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and krepidoma on the flanks retain protective panels and margins—features paralleled at other unfinished building projects—while on the front of the temple these technical articulations were removed.

The enigmatic cuttings on the inner face of the stylobate generally have been perceived as decorative. This interpretation resulted in the reconstruction of the floor level inside the peristyle 0.805 m below the stylobate level. Evidence gathered in the course of my fieldwork at the site suggests, however, that the cuttings served technical rather than decorative purposes. They were, in fact, hidden from view by the floor, which in my reconstruction was situated only 0.135 m below stylobate level, resulting in a more canonical situation.

Similarly, the articulated two lowest courses of the columns have been considered as decorative bases that somehow compensate for the enormous size of the building. The general nature of Greek architecture, however, suggests otherwise: temples receive more decoration only as scale decreases. Moreover, column bases are unparalleled in fifth-century B.C. Doric architecture. Based upon on-site examination both of the building's unfinished parts and of these so-called "bases," I argue that the lowest two courses of the columns still retain their protective panels and simply remained unfluted at the time the building project was abandoned.

SESSION V A: AEGEAN PREHISTORY II

PALAEOGEOGRAPHIES OF THE EMBAYED COASTS OF GREECE AND TURKEY: *John C. Kraft*, University of Delaware, *G. Rapp, Jr.*, University of Minnesota, Duluth, *İlhan Kayan*, Ege University, and *Richard K. Dunn*, University of Delaware

Our geological studies of the evolution of the coastal zones of Greece and Turkey show a coherent scheme of initial transgressive and later regressive sedimentary sequences up to 90 m thick and 30 km inland. Both large and small graben-formed marine embayments and flanking (continental) strands include variants of floodplains/backswamps overlain by sandy and muddy shallow marine environments, ultimately overlain by prograding and aggrading wave and/or sediment distributary-dominated deltas, floodplains, backswamps, lagoons, sometimes isolated and bypassed as flanking lakes), and barrier accretion plains. Quaternary tectonics and pre-Holocene rock lithologies also play an important role. From 5000 to 7000 B.P., marine sediments frequently occur buried at or within several meters below present sea level, suggesting a mid-Holocene eustatic high sea stand. We have not yet attained a true eustacy curve. Accurate identification of sedimentary environmental lithosomes and their lateral and vertical relationships, however, when used with local relative sea-level concepts, allows for precision in palaeogeographic reconstruction. Thus, historical (cf. Thermopylae) and other archaeological sites in coastal zones now can be placed in their varied palaeogeographic settings of the past 5,000 years. Ancient cities such as Troy, Ephesos, Tiryns, Oni-

dai, Miletos, Epitalion, Pella, and many others were clearly coastal cities and seaports.

THE UNIVERSITY OF MANITOBA EXCAVATIONS AT ELEUSIS: *Michael B. Cosmopoulos*, University of Manitoba

In the summer of 1994 the Department of Classics of the University of Manitoba started new excavations at the sanctuary of Eleusis, under the auspices of the Athens Archaeological Society. The purpose of the excavations is to recover new information about the stratigraphical sequence, chronology, economy, and social organization of the site, with particular emphasis on the Bronze Age. The excavations are part of a larger research program on Bronze Age Eleusis, which will also publish the unpublished and partially published Bronze Age finds from the old excavations (*AJA* 97 [1993] 245–46).

Two trenches were opened in the southwest slope of the Eleusinian hill, immediately to the north of the area excavated by George E. Mylonas in the 1930s. The stratigraphy revealed a top layer of mixed pottery (EH through modern), followed by a destruction layer of the Roman period. In trench 1 this layer lay directly on a floor and included fragments of plaster, tiles, bricks, glass, and numerous sherds. In trench 2 a Hellenistic floor with a well lay under the Roman layer. Bronze Age deposits were found immediately underneath this floor, but only the top stratum was excavated and yielded MH matt-painted and LH pottery.

The project also conducted geological and palaeoenvironmental studies of the site; faunal and botanical remains were collected from all strata and shipped for further study to the University of Manitoba; and ceramics were sent to the NSRC Demokritos for trace element (neutron-activation) analysis.

THE PYLOS REGIONAL ARCHAEOLOGICAL PROJECT PRELIMINARY REPORT ON THE 1994 SEASON: *J.L. Davis*, University of Cincinnati, *S.E. Alcock*, University of Michigan, *J. Bennet*, University of Wisconsin–Madison, *Y. Lolos*, Hellenic Institute of Marine Archaeology, Athens, *C.W. Shelmerdine*, University of Texas at Austin, *Michael E. Timpson*, Oak Ridge National Laboratory, and *E. Zangger*, University of Heidelberg

The final season of fieldwork for the Pylos Regional Archaeological Project (PRAP) took place in 1994, increasing the total area of intensive survey to about 34 km². Work concentrated in three locations in the northern part of our permit area. Two new sites were discovered near the coast south of the Langouvardos River valley, and two more in the rugged uplands between Gargalianoi and Lefki. One of the latter was an unusually dense concentration of lithics associated with a few small pieces of Early Bronze Age pottery. Six new sites came to light in the Margeli valley east of the Aigaleon mountain range, one perhaps a Roman

cemetery. Other new places of interest included a 19th-century site, a group of apparently Byzantine tumuli, and a dense coastal scatter of large Palaeolithic lithics. We also defined with greater precision the spatial and chronological extent of several sites already identified by the Minnesota Messenia Expedition.

