The Development of a Domestic Architectural Unit Throughout the Early Iron Age: The Northwest Building on the Kastro, East Crete

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The Development of a Domestic Architectural Unit Throughout the Early Iron Age: The Northwest Building on the Kastro, East Crete

Abstract
The Northwest Building is unique among the excavated remains on the Kastro at Kavousi, and perhaps in the archaeological record for the Early Iron Age in all of Greece. Here, the development of an insular architectural unit can be traced continuously throughout the duration of the Early Iron Age, that is, from the beginning of Late Minoan IIIC into the Archaic period.

Disciplines
Ancient History, Greek and Roman through Late Antiquity | Archaeological Anthropology | Other History of Art, Architecture, and Archaeology

Comments
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Neolithic period through at least the destructions of Neopalatial Crete, whereas the functional block arrangement within a complex is typical of the palaces and Neopalatial “villas.”

This paper seeks to distinguish complex structures of these two types by different patterns of access and arrangement. In multi-household complexes, it was generally necessary to traverse exterior space in order to pass from one room-group to another. Moreover, the largest room within a household in a multi-unit structure, exhibiting evidence for the largest number of functions, was not generally placed against any of the party walls; these large, important “living rooms” were buffered from neighboring units by store-rooms or other small spaces of specialized function.

The relationships between these two types of multiroom complexes have important implications for the architectural origins of the palaces; the arrangements of rooms in the palaces were clearly related to existing Minoan village organization.

ACHILLES IN ANATOLIA: THE INSCRIBED “MYCENAEAN”
SWORD AT HATTUŠAS AND ITS POSSIBLE IMPLICATIONS: Eric H. Cline, Xavier University

An inscribed bronze sword was discovered in 1991 in the vicinity of Hattušas, capital city of the Hittites. The inscription states that the sword was dedicated at Hattušas by Tudhaliya II following his successful quelling of the Aššuwa rebellion in northwest Anatolia ca. 1430 B.C. (Ünal et al., MÜZE 4 [1991] 46–52). This is not a typical Hittite sword. It has no ready local parallels in Anatolia, or indeed anywhere in the eastern Mediterranean. In fact, it was at first thought that the sword reflects Aegean inspiration, if not actual manufacture, for the best, although not identical, parallels are Aegean Type B swords, dating probably to the LH II period. The discussion is still ongoing and is not yet resolved (cf. Mellink, AJA 97 [1993] 106, 112–13; Ertek in Studies in Honor of Nimet Öğüt [1993] 719–25).

Since at least the time of Homer, and possibly back into the Bronze Age itself, the Greeks have told stories about Achaeans fighting on Anatolian soil prior to the Trojan War. The Hittites, too, spoke of Achaeans (Ahiya-wans) fighting in western Anatolia during the mid-second millennium B.C., particularly during the reign of Tudhaliya II ca. 1450–1420 B.C. Overall, there is a fair amount of circumstantial evidence attesting to interactions among the Mycenaeans (Ahiyawans), the Aššuwans, and the Hittites during the late 15th century B.C. Such data might be simply a series of unrelated phenomena. They may also, however, suggest that the Aššuwa rebellion might be seen as the principal historical event from which came the legendary stories concerning the earlier, pre-Trojan War, military endeavors of Achilles, Heracles, and other Achaeans on the Anatolian mainland. If this rebellion were the historical “kernel of truth” underlying such Aegean legends, then it is conceivable that a number of these stories of Mycenaean involvement in the Aššuwa rebellion during the LH II period, perhaps circulating as portions of earlier epic tales, as some believe, eventually found their way into the Iliad where they were interwoven into a single grandiose tale of “The Trojan War.”

THE SHRINE AT KAVOUSI: ITS PLACE IN MINOAN RELIGIOUS TRADITION: Geraldine C. Gesell, University of Tennessee, Knoxville

Minoan religious tradition, particularly in the palace periods, is quite diverse, including private, public, and state shrines and ceremonies. Briefly, the main types of shrines include peak, cave, and palace sanctuaries, and town and rural sanctuaries. Although the assemblages of cult material including representations of deities, votive gifts, and sacrificial equipment vary from one type to another, there are many similarities both in equipment, such as libation tables and offering bowls, and in religious symbols, such as horns of consecration, double axes, agrimia, birds, snakes, and bulls. It is important to understand how and why features from the various types of palatial period sanctuaries are brought together and adapted for use in the LM IIIB and C shrines of the goddess with upraised hands. In particular, the recently excavated LM IIIC shrine at Vronda, Kavousi, has provided both traditional and unique material—figures of goddesses, snake tubes, kalathoi, and plaques as well as a number of vessels of shapes not previously connected with such shrines. It is interesting that the goddess figures and their equipment have been made from a variety of different fabrics. The goddesses, snake tubes, and plaques (but not the kalathoi) come in votive sets made of the same fabric. These sets occur in three basic colors—buff, red, and a dark, mottled red and black. Minoan tradition can explain buff and red, but “black” is a new color for the goddess figure, produced with the same fabric as cooking pots, and needs a new explanation.

THE DEVELOPMENT OF A DOMESTIC ARCHITECTURAL UNIT THROUGHOUT THE EARLY IRON AGE: THE NORTHWEST BUILDING ON THE KASTRO, EAST CRETE: Margaret S. Mook, Iowa State University

The Northwest Building is unique among the excavated remains on the Kastro at Kavousi, and perhaps in the archaeological record for the Early Iron Age in all of Greece. Here, the development of an insular architectural unit can be traced continuously throughout the duration of the Early Iron Age, that is, from the beginning of Late Minoan IIIC into the Archaic period.

