

FOUNDATION RITUALS AND THE CULTURE OF BUILDING
IN ANCIENT GREECE

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ABSTRACT

GLORIA R. HUNT: Foundation Rituals and the Culture of Building in Ancient Greece
(Under the direction of Donald C. Haggis)

This dissertation examines the evidence for foundation rituals in post-Bronze Age Greece while investigating their function and meaning in ancient Greek culture.

Foundation rituals are prescribed rites known throughout the ancient Mediterranean that marked the initiation of a buildings' construction, usually with a combination of prayer, sacrifice, and the burial of foundation deposits containing offerings of various types and/or sacrificial material. These distinctive deposits were ritually interred during the beginning stages of construction, usually within the fabric of the structure itself.

The discovery of foundation deposits in association with cult architecture from all over the ancient Greek world and from every historical period attests that foundation rituals were regular features of sacred building. This dissertation presents all published foundation deposits in their archaeological contexts and identifies patterns in placement, method of deposition, type of material deposited, and geographic distribution.

Reconstructed from the archaeological evidence, ancient Greek foundation rituals are related to the broader history of foundation rituals in the ancient Mediterranean, especially to the traditions of Egypt and Mesopotamia. Of particular importance are the formal similarities Greek foundation deposits share with those of Near Eastern cultures, an affinity which appears especially intense in East Greece and other areas where contact with the Near East was strongest. This dissertation argues that Greek foundation rituals

are Near Eastern in origin and were likely developed through contact with these cultures, further illustrating the impact of eastern traditions on Greek sacred architecture.

The archaeological and historical context of Greek foundation deposits provides a foundation for the investigation of the meaning and function of foundation rituals in ancient Greek culture. One of the principal functions of Mediterranean foundation rituals was to forge the public perception of a socially advantageous link between patrons of buildings and the gods they honor. This dissertation maintains that Greek foundation rituals similarly underscored a close relationship between human patrons and divinities through the *topos* of building, in which the sanction and assistance of the gods were perceived to play major roles. This view is substantiated by the portrayal of building and builders in Greek myth, where the procurement and elaboration of sacred space frequently result from divine guidance or miracle, and not human industry.

This study argues that foundation rituals describe a “culture of building” in ancient Greece, that is, they reveal ancient perceptions about building and builders by reflecting the cultic responses these perceptions elicited. In investigating these important rites, this dissertation offers new insight into the process of constructing sacred architecture and the role it played in Greek society.

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CHAPTER I

INTRODUCTION

Foundation rituals are ceremonies known throughout the ancient Mediterranean that marked the initiation of a sacred building's construction with prayer, sacrifice, and the burial of various materials in foundation deposits. Occasioned only by the act of building (or the decision to build), foundation rituals modified the moments in which a building came into being. In commemorating, legitimizing, elaborating, and protecting the act of building, foundation rituals are inextricably linked to architecture, a feature which gives them their distinctive character in ancient Mediterranean cult. This study investigates the appearance of foundation rituals in Greece while examining their function and meaning in ancient Greek culture.

Foundation Rituals in the Ancient Mediterranean: Phenomenology

The performance of foundation rituals was ubiquitous in the ancient Mediterranean world. Besides in ancient Greece, foundation rituals appear in the cultic traditions of ancient Egypt, Mesopotamia,¹ as well as at Etruscan, Roman,² and Levantine sites.³ In Egypt and Mesopotamia, inscriptional, representational, and archaeological evidence for the rituals are particularly strong, revealing a fairly uniform set of well-

¹ On Egyptian foundation rituals see Montet 1964, Weinstein 1973 and 2001, El-Adly 1981. On Mesopotamian foundation rituals see Ellis 1968, Ambos 2004.

² Donderer 1984; Brown 1960, 9-19; Pfahl 2000.

³ On Levantine foundation deposits, Bunimowitz 1993, Mansel 2003.

defined rites which are collectively known as “foundation rituals.”⁴ The abundant evidence provided by these traditions helps to define the phenomenon of foundation rituals as a distinct ritual practice. It is useful therefore to consider briefly the phenomenon of foundation rituals in the ancient Mediterranean.

Foundation rituals are best known from ancient Egypt, where they appear in textual and representational evidence as a set of rites performed by the king on the occasion of the construction of a new temple. The evidence suggests that these rituals are very ancient and changed little from their first confirmed appearance in early pharaonic times to the Ptolemaic period. The proceedings of Egyptian foundation rituals were meticulously recorded in both relief sculpture and inscription on the walls of several temples, most notably at the temple of Horus at Edfu.⁵

The sequence of ritual acts includes (briefly): the fixing of the temple plan; scattering gypsum or sand over the construction site; digging the first foundation trench; filling in the foundation trenches; molding the first brick; and placing a certain quantity of material in pits at the four corners of the planned temple. This last element is known as the burial of “foundation deposits.”

The material which the king prepares for the foundation deposit consists of small bricks or plaques made from various metals and stones.⁶ These plaques are a very regular feature in other texts and are objects unique to Egyptian foundation rituals. Other illustrations depict additional materials appropriate for foundation deposits, including

⁴ The term “foundation rituals” is one of many phrases used in modern scholarship to define the set of rituals associated with construction and is the preferred term used in this study. See below pp. 16-7 for discussion of modern terminology.

⁵ Montet 1964. See Chapter V for discussion.

⁶ Montet 1960, 176.

ceramic vessels and the remains of a sacrificial bull and goose (fig. 129). Only after the foundation deposits have been made can the construction of the new temple begin.

Foundation rituals are also well attested in ancient Mesopotamia. Here, foundation rituals appear in less formulaic terms than in Egypt; no text exists that describes a uniform set of foundation rituals in its entirety, and the archaeological evidence is strikingly diverse. Nevertheless, foundation rituals are well documented by both literary and archaeological evidence. Clear chronological and cultural patterns have been identified, and several aspects of the ritual remained ‘traditional’ for centuries.⁷ The elaborate foundation rituals of Assyria and Babylonia contained elements similar to Egyptian ones. They included, for example, the purification of the building site, the ritual preparation of building materials, the sacrifice of animals, and the burial of foundation deposits. In the Near East, foundation deposits could consist of a variety of materials, including figurines, inscriptions, and small objects of various materials.⁸

Egyptian and Mesopotamian foundation rituals can be shown to display certain commonalities which help to achieve a basic definition of the phenomenon. The most salient feature of foundation rituals is their intimate connection with the act of building. This relationship is both a spatial and temporal one. First, foundation rituals take place at the building site; most aspects of foundation rituals modify either the earth on which the building is to stand or the building itself. Secondly, foundation rituals are performed before the completion of the building. This aspect is explicit in textual descriptions, which reveal that the form of the rituals themselves are closely related to early or pre-

⁷ Ellis 1968. Archaeological evidence for foundation rituals in Mesopotamia dates from the Early Dynastic period to as late as Parthian times.

⁸ Ellis 1968, 5-34. See Chapter V for discussion.

construction activities, such as the purification of the grounds, the digging of foundation trenches, and the making and laying of the first bricks.

The burial of foundation deposits is a central feature of foundation rituals and is archaeologically well-attested throughout the Mediterranean. In Egypt, foundation deposits are best known from temples, but have also been found in association with tombs, palaces, forts, and town walls.⁹ They were usually laid in pits, which were monumentalized with brick or stone lining. Foundation deposits were made before the construction of the superstructure as they are generally found in places made inaccessible by the building itself. Foundation deposits were normally made near important parts of the building, including at the outer corners of the structure, but also near other architectural elements such as temenos walls and hypostyle halls. They were also discovered beneath pylons, columns, and obelisks, and below the floors of courtyards. Foundation deposits contained a variety of materials, the most recognizable of which are small inscribed plaques of various materials.

Mesopotamian foundation deposits could also be placed in pits or, more characteristically, within brick boxes built into the substructure or lower part of the walls of a building. In later cases, votive material could also be strewn in the foundations of the building. The most common findspots include beneath walls or between their courses, in or next to the foundations of walls and podia, below threshold blocks and temple daises, and below floors, especially near corners of a room or building.¹⁰

⁹ Weinstein 1973, lxix.

¹⁰ See Chapter V for Mesopotamian foundation rituals.

In Egypt and early Mesopotamia especially, the presence of recognizable types of material unique to foundation deposits frequently, though not always, provides enough evidence to identify a foundation deposit in the archaeological record. In later deposits, including those of Greece, the content of the deposit does not immediately identify it as such. Rather, it is the findspot, not the type of material, which is distinctive. Foundation deposits, in accordance with the rituals they express, are stratigraphically connected to the building in such a way as to suggest the temporal and spatial link to the beginning of construction.

The Greek Evidence

Unfortunately, no representational or literary evidence exists that directly describes the performance of foundation rituals in ancient Greece. The existence of such rituals is confirmed, however, by the numerous foundation deposits which, like the material described above, exhibit the necessary physical and temporal proximity to the beginning stages of construction. Foundation deposits have been discovered in buildings throughout Greece, including Crete, Cyprus, and western Asia Minor. The most common findspots are beneath walls or between their courses, below floors, thresholds, or other architectural features, but also in foundation trenches.

Though primarily found in association with sacred buildings, including temples, heröa, and treasuries, foundation deposits are attested in several building types in Greece. Other buildings which have received foundation deposits may include workshops and perhaps even tombs. Greek foundation deposits contained a variety of material, including coins, jewelry, and other luxury goods, figurines, ceramics (especially drinking and miniature, votive vessels), and remnants of animal and vegetable sacrifice.

Goals, Scope, and Organization

The goal of this dissertation is to present the evidence for foundation rituals in ancient Greece by illustrating their archaeological and historical contexts as fully as possible. The chronological scope of this study is limited to foundation deposits from post-Bronze Age Greece, beginning with the earliest evidence from the proto-Geometric period and ending in the late Hellenistic period. Minoan and Mycenaean foundation rituals, for which several published studies exist,¹¹ are outside the scope of this work, as they do not appear to inform the nature and meaning of foundation rituals in historical times. The suggestion of ritual continuity from the Bronze Age to historic times in Greece, while compelling in several areas of Greek religion and culture, is not sufficiently evidenced in the material presented here to bridge the wide chronological gap.

The analysis of Greek foundation deposits is best facilitated by typological and geographical considerations, according to which the present material is organized. The importance of these criteria¹² is demonstrated in that they are often mutually validating; that is, the “types” of foundation deposits appear to follow loose geographic divisions.

The first type of foundation deposit (presented in Chapter II), is one that contain objects made from precious material (gold, silver, electrum, bronze, and ivory). Sometimes called ‘*Wertdeposita*,’ these deposits often held coins, but also jewelry and other decorative objects. These deposits are found primarily in the eastern Greek cities of western Asia Minor, with some notable exceptions.