Several sites reported on in earlier years were the focus of further work and artifact analysis. The gridded collection of surface artifacts around the Palace of Nestor, begun in 1993, was completed this year. Other efforts included the use of a total station electronic theodolite to plan remains at several sites, including a Roman bath and villa at Marathoupolis *Dialiskari*.

Geological fieldwork in 1994 took several forms. Cores were drilled to determine if an alluvial plain at Romanou represents a silted-up basin that may have been filled with water in the Bronze Age. The stratigraphy confirms the existence of a basin, probably artificially constructed. A combination of coring with magnetometric prospection indicated the presence of a large building (at least 60 m in one dimension) at the Late Hellenistic–Early Roman site of Bouka and substantial remains of large structures west and northwest of the Palace of Nestor. These locations were also the focus of soil studies.

WORLD SYSTEMS THEORY AND AEGEAN BRONZE AGE ECONOMY: *P. Nick Kardulias*, Kenyon College

Overland and sea trade routes, both local and long-distance, were regular features of Aegean Bronze Age societies. In fact, sophisticated exchange systems existed in the area during the Neolithic and Mesolithic, but did not possess the requisite traits of a world system. The Bronze Age, however, was a different story. Aegean societies in the third and second millennia B.C. attained social complexity (ranked, stratified, and finally state status), with well-organized redistributive—and later market—economies based on the accumulation of substantial agricultural surpluses, craft specialization, and distribution systems with a variety of nodes. The trade items included staple foods, utilitarian objects (e.g., pottery), and luxury goods. To place these activities in a proper context, this paper initially evaluates the world systems literature as it relates to antiquity. The paper then presents some specific evidence to support the contention that the Aegean Bronze Age economy was an adjunct to an eastern Mediterranean world system. While Wallerstein's model offers valuable insights into the operation of trade networks, his approach has certain limitations. The report explores some of these limitations, in particular the absence of periphery dependence on core areas that is a hallmark of modern capitalist systems, discusses revisions suggested by other scholars, and demonstrates the validity of the altered model with data from the Aegean. Finally, the paper also suggests that the world systems approach needs to place greater emphasis on production, not just exchange, as the crucial nexus of economic activity.

THE EARLIEST MYCENAEAN ADMINISTRATION ON THE MAINLAND? *Paul Rehak*, Loyola University, Chicago, and *John G. Younger*, Duke University

Three main phases in the development of Mycenaean administration on the mainland have been documented or postulated. The LH I shaft graves represent a proto-administrative use of seals primarily as non-sphragistic emblems of status, and a limited awareness of Linear A. By LH/LM II–IIIA:1, however, Linear B had developed (an early archive in the Room of the Chariot Tablets, Knossos). But most of the mainland evidence for administration with tablets and sealings belongs to the LH IIIB:1 and 2 periods. This paper examines the possible evidence for the first Mycenaean administration in LH I–II when seals were used as tokens of authority, before the creation of Linear B.

At least six early Mycenaean burials included large collections of seals: a cist in the Vapheio tholos; two individuals in Routsis tholos 2; the Kazarma tholos; Gouvalari tholos 1; grave 2 in the Tragana tholos; and Mycenae chamber tomb 518. The Vapheio "prince" owned the largest hoard of 29 gems, but there are also links with and among the seals found on the chamber floor.

The seals from each of these burials tend to fall into discrete pairs linked by similarities in shape (lentoids, amygdaloids, cylinders, prisms), material and iconography, and workshop or stylistic group of origin. We postulate that these paired seals served as tokens in a simple administrative system with little or no writing. Individual lieutenants may have been entrusted with one of each pair of seals, while the owner would retain the other.

The number of pairs of seals may be an index of the relative power of individual owners, with the Vapheio prince able to dispatch many lieutenants at one time. After the end of LH II–IIIA, with the full development of Linear B, mainland graves seldom include large collections of seals, indicating that this simple system of seals as administrative tokens may have fallen into abeyance.

A FRESH LOOK AT MYCENAEAN FOOD: *Ruth Palmer*, Vassar College

The most frequently recorded foods in the Linear B tablets are grains, dried figs, wine, and olive oil, all of which, once processed, keep well in storage for several years. Specialized tablets record herbs and spices, which also have a long storage life. Domestic animals appear as livestock to be slaughtered, and the only securely identified animal food product listed is cheese.

Fresh fruits and vegetables have not been identified in the Linear B tablets. Seasonal foods have always played an important role in diet, so it is surprising that the Mycenaean texts do not list them. There are several possible reasons for this. Soft fruits and vegetables do not travel well for long distances, and have a short storage life. In the ancient world, fresh produce was brought to centers only from farms very nearby, so the palaces might not have tithed outlying farms for such perishable goods. Orchards and gardens belonging to the Mycenaean wanax or nobles (cf. PY Er 880) located close to the palace centers may have provided fresh fruits and greens at banquets. Or in the months when the tablets were written, no fresh fruits were available.

The Linear B texts deal with foods with a long storage life, which could be collected over long distances and stock-