003

"2001 Yılı Yörük/Hüseyindede Tepesi Kazısı", *Kazı Sonuçları Toplantısı 24/2*, Ankara, Kültür Bakanlığı DÖSİM Basımevi, 259-266.



Fig. 1: Samarra tradition pottery from Hakemi Use (courtesy of Halil Tekin)



Fig. 2: A figurine from Hakemi Use (courtesy of Halil Tekin)



Fig. 3: The step- trench at Müslüman Tepe (courtesy Eyüp Ay)



Fig. 4: Late Uruk / Ninive 5 Transition pottery from Müslüman Tepe (courtesy Eyüp Ay)



Fig. 5: Mezra Höyük, domestic houses at Late Uruk- EBA transition (photograph courtesy Derya Yalçıklı)



Fig. 6: Mezra Höyük, Bevelled rim bowl (photograph courtesy of Derya Yalçıklı)