¹¹ Bouliotis 1982; Pelon 1986; Betancourt 1990, 46-48; MacGillivray 1999; La Rosa 2002.

¹² The evidence does not, for example, demonstrate a diachronic “development.” Chronological considerations are presented, however, in the discussion of historical contexts (Chapter V).

The second type of foundation deposit (discussed in Chapter III), found primarily on the mainland, the Cycladic islands, and on Crete, usually contained ceramic vessels (especially drinking vessels and miniature votive ceramics) sometimes accompanied by remains of animal and/or vegetable sacrifice. This type of foundation deposit does not appear with the same homogeneity as the eastern Greek type of foundation deposit, but is also best understood in regional groupings as defined by cultural and geographic factors.

The archaeological context of each foundation deposit begins with a consideration of the type of building in which it is found; in cases where the function of the building is unknown, it is necessary to characterize the patterns of usage in the surrounding area as far as possible. Next, the findspot of the foundation deposit is analyzed. When available, the stratigraphy of the deposit is illustrated to determine with the greatest possible accuracy the exact location of the deposit. This information can in turn reveal at what point during construction the deposit was likely to have been made. The method of deposition is also considered, including architectural elaboration (if any) made to house or seal the deposit. Lastly, the deposit material itself is analyzed. Although a complete stylistic and material analysis of the finds is beyond the scope of this study, a consideration of style, provenience, and workmanship of the materials is presented when relevant to illustrating patterns in consumption and distribution. A summary examination of all the Greek evidence, together with a partial reconstruction of Greek foundation rituals, is presented in Chapter IV.

The analysis of the archaeological evidence offered in Chapters II and III sets the groundwork for an historical approach to Greek foundation deposits. In Chapter V, Greek foundation deposits are examined within a broader Mediterranean context. Crucial

to this goal is a comparative study with Near Eastern and Egyptian versions of foundation rituals, which are well-documented in modern scholarship. Any study of foundation rituals in the Mediterranean, therefore, must rely on the theoretical and practical work accomplished in the scholarship of these regions. Two comprehensive works continue to provide useful ways of approaching the Greek material: Richard Ellis's *Foundation Deposits in Ancient Mesopotamia* and James Weinstein's doctoral thesis, "Foundation Deposits in Ancient Egypt."¹³

These two works illustrate the various aspects of foundation rituals in the ancient Mediterranean, including the identity of those involved in the ritual, the participation of gods, specific motivating factors, and above all, the meanings which the ritual conveyed. These studies provide important models for approaching Greek foundation rituals, and the evidence they present can be used in a meaningful comparative study. More significantly, however, arguments will be presented that both Egyptian and Mesopotamian foundation rituals can be shown to have greatly influenced the appearance of Greek foundation rituals. The eastern origin of Greek foundation rituals, already suggested by several scholars,¹⁴ is supported and more precisely described in this chapter. Possible methods of cultural transmission are explored with a critical review of recent scholarship on the impact of Eastern culture on the art and architecture of early Greece.

Chapter VI presents conclusions about the function and meaning of foundation rituals in ancient Greece. Although they likely served several purposes, one of the most visible functions of foundation rituals was to build, in public perception, a socially

¹³ Ellis 1968, Weinstein 1973.

¹⁴ Burkert 1992, 53-4; De Polignac 1992.

advantageous link between royal patrons and the gods they honor.¹⁵ Building on the historical links between Greek and Near Eastern foundation rituals described in Chapter V, this chapter outlines the social implications of foundation rituals as public statements of architectural patronage and personal piety. Supporting this interpretation is the representation of building and construction in Greek myths, which suggest that the construction of major buildings was perceived to be closely connected with the gods and beyond the realm of mortals in many respects. Building-myths therefore comment on the prestige that building carried for patrons and help to illustrate the social context of building, to which foundation rituals are intimately linked. Greek foundation rituals echo these themes and underscore a close relationship between humans and the divinities through the *topos* of building, in which the sanction and assistance of the gods were perceived to play major roles.

Although the primary focus of this dissertation is the identification and characterization of an ancient Greek cult practice, the study of Greek foundation rituals is a new approach to the study of architecture in ancient Greek society. Through the archaeological, historical, and cultural analysis of foundation rituals, this dissertation contributes to several areas of modern scholarship, including the complex role of Near Eastern contact in the development of early Greek architecture, and the expression of architectural patronage throughout the history of Greek architecture.

History of Scholarship: Literary Evidence

Unlike those of the ancient Near East and Egypt, ancient Greek foundation rituals have received little attention in modern scholarship. This fact is due in large part to a

¹⁵ Frankfort 1978, 267-9.

lack of literary evidence, as no written source has yet been identified that conclusively describes a Greek foundation ritual in any aspect. Several ancient terms seemingly associated with the ritual establishment of temples and other sacred objects, however, have been investigated by historians. The most important of these is *ἱδρυσις*, which can be translated as “setting up” or “founding” or “dedication,” especially of a statue or temple. In his seminal discussion of the term, Georg Hock noted that the word was most frequently used in relation to the setting up of cult statues and attendant ceremonies. These included the dedication of votives, the performance of sacrifice and prayer, and the decoration of the statue with wreaths, branches, and ribbons in celebration of the newly-sanctified statue.¹⁶

An important use of this term is in the expression *χύτραις ἱδρύνεσθαι*, which means to “install” or “set up” with chytrai (cooking pots). This phrase appears in two passages in Aristophanes and associated scholia. In the *Peace* as well as *Wealth*, two gods are “installed” or “set up” with dedications of chytrai. In *Peace*, after Trygaeus is successful in restoring the goddess to Greece, he exclaims:

Τρ. τί ἄλλο γ’ ἢ ταύτην χύτραις ἱδρυτέον;
Οἱ. χύτραισιν, ὥσπερ μεμφόμενον Ἑρμίδιον;
[Trygaeus: What else but to install her [Peace] with chytroi?
Servant: With chytroi! Like a damned little Hermes?]¹⁷

In *Wealth*, the Chremylus similarly restores the god Wealth to the treasury of Athens, and directs the old woman:

Χρ. τὰς χύτρας, αἷς τὸν θεὸν ἱδρυσόμεθα,
λαβοῦς’ ἐπὶ τῆς κεφαλῆς φέρε
σεμνῶς

¹⁶ Hock 1905, 47-89.

¹⁷ Ar. *Peace*, 923-4.

[Chremylus: Carry reverently on your head these chytrai,
with which we will install the god [Wealth]]¹⁸

Scholiasts for these passages explain that the chytrai filled with boiled pulses were used in sacrificial ceremonies not only at the dedication of statues but also shrines, altars, and temples.

Although these passages have sometimes been cited as descriptions of foundation deposits.¹⁹ Hock, and later Martin Nilsson, recognized a tangential relationship at best.²⁰ More likely is that the ceremonies associated with *ἱδρυσις* were formed for a *newly erected* statue or building in order to demonstrate its new status as the sacred possession of a god.²¹ In these contexts, the term *ἱδρυσις* seems to commemorate not the *foundation* of a building or statue, but its *consecration*.²²

Other interesting passages indicate, in a general way at least, the perceived necessity to perform ritual activities at the beginning of the construction of an important building. The *Iliad* gives the earliest example of the necessity to perform ritual (in this case, to offer animal sacrifice) to the gods before the building of a defensive wall. Poseidon complains bitterly to Zeus that the Achaeans had built a great wall to defend

¹⁸ Ar. *Wealth*, 1197-9.

¹⁹ Miller 1981, 63 n. 45; Furtwängler 1989, 69.

²⁰ Hock 1905, 78; Nilsson 1955/67, 404, n. 9.

²¹ “Die *ἱδρυσις* der klassischen Zeit wird also lediglich in einem symbolischen Akte bestehen, durch den zum Ausdruck gebracht wird, dass *die nun aufgestellte Statue ein besonderes Kleinod der Gottheit ist*, dass sie von nun an unter deren ganz besonderem Schutze steht und mit einer gewissen sacrosanctitas ausgestattet ist” [my emphasis] Hock 1905, 49.

²² Consecration is conceptually distinct from “foundation” in many ancient cults; The same distinctions can be observed in the Roman concepts of *inauguratio* (which can be identified with “foundation” as it is used here) and *consecratio* (Hock 1905, 73).

their ships without first giving a hecatomb to the gods.²³ Zeus becomes enraged at this egregious oversight and commands his brother to destroy the new construction. This passage is interesting because it gives not only the type of sacrifice required for building the wall, but it also outlines the penalty—destruction—for not performing sacrifice.

Thucydides remarks briefly about the celebrations at the return of Pleistoanax to Sparta, stating that the dances and sacrifices were like those once performed when the Lacedaemonian kings were first installed at the founding of their city.²⁴ While it is tempting to associate the celebrations with the founding of the city,²⁵ it is not clear if the motivation for such activities was in fact the foundation of the city or installation of the kings. Since Thucydides seems to be making the excesses of the ceremonial re-introduction of Pleistoanax analogous to those of the first Spartan kings, this latter interpretation seems more likely.

Also of some interest is Xenophon's exposition of Socrates' piety, whom he describes as having advocated the practice of divination when choosing a site for a building a city.²⁶ Although Xenophon gives no indication that divination was a standard activity at the foundation of cities, divination is indeed a common aspect in other accounts of city foundations. The accounts of the founding of Egyptian Alexandria by Alexander, for example, incorporate a number of elements which are of interest in understanding the general cultic atmosphere of choosing an appropriate building site,

²³ *Iliad* 7.448-50.

²⁴ Thuc. 5.16.3.

²⁵ As Weikart 2002, 18.

²⁶ Xen. *Mem.* 1.1.7.

including divination, dreams, and the marking out of the city plan.²⁷ Like Alexander, Epaminondas was careful to heed messages from diviners as well as oracles when choosing a site for the new city of Messene and ordered a whole day be devoted to sacrifice and prayer before the construction of the walls, temples, and houses commenced.²⁸ An inscription from Colophon dated to the late fourth century B.C. records the presence of both priests and priestesses at the expansion of that city.²⁹

An observation made by Pausanias of a curious Megarian cult may also be of interest.³⁰ While visiting the city, he noted the existence of an ancient cult dedicated to the gods called “builders before,” who first received sacrifice from Alkathoos, the mythical founder of Megara, before building the city wall. Unfortunately, nothing more is known about these mysterious gods, nor do they reappear in any other context.

