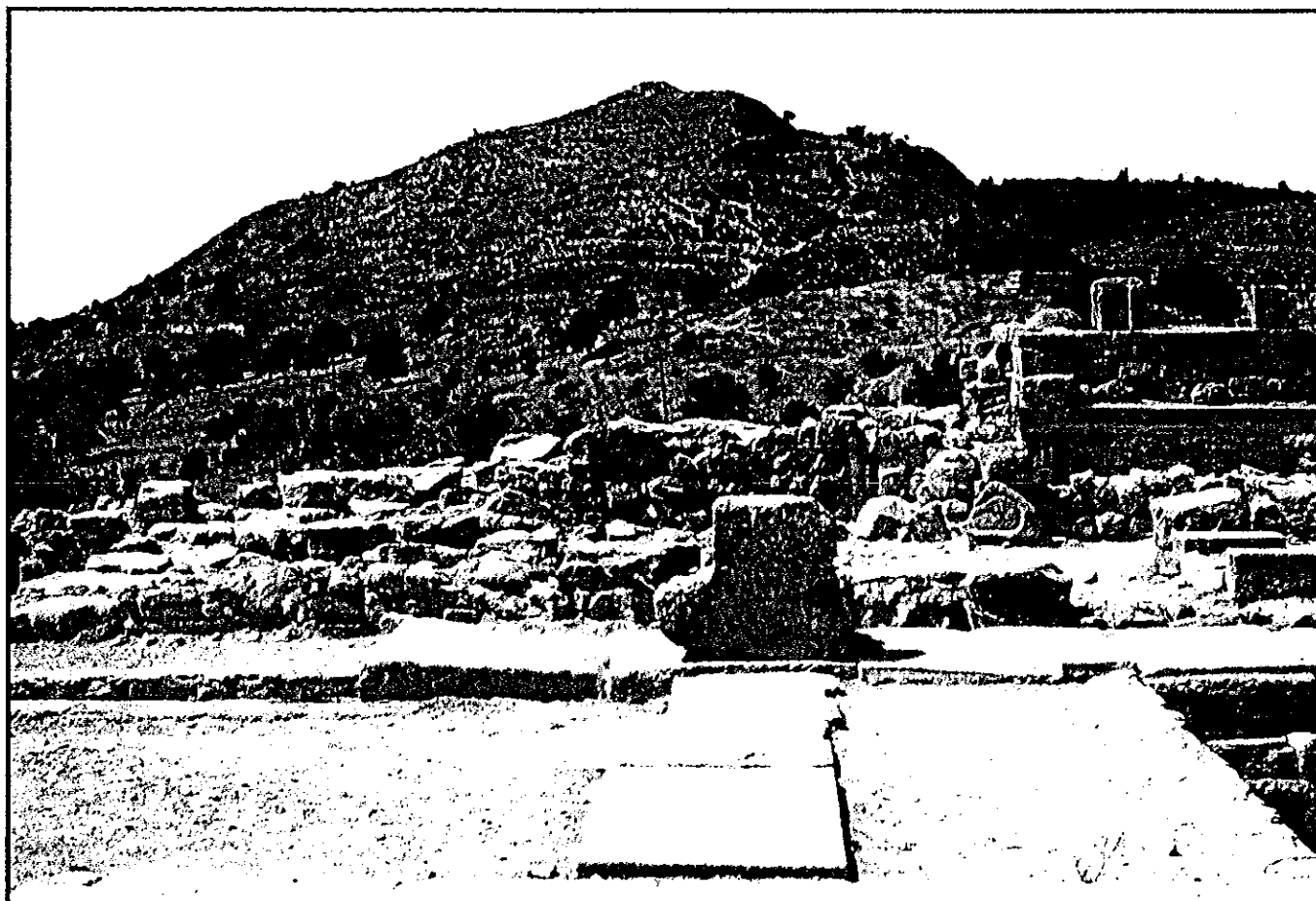


Palaces and Villas of Minoan Crete: New Interpretations

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Understanding the Minoan Palaces

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Just as the economic, political, and military basis underlying the complex Minoan society has been highly controversial, the possible functions of the monumental buildings called "palaces" have also been much debated. In this article, as a contribution to help clarify palace functions, evidence is presented to show that definite ceremonial usages of some palace rooms can be reliably interpreted from the archaeological record. Diagnostic architectural features include those named "Minoan Halls," "lustral basins," and "pillar crypts," whose often consistent range of associations may lead to the identification of some ancient Minoan cultural practices.

Introduction: The Minoan civilization of Middle to Late Bronze Age Crete, named after the legendary King Minos, presented a tantalizing mystery to the outside world even before Sir Arthur Evans began his excavations at Knossos just over 100 years ago. The remains of this rich civilization include colossal labyrinthine structures which Evans originally called "palaces," and art works consisting of naturalistic, bold, and graceful depictions of lush landscapes, bull-leaping acrobatics, and bare-breasted women. The fragmentary nature of the archaeological evidence, the selective emphasis on certain categories of evidence, several varieties of as yet undeciphered pictographic scripts, and various Greek legends that have filtered down to us over the past centuries, have heightened both fascination with and speculation about the Minoans. Thus, each generation has found characteristics in the Minoans that both mirror its own values or desires, while sometimes also containing a kernel of truth.

For example, the Greek historian Thucydides (I.4) mentions a tradition of a Thalassocracy (seafaring political power) of Minos. Today this reference is understood to suggest that Thucydides was emphasizing particular legendary aspects about the Minoans to justify an Athenian thalassocracy that would dominate other Greek city-states, rather than documenting specific facts. Yet we know that the Minoans were an island-based civilization

with many imported commodities from abroad. Examples of these include copper, tin, ivory, gold, and semi-precious stones. In addition, marine motifs served as a prominent decorative component both in Minoan art and in many Minoan cities such as Knossos, Phaistos, Malia, Kato Zakro, Gournia, Petras, and Palaikastro, which enjoyed a coastal location. All of these factors suggest that seafaring must have played a key role in Minoan society.

In modern times, either nostalgia, or the desire for a peaceful and less mechanized society, and/or "New Age feminism," have led some to focus on the nature-based and feminine characteristics of Minoan art. These include rituals connected with natural features such as caves and mountain peaks, and with a "goddess" of fertility. In addition, the apparent absence of fortification walls on Minoan Crete and their contrasting presence on the Greek Mainland have led some to contrast the peaceful Minoans with the warlike Mycenaeans. Recent discoveries on Crete, and more precise interpretations of the evidence, however, have led contemporary scholars to view these contrasts as simplistic. In addition, the view of the Minoans as peaceful flower children might be seen as a reflection of the values of the hippie culture of the 1960s rather than as the ancient reality.