In LM IIIC the Northwest Building consists of a two-room dwelling, constructed when the Kastro is first occupied. During Protogeometric (a protracted phase on the Kastro) there is a notable expansion; the main room of the LM IIIC house is subdivided and additional areas are built contiguously on the downslope terraces, so that nine rooms now form four houses. The beginning of Geo-
metric witnesses a maintenance of house size and number, and in Late Geometric there is only slight expansion in the Northwest Building, primarily consisting of the doubling in size of the smallest house by the addition of a second room. By the close of LG, however, there begins a gradual reduction in the number of rooms in use, and only two houses continue to be inhabited through the Orientalizing period. This gradual contraction in habitation is witnessed by both the complete abandonment of some houses and the deliberate reduction in the size of others in the Northwest Building.

Spatial analysis of the architectural features and artifact assemblages permits the identification of specific households within the Northwest Building, while the long duration of habitation and attendant phases of growth may further suggest that the families of each household were related and evolved from the first nuclear family to build in this area of the Kastro.

SESSION IV C: TECHNOLOGY AND TRADE

PROCUREMENT AND PRESTIGE: PATTERNS IN THE PROVENIENCE OF PREHISTORIC MEDITERRANEAN OBSIDIAN: Robert H. Tykot, Harvard University

Obsidian tools and flakes found at prehistoric sites in the eastern and central Mediterranean are evidence of a complex series of activities including procurement and transport of the raw material from island sources, production and distribution of cores or finished tools, and consumption and eventual disposal. The chemical analysis of more than 1000 tools from sites in Italy and France triples the provenience data available for reconstructing central Mediterranean “trade” and provides a framework for interpreting the specific cultural context in which their acquisition was embedded. Furthermore, the analysis of samples from each stratigraphic level of multi-component sites such as Fileistru Cave in Sardinia and Basi in Corsica allows for temporal control from the Early Neolithic through the Early Bronze Age. While differential use of the various obsidian sources has been recognized in peninsular Italy, it is apparent now that distribution patterns vary both geographically and chronologically, and in ways not explained by differences in accessibility or functional suitability between sources. Several possible explanations are discussed, including cultural alliances, the prestige factor in long-distance exchange networks, the role of middlemen and craft specialization, and the coexistence of multiple modes of production and distribution. Finally, the social and economic role of obsidian is compared with that of ceramics and other ground or flaked stone materials, and the central Mediterranean data are contrasted with those from Greece and the eastern Mediterranean.

AN ANALYSIS OF THE ARCHIMEDEAN SCREW-PUMP:
John A. Seeger, Northern Arizona University

According to Diodoros, Archimedes introduced the screw-pump in Egypt where it was used to irrigate fields of the Nile Delta (Diod. Sic. 1.34.2). Remains of screw-pumps have been found in Roman mines in Spain. Also, they are shown in use in a Pompeian wall painting and on Roman-Egyptian terracottas. Vitruvius gives a detailed description of the construction of the screw-pump (Vitr. De Arch. 10.6.1–4). This paper presents an analysis of the Archimedean screw-pump based on archaeological and literary evidence.

Archimedes’ screw-pumps are shown as a cylinder mounted at an angle and rotated by a person treading on cleats on the surface. Inside the cylindrical case are helical blades. Water trapped between the blades is raised as the pump is rotated. Factors affecting pump capacity include size and speed of rotation. Pump output also depends on the angle at which the pump is mounted and on the number and angle of the blades.

In his description of the screw-pump, Vitruvius specifies eight blades and a mounting angle of 37°. Pumps from the Roman mines in Spain have from one to three blades and are mounted at smaller angles. A larger number of blades reduces the pump capacity. A greater mounting angle reduces the output. Screw-pumps used in Egypt for irrigation have two blades and are mounted at small angles.

A Roman-Egyptian terracotta in the Egyptian Museum in Cairo shows a screw-pump being rotated by two persons, indicating a large pump. Another terracotta shows a mounting angle approaching that specified by Vitruvius.

ANOMALIES IN FLOW AND DISCHARGE AT THE POMPEII CASTELLUM: A. Trevor Hodge, Carleton University

Hydraulic interpretation of the Porta Vesuvii castellum at Pompeii is as complicated as the physical layout inside it. Not knowing velocity of flow, only the cross-sectional area of the channels, we cannot calculate discharge; but that area (i.e., quinaria-count) still gives a basis for relative comparison, and three elements invite it. One is the supply aqueduct. The second is the three large delivery pipes leaving the castellum. The third is the total discharge for all private houses and fountains in the city. Aqueduct supply and city discharge are of the same order of magnitude, but the capacity of the three delivery pipes is excessive and they are unlikely to have run full.

Inside the castellum is a further anomaly. Supposedly the water volume is divided by three “Vitruvian” weirs of different heights. The lowest one, supplying the public fountains, is so low in most reconstructions, and the pipe supplied so large, that it alone would consume nearly all the water, and the water level in the castellum would never rise high enough to serve the other two offtake pipes; the “private-house” network, in particular, would be left permanently dry.

There is no archaeological evidence that the three weirs were of differing heights. Paribeni, the excavator, found traces only of their existence, not their size, and the restoration is based on the confused specification offered in Vitruvius. I suggest here that it be rejected.

A CLASSIFICATION OF ANCIENT LIGHTHOUSES:
Robert L. Vann, University of Maryland