It must be noted that, while sharing similar motivations, the rites associated with the foundation of cities cannot be specifically tied to the archaeological evidence at hand. Foundation stories and myths, however, are useful in considering to what extent divine sanction was sought before construction could take place and what methods were used to acquire this sanction. These intriguing myths and their broader implications for the study of Greek architecture are discussed in Chapter VI.

²⁷ Arrian, *Anab III* 1.5, 2.1; Plutarch, *Alex.* 26.5; Curtius 4.8.6, and Pseudo-Callisthenes, *Life of Alexander* 1.32.4.

²⁸ Paus. 4.26.7.

²⁹ See R. Martin *L'Urbanism* (1979) 55-6.

³⁰ Paus. 1.42.1.

History of Scholarship: Archaeological Evidence

Archaeology has yielded the best evidence for foundation rituals in ancient Greece. The discovery of the large and important foundation deposit from the so-called “Earlier Basis” in the seventh-century Artemision at Ephesus led David Hogarth to recognize the possible existence of foundation rituals in Greece.³¹ Having worked in the Nile delta where similar discoveries were being made, Hogarth posited a Greek version of what had otherwise been known as Near Eastern cult practice.

Like Hogarth, the historian of Greek religion Walter Burkert considered the few examples of published foundation deposits known to him as evidence for foundation rituals in Greece and expanded the list of foundation deposits given by Nilsson.³² In his *Orientalisierende Epoche in der griechischen Religion und Literatur*, he considered foundation rituals to be a distinct cult practice in Greece and explored their possible Near Eastern origins. He suggested that Greek foundation rituals, along with a number of other eastern religious practices, were re-introduced from the Levant around 800 B.C. by itinerant “seers” working in Greek lands. Though Burkert noted only five Greek foundation deposits in his original discussion of the rituals,³³ his thesis presents one of the important discussions of the cultural phenomenon to date, rightly suggesting the influence of eastern rituals in early Greek cult. His important thesis has not received full attention in any subsequent study of foundation rituals and is investigated and substantiated in Chapter V.

³¹ This identification was later refuted by Anton Bammer (see Chapter II pp. 29-30).

³² Including the deposits from Knossos and Gortyn (Burkert 1992, 53-4).

³³ Kition, Knossos, Delos, Ephesus, and Gortyn were published in the book’s original 1984 edition. The 1992 revised edition added the sites of Perachora, Isthmia, Priene, and Asine to the catalogue.

Ulrich Sinn's 1985 report of a foundation deposit discovered beneath the so-called 'Temple D' in the Heraion of Samos was accompanied by a useful excursus on Greek foundation rituals³⁴ in which the catalogue of deposits was further augmented and a more adequate definition of foundation rituals was sought.³⁵ Adopting Burkert's thesis, Sinn believed that the Samian foundation deposits were analogous to those from Egyptian and Mesopotamian contexts, noting in particular Egyptian influence in Samian architectural practices.³⁶ Other considerations of Greek foundation deposits are sometimes embedded in excavation reports or other works.³⁷

The first comprehensive study of Greek foundation deposits appeared in a recent unpublished dissertation, which attempted to collect all purported instances of foundation deposits in a comprehensive catalogue.³⁸ The present dissertation considers previous identifications of foundation deposits and introduces newly-identified examples. The material presented here cannot be a complete survey of all excavated foundation deposits in Greece, however, as there are many more instances of possible foundation deposits which continue to go unrecognized.³⁹

³⁴ Sinn 1985, 134-40.

³⁵ Sinn includes "preparatory" rituals in his definition. See below, pp. 16-7 for modern terminology.

³⁶ Sinn 1985, 137-8.

³⁷ See the brief discussions in Furtwängler 1989, 67-9; Wells 1982; Carter 1983, 231-3.

³⁸ Weikart 2002. Michael Weikart's catalogue was built upon another dissertation by Rita Müller-Zeis (1989). While Weikart's catalogue is fairly complete, important stratigraphic information recorded in excavation reports is frequently not discussed or illustrated. In addition, Weikart's limited definition of foundation rituals as "sacrifice" (below, pp. 16-7) led him to ignore some of the most important evidence for foundation deposits in Greece, namely eastern Greek foundation deposits. Nevertheless, Weikart's catalogue is a useful tool for further investigation of foundation rituals, adding more than four times the number of foundation deposits known in previous studies.

Problems in Identification: Modern Terminology

Many different terms have been employed by modern scholars to describe both foundation rituals and their related deposits. In the present work the term “foundation ritual” is meant to denote all the ritual acts that take place just before or during a building’s construction. Similarly, the term “foundation deposit” denotes the materials (including sacrificial remains) intentionally buried in connection with these rituals.

In this sense, “foundation” refers to the founding, or initiation, of building projects, and does not refer to the physical foundations of a building.⁴⁰ This is an especially important distinction in cases where foundation deposits have been discovered in statue bases, well above the level of the physical foundations of a building.

Other modern terms used for “foundation ritual” and “foundation deposit” have led to several misconceptions and are avoided here. The most frequent term in scholarship used to describe foundation rituals and deposits is the German “Bauopfer,”⁴¹ used by Nilsson, Donderer, Sinn, and others. The term is usually translated into English as “building sacrifice” or more frequently, “foundation sacrifice.” The meaning of the word *θυσία*, or sacrifice, in the ancient Greek world is a complex one, and is usually understood to mean the process by which a profane, non-sacred object (especially food or drink) is given as a gift to the god.⁴² In modern scholarship, however, “sacrifice” is sometimes used to signify only the slaughter of an animal victim. In a recent dissertation,

³⁹ It is hoped that this dissertation will inform archaeologists of this common Greek cult practice and encourage reevaluation of other possible evidence.

⁴⁰ For this reason, the more generic term “building rituals” and “building deposits” have occasionally been used.

⁴¹ Other terms such as “Grundlegungsdeposita,” “Grundlegungszeremonie,” and “Grundsteinlegungsopfern.”

⁴² Mikalson 2005, 26-7.

the term “foundation sacrifice” led to an overdue emphasis on the importance of animal sacrifice in the performance of foundation rituals, and important foundation deposits were ignored because of a lack of evidence for animal slaughter.⁴³ This exclusion is especially perplexing since it cannot be established from the present evidence that the sacrifice of an animal victim was a central, or even regular feature of foundation rituals in Greece, or even elsewhere in the Mediterranean.⁴⁴

An especially misleading term frequently used to indicate foundation rituals is rituals or rites of “consecration.”⁴⁵ As discussed above, consecration, or *ἱδρυσις*, is the act of making or declaring something sacred, i.e. in the possession of the gods. In ancient ritual, the consecration of temples is a familiar theme. In Egypt, a newly-constructed temple is consecrated to a god with an elaborate ceremony, in which the god physically descends into the building.⁴⁶ A similar ritual, culminating in the advent of the god in his or her new house, is attested in Mesopotamian texts.⁴⁷ Rites of consecration are conceptually distinct from foundation rituals, however, since they mark the end, and not the beginning, of construction.⁴⁸

⁴³ Weikart 2002.

⁴⁴ In the Near East animal or vegetable sacrifice may not have been a regular feature of foundation rituals at all; in Mesopotamian inscriptions, it is votive material and other ritual acts which are most frequently mentioned (Ellis 1968, 35-45).

⁴⁵ As in for example, the title of a recent lecture at the American School of Classical Studies at Athens, “Naxian rites of Consecration,” (Lambrinoudakis, 2002). This term can be used interchangeably with dedication; in German “Einweihung.”

⁴⁶ Montet 1960, 178.

⁴⁷ Ellis 1968, 33.

⁴⁸ A. Furtwängler recognized this crucial difference (1989, 68) as the difference between “Einweihungs-” and “Grundsteinlegungsoffern,” but also saw a difference between rituals performed before construction and those performed during it. Similarly, Sinn noted that the ritual performed at

Problems in Identification: Archaeology

Foundation rituals are characterized principally by their temporal and spatial link to the occasion of building. It follows that the identification of foundation deposits depends upon a clearly established link to a specific moment in time. This is often a very difficult task, especially when detailed stratigraphic information for the foundation deposit is unrecorded or inadequately published. Deposits which are physically incorporated into a building (that is, deposits which are “walled up” or built into the courses of stone) may reveal the specific moment during construction at which they were made. Deposits found beneath built features are harder to identify since it must be proved that the layer in which the deposit was found is contemporary with the structure.

Also problematic are those deposits which were no longer sealed by the architectural feature once assumed to cover them. This is often the case with foundation deposits that were covered by floors, which are often fugitive or are not properly identified by the excavators. In some cases, the level of the deposit (i.e. at the foundation levels) clearly indicates its position below the level of the floor. Where the architectural element is fugitive, not only must the layer in which the deposits were found be proved not to antedate the building, but the possibility of the deposit being a later inclusion must also be considered.

Essential to the recognition of foundation deposits is the demonstration of purposeful burial other than as debris used to fill the building’s foundation. This is especially difficult when foundation deposits scattered into construction layers rather than deposited in a container or a discreet area of the building. Although this kind of

Temple D on Samos was a ritual of “building preparation” (1985, 137). Such a division between pre-building and foundation rituals is unnecessary. In the present study, all ritual activity performed before the building is completed is considered part of the foundation ritual.

foundation deposit is known from Mesopotamian contexts, the difference between “sacred garbage” and a foundation deposit is not always clear (see Appendix for discussion).

In light of the difficulties in identifying foundation deposits archaeologically, scholars have attempted to set down firm guidelines for the interpretation of buried objects. Michael Donderer takes as especially conservative view, arguing against the identification of any buried material found below a building (and not within it, such as between the courses of the foundations) as a foundation deposit. In these cases, he warns, the chance that the deposit was not made in connection with the building are too great.⁴⁹ Following this guideline, however, would unnecessarily exclude several compelling foundation deposits; in theory at least, a clear presentation of the stratigraphy would be able to identify which pits are contemporary with the structure and which were made significantly earlier. Strict archaeological definitions for Greek foundation deposits are problematic, especially considering the diversity in types of findspots over a wide geographical and chronological range. In addition, new excavations and re-evaluation of already excavated material continue to expand the corpus of evidence in Greece which may change future understanding of normal patterns of deposition.

Foundation deposits are therefore best considered a somewhat fluid archaeological phenomenon requiring a total, contextual approach to both archaeological and historical evidence. This necessarily leaves a certain degree of ambiguity in cases where archaeological context is incomplete. Although the identification of several of

⁴⁹ Donderer 1984, 178 n. 11.

these purported foundation deposits remains unproven, they are nevertheless included here as a useful tool for future study.