Today, new discoveries, careful consideration of the existing evidence, and improved methods of analysis are giving scholars new insights into the function of the Minoan palaces. These current findings call into question the popular stereotypes of the so-called "peace-loving" Minoans and "warlike" Mycenaeans. A violent quality for the Mycenaeans has been assumed, based on the violent destruction of their fortified citadels and the glorification of war in Homeric poetry. This last conflates later story-telling with historical reality. We tend to forget that some 250 years separates the destruction of the Minoan and Mycenaean civilizations, and that the Mycenaean fortifications were built late in their history, around the mid-13th c. BC. Rather than viewing the Mycenaeans as warlike throughout their history, it might be more realistic to see them as becoming more warlike in their latest period. Then they

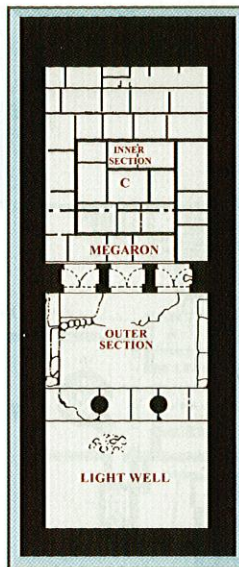


Fig.1: Generic plan of a "Minoan Hall" (after Evans).

were responding to a perceived threat, the exact nature of which continues to be debated (cf. Preziosi and Hitchcock 1999).

Recent research has determined that the Minoans did, in fact, build walls, and evidence for them has been found at Malia, Gournia, and at Petras. Because none of these walls forms a complete circuit, their function as a defensive feature has been questioned. However, the labyrinthine architectural layout of the Minoan palaces and villas (smaller elite residential structures) may be seen as constituting an internal defense system. Owing to this complexity, the outsider would have been confronted with a confusing and unwelcoming

set of choices. What would the outsider have done if he saw seven doorways opening off of a single corridor or closed off the entire wing of a building just by closing a single door?

A scientific approach to studying Minoan architecture implies an explicit methodology (Hitchcock 2000), systematic observations, and quantifying specific types of architectural features. To identify patterns with regard to the distribution of room types and artifacts in Minoan buildings, requires identifying which types of rooms and/or objects repeatedly occurred in a close relationship to each other. Several such consistent architectural associations, including the Minoan Hall, lustral basin, and pillar crypt, are discussed later on.

Another necessary procedure is quantification: identifying which types of rooms occurred



Fig.2: Modern reconstruction of pier-and-door partitions (photo: L. Hitchcock).

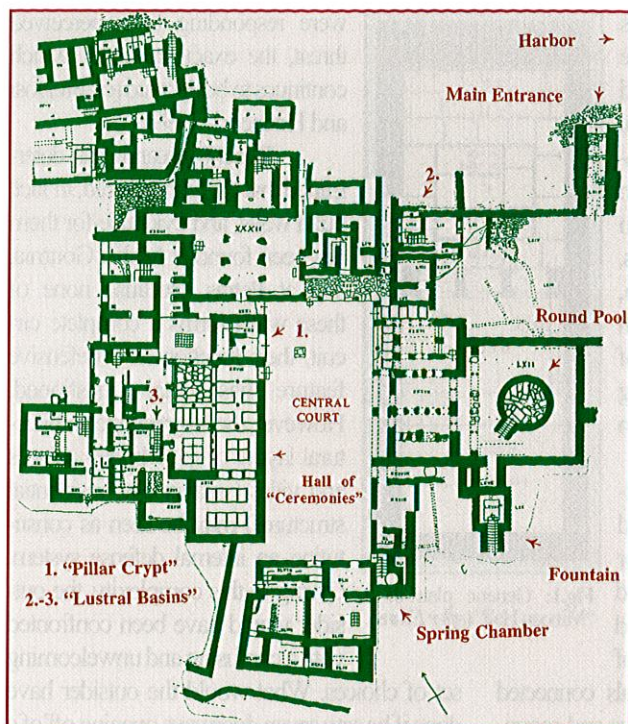


Fig.3: Plan of the palace at Kato Zakro (after Platon).

more frequently at certain sites than others. Looking for patterns leads to the recognition of what is unique about each palace, and how this distinguishes its function from the other palaces. From there, one can attempt to reconstruct or understand the function of a building from the point of view of the individual using it in ancient times. Whereas modern archaeologists view the entire plan of a building, those living in Minoan times experienced the palaces sequentially - that is, as they walked through them. In addition, not everyone would have enjoyed equal access to all parts of a Minoan palace and some would have only encountered them from the outside.

Once a building has been analyzed, the problem becomes one of interpretation. At this point, the study of anthropology becomes invaluable. Anthropology focuses on identifying and understanding how and why different cultures develop and maintain cultural continuity from one generation to the next. Pre-industrialized societies studied by anthropologists, as well as ancient civilizations with a similar level of social organization and a written history, may illuminate certain aspects of Minoan culture, where there appears to be a similar manipulation of archaeological remains. Anthropological studies provide the archaeologist with many possibilities for trying to make sense of the Minoan past apart from imposing the cultural values of our modern, industrialized society on it.

In addition, the iconography from Minoan seals, sealings, and wall paintings provides another source of evidence for interpreting architectural remains. Themes and motifs depicted in Minoan art are both naturalistic and abstract. They include narratives, representations of ritual activity, landscapes, animal depictions, marine motifs, and geometric motifs. Although Aegean frescoes are quite beautiful, it is generally agreed that they also had important symbolic significance. In my view, art for art's sake is a modern concept connected with our industrial society. Art in pre-industrial societies had a function. It could act as a technological means for communicating

with the supematural, re-enforcing social values, and communicating status. Frequently, Aegean frescoes work in tandem with the architecture to communicate meaning. The meaning of such scenes is not always clear, and complex narratives, such as those found at Akrotiri in the West House or the house called Xeste 3 (see below), have engendered multiple readings accompanied by fierce debate.

The more categories of evidence the archaeologist can meaningfully link together, the more confident we can be about an interpretation. Utilizing and combining all of these different components permits a "contextual" approach, which emphasizes the relationships between architectural features and artifacts, and stresses anthropological evidence by assigning meaning and function to Minoan buildings. Still, it is not always possible to identify the purpose of every feature with absolute certainty or to develop elaborate and detailed interpretations. To do so would be to move from reasoned speculation based on the evidence as listed above to ungrounded speculations that substitute wishes and whims for evidence.

The Emergence of the Palaces: The first palaces on Crete were built in the Middle Bronze Age (ca. 1900 BC) and, despite Late Neolithic and Pre-pala-

tial components at many of the palace sites (Knossos, Malia, and Petras), the large palace structures seem to have appeared out of nowhere. Their emergence, however, might be connected with the construction of well-built and visually impressive monumental tombs that preceded them. Such tombs take various forms and have been located in eastern, southern, and central Crete. We can infer that the building of such tombs required an individual or small group of individuals to coordinate, oversee, and direct the actions of workers who constructed them. Amid the overall context of an emergent stratified society based (presumably) on trade wealth, these activities would have re-enforced the authority of the individuals in charge of the projects. The daily repetition of the building and supervisory activities occurring throughout the construction process would have contributed to hierarchical relationships being considered routine. The finished monument, in turn, became a highly visible and permanent symbol of authorities that were already in place.

