### **Iowa State University**

### From the SelectedWorks of Margaret S. Mook

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# The Development of a Prehistoric Coarse Ware Pottery Typology for Survey at Kavousi, East Crete

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preferred the latter interpretation for both contexts. Assuming that personal effects consist of artifacts associated in life as in death, the difference between settlement and mortuary assemblages supports Branigan's interpretation.

The assemblages found in the Mesara tholoi are also found at Archanes and Krasi, contrary to Branigan's view that Krasi belongs to a different tradition. In addition, these tholoi outside the Mesara area are as closely related to those in the Mesara as the Mesara tholoi are to each other. This pattern contrasts with the lack of correlations between all tholoi and other contemporary burial sites, in opposition to Pini's assessment that the same grave goods were common throughout Crete.

In Middle Minoan tholoi, a distinct change from the quantities and types of EM grave goods is widely recognized. The pattern of the same ceramic assemblage in both main chambers and outer areas while other artifacts are concentrated in the main chambers, however, proves to be significant in this analysis of MM tholoi. The persistence of this pattern indicates a previously unrecognized continuity in burial rituals, in addition to the known continuity in burial form, throughout the MM period.

# A REEVALUATION OF THE LOOMWEIGHT BASEMENT DEPOSIT AT KNOSSOS WITH SPECIAL REFERENCE TO ITS ARCHITECTURAL MODELS: Rebecca Mersereau, Rice University

A study of the Loomweight Basement Deposit material from the Knossos palace, now in the storerooms of the Heraklion and Knossos Stratigraphical Museums, produced nine hitherto unpublished pieces of an architectural model, including columns, beams, and connecting members. It is my contention that all of these elements plus those illustrated in Evans's PM I, fig. 166 were originally combined in a single, larger construction, perhaps akin to the MM III Archanes model, although a good deal larger and more complex. Reasons for associating these items are their findspots, fabric, painting technique, scale, and impressions, which other elements within the group can match. Moreover, every piece exhibits clear evidence for having been joined to other pieces at one time. As parts of a single large building model, I interpret the three-sided structures as balconies rather than independent "altars" or "shrines" and discredit some of the restorations in plaster. This new interpretation of the model fragments allows them to be correctly understood within the corpus of Minoan architectural models that emphasize palatial style architecture.

There are serious problems with Evans's presentation and interpretation of the stratigraphy from the Loomweight Basement. Joins with sherds from areas outside the Basement would seem to indicate that at least some of the fill had not fallen from above as Evans postulated but rather was transferred there as part of a deliberate filling operation. In light of the distribution of artifact fragments and the building history at Knossos, it is more reasonable to understand the model and many of the other finds from this basement as post-earthquake fill upon which the New Palace was built. Hence, any attempt to locate a shrine within the East Wing of the Old Palace on the basis of the model and other Loomweight Basement finds is insupportable.

THE SANCTUARY RHYTON FROM KATO ZAKROS AND THE REPRESENTATION OF SPACE IN AEGEAN ART OF THE BRONZE AGE: Anne P. Chapin, University of North Carolina at Chapel Hill

The study of three-dimensional illusionism in Bronze Age Aegean art has long been hampered by the fragmentary condition of the artistic evidence, but recent discoveries from Kato Zakros and Akrotiri preserve landscape compositions that are nearly intact, thereby permitting renewed investigation into the principles of Minoan-inspired spatial representation. Beginning with the landscape of the Late Minoan I Sanctuary Rhyton from Kato Zakros, a simple formula for creating a spatial environment is identified, consisting of at least seven overlapping landmasses that create a spatial recession most closely resembling that of a hillside.

This "Hillside Model" of spatial organization may be compared to frescoes from Akrotiri. As S. Marinatos has noted (Thera IV, 53), the landscape of the Spring Fresco closely resembles that of the upper half of the Sanctuary Rhyton. Further parallels, however, may be drawn between the rhyton and two frescoes from Xeste 3. By framing a rectangular field around the leaping goat of the Sanctuary Rhyton, rockwork now appears to "hang" above the animal in a manner that is comparable to the descending rockwork of the Adyton Fresco from Xeste 3. Likewise, the rocks surrounding the leaping goat seem to float, thus recalling the background crocuses of the Crocus Gatherer Fresco from Xeste 3. These parallels suggest that the motif of descending rockwork refers to the spatial recession of a hillside beyond and above the figures themselves, rather than representing the farther border of the horizon displayed upside down, as suggested by Evans (PM II, 728).

THE DEVELOPMENT OF A PREHISTORIC COARSE WARE POTTERY TYPOLOGY FOR SURVEY AT KAVOUSI, EAST CRETE: Margaret S. Mook and Donald C. Haggis, University of Minnesota, Twin Cities

Archaeological survey and excavation in the Kavousi-Thriphti area of East Crete has provided the evidence for establishing a coarse ware fabric typology for this region. Coarse wares constitute 70–90% of the typical Aegean pottery assemblage and a chronological typology for this pottery is useful for dating surface remains, as well as deposits from excavated contexts. Diachronic changes in coarse ware fabric types have now been documented from the Early Minoan through Late Geometric/Archaic periods at Kavousi.

Twenty-two coarse fabrics have been recognized on the basis of inclusion type and frequency, clay color, surface treatment, and firing. The coarse ware types were identified in the field and then analyzed visually with a 10x hand lens. Dating of these fabric types was established on the basis of associated decorated fine wares at single-period survey sites and in stratified deposits from excavated sites within the region. At multi-period sites in the survey zone, the frequency of different coarse fabric types was recorded and then used toward determining the diachronic extent and intensity of site use.