With these reservations in mind, the following points are suggested as guidelines for identifying foundation deposits. In addition to the spatial and temporal link to the beginning of construction, Ellis observed that true foundation deposits should neither decorate the edifice (they are in fact not visible) nor be structurally useful.⁵⁰ A foundation deposit must also be made with clear intention of permanence, that is, with no plan for reclamation.⁵¹ This last point figures prominently in discussions of several potential foundation deposits, especially those containing valuable material. In some cases, the act of “hiding” or “storing” (for example, in the case of safety hoard or a *thesauros*) is not always easily distinguished from permanent deposits, despite clear differences in intention. This problem is further discussed in the Appendix. In most cases the intention of permanence can be assumed if the deposit can only be reclaimed with destructive acts, such as significant digging and/or the destruction or disturbance of architectural features.

⁵⁰ Ellis 1968, 1.

⁵¹ There is some evidence, however, that Mesopotamian kings were aware that their foundation deposits might be recovered in a future renovations (see Chapter VI p. 199).

CHAPTER II

EAST GREEK TYPE FOUNDATION DEPOSITS

With the British excavations of the Artemision of Ephesus in 1904-1905, the phenomenon of the foundation deposit became known in its Greek idiom for the first time. At the time of discovery, the unusually rich foundation deposit from Ephesus seemed an isolated, foreign phenomenon, attracting little scholarly attention to the problem of foundation rituals in Greece. Since then, archaeological investigations have revealed that the Ephesus deposit is the earliest in a series of similar deposits. These can be shown to form a relatively homogenous group and are located primarily in the Hellenized East, or the regions of western Asia Minor and the Aegean islands.

This chapter presents the evidence for foundation deposits in eastern Greece from Archaic to Hellenistic times. Each foundation deposit is illustrated in its most basic archaeological context. Type of building in which the deposit was made, findspot, method of deposition, and type of material are considered as closely as possible. Discovered primarily in temples or other cult buildings, eastern Greek type foundation deposits are linked most clearly by the type of material found within them. Objects made from precious materials, especially, but not limited to, coins and jewelry, frequently appear. Evidence of sacrifice and/or ritual dining may accompany the finds.

As with any typological grouping, exceptions and overlap may be expected. Several foundation deposits from eastern regions, at Samos and Naxos for example,

contain none of the richer materials observed in other deposits from this area, but display greater affinity with mainland deposits. These examples will be discussed in Chapter III. Conversely, at least one foundation deposit from the mainland (at Perachora) so closely resembles foundation deposits from the East that it is best considered in the present chapter. The geographical divisions set out in this study, therefore, are not meant to suggest a rigid break in religious continuity from one region to the next. Rather, they are meant to facilitate the recognition of important patterns within a broad array of evidence.

This regional approach is also conducive to establishing broader historical contexts. Because of the close cultural contacts with ancient Near Eastern civilizations evident in many of these eastern sites, the material presented in this chapter will be particularly important to assessing foreign influence on Greek foundation rituals (Chapter V). The exposition of these relationships will also be instrumental in discussions of the function and meaning of Greek foundation rituals (Chapter VI).

The discovery of a foundation deposit within one of the early predecessors to the **TEMPLE OF ARTEMIS AT EPHEBUS** marks the beginning of scholarship on the archaeology of foundation rituals. As a large, well-published foundation deposit with fairly detailed contextual evidence recorded in the excavation reports, the Ephesus deposit is an instrumental case study in the definition and identification of other foundation deposits throughout ancient Greece. Besides its impact on scholarship, the Ephesus deposit is one of the earliest foundation deposits from a Greek site. As such, it is of tremendous importance in tracing the origins and development of foundation rituals in Greece. The Ephesus deposit illustrates various external influences crucial to understanding the early character of foundation deposits. For these reasons, the Ephesus

deposit deserves especially detailed consideration and will play a central role in this and subsequent chapters.

The site of the Temple of Artemis and its predecessors was discovered in 1869 by J.T. Wood, who excavated the temple and surrounding sanctuary on a limited scale until 1874.⁵² In his excavation within the (Croesid) cella, Wood partially uncovered a set of centrally-placed foundations (fig. 1 marked in green, and figs. 2-3). Wood erroneously named these important and early foundations the “Great Altar” in his published report but described the building itself only briefly.⁵³ Wood uncovered only the top courses of this crucial structure and excavated nothing of its fill.

Prompted by Wood’s discoveries, the first full investigation of the Temple of Artemis was conducted in 1904-1905 by a team led by David Hogarth with support from the British Museum. The aim of Hogarth’s expedition was to explore further the architectural remains uncovered by Wood, with particular intent to discover the architectural predecessors to the Croesid temple.⁵⁴ The results of Hogarth’s excavations were published in 1908.⁵⁵

Hogarth focused his search for early temples in and around the marble cella of the Croesus temple, eventually turning to Wood’s “Great Altar.” Not wishing to ascribe a specific function to this as-yet unidentified structure, Hogarth re-named the foundations the “Basis” or “Central Basis,” (marked “B” in figs. 2-3) of which the eastern, northern,

⁵² For early excavations, see Wood 1877 and Benndorf 1906 (summary in Hogarth 1908, 9-18).

⁵³ Wood 1877, 262-3.

⁵⁴ Literary sources had already confirmed the existence of at least one early Temple of Artemis at Ephesus. See Hogarth 1908, 1-8.

⁵⁵ For excavation of the cella, see Hogarth 1908, 33-46.

and southern walls were only superficially uncovered by Wood (the western wall remained “missing”).⁵⁶ The eastern wall of the Central Basis were built with large blocks of hammer-faced marble at the corners, resembling the Croesid cella walls,⁵⁷ while the rest of the eastern wall consisted of small blocks of limestone with smooth exterior faces and rough interior ones (fig. 4). Northern and southern walls, though less-well preserved, consisted of similar material.

A wall was discovered on the west side of the Basis, its maximum height recorded at around 0.40 m. below the corners of the eastern wall. Like the other three, the exterior face of this wall was carefully smoothed down while the interior block faces were left rough. At first, it seemed this wall could be the “missing” western wall of the Central Basis, but several factors would soon disprove this. First, the new western wall consisted of remarkably different material. Instead of marble and limestone, the wall was constructed of small blocks of green schist. That this wall did not originally belong to the marble and limestone Central Basis was confirmed by the discovery of more walls of green schist which formed the northern, southern, and eastern walls of a new, smaller foundation, what Hogarth called the “Earlier Basis” (marked “A” in fig. 2, “Basis” in fig. 3). The three marble and limestone walls of the larger Central Basis stood around this structure, leading Hogarth to conclude that the larger Central Basis was a later expansion of the smaller Earlier Basis, replacing all but the western wall with marble and limestone.⁵⁸

⁵⁶ Hogarth 1908, 34.

⁵⁷ Hogarth 1908, 33.

⁵⁸ This interpretation, including the very existence of the Earlier Basis, would later be refuted by Anton Bammer (see below, p. 32-3).

Once the extent of the Earlier Basis was defined, Hogarth proceeded to excavate its fill. The walls of the Earlier Basis, essentially a stone casing for the fill, became unstable without interior support and were partially dismantled during excavation. Its fill was of an unusual nature, consisting of “thin slabs and flakes of yellowish limestone, laid in uneven layers on sandy clay...”⁵⁹ As this fill was gradually removed, an enormous quantity of around 800 small finds of gold, silver, electrum, and other materials came to light from between the courses.

In his memoirs written five years later, Hogarth describes in narrative form the circumstances of this discovery:

The topmost slabs [of the fill] were lifted easily out of their beds; and not less easily those of a second layer. Gazing dully at their prints on the mud-mortar I noticed some bright specks, and stooping, picked out two or three. They were flakes of leaf-gold, fallen from some gilded object which had perished, whatever it was. But no sooner was the first slab of a third layer raised than something better than a flake of foil shone on its bed, namely a little plate of impure gold, stamped with a geometric Ionian pattern, and pierced at the corners...Every handful of mud mortar washed through the meshes left treasure behind—women’s gauds for the most part, earrings of all patterns and weights, beads of sundered necklace-strings, pins for the hair, and brooches for the shoulder or throat, some of these last fashioned after the likeness of hawks in the finest granular work of Ionian smiths. With them appeared primitive electrum coins, fresh from the mint.⁶⁰

The finds seem to have been evenly distributed between the layers of yellow limestone filling, although none could be properly observed *in situ*, as each object had to be dredged from the watery fill. Between the layers of the lower filling, however, Hogarth noted the remains of “numerous bones of small ruminants and birds, and much carbonized matter.”⁶¹ Below this, a clean layer of sand appeared, which Hogarth thought

⁵⁹ Hogarth 1908, 33. The filling appeared at the same level as the height of the western schist wall, c. 0.40 m. below the eastern wall of the Central Basis (Hogarth 1908, 34).

⁶⁰ Hogarth 1910, 147-8.

⁶¹ Hogarth 1908, 35.

to be virgin soil, but in later studies would be called the *Schwemmschicht*, or flood stratum, on which the Earlier Basis was constructed (marked “SSch” in fig. 6).

In total, the Ephesus deposit contained 24 early electrum coins and four dumps (fig. 7) and about 600 gold and electrum objects, including fibulae, earrings, pins, rings, beads, and appliquéés of various shapes and sizes (fig. 8). The figurines included four sphyrrelaton female figurines (fig. 9), several ivory figurines, including a “hawk priestess,” and many hawk figurines of gold (solid or sphyrrelaton), silver, electrum, faience and ivory (fig. 10). Also included were 40 silver objects, including fibulae, spirals, rings, pins, beads, several bronze pieces (mostly fibulae and earrings), over 100 ivory and bone (fibulae plates, pins, pendants, and astragals), around 100 glazed-ware objects (whorls, pendants, beads, and scarabs), about 50 glass beads, and over 100 amber objects and cowrie shells.⁶² The bulk of material from the Ephesus deposit is now in Istanbul, though a small selection of electrotype copies is housed in the British Museum.⁶³

The Ephesus deposit is noteworthy not only because of the number of objects belonging to it, but also because of the preponderance of costly material. Gold, electrum, ivory, and amber are common, while bronze is less well represented. Terracotta, stone, and iron pieces are conspicuously absent from the assemblage.

These finds attracted a great deal of attention from historians, archaeologists, and art historians because of the enormous historical importance of the dates of early temples

⁶² See Hogarth 1908, 232-4, plates 1-34 for complete catalogue. For the figurines, see Jacobsthal 1951, 90-3.