The exotic character of imported materials or unusual items found in the tombs also indicates the presence of social hierarchy. These items were made of bronze, faience, ivory, gold, silver, and stone. Imported techniques such as filigree and granulation and unusual iconography found in imported seals and scarabs similarly would have conferred status upon the owners of pieces exhibiting such details. Decorated pottery is also a prestigious offering. Public celebrations of the cult of dead ancestors in front of these funerary monuments may have helped to contribute to social inequality and the creation of social elites by elevating wealthy kinship groups or households over others. Public celebrations at the tombs are believed to have taken the form of ceremonial drinking, as indicated by the numer-

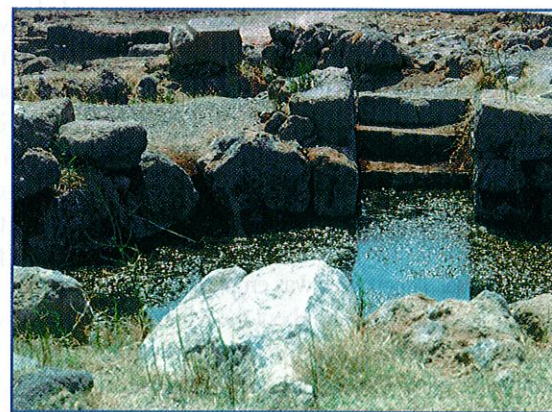


Fig.4: Round pool at Kato Zakro (photo: L. Hitchcock).

ous cups found at Pre-palatial funerary monuments. We might imagine that such activities brought community members together and reinforced social ties as well as hierarchical relationships. Ancestor worship and claims of descent, whether real or believed, may also have served to legitimize land claims and social authority among the living.

In all likelihood, the elite groups in Minoan culture (perhaps families) were responsible for the construction of the first Minoan palaces. The idea of creating monumental religious and administrative structures may have been inspired by trade contact with the Near East, but the style of execution was purely Minoan. Other markers of social complexity that accompanied the emergence of the palaces include writing, mass-produced wheel made pottery, and craft specialization (all criteria traditionally used to identify Bronze Age civilizations, by Childe [1930] and others).

To put their appearance in perspective, these hallmarks of civilization occur in Crete some 1000 years later than in Mesopotamia and Egypt. Their occurrence on the Greek mainland is later still. These first palaces seem to have suffered damage or destruction, probably from earthquakes, just before the beginning of the Late Bronze Age (ca. 1700 BC).

At this time, some buildings were remodeled, and new palaces and smaller buildings with palatial features, termed "villas," were constructed all over Crete. Because of these changes, our knowledge of the specific architectural layout of the first palaces, the largest of which were at Knossos, Malia, and Phaistos, is minimal.

General Characteristics of Minoan Palaces: Upon first glance, the most striking characteristic of the Minoan palaces is their monumentality, which incorporates ashlar (cut stone) masonry, and recessed façades to create a play of light and shade in their appearance, and architectural decoration such as stylized stone or clay bull's horns, termed "horns of consecration." Some of the ashlar blocks were engraved with symbols of uncertain significance, termed "mason's marks." The use of timber and rubble in building the walls may have provided flexibility during earthquakes.

Monumentality is significant in that it implies planning, full-time craftsmen, and the

organization of materials and labor. Each of these factors implies a high level of social complexity that requires an agricultural surplus, as well as the emergence of social ranking and hierarchy. Symbolically, monumental structures communicate permanence, power, and status (cf. Trigger 1990). All of these factors convey exclusivity. Also notable are spacious paved courts on the west sides of the palaces, presumably for public gatherings. Another significant, though less obvious feature, is the placement of the palaces within the landscape. Their frequent orientation to sacred mountains housing peak and/or cave sanctuaries, was connected with the religious beliefs of the populace, and their



Fig.5: Hall with columns exposed to weather in the northwest wing at Phaistos (photo: L. Hitchcock).

coastal locations communicated prestige to visiting traders.

Upon entering the building or looking at a ground plan, a visitor is next impressed by the labyrinthine layout of rooms organized around a rectangular central courtyard. Upon careful study, the visitor becomes aware of a specific architectural vocabulary and organizational structure (cf. Preziosi 1983), where specific types of rooms and other features, such as courts or basins, tend to be located in the same part of each building. This vocabulary includes elaborate halls that are located in the northwest and/or east wing, small sunken rooms termed "lustral basins," small dark rooms known as "pillar crypts" located near storage areas, other small areas devoted to ritual activity in the west wing, storage areas in the west, industrial quarters often located in the east wing, a main entrance, additional minor entrances, and a hypostyle (pillared) hall in the north wing. The palace walls were also decorated with wall paintings, painted stucco, and/or veneering. In addition, each

building has certain types of features that make it unique, such as the famous "Throne Room" that only occurs at Knossos, or a round pool built of cut stone that only occurs at Kato Zakro. Variation in the ways corridors, stairways, and doorways connect various room types at each site, gives each building a complexity and uniqueness that underlie superficial similarities in the location of rooms. For example, two rooms might share a common wall but be separated by a winding route requiring the visitor to pass through six different doorways! As a result, each of the palaces is a one-of-a-kind architectural masterpiece.

Halls and Lustral Basins, an Old Debate:

The "Minoan Hall" (fig.1) is one of the most notable features of Minoan architecture and contributes significantly to the maze-like appearance of Minoan palatial architecture (Palyvou 1987). It typically consists of several rectangular rooms separated by a row of columns and a set of square piers. These piers include sets of double doors which fold back into shallow recesses, thus allowing a great deal of flexibility in the admission of light and ventilation, and in the control or facilitation of movement. Archaeologists refer to this feature as a pier-and-door partition, and it separates a hall into two unequal parts

known as a hall and forehall. A lightwell usually forms the third part of this system, separated from the other two parts by a row of columns. The lightwell is a small rectangular space that is open to the sky. It acts like a miniature courtyard to allow light and ventilation into the building. The pier-and-door partitions (fig.2) can be used to either collapse or open up a room, much the way folding partitions are used in modern hotel banquet rooms. If pier-and-door partitions form two or more walls of a room, this can serve to increase the complexity of circulation within a building. Furthermore, they enhance the maze-like character of the building. The Minoan Hall constitutes a feature that is uniquely Minoan and serves to distinguish the Minoans from other contemporary cultures.