Many of the coarse ware fabric types have limited periods of use, others appear in a number of discontiguous periods in variant forms, while some coarse fabrics are used continuously in successive periods. One type occurs exclusively in Early Minoan I–IIA, and another is diagnostic for EM II. Six types are used in Middle Minoan I–II, and in MM III—Late Minoan I three types are current. Five fabrics are period-specific for LM IIIC, two of which are variations of MM types. Two of the LM IIIC types continue to be used in Late Geometric/Archaic. Also, the derivation of two coarse fabric types from the area of Gournia, and the presence of several of the Kavousi coarse fabric types at Mochlos, Pseira, Vrokastro, and Myrtos suggest the distribution of coarse ware among sites in the broader region of the Ierapetra Isthmus.

## SESSION I B: AGE, GENDER, AND SEXUALITY

EMBALMING TECHNIQUES IN ROMAN EGYPT: RESIN ANALYSIS AND THREE-DIMENSIONAL COMPUTER IMAGING OF A MUMMIFIED CHILD: Sarah U. Wisseman, Mark L. Proefke, and David P. Lawrance, University of Illinois at Urbana-Champaign

Ongoing analyses of an Egyptian mummy at the World Heritage Museum, University of Illinois, have yielded new data on mummification techniques used by Roman-period embalmers. The mummy, originally acquired from the Faiyum by an Illinois collector in the 1920s, was tested non-destructively to ascertain its age, gender, and medical history. Preliminary results, reported at the 1990 International Symposium on Archaeometry, revealed that the mummy was aged seven to nine years at the time of death, with postmortem skull and rib fractures and several internal organs still in place.

Chemical analyses of the embalming fluids indicate that bitumen was used in addition to coniferous resins. The bitumen, which contains dead carbon, explains why the radiocarbon date appears to be older than the stylistic date (first to second century A.C.) of the mummy's wrappings.

Detailed CAT scan slices of the entire mummy were converted to three-dimensional, volumetric images at the National Center for Supercomputing Applications (NCSA). Rotations and cutaway views show desiccated brain tissue and the exact nature of the skull fractures. The shape of the child's skull and protruding upper jaw were independently confirmed by Raymond Evenhouse at the University of Illinois at Chicago in a sculpture of the mummy's head. The NCSA imaging techniques were also applied to the torso, revealing heart and lungs still in place in the thoracic cavity and new details of the embalming process not previously visible in two-dimensional plates. Extra packing under the skull and over the collapsed chest, the deliberately tapered and beveled board underneath the body, and the separate wrapping of the mummy's hands indicate unusual care taken by the embalmers. This evidence, when combined with the beautifully painted and gilded wrappings, supports our conclusion that the child belonged to the upper stratum of Egyptian society.

FORENSIC INVESTIGATION OF AN EGYPTIAN MUMMY: Barbara Bohen, University of Illinois at Urbana-Champaign, and Raymond Evenhouse, University of Illinois at Chicago

Scientists at the University of Illinois at Chicago have added two further procedures to the array of modern diagnostic techniques being used in the examination of ancient Egyptian mummies: forensic facial reconstruction, and an "aging" technique, normally used to trace missing children. Both procedures are nondestructive. In the first technique, CAT scan slices of the head of the mummy were duplicated in thin-sheet styrofoam, which were then stacked to form a reconstruction of the mummy's skull. Statistics compiled on the average tissue depth in a broad population were used as a basis for reconstructing the facial tissue that had once covered the skull. The tissue was simulated in a layer of clay applied over the skull; suitable glass eyes were added, and the head was painted and given a wig for a more realistic appearance. This procedure, carried out by Evenhouse, has reproduced the features of ancient Egyptians who have been dead for nearly 2,000 years. In a second technique, he analyzed the reconstituted face of a mummy of a child, and "aged" it, allowing us to see how the individual might have looked at age 18. Anthropologists at the Smithsonian Institution determined that the individual was probably Caucasian with some Negroid ancestry. Other techniques employed, such as X-ray, mass spectrometry, and infrared photography, have yielded information on the iconography of a lavishly decorated mummy cartonnage, embalming techniques, and injuries mummies have sustained. Such nondestructive procedures should be conducted more often, since they can steadily increase our knowledge of the physical appearance, pathology, and racial composition of the ancient Egyptian population, as well as the practice of mummification.

#### THE HYPERBOLIC MOURNING OF HERODES ATTICUS: AN INFANT'S TOMB IN KEPHISIA: Jennifer Tobin, University of Pennsylvania

In 1866 in Kephisia, a subterranean tomb was discovered at the Plateia tou Platanou. The floor and the lowest three courses of the walls were preserved, along with traces of the eight-stepped dromos leading into the tomb. Blocks from the superstructure were built into an adjacent church. The tomb was found with its fittings virtually intact—four marble sarcophagi were found in situ. The style of the sarcophagi and the building technique of the tomb point to a date in the mid-second century A.C. Since it is well known that Herodes Atticus had a villa in Kephisia, it has been suggested that he erected the tomb. On the basis of an inscription built into the same church as the tomb's superstructure, I submit that Herodes did build the tomb, and that several of his children were buried inside. SEG 26.290 was composed by Herodes and relates how, in his sorrow over the death of an infant, he cut his hair and placed it inside a tomb, where others of his children were already buried. The inscription was carved on a wall block that matches the dimensions and treatment of a block from the dromos of the tomb. Although