⁶³ The finds were transported to the British Museum, where they were allowed to stay one year for the purposes of restoration and study. Originals (and electrotype copies) of many of these objects are still housed in the British Museum. During my visit to the British Museum in 2004, it was not clear which objects were discovered from within the central basis and which were found outside it. A meticulous comparison of museum holdings and Hogarth’s catalogue could partially correct this confusion.

and their finds.⁶⁴ At the center of the discussion are the 24 electrum coins found in the Earlier Basis which are among the earliest minted Greek coins, some marked only with simple punches and rough striations.⁶⁵ These coins are at the center of an on-going debate concerning the date of the beginning of coinage in Greece, a full consideration of which is beyond the scope of this study.

To summarize, scholarly opinion on the date of the Ephesus deposit falls largely into two camps: those who prefer an early date in the seventh century, and those who prefer to see the deposit being closed in the second quarter of the sixth century, perhaps during the reign of Croesus.⁶⁶ Recent studies and discoveries continue to inform scholarly opinion on the date and development of early Greek coinage. In addition, detailed material studies are currently being undertaken by several scholars with the Austrian Archaeological Institute, whose findings on the jewelry, beads, and other objects from the Basis will no doubt add new insights to the problem of dating the finds as a whole.⁶⁷

More important for this study are questions concerning the stratigraphy of the deposit and its relationship to the early architecture: How were the objects deposited in the Earlier Basis? What is the function of the Earlier Basis and its relationship to the surrounding architecture? Hogarth reported that finds were nestled between the layers of

⁶⁴ Donald Kagan has summarized the historical implications involved in the early structures and their finds, which include the date of the Kimmerian destruction of the Temple of Artemis and, most importantly, the date of the invention of coinage and its proliferation in Greece (Kagan 1982).

⁶⁵ For the catalogue, see Hogarth 1908, 74-93. Some of the more important of the many discussions of the early coins are: Jacobsthal 1951, Robinson 1951, Weidauer 1975, Karwiese 1991, Spier 1998, and most recently Karwiese 2001.

⁶⁶ The later sixth-century date was championed by Robinson (based on stylistic analysis of some figurines) and later reaffirmed by Spier and Karwiese.

⁶⁷ See Muss 2001 for recent studies on the beads, gold appliqués, and ivories from Ephesus.

stone that filled the Earlier Basis.⁶⁸ This suggests that the objects were placed deliberately within the structure. In Hogarth's own words:

When the first specimens appeared, I thought them accidents of ruin—precious trappings of the statue carried down by water through chinks of its pedestal, or, perhaps, contents of some perished casket. But such possibilities became impossible as the jewels continued to be found in each successive bed of mortar.⁶⁹

As Hogarth observed, the sheer quantity and unusual placement of the objects excludes the possibility of accidental deposition. Moreover, the deposit must be contemporary with the Earlier Basis, which became unstable without its filling. The Ephesus deposit cannot have been introduced at a later date, but was therefore placed within the structure *as it was being built*. This seemed extraordinary to Hogarth, who continued his narrative:

It grew clear that we had chanced on some sort of foundation deposit—on objects hidden with a purpose when the first builders were laying course on course of the pedestal...Perhaps also we had solved at last the mystery of Greek foundation-deposits. Under Egyptian temples [W.M.F.] Petrie has found many such deposits, whether beneath corner stones, or the main threshold, or in the central axis of a building.⁷⁰

Hogarth could draw upon little comparative evidence for foundation deposits in Greece; to what “mystery” he referred is unclear. At the time of his excavation, only the deposit at Priene (below, pp. 41-4) offered a Greek parallel. Nevertheless, recognizing that the unique features of the Ephesus deposit were analogous to Egyptian practices, Hogarth's bold comparison remains a compelling one. His thesis explains the many unusual characteristics of the deposit, including the permanent deposition of valuable

⁶⁸ According to Hogarth, the objects began to appear with the removal of the second and third courses of stone (1910, 147-8). The total number of courses was not recorded.

⁶⁹ Hogarth 1910, 148.

⁷⁰ Hogarth 1908, 232.

material, the placement within a central feature of a temple (discussed below), and above all, the close relationship to an architectural feature during the beginning stages of construction. In addition, the presence of charcoal and bones, when taken in combination with these factors, reinforces the ritual character of the finds.⁷¹

Hogarth recognized the Ephesus deposit as a Greek version of foundation deposits otherwise common in the ancient Mediterranean. As interest in the historical and chronological implications of the finds came to the fore in scholarly discussion, however, the cultic character of the deposit remained unexamined. Although the term foundation deposit was commonly used in reference to the finds, the cult phenomenon in its Greek context remained poorly-defined.

Hogarth's identification of the Ephesus deposit as a foundation deposit received more serious attention when it was refuted by Anton Bammer, former director of Austrian excavations at Ephesus. Following a common archaeological trend in preferring mundane explanations over the (often speculative) assignation of "ritual" activity, Bammer suggested that the Ephesus deposit was a cache of discarded votives, assembled and thrown into the foundations of the (Croesid) temple during reconstruction.⁷² This explanation, seemingly a more cautious approach, is less convincing than Hogarth's. The identification of the Ephesus deposit as the result of cleaning operation does not attempt to explain why the material should have been carefully and discreetly deposited between

⁷¹ Unfortunately, nothing of the quantity or character of the bones was recorded, and the evidence was not kept.

⁷² Bammer 1990, 150; *ibid* 2001, 74. While the difficulties in identifying cultic character in a deposit of material are many (see Chapter I, pp. 18-20 for discussion), Robin Osborne (2004) has recently argued that modern scholarship has gone too far in its skepticism of archaeological evidence for ancient ritual activity. In the interpretation of votive deposits of various types, he argues that the mechanics of votive deposition have too often been suppressed in favor of more positivist interpretations.

the layers of fill in the Earlier Basis. Nor does Bammer's hypothesis explain the selective range of materials, especially the lack of ceramics, which one might expect in abundance in a "garbage" fill. In fact, the phenomenon of cleaning fills and other "sacred garbage" in Greece is a poorly-defined phenomenon, and is often used, as in this case, to disassociate a deposit from cultic meaning. This argument is often as baseless as the argument for ritual. Cleaning fills from sanctuaries and their relationship to foundation deposits are further discussed in the Appendix.

In order to investigate the nature of the Ephesus deposit, the architectural context in which it was found must be fully elucidated. The description and sequencing of the many architectural remains within the Croesid cella continues to provide architectural puzzles which are currently subjects of much debate. Although the stratigraphic information recorded by Hogarth is lacking when compared to 21st-century standards, much of his architectural description was remarkably detailed. Including the use of photography in his documentation of the excavations, Hogarth's verbal description of stratigraphy is quite complete when dealing with architectural sequencing.

Hogarth excavated the remains of what he interpreted as three separate buildings, all archaic temples to Artemis. The earliest of these, Temple A, include the earlier basis and the so-called "T-foundation" and "Western Rectangle" (fig. 3). Temple B consists of a larger set of foundations which surrounded Temple A; the foundations of Temple C are larger still.⁷³

⁷³ Hogarth tentatively dated the construction of temple A to 700 B.C. and its destruction by the Kimmerians around 660 B.C. Temples B and C were built in roughly 50-year intervals until the Croesus temple was constructed c. 550 B.C. Temple C will not be considered here, since it has no relationship to the Earlier Basis.

Since Hogarth's campaign, Austrian excavations in the area of the cella have revealed more architectural remains, resulting in a very different architectural sequence (and, consequently, different dating) than the one offered in Hogarth's model.⁷⁴ Although a full investigation of the architectural remains cannot be offered here, Bammer's findings can be summarized as follows: first, the walls of Temple B clearly extend below the Earlier Basis, or Temple A, and were founded on earlier strata. With the discovery of crude post bases around Temple B together with remnants of a clay floor, Bammer concluded that Temple B was in fact a peripteral temple which antedated the Central Basis. The Central Basis, on the other hand, was founded on a layer of sand, which Bammer interpreted as a flood stratum, or *Schwemmschicht* (fig. 6).

According to Bammer, this flood stratum effectively destroyed the first phase of Temple B (hereafter, "peripteros"), after which the outer walls were thickened and the temple may have been reconstructed at a higher level.⁷⁵ Included in this reconstruction is the "western rectangle" previously identified with Hogarth's Temple A.⁷⁶ Bammer dated this early peripteros to the eighth century B.C. based on pottery found beneath some parts of the floor. Although certainly earlier than the Earlier Basis or its extension (the Central Basis), such a high date is unconvincing on both stratigraphic and architectural grounds.⁷⁷

⁷⁴ For architectural history see principally Bammer 1988, 1990, and 2001. For summary and critique of Bammer's reconstructions, see Weissl 2002.

⁷⁵ Although Bammer states that new bases for columns were set up at a higher level, no evidence for any new bases or for a raised threshold has been discovered.

⁷⁶ The western rectangle clearly lies below the Earlier Basis and probably also went out of use with the introduction of the *Schwemmschicht*.

⁷⁷ For critique of this early date, see Weissl 2002, 321-7, who dates the temple to the seventh century.

According to new excavations, the Central Basis (and by extension the Earlier Basis) no longer formed part of the earliest Artemision on the site, but must have been constructed sometime after the first phase of the peripteros. Because of similarities in material and construction with parts of the Croesid temple,⁷⁸ Bammer hypothesized that the Central Basis was a *naiskos* within the sixth-century Croesid temple. In this reconstruction, the temple reflects the plans of other Ionic temples with small, temple-like interior structures, such as the temple of Apollo at Didyma.⁷⁹

Bammer doubted the existence of Hogarth's Earlier Basis entirely, having observed little remaining architectural evidence for it. What remained of the northern, eastern, and southern walls was identified as haphazard fill from the Central Basis.⁸⁰ Bammer considered the western schist wall to be contemporary with the Central Basis, despite the drastic difference in building material from the other three walls. The omission of the Earlier Basis in the architectural sequence, therefore, resulted in dating the Ephesus hoard to the Croesus temple, placing the finds, including the electrum coins, in the sixth century B.C. Bammer's reconstruction has been supported by several scholars, especially those who favor a sixth-century date for the early coins.⁸¹

Michael Weissl, in his recent study of the stratigraphy in the area of the Artemision, has published a new architectural history for the early buildings that criticizes Bammer's findings, especially his omission of the Earlier Basis. First, the existence of an Earlier Basis is substantiated not only by Hogarth's detailed descriptions,

⁷⁸ See above, p. 24.

⁷⁹ Bammer 2001, 74.

⁸⁰ Bammer 1990, 138.