Minoan Halls were lavishly appointed, sometimes with cut gypsum veneering or in other instances with fresco paintings. As mentioned above, they tended to be located in the northwest and/or east wings of the Minoan palaces. A smaller hall, also appointed with pier-

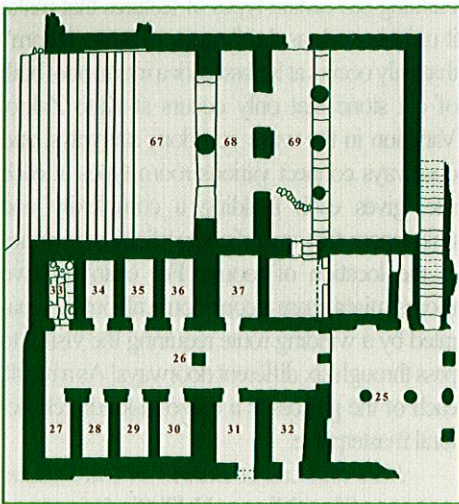


Fig. 6: Plan of stepped entrance with "Minoan Hall" at Phaistos and storage/workshop area to the south below (after Pernier and Banti).

and-door partitions or multiple windows or columns, benches, and a lightwell, was frequently built adjacent to a larger pier-and-door partition hall. A lack of objects found in these halls has contributed to the confusion as to how to interpret them. They have been viewed as ritual spaces by some, and as sleeping areas by others, with the smaller hall designated as a "Queen's" or "women's" quarters (e.g. Graham 1987). These purposes are by no means certain and a consideration of context affords additional possibilities. Again, much like the modern hotel banquet room, these halls could be put to multiple purposes depending on the time of day, seasonal changes, and specific needs. Possible functions include, but are not limited to, a ceremonial gathering and/or meeting area as well as a general living space.

In several instances, at Agia Triadha, Malia, Kato Zakro, and possibly at Knossos, Minoan Halls are located near small rooms containing tablet or sealing archives. This association raises the possibility that these rooms served as a meeting place for bureaucrats who administered palace inventories and kept records. It is not unreasonable to suggest that such individuals also served a religious role. In many ancient and modern, but traditional cultures, specialized knowledge such as writing or metallurgy is invested with religious symbolism. Thus, religion serves as a mechanism for restricting access to specialized knowledge, hence maintaining its exclusivity.

The amount of resources and energy devoted to the decoration and construction of Minoan Halls indicates their importance and

emphasizes the prestige of those with access to them. An elaborate, multi-storied monumental staircase decorated with a fresco was used to gain access to the halls at Knossos. The fresco is fragmentary, but enough information is preserved to indicate a procession. This iconography suggests that the halls served as an end point for a procession, perhaps connected with seasonal rituals and/or with receiving important visitors or traders. In addition to an archive room, similar halls in the west wing of the palace at Kato Zakro were closely associated with a room that served as a repository for elaborate stone vessels. These stone vessels may reinforce the idea that the Minoan Hall could have been used as a reception area for visiting elites from both Crete and abroad.

The main entrance at Kato Zakro (fig. 3) is at the northeast end of the building and connects the palace with the main road to the harbor. This contrasts with the situation at other Minoan palace sites, where the main entrance is frequently on the west or southwest end of the building. The close relationship between the palace and the harbor has led to the suggestion that Kato Zakro was built to facilitate trade with the Near East (Wiener 1987:265). This idea is further supported by its location on the east coast of Crete and by the finding of imported goods there, such as copper ingots and elephant ivory. We might envision visiting traders arriving at Kato Zakro, and then walking in procession from the harbor, to be entertained in the Minoan Hall. We might also imagine seasonal rituals to promote safe passage on the high seas. This idea is supported by the presence of a series of built pools and fountains in the palace at Kato Zakro (fig. 4). Such features are not found at any of the other Minoan palaces. Two of these, the foun-

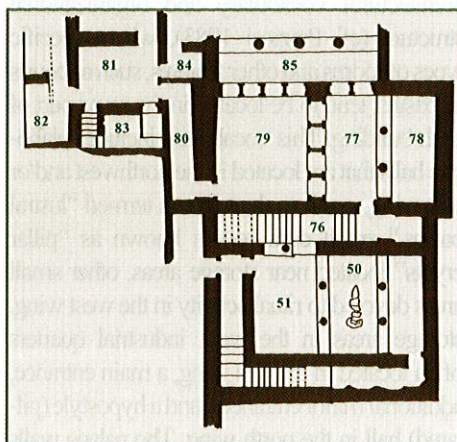


Fig. 7: Minoan Hall from the northwest wing at Phaistos (after Pernier and Banti).

tain and the spring chamber, contained offerings. These included conical cups, dishes, cups with olives, cups with pumice, grape seeds, small branches, burned animal bones, and a pyramidal stone base for holding a double-axe (cf. Platon 1985). Ritual practices connected with sea travel are well-known from other Late Bronze Age sites in Cyprus and in Israel (e.g. Basch and Artzy 1985). The culmination of such activities might have strengthened trading relationships through diplomatic gift exchange and social drinking.

With regard to the smaller halls that accompanied the larger halls, examining their features allows us to consider interpretations other than as a segregated place for women, for which there is no evidence. At both Knossos and Phaistos, the smaller halls had benches, they both lacked pier-and-door partitions, and they could not be easily closed off from the elements. At Knossos, two sides of this hall were pierced by a continuous row of windows and at Phaistos the smaller hall directly fronted on a columned lightwell (fig. 5). At both sites, these rooms would have been cold and uncomfortable in the winter, but light and airy during the heat of summer. I believe that they functioned like the other halls during the hot summer months.

It is difficult to conceive of the Minoans undertaking extensive building and trading programs if they were continuously carrying out elaborate rituals. Ritual activity was probably connected with cyclical events including trade, the harvest, and life-cycle changes such as the transition to adulthood and marriage. Ritual, administrative, and social activity does not exclude other, more practical uses for the Minoan Hall, such as sleeping at the end of the day. To envision how this worked, we can look at traditional societies such as those in the Middle East, where a large living room is used to receive visitors. At night, cushions might be laid out to use this same room as a family sleeping area. In short, we can view the "Minoan Halls" as all-purpose gathering spaces, although changing their context, or relationship to neighboring rooms could radically alter their purpose. For example, a Minoan Hall serves as the entrance for a Minoan villa at the site of Nirou Khanai and at the palace at Phaistos in the west wing, at the end of a monumental stairway leading into the building (fig. 6). At Phaistos, additional Minoan Halls are located in the northwest and east wings (fig. 7).

Another architectural feature that is uniquely Minoan is a small room referred to as a "lustral basin" in the archaeological literature (fig.8). A lustral basin is a small, rectangular room sunken below floor level and reached by a short flight of stairs, making a turn and running along a parapet. These rooms are typically well-appointed, often with gypsum veneering or paneling and fresco decoration. They always open off of a rectangular ante-room. The lustral basin has been interpreted as a place for ritual initiation, purification, symbolic descent into the earth, and bathing. An analysis of context can clear up some of the confusion connected with its function. Its interpretation as a bathing area is based on its small size and sunken disposition, which is believed to have made it easier for a servant to pour water on a bather. Also, these rooms are often located adjacent to a Minoan Hall, so that if the hall is to be interpreted as a sleeping area, then the basin must be a bathing area. Let us consider each of these factors in turn, and include an examination of context.



Fig.8: "Lustral basin" from the southeast wing at Knossos (photo: L. Hitchcock).

east) wing at Knossos, and in two instances in the west wing at Phaistos.

In naming these small sunken rooms "lustral basins," Sir Arthur Evans (1921, pp. 405-422) believed that oil jars found in the Knossian basin were used for ritual cleansing. It has become fashionable for contemporary scholars, myself included, to criticize Evans for everything from his reconstructions to his personality traits. It is important, however, in critically evaluating the work of a prominent scholar, to acknowledge his strengths and contributions as well as his weaknesses. I believe, with regard to the northwest basin at Knossos and the east basin at Kato Zakro, that Evans' interpretation may have been correct. This is not only based on the finding of the oil jars at Knossos, but also on the close relationship between the basin and

The most common objection raised against the idea that these rooms were used for bathing is that the gypsum veneering is water-soluble and would have been damaged. In addition, all of these basin rooms lack drains, yet the Minoans skillfully built a variety of drains elsewhere. These objections have not convinced everyone (e.g. Graham 1987: 255-269), but there are additional problems with the bathing interpretation. In measuring the parapets of most of the basins, I found them to be around 50 cm in width, which would have rendered it difficult for a servant to lean over to pour water on a bather below. The basin in the northwest wing at Knossos is some 2 m in depth, much deeper than is necessary for pouring bath-water. Another basin is located opposite the stone seat or "throne" at Knossos. Benches on either side of the throne create a fairly public context for bathing!

The assumed relationship between the lustral basin and the Minoan Hall is also not a constant. It has been shown that in the villas, most, if not all, of the lustral basins were filled in when pier-and-door partition halls with lightwells were added (Driessen 1982). In the palaces, the unit of basin and ante-room frequently, but not always, occurs adjacent to a Minoan Hall. The unit of the basin and ante-room also occurs apart from the Minoan Hall in the east wing at Kato Zakro, in the northwest (and possibly the south-

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an entrance to the building (fig.9). Descending into the basin and perhaps splashing on a bit of oil upon entering the palace may have been required of someone entering for the first time. The distinction between the occurrence of lustral basins in the palaces and villas is important, since it indicates that the use of the basins mainly continued to occur in the palaces. Whether this distinction is linked to a social taboo on the use of the basins or a change in ownership of the villas is uncertain.

The best argument against the use of lustral basins for bathing comes from the

Bronze Age town-site of Akrotiri on the island of Thera, just 60 miles north of Crete. The center of Thera is an active volcano and its massive eruption in the 17th c. BC preserved some of the houses in the town to the second and even third stories. Prior to the eruption, many of the houses were modified or constructed to include many Minoan style frescoes and architectural features. One of these houses, Xeste 3, was appointed with an elaborate fresco program, pier-and-door partitions, and a lustral basin. It has been shown that the pier-and-door partitions could be gradually opened to reveal the fresco narrative scene by scene.

The main part of this narrative can be summarized as follows (fig.10). Three females are represented on the north wall above the lustral basin. On the west (left) is a mature woman carrying a necklace and walking east towards a young woman in the center. The woman in the center is sitting on a rock, looking east, and holding her foot that is bleeding. Just beyond her; further to the east, is a young female with a shaved head (indicating youth) and wearing a veil. Although her body is facing west, her head is turned back toward the east. On the east wall, above the basin, is a "horns of consecration" placed on an altar with blood trickling down it. The basin and fresco program has been interpreted as connected with a female initiation rite. The basin represents a place of separation while the bleeding foot is believed to symbolize death, followed by renewal (cf. Marinatos 1984).

While such an interpretation may sound a bit far-fetched from our modern perspective, it fits in with what we know from anthropological studies of rites of passage rituals in traditional societies. Such rites typically involve separation, transition, and re-incorporation into the community. Separation in such rituals may involve

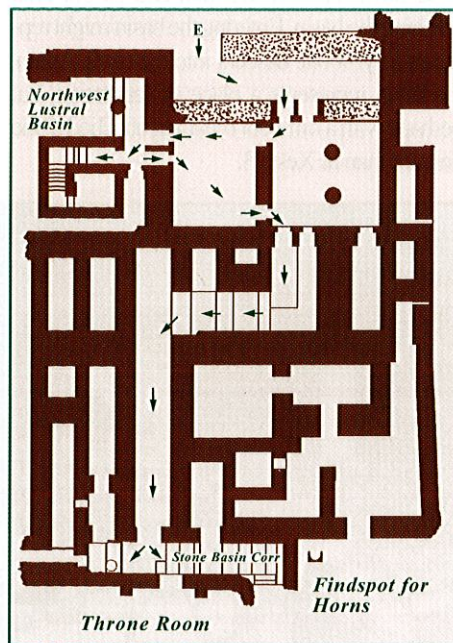


Fig.9: Circulation pattern connected with the northwest lustral basin at Knossos (after Evans).

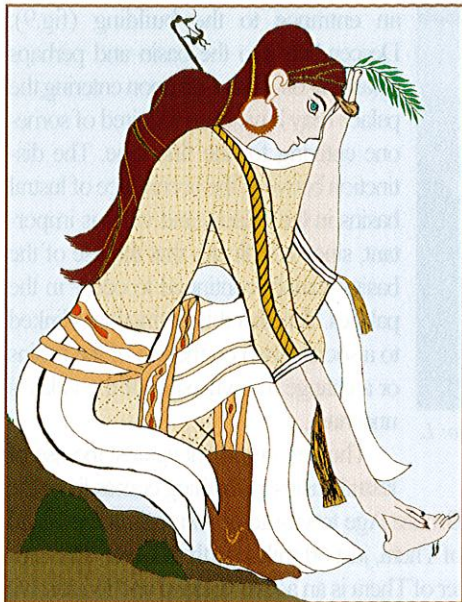


Fig.10: Fresco of female initiate from Xeste 3 in Akrotiri, Thera (after Marinatos).

symbolic death characterized by circumcision, knocking out a tooth, ingesting a drug or poison, or cutting a part of the body and dripping blood. In addition to the features already described, room 2 of Xeste 3 held two tubs of clay permanently fixed in place with attached clay drains. This installation would have served as a more likely place for bathing than a lustral basin.

In addition to the fresco depicting "horns of consecration" at Akrotiri, one was also found in the northeast basin at Kato Zakro, and another in model form was found in the basin in the east wing at Phaistos. As architectural elements, horns of consecration often marked important doorways (fig.11). Generally, their presence may mark a transition to the realm of the sacred and/or represent an allusion to sacrifice.

Lustral basins may have also served other purposes as indicated by other contextual differences and patterns, although all of their functions are difficult to apprehend. The situation in the second palace at Phaistos is particularly unusual. At Phaistos, there are four lustral basins, more than at any other Minoan palace. At the opposite end of the spectrum, there is only one at Malia. At the very least, we can say that these buildings functioned in different ways. Two of the basins and their ante-rooms at Phaistos are located adjacent to the Minoan Halls in the northwest and east wings of the buildings.

The other two of these basins and their ante-rooms, rooms 17 and 19-21, are located in the west wing behind the west façade, the part of a palace that is typically associated with storage (fig.12). They are only accessible with great difficulty. The basins and the routes of access to them take up most of the south half of the west wing. Each is located six thresholds from either the exterior of the palace or from the central court. This long winding route begins in entry corridor 7, turns south through corridor 12, passes through vestibule 13, turns west and again south through corridor 14, then west and north through room 15, and finally branches off to the west for complex 20-21 or north for 17/19. The route was decorated with incised double-axe marks, a dominant Minoan religious symbol, and red painted plaster, perhaps symbolizing blood, the substance of life-giving sacrifice.

Other than gaining access to the basins, there is little other purpose to this lengthy journey, which must have been repeated to leave or go to other parts of the palace. This arrangement might be seen as orchestrating the symbolic recreation of a journey in an artificial landscape. Landscape played a significant role in Minoan religion and a number of features in the landscape may have been symbolically represented or referenced architecturally. Along the architectural route at Phaistos, a visitor would be drawn along the corridor, then s/he might remain in one of the small adjoining halls for a while to meditate, talk to fellow participants, then continue down another corridor, and so on, until reaching the basin. Entering the basin might represent a symbolic descent into the earth. Again, the basin represents a place of separation, but perhaps with a different meaning attached to the descent than at Xeste 3.

Bringing lustral basins within the palaces might represent the palatial takeover of popular cult. This interpretation is based on what we know about Minoan religion. Evidence includes the palatial control over peak sanctuaries, and the religious significance of caves as indicated by the deposition of offerings. Although it would be desirable to be more specific about the use of lustral basins, to say more would mean abandoning reasoned interpretation and entering the realm of speculation.

The Function of the Minoan Palaces - Storage, Work, and Ritual: It has been calculated that about one-third of the ground space of the Minoan palaces was devoted to storage (Begg 1975). Typically, storage areas were located in the west and north wings, where they took the form of a row of long, narrow rooms called magazines. Additional storage and/or working areas were distributed in other wings of the palaces, in the crawl space beneath stairways, on upper floors as characterized by fallen objects, and possibly even on rooftops in conical- or beehive-shaped granaries. The area devoted to utilitarian activities was even greater at Malia, where the east wing and much of the north wing was utilized. This greater emphasis on work and storage is an example of one of the unique components I mentioned above that distinguishes Malia from the other palaces.

Magazines often held clay storage jars that were several feet tall, called pithoi (fig.13). Although Minoan pithoi were excavated and cleaned before modern methods of residue analyses were available to determine their contents, anthropological studies of modern pithos use indicate they might have held a variety of contents. These included staples such as grain, wine, and olive oil, as well as

household items such as pottery and textiles (Christakis 1999, pp.6-7). Pithoi were typically arranged against the wall and cuttings in the floor at some sites to hold the pithoi indicate that they were seldom moved. In addition, architectural representations on a Minoan sealing and a layer of grain fallen from the upper floor at Phaistos indicate that beehive- or conical-shaped granaries may have been placed on the rooftops of the palaces (cf. Strasser 1997; Hitchcock 2000).

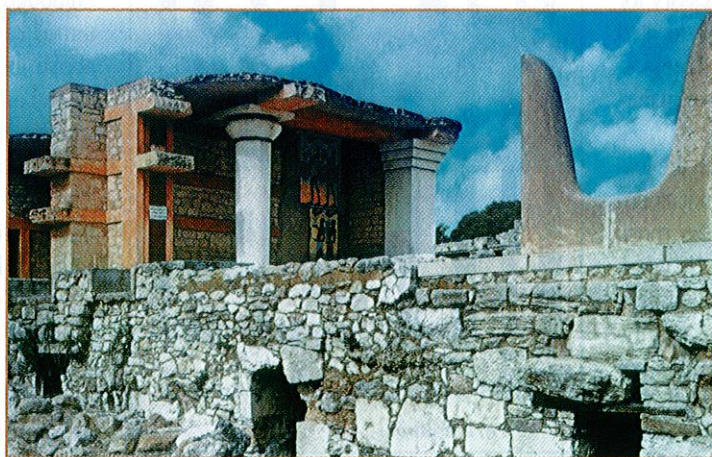


Fig.11: Horns of consecration from Knossos (photo: L. Hitchcock).

Generally speaking, work rooms within the palaces tended to be slightly wider than store-rooms, well-lit, undecorated, and distinguished by special features connected with a particular activity, and/or possibly containing raw or partially worked materials. Open areas and roof tops seem also to have been used for industrial activity. In addition, Linear A texts (Palmer 1991), archaeological remains, and evidence from seals and sealings (Weingarten 1986) indicate the presence of separate workshops that were working on behalf of palatial interests. Seals were small stones taking the shape of cubes, discs, and cones, or gold rings that had miniature relief scenes rendered on them. They not only served as markers of status and prestige; they also served as an administrative device for sealing now deteriorated documents and for tracking the distribution of goods. The sealing was an impression on wet clay, and in many instances the sealing is our only evidence for the lost seal. In addition to documents, sealings could be placed on jars, chests, and doors in order to guarantee the integrity of the object sealed. A seal impression could also be made on a type of clay label or token called a nodule that could be tied to an object such as a pithos full of oil or grain. Nodules were sometimes engraved with Linear A signs that indicated the identity and quantity of a specific commodity.

The use of writing and seals, and the setting aside of numerous spaces for storage have led archaeologists to view the Minoan palaces as centers for organizing redistribution, exchange, and trade (cf. papers in Hägg and Marinatos

1987). Under this system, staples might be released or elaborate feasts organized at special times of the year such as the planting and/or harvest season, and to mark periods in the transition from one life-stage to another, such as the transition from childhood to adulthood. The purpose of such celebrations would be to promote community solidarity and would serve to justify or legitimize the role of the palaces in these processes. The palaces would also regulate access to prestige goods and imported commodities such as bronze, ivory, or gold. These activities would have made it possible for craftsmen to obtain needed staples in exchange for their wares.

The role of foreign trade and exotic objects in the emergence and symbolic role of the palaces, especially at Kato Zakro, was briefly discussed above. Intra-island trade - that is, trade between the different regional centers on Crete - seems to have also played an important role in the economic life of the Minoans. This is indicated by the study of local trade in commodities. Petrographic analysis, used to identify geological sources of pottery minerals by their optical properties, shows that particular clays used in coarse ware pottery originated in particular areas of Crete. For example amphorae, jars for transporting liquids, were made in central Crete, but found in east Crete. Likewise, storage jars containing dry goods that originated in the region of Gournia were found in other areas of east Crete (detailed in Day 1991: 117, 173-176).

Betancourt (1997) has tracked the distribution of Ghyali obsidian as raw material, debitage, and finished vessels throughout the Aegean. In doing so, he has shown that the raw material was distributed along the north coast at Knossos, Malia, Palaikastro, Mochlos, Pseira, and probably at Kato Zakro, but that finished vessels were found in southern Crete as far apart as Agia Triadha and Pyrgos Myrtos. These examples suggest that an intricate network of trade existed among different centers of the island. Skilled craftspeople may have also been part of this network, in that they could have been lent from one center to another. Such exchanges are documented in Mesopotamian texts and may explain the Knossian style of the frescoes at Agia Triadha (e.g. Rehak 1997).

I believe that the palaces instigated, employed, and orchestrated religious belief and ritual as a means of legitimizing their economic activities as outlined above. In this regard, I think that certain symbols and features connected

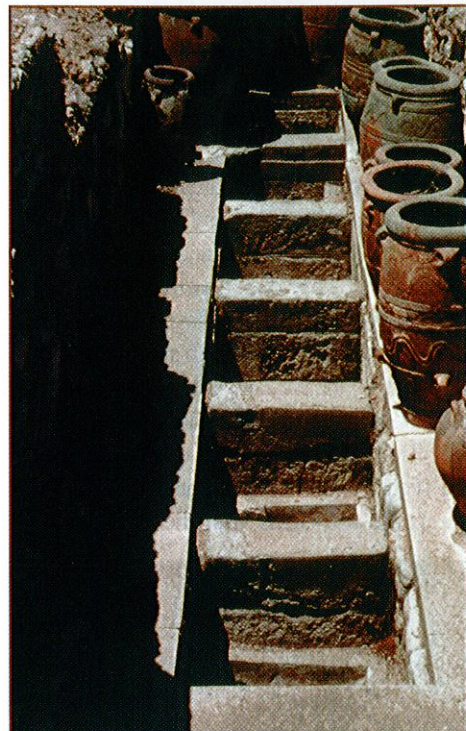


Fig.13: Magazines filled with pithoi (storage jars) at Knossos (photo: L. Hitchcock).

with storage played an important role in this legitimization. Foremost among these features is the pillar room or pillar crypt. The term "pillar crypt" was coined by Evans to refer to small, dark rooms, located near the storage magazines at Knossos, that contained a central pillar with incised double-axe markings, suggesting sanctity to him and others (fig. 14). They are regarded as architectural and aniconic (non-representational) representations of the stalactites and stalagmites worshipped by the populace in sacred caves (cf. Evans 1901). They occur in most palatial buildings in close association with storage magazines. In fact, it is often necessary to walk through or next to these rooms to reach the storage rooms and in some palaces they also served as storerooms. At least fourteen pillar crypts are engraved with double-axe mason's marks and/or contain pyramidal stone stands for holding double axes or other cult emblems. The double-axe is a prominent Minoan religious symbol as indicated by votive double-axes made of gold and found in caves. At least nine pillar crypts have cists cut into the floor, possibly for pouring libations into the earth, and one contained a horns of consecration (Gesell 1985: 148). Three pillar crypts contained, or are connected with rooms that contained, bronze figurines.

Similar patterns of association are known from caves on Crete, where double-axes and dagger blades were found embedded in stalac-

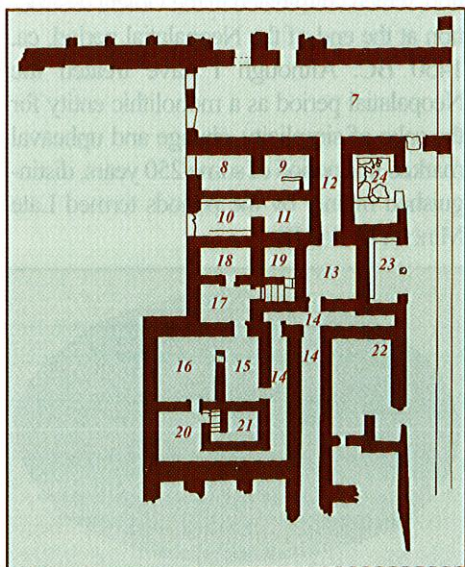


Fig.12: Detailed plan of "lustral basins" in the west wing at Phaistos (after Pernier and Banti).

tites and where bronze figurines were left as offerings. Fresco fragments from Knossos also show double-axes embedded in column capitals (fig.15). Pillar crypts might be seen as directed at palace personnel, symbolizing divine protection of stored commodities under the auspices of the Minoan elite. Access to them was usually complicated and restricted. Pillar crypts would have been owned or encountered by elites living in palatial villas, by religious and administrative personnel with access to the storage areas of the palaces, and by workers carrying goods in and out of the storage areas.

Tree, post, and pillar as cult symbols may be seen as symbolizing nature; the altar or receptacle associated with them served as a

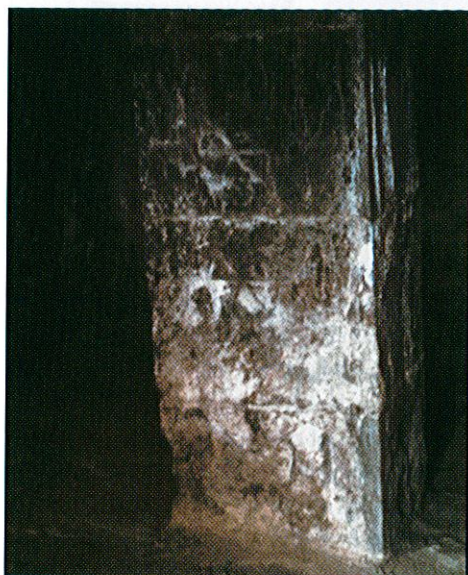


Fig.14: "Pillar crypt" from Knossos (photo: L. Hitchcock).

focal point of cult activity (cf. Wright 1992; Evans 1901). A constellation of similar religious practices was widespread in the east Mediterranean, as indicated by the iconography found on numerous Aegean seals/sealings and in Biblical prohibition. In the latter instance, Moses was instructed to destroy places denoting god worship: mountains, hills, and every green tree; and to overthrow altars, break pillars, and burn groves (*Deut.* 12.2,3.). On a gold ring of probable Minoan workmanship from Mycenae, two altars are depicted: on one there is a tree; both altars shelter baetyls (standing stones) (fig.16).

The clearest architectural example of a baetyl in Minoan Crete is an upright stone placed in a recess on the west court of the palace at Gournia (fig.17) (Soles 1991: 49-52). This feature renders the west court at Gournia distinct

from those of the other palaces. For individuals proceeding through the west court to the palace, the baetyl served as a visual cue referencing a deity of nature, which sanctioned the authority of the local political structure as embodied by the palace.

Sacred groves in an urban context are most prominently associated with the so-called "sacred grove" fresco from Knossos. This depicts at least two trees, a walkway or *temenos*, and a gathering that includes female protagonists and male and female onlookers (cf. Marinatos 1987; Davis 1987). The activities are divided unevenly between onlookers and participants. The location of the grove and its related ceremonies have been associated with the west courts of the palaces at Knossos and Phaistos (e.g. Preziosi 1983: 85). These areas served as sacred enclosures, distinguished by their pavement, proximity to the palace, and raised causeways.

The sacred grove fresco and the pits in the west court, which some archaeologists believe had held trees, appear to have gone out of use in the Neopalatial period (fig.18). At this time, the pits were filled in at Phaistos and Knossos, and the architecture at each site was modified. Hereafter, those who gathered in the west courts of the palaces might have been reminded of the wealth hidden behind the west façades. At Gournia, public focus might have been centered on the baetyl in the west court. At Malia, townspeople might have walked down the triangular causeway in the west court and approached the above ground conical granaries to the south where they might have left an offering or received a ration. At Phaistos, townspeople might have gathered in front of the monumental stairway before entering to wind their way through a maze of rooms toward the lustral basins. At Knossos, where bull imagery was exclusive (fig.19), the bull may have symbolized Knossian power and emphasis on a weather god, a deity symbolized by the bull in contemporary Mesopotamia and later, in classical Greece. At Kato Zakro, the West Façade was not emphasized and the west court was either diminished or non-existent. Instead, visitors might walk in procession from the harbor to the palace while offerings would be left to a deity of water known as En Ki in Mesopotamia and Poseidon in later Greece.

At each palace, public spaces allowed for the gathering of residents and visitors, but in each case they were presented with a

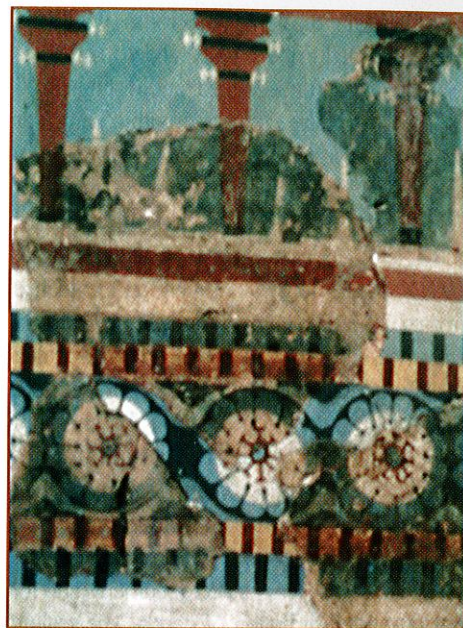


Fig.15: Fresco fragment from Knossos depicting double-axes embedded in column capitals (photo: L. Hitchcock).

unique set of architectural symbols. I believe that architectural differences at each site orchestrated different ritual practices, and that these different practices symbolized a ritual focus on different localized deities or aspects of a particular deity. The performance of these rituals was situated within a context of complex trading relationships that was probably regulated by the palaces and legitimized through the manipulation of symbolism. These inter-relationships were no doubt delicate and keeping them in balance may have contributed to the decline of Minoan civilization, which culminated in the violent destruction at the end of the Neopalatial period, ca. 1450 BC. Although I have treated the Neopalatial period as a monolithic entity for the sake of simplicity, change and upheaval marked this period of some 250 years, distinguished mainly by the periods termed Late Minoan IA and IB.



Fig.16: Seal impression showing altars with trees and baetyls on gold ring from Mycenae.

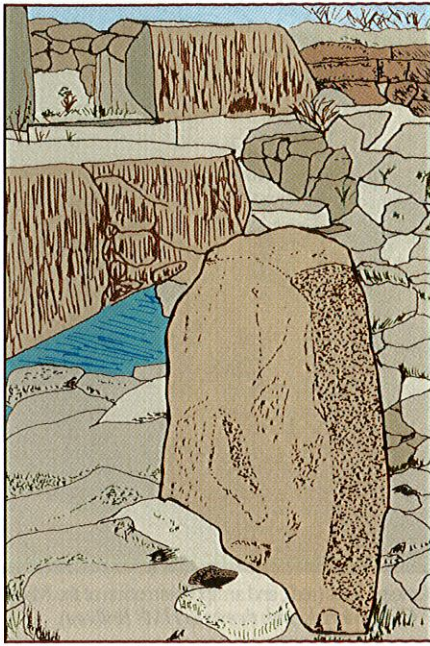


Fig.17: Baetyl from the west court at Gournia (after Soles).

The effects on Crete of the Theran eruption that occurred in LMIA are still being debated. Driessen and Macdonald (1997) have convincingly documented many of the architectural changes between LMIA and LMIB. They have shown that those in control of the palaces and villas increasingly restricted access to them. It is not unlikely that competition for wealth, power, and status may have contributed to the instability that resulted in the end of Minoan civilization.

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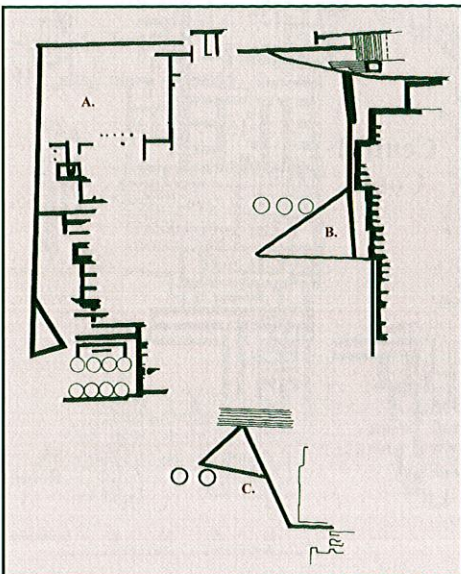


Fig.18: Plan of west courts at Knossos, Phaistos, and Malia (after Marinatos).

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Fig.19: Relief fresco of charging bull from Knossos (photo: L. Hitchcock).

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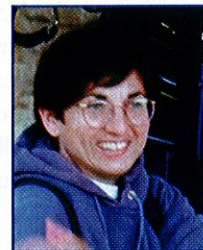
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