⁸¹ Karwiese 1991 and Spier 1998.

but also by archival photographs which clearly show the other walls (fig. 4).⁸² In fact, Hogarth reported that the northern, southern, and eastern walls were partially dismantled after their measurement, a fact which seems to have gone unnoticed in Bammer's study.⁸³

Other factors indicate that the western schist wall was not originally built as part of the foundations for a Croesid naiskos. First, the western wall's exterior face was dressed, as if it were meant to be seen. In Bammer's reconstruction, this smooth face would have been concealed far beneath the Croesid floor. Secondly, the northern corner of the western wall does not bond with the Central Basis, but turns a proper corner well short of its northern wall, a fact which cannot be reconciled with Bammer's hypothesis.⁸⁴

As Weissl has shown, there is no compelling evidence to omit Hogarth's Earlier Basis from Bammer's otherwise convincing architectural studies. Briefly, Bammer's new architectural sequence consisted of the following buildings: the earliest was a peripteros with cella and inner foundation (previously, "T-foundation" in fig. 3).⁸⁵ This building was destroyed by a flood, as evidenced by the *Schwemmschicht*. After this destruction, the peripteros was raised and a flanking wall was erected. Finally, a simple sekos without peristasis replaced the peripteral temple altogether.

As stated earlier, the Earlier Basis was erected directly on the *Schwemmschicht* which marked the end of the first peripteros. The Earlier Basis, therefore, could belong to the second building phase (the heightened peripteros) or perhaps the third (the simple

⁸² Weissl 2002, 318.

⁸³ Bammer 1908, 36.

⁸⁴ Bammer suggested some unknown ritual function for the gap between the two walls (1990, 138).

⁸⁵ Bammer has recently argued for a "*Vor-peripteros*" which has not been fully published (2001, 73).

sekos). The date of the *Schwemmschicht* can be set in the seventh century, perhaps more likely in the third quarter of the seventh century, as Dyfri Williams has argued.⁸⁶ The peripteros was likely rebuilt shortly thereafter, and can also be dated to the second half of the seventh century. A seventh-century date accords well with some stylistic studies of the Ephesus deposit finds and is supported by several numismatic studies.⁸⁷

Still, the exact function of the Earlier Basis remains somewhat illusive. Because of its eastern position within the cella, it is likely to have served as a statue base for an early cult image, or perhaps as a small interior shrine or naiskos. The Earlier Basis was constructed partially on the now defunct inner foundation (*Rechteckbasis*, fig. 6), which Bammer reconstructed as either a kind of early baldachin or central hypaethral area. In any case, it is likely that the Earlier Basis had something to do with the presentation and display of the cult statue.

From the new excavation and research, the Ephesus deposit can be better considered in its architectural context. A large cache of jewelry, coins, other small objects of precious materials, and animal bones was deposited within a central architectural feature (cult statue base?) within the seventh-century Artemision. Because the finds were scattered between the layers of its filling, the Ephesus deposit was laid *as* this structure was being built.

While particularly rich in finds, the Ephesus deposit is paralleled in both type of material and manner of deposition by other foundation deposits in Ionia and elsewhere in

⁸⁶ See below, p. 35.

⁸⁷ Weidauer 1975, Kagan 1982.

western Asia Minor. Before turning to other finds, however, another find within the seventh-century Temple of Artemis deserves consideration.

Sitting upright and intact, a jug containing 19 electrum coins (the so-called “**POT HOARD**”) was discovered not far from the Earlier Basis (figs. 11-14).⁸⁸ The jar was found to be “sealed with a covering, whose binding cord still clung to the clay.” Using Hogarth’s description of the findspot together with recent architectural reconstructions, the pot hoard can be shown to have been found in the southwest corner of the peripteros and in the *Schwemmschicht*. From analysis of the vessel undertaken by Williams,⁸⁹ a date in the third quarter of the seventh century can be assigned for both the pot hoard and the *Schwemmschicht*. The coins found within the jug were of similar to those from the Earlier Basis deposit (fig. 15),⁹⁰ providing further confirmation for the contemporaneity of the *Schwemmschicht* with the Earlier Basis (as argued previously on stratigraphic grounds).

Williams recognized that the pot and its precious contents were likely deliberately buried within the *Schwemmschicht*, and for some cultic purpose. The jug was likely not an unclaimed security hoard, as site of a newly-ruined temple (one which was quickly rebuilt) would have been a poor choice to hide valuables for safe-keeping.⁹¹ Its peculiar findspot also makes it unlikely that the jug was a normal votive offering within the temple, nor could such a collection likely be the result of accidental loss. Williams,

⁸⁸ Hogarth 1910, 153; *ibid*, 1908, 42-3; and Head in Hogarth 1908, 74-5. The pot was also found with an ivory statuette (Hogarth 1908, pl. 24, 8).

⁸⁹ Williams 1991-1993.

⁹⁰ No dumps or punched dumps were found in the hoard, however (Williams 1991-1993, 101).

⁹¹ For discussion of security hoards, see Appendix.

following Bammer, suggested the pot was buried as a gift of appeasement, buried in the sand to placate the gods who had sent a flood to destroy the temple.⁹²

At first consideration, Bammer's interpretation of the *Schwemmschicht* as a flood stratum is compelling. The marshy terrain of the Kayster delta (both in ancient times and today) is well-known. However, it is difficult to reconcile the flood theory with the stratigraphic information in published sections of the temple. It appears that the *Schwemmschicht* uniformly filled the interior of the peripteros (effectively destroying it), at a height of around a half a meter. An extremely large flood would have been necessary to leave such a quantity of sand behind, let alone within an interior space protected by stone walls. Moreover, it is curious that the layer does not appear outside the building (although the layers could have been removed in ancient times).

Weissl doubted the interpretation of the thick sand layer as flood residue, suggesting instead that the sand was construction "fill" brought in to level the site before rebuilding the peripteros.⁹³ Weissl's suggestion finds support in the stratigraphy, and the use of sand may represent a meaningful feature in this building phase.

The use of sand for the foundations of a building is well-known in Egypt, especially in temple architecture. The practice, however, can also be found in eastern Greece, as has been recently attested by Hermann Kienast at the Heraion at Samos.⁹⁴ Here, a thick layer (ca. 1.0 m.) of clean, white sand was laid in preparation for the stone foundations of the second dipteral temple of Hera (fig. 16). Citing the extensive Egyptian

⁹² Williams 1991-1993, 101.

⁹³ Weissl 2002, 326.

⁹⁴ Kienast 2001, 38.

influence on the architecture and cults of Samos, Kienast considered the use of sand to be another in a long line of possible technical imports from Egypt, including the use of Egyptian units of measurement and above all the sudden amplification of the temple's dimensions. Not simply a construction method, however, the use of sand in Egyptian architecture has cultic meaning as well, and was an important element of Egyptian foundation rituals.⁹⁵

If Bammer's *Schwemmschicht*, like that at Samos, was a construction layer and not the residue of a massive flood, might it have carried some of the cultic associations known from Egyptian practice? Perhaps tangentially related is the legend surrounding Ephesus and the use of unusual materials in temple foundations. Pliny records Theodoros' unusual solution to the problem of flooding at the site: layers of charcoal and sheepskins were laid in the foundations of the Croesus temple.⁹⁶ This anecdote may recall some kind of ritual performed at the founding of the temple, later rationalized by Pliny as an architectural innovation.⁹⁷

In summary, the *Schwemmschicht* makes more sense as a deliberately laid construction layer than as a flood stratum. It follows that the pot hoard within this construction layer, like the deposit in the Earlier Basis, was deposited during an early stage of the reconstruction of the peripteros and without the possibility of reclamation at a

⁹⁵ On the cultic and mythical meaning of the use of sand in Egyptian architecture, see Spencer 1979 and Ritner 1993. Sand was associated with the primordial mound on which the first temple was built and was thought to have purifying qualities. See Chapter V, pp. 132-3, 160-1 for the role of sand in Egyptian and Mesopotamian foundation rituals.

⁹⁶ *NH* 2.201, 36.95.

⁹⁷ Schaber suggests the legend recalls an "Einweihungsopfer" or "consecration sacrifice" (1982, 19). See also Chapter III pp. 68-9.

later date. The pot hoard therefore may be more aptly described as a foundation deposit, made while preparations for the newly renovated temple were underway.

Since Hogarth's excavations, many more examples of foundation deposits have come to light with which the Ephesus material can be compared. Three foundation deposits especially reflect both the type of material and manner of deposition of the Earlier Basis deposit.

The first is a deposit discovered within the **TEMPLE OF ARTEMIS AT SARDIS** (fig. 17)⁹⁸ During H.C. Butler's second campaign in 1911, the excavation of the temple revealed a large, central podium which is thought to have served as the (eastern) base for a colossal cult statue.⁹⁹ The base, which extends from the northern to the southern interior colonnade, consists of two courses of purple sandstone blocks and was probably originally capped by a marble course above it (fig. 18).¹⁰⁰

A deposit of 127 bronze and silver coins was discovered within the base, spread between the vertical joints of the upper course of the sandstone core.¹⁰¹ An important feature of this deposit is that the 72 bronze coins were carefully laid at the northwest corner of the base, while the 55 silver coins were deposited at the east side of the base (fig. 19).

⁹⁸ For excavation of the temple, see Butler 1911 and Butler 1922. On the temple architecture, Butler 1925, Gruben 1961, Hanfmann 1975.

⁹⁹ Butler 1911, 453-4; *ibid* 1922, 74-6.

¹⁰⁰ The height of the cella cross-wall proves the existence of an additional foundation course of ca. 0.50 m. above the preserved top course of the sandstone base (Hanfmann 1975, 79-80).

¹⁰¹ In his second preliminary report, Butler also notes that the coins were discovered not only in the upper course of the "basis" but also in "the marble foundation stones of one of the interior columns on the north of it" (Butler 1911, 453-4). Butler does not mention this second location in his 1922 publication, however.

The Sardis deposit could only have been made deliberately and without the intention of reclamation, suggesting that the deposit was made for cultic reasons. As at Ephesus, the deposit was also made during construction of the base. The strict separation of metals, while unique to the Sardis deposit, finds its closest parallel with foundation rituals from Mesopotamian sites, the implications of which are discussed below in Chapter V.

The statue base is dated to the Hellenistic period by the coins of the deposit. Though a few coins date as early as the reign of Alexander, the latest dates to the end of the third century B.C.,¹⁰² suggesting that the present statue base was part of a large renovation project which may have occurred around 200 B.C.¹⁰³ Hanfmann suggested the renovation took place during the reign of Achaeus (220-215 B.C.) based on stylistic affinities shared by the fragment of the colossal Zeus found near the temple and portrait types of Achaeus known from coins.¹⁰⁴

At whatever building stage the base was constructed, it is clear that the limestone blocks of its core were not newly-quarried for the project. The presence of non-functional clamp holes suggests that at least some of the limestone blocks had belonged

¹⁰² Franke (1961) proposed a date of ca. 190-188 B.C., while Seyrig (1963) and Hanfmann (1983) favor a slightly earlier date of ca. 220 B.C., during the reign of Achaeus. The coins were last seen in June 1912 at the Imperial Museum at Istanbul, which has since reported them lost.

¹⁰³ Although the dates of the building phases are still debated, it is generally accepted that the temple underwent at least one major renovation in the Hellenistic period and one in the Roman period. Among the renovations achieved was the division of the cella into two chambers and the replacement of the dipteral scheme by a pseudo-dipteral one; the erection of the statue base is not securely linked with any of these renovations, only to the dates prescribed by the coin deposit. See Hanfmann 1975, 75-76 for summary of scholarship.

¹⁰⁴ Butler 1911, 67, ill. 61; Hanfmann 1975, 75. The head is so fragmentary, however, that a secure date from stylistic analysis seems unlikely.

to another, earlier structure.¹⁰⁵ It is not known whether the blocks came from a building at another site, as Hanfmann believed, or from an earlier building from the same site, i.e. an earlier temple or shrine to Artemis. J.K. Frazer believed that the sandstone base was in fact originally part of an early naiskos.¹⁰⁶

Tangential to Frazer's thesis is the discovery of a silver Croesid half-stater found within the cult statue base, but separated from the Hellenistic hoard. It was recorded found near the center of the base,¹⁰⁷ although its elevation appears in two conflicting reports. In his 1911 excavation report, Butler clearly states that while the Hellenistic coins were found between the stones of the "upper" course, the Croesid coin "was discovered *below* the lower course of the sandstone 'basis'" [my emphasis].¹⁰⁸ In *Sardis*, Vol. 2, Butler again states that the Croesid coin was found in the "lower part of the 'basis,'" clearly differentiating this findspot from that of the Hellenistic coins found above.¹⁰⁹ On the other hand, H.W. Bell, who published the coins from the excavation, wrote that the Croesid coin "was discovered in a horizontal position between the upper and lower rows of masonry" and further, that no coins were found under the base.¹¹⁰

Without further evidence, it is difficult to privilege one scenario over the other. If Butler's original report is correct, Frazer's interpretation of the sandstone base as an early

¹⁰⁵ For the architecture of the base, see Hanfmann 1975, 77-80; Carter 1983, 223-37. The blocks do not give a clear indication of their age: few blocks have clamp holes at all, though both swallow-tail and pi-clamps are present.

¹⁰⁶ Hanfmann 1975, 86. No other evidence for an earlier temple on the site was discovered.

¹⁰⁷ Hanfmann 1975, 76.

¹⁰⁸ Butler 1911, 454.

¹⁰⁹ Butler 1925, 108.

¹¹⁰ This statement (Bell 1916, v-vi) is in conspicuous opposition to Butler (1911, 454), whose report Bell may be attempting to correct.

naiskos would gain some archaeological support, with the coin providing a *terminus post quem*.¹¹¹ On the other hand, if Bell's report is correct and the Croesid coin was discovered between the two courses, it was deposited at roughly the same time as the Hellenistic coins.¹¹²

What emerges is a deposit of coins that were interred in the core of a central cult base as it was being built much in the same manner as at Ephesus. Although it is tempting to identify the Croesid coin as an early example of the same phenomenon, an Archaic Temple of Artemis at this site remains conjectural. Nevertheless, the formal similarities which the Sardis deposit shares with that of Ephesus, despite the wide chronological gap, are striking. This, combined with the close religious and architectural traditions shared by the two cities,¹¹³ invite the view that the Ephesus and Sardis deposits are very likely related.

As at Ephesus and Sardis, a coin deposit was discovered in the **TEMPLE OF ATHENA POLIAS AT PRIENE**, also in the base for the cult statue (figs. 20-1). Unfortunately, the deposit was discovered not by an archaeologist, but by A.O. Clarke, a certain English merchant and friend of the excavator R.P. Pullen.¹¹⁴ Clarke described the circumstances of his discovery in a published letter.¹¹⁵ While visiting the site in 1870, a year after Pullen's excavation of the temple had concluded, Clarke noticed that the cult

¹¹¹ In this scenario, the center of the base could be archaic in date, while the Hellenistic renovations resulted only in the rearrangement of the edges of the base.

¹¹² Carter noted that Croesid coins were treasured for centuries at Sardis (1983, 233).

¹¹³ Ephesian Artemis, for example, was known to have been worshipped at Sardis.

¹¹⁴ Pullen, an architect and member of the *Society of Dilettanti*, excavated the temple from 1868-69.

¹¹⁵ The narrative is recounted in Carter 1983, 231-2.

statue base was in much poorer condition than when he had seen it a year prior (fig. 22).¹¹⁶ Upon closer inspection, Clarke reported finding a coin in loose earth around the base, which prompted him to examine the “four stones in the centre of the pedestal” that remained undisturbed. Beneath each of the first two blocks lay a coin. Below a third block lay a gold ring with a garnet and below a fourth, a gold leaf and a terracotta seal. More coins were later acquired by Clarke and others (a total of six or seven), but it is not clear exactly how many of these (beyond the two) belonged to the base.

Clarke never described the location of the objects precisely. In a detailed study of the statue base, however, J.C. Carter has determined on the basis of Pullen’s state drawings that the coins and other objects were probably found at the level of the cella floor (one course above the present, undisturbed course) and towards the center of the base. Carter could not confirm Clarke’s later reports that the coins were found in specially-worked hollows in the ‘bedding’ for this course, and the accuracy of this statement may be doubted.¹¹⁷

The recovered coins (only three of which can now be definitely associated with Clarke) all bear the stamp of Orophernes and so date to between 158 and 156 B.C. (fig. 23).¹¹⁸ This late date indicates a renovation of the cult statue base in the second century B.C., almost 200 years after work began on the Athena Polias temple in the 340s.

¹¹⁶ The systematic looting of the site began immediately after Pullen’s departure from Priene by May of 1869, after which ancient blocks were removed for door sills and tombstones (Carter 1983, 24).

¹¹⁷ This statement was made subsequent to Clarke’s original letter (Carter 1983, 232).

¹¹⁸ According to reports, more material may have been carried off by looters. A similar tetradrachm of Orophernes and other gold objects were discovered in the possession of a villager at Kelebish, and in a private collection at Söke, both nearby villages (Carter 1983, 232).

Architectural and sculptural studies have shown that work progressed on the temple over at least two centuries.¹¹⁹ Shortly after its initial construction phase at the re-founding of the city (perhaps under the influence of Hekatomnid patronage with the architect Pytheos), Alexander the Great assumed patronage of the temple in the third quarter of the fourth century, as evidenced by the large dedicatory inscription on the architrave. Although the temple may have been completed by the early third century,¹²⁰ stark differences in sculptural style of the architectural moldings suggest that occasional renewals and alterations were performed, including a second-century renewal of the cult statue base.¹²¹

The date and appearance of the coins discovered within the base may suggest that the Cappadocian prince Orophernes was responsible for the re-dedication of the cult statue base. The prince seems to have had cause to reward the city of Priene for keeping his treasure safe from his rival Ariarthes V.¹²² Orophernes is also thought to have dedicated the Sacred Stoa in the agora, based on a fragmentary dedicatory inscription that mentions a “son” of Ariarthes IV. This could either be Orophernes or Ariarthes V, the former being the more likely patron at Priene.

¹¹⁹ On the date of the temple building phases, see Schede 1934; Bauer 1969; Koenigs 1983. For summary of scholarship, see Patronos 2000.

¹²⁰ Carter 1983, esp. 199-201.

¹²¹ Koenigs 1983, 160-1. The temple was also rededicated sometime after 27 B.C. to Athena Polias and Augustus.

¹²² Polybios 33.6. Having grown up at the court of childless Ariarthes IV as heir apparent, Orophernes was exiled to Ionia (perhaps also spending time in Priene) when a biological son, Ariarthes V, was born to the throne. Upon the death of Ariarthes IV, Orophernes attempted the seizure of the Cappadocian throne from Ariarthes V in 158 B.C., during which time he amassed a large amount of money. Orophernes decided to deposit 400 talents of this money in the city of Priene. When Ariarthes recovered his throne, he demanded the men of Priene hand over the money, but they refused. Priene was punished for its loyalty to their patron, and their lands were ransacked by Ariarthes and Attalos II of Pergamon. The money was eventually reclaimed by Orophernes, but his ambition proved fruitless.

Although discovered and recorded outside of archaeological investigation, even a cautious view of Clarke's account suggests that the coins and other objects were deposited in the same manner as those from Ephesus and Sardis, i.e. as a foundation deposit.

Another example of a rich deposit from a cult statue base was discovered at the **TEMPLE OF HERA AKRAIA AT PERACHORA** (fig. 24). Although a mainland site, the deposit demonstrates close affinity with those presented above. During the 1932 excavations, H. Payne observed that the cult statue base consisted of four foundation blocks,¹²³ upon which rested a single slab of yellow limestone which was broken into several pieces (figs. 25-6).¹²⁴ Payne recorded that "beneath the upper slab, in the cracks between the several pieces of it" lay two gold rosettes, a ribbed gold leaf, an ovoid gold ball, and a small gold ring (fig. 27). Some of this material, Payne admitted, could have filtered through the cracks of the base. Several pieces, however, were found directly beneath the base and must have been placed there intentionally. Corroborating his theory was the immediate discovery of another deposit directly beneath the four undisturbed foundation blocks. Here were discovered fragments of proto-Corinthian pottery, a faience ring, and five silver coins.¹²⁵

The coins are all of the Pegasus type, an especially long-lived type in the Corinthia. One coin, however, is of a diobol class which can be assigned to the fourth

¹²³ Payne 1940, 81. Only three of these blocks remain at the site today.

¹²⁴ Payne 1940, 81. Menadier reports that the pieces of the slab were taken to the National Museum of Archaeology in Athens (1997, 24-5).

¹²⁵ Payne 1940, 81.

century.¹²⁶ The deposit therefore has been dated to around 400 B.C. at the earliest. The temple itself was built and renewed in the early and late Archaic periods respectively,¹²⁷ and based on its carved decoration, the statue base can also be dated to the archaic period.¹²⁸ Nevertheless, the deposit beneath both the base and its foundations suggest that the base was rearranged in the fourth century, undertaken during other (contemporary) renovations in the sanctuary.¹²⁹

Other foundation deposits discovered in eastern Greek contexts mirror the deposits described above with respect to content, but differ in findspot. The preferential use of coins is illustrated by that discovered beneath the fourth-century **TEMPLE OF HEMITHEA AT KASTABOS** in Caria (fig. 28)¹³⁰ Beneath the cella floor of this large Ionic temple, a cache of 175 coins was discovered in a layer of earth and marble chips (fig. 29). This deep and homogenous fill was identified as the leveling fill brought in for the construction of the temple.¹³¹ The coins were found at the center of the cella and in a fairly discreet deposit about a meter wide and 30 cm. deep. Four silver and 171 bronze coins were recovered,¹³² all of which were mid-fourth century in date, except for one dating to the reign of Poliorcetes, giving the deposit (and temple) a terminus post quem of

¹²⁶ Payne 1940, 108.

¹²⁷ Payne 1940, 83; Sinn 1990 101-3.

¹²⁸ Menadier 1997, 24-5.

¹²⁹ Menadier 1997, 122. In the early fourth century, the temple precinct was enlarged to the north and a supporting wall secured there (Sinn 1990, 103; Coulton 1964, 124).

¹³⁰ Excavated by J.M. Cook in 1959-60 (Cook 1966). The sanctuary was identified as that of the deme Bybassus discussed by Diodorus (5.62).

¹³¹ The fill covered a smaller, earlier shrine replaced by the present temple (Cook 1966, 40-3).

¹³² Cook 1966, 39-40.

306 B.C.¹³³ This date works well with the architectural style of the temple, which coincides with parts of the Temple of Athena Polias at Priene and some elements of the temple of Asklepios at Epidauros.¹³⁴

The Kastabos deposit is particularly interesting because Cook's detailed description of the stratigraphy makes it clear that the deposit was made during an early stage of the temple's construction. The deposit was made within a leveling layer intended to fill in the dismantled remains of the earlier shrine. A floor packing of rough paving stones was spread over the building site, but not before the backers of the lowest course of the cella wall were put into position.¹³⁵ The stratigraphy of the coin deposit indicates that the material was not only deposited deliberately, but with intended permanence. Also notable is the position of the deposit, which is roughly in the center of the cella.

A deposit resembling that at Kastabos in almost every way was discovered in the Hellenistic **TEMPLE OF LETO** in the **LETÖON** of **XANTHOS**.¹³⁶ As at Kastabos, the Hellenistic Ionic temple (fig. 30) was built directly over a predecessor, necessitating deep leveling fills to cover the remains of the earlier structure. In this fill, at the interior foot of the threshold block (fig. 31), a deposit of about 80 bronze and silver coins was discovered. As at Kastabos, the coins were discovered in a discreet area measuring no

¹³³ Price, in Cook 1966, 67-71. The silver coins are Rhodian, and the bronze coins, except the Poliorcetes coin, are from Rhodes or Erythrae.

¹³⁴ Plommer in Cook 1966, 150-6.

¹³⁵ Cook 1966, 39.

¹³⁶ For description of the architecture, see Hansen and Le Roy 1976 and Metzger 1979, 9-28. A full architectural study of the sanctuary has not yet been published.

more than 1.5 m. in width and 0.5 m. in depth.¹³⁷ No trace of any container was discovered. The coins were mostly Rhodian, some were of Lycian mint, and are dated to the third quarter of the second century B.C.¹³⁸

Other foundation deposits from eastern Greece incorporate special markers and other architectural elaborations. Excavations of the early **TEMPLE OF ARTEMIS (TEMPLE E) ON DELOS** (fig. 32) uncovered a complicated deposit beneath and among its stone foundations. First excavated in 1928 by R. Vallois, the temple and its deposit were later explored by G. de Santerre.¹³⁹

Below the Hellenistic Artemision (Temple D), the remains of an early archaic structure, Temple E,¹⁴⁰ were discovered (fig. 33). In partially excavating the area between the eastern wall of Temple E and the eastern wall of Temple D (in the areas I and II in fig. 33), Vallois discovered an extraordinary layer of gold, bronze, and ivory objects, much of it clearly of Mycenaean workmanship (fig. 34).¹⁴¹

Santerre later studied and continued Vallois' excavations in this area and revealed that the find-rich layers were but one aspect of a complex foundation deposit made just before or during the construction of Temple E.¹⁴² Excavating just south of Vallois' trench I, Santerre described the stratigraphy as follows (seen in section A-B in fig. 35): a

¹³⁷ Hansen and Le Roy 1976, 321-4.

¹³⁸ Hansen and Le Roy 1976, 324. About 50 could be analyzed, the rest were too heavily oxidized.

¹³⁹ For excavation history, see Santerre 1958, 11-6.

¹⁴⁰ For archaic date, see Desborough 1964, 216.

¹⁴¹ Vallois 1944, 10-4. Scraps of several buildings of contested date, AC and R, were also among the architectural remains.

¹⁴² Santerre 1948, esp. 148-53.

layer of rubble (ca. 0.25 m. thick) covered a layer of yellowish, hard earth (ca. 0.30 m. thick) which contained precious objects of the same type as those from Vallois' excavations. These included fragments of gold, ivory, bronze, as well as animal bones and shells. Among the finds of the foundation deposit were Mycenaean carved ivory plaques depicting human, animal, and architectural forms. Other objects included items of worked bone, gold beads and appliqués, small bronze figures and weapons, other small objects, and fragments of pottery and bone. Below the find-rich stratum lay a layer of whitish soil of variable depth,¹⁴³ which in turn covered red, virgin soil.

Moving to the northeast corner of Temple E, Santerre encountered the same stratigraphy, noting that the layer of precious finds seemed to cluster around the wall and not much farther west of it.¹⁴⁴ The area of the deposit was limited to the north and east by Temple D, and stopped around 5.5 meters south of the northeast corner of Temple E. Despite the overwhelming Mycenaean character of the deposit, the material was clearly deposited much later, probably at the end of the eighth century B.C., based on the quantity of Geometric pottery found in the same layer.¹⁴⁵

Santerre immediately identified this layer as a “*dépôt de fondation*,” because of the close relationship of the deposit with the lower foundations of Temple E. The north part of the Eastern wall of Temple E was founded directly on the layer of finds, and some objects were even found between its stone courses.¹⁴⁶ Santerre noted the parallel provided by Ephesus, not only in the deposition of material within the fabric of the

¹⁴³ Santerre suggested this layer was made of “decomposed marble” or “stucco” (1948, 148).

¹⁴⁴ Santerre 1948, 151.

¹⁴⁵ Santerre 1948, 243-47.

¹⁴⁶ Santerre 1948, 151.

temple, but also the precious nature of the material itself. In addition, the remains of animal bones contribute to the probable ritual nature of the finds.¹⁴⁷

Besides this find-rich layer or *dépôt*, Santerre discovered another important feature related to the building. Directly below a section of Temple E and the *dépôt* on which it rested lay a flat paving stone (fig. 35). Beneath this stone lay the whitish layer of earth encountered elsewhere, which in turn covered a large pit, apparently dug into virgin soil, whose contents included large chunks of rock, animal bones, and charcoal. Among the finds was also a stone slab in which at least four irregularly-spaced, semi-circular holes were carved. Such an object is reminiscent of a *kernos*, a vessel shape known to have possessed ritual character in the Bronze Age Aegean, Anatolia, and the Levant.¹⁴⁸ Though impossible to date, the kernos-like object may date to Late Helladic times like the majority of finds from the *dépôt*.

Two unique finds from the foundation deposit deserve further consideration because they, unlike the majority of the deposit finds, display a strong Near Eastern artistic affiliation and may be contemporary productions of the Archaic period. First, a small bronze warrior figurine found among the objects from the *dépôt* resembles a type of standing warrior found in Phoenician and other Asiatic contexts (fig. 36)¹⁴⁹ The second object is a cylinder seal found just above the paving slab. Inscribed on it are unusual signs of enigmatic type, possibly Syro-Hittite in form.¹⁵⁰

¹⁴⁷ Santerre describes the bones: a rib of a goat, a great quantity of smaller animals, and bones from a large bird (1958, 131).

¹⁴⁸ For kernoi, see Börker 1997.

¹⁴⁹ Santerre 1948, 221-30.

¹⁵⁰ Santerre 1948, 240-2.

The unusual character of the *dépôt* and the stone-covered pit within Temple E suggest that both were of some cultic significance. That both were directly covered by the temple walls suggest that they were made at the outset of construction, making the designation of the foundation ritual a likely one.¹⁵¹

Like the Ephesian pot hoard and the deposits at Kastabos and Xanthos, the Delian *dépôt* was embedded in a preparatory leveling-fill on which the temple was founded. Although the *dépôt* seems to be concentrated near a corner of the temple, its exact position is not known due to the poorly-preserved state of the structure. Another difficulty is the extent of the *dépôt*, which, despite being cut short by temple D to the north and south, already significantly exceeds the area of the more discreet foundation deposits mentioned above. One might therefore be inclined to see greater affinity with the collections of “sacred garbage” discussed in the Appendix. Against this interpretation is the inclusion of gold and bronze objects, material which likely would have been re-used or recycled.¹⁵²

More convincingly connected to ritual activity is the stone covered pit filled with ashes and bones underlying the *dépôt*. The foundation deposit at the Temple of Athena at Gortyn (below, pp. 71-5) and the temple of Apollo at Didyma (below, pp. 52-4) offer close comparison to this feature. The following scenario might be tentatively suggested: at the site newly designated for the temple, rituals including animal sacrifice were performed, after which the remains were buried and sealed with a layer of whitish stucco that may have covered the entire temple area. A stone marker above the pit marked its

¹⁵¹ This term was also used by Desborough (1964, 44).

¹⁵² See Appendix for discussion.

location. These were then covered over by a construction layer full of the sacred objects on which the foundations would be set.

The chronology of the finds from the *dépôt* has interested scholars for years. The presence of Mycenaean material from this sanctuary has led to the suggestion of continuity of cult from the Bronze Age to Geometric times. This is not supported by the evidence, however, as the lack of Mycenaean finds from a primary context has been amply demonstrated.¹⁵³ Instead, the Mycenaean material was probably brought from elsewhere and deliberately deposited at the foundation of the new cult building.¹⁵⁴

An interesting analogy to the Delian material is a deposit discovered in the sanctuary of **ATHENA PRONAIA AT DELPHI**. The eastern part of the sanctuary was excavated in 1922-23 by R. Demangel, who discovered that the area of the tufa temple, especially the area east of it, was rich in Mycenaean objects and pottery (fig. 37).

Though Demangel used this discovery to argue for cultic continuity since the Bronze Age, Lerat, following his 1956 study and continuation of Demangel's excavation, concluded that the Mycenaean finds were discovered only in secondary contexts.¹⁵⁵ As at Delos, the lack of both Mycenaean architecture or any other stratified Mycenaean deposit in this area suggests that the whole assembly of objects was collected from elsewhere and brought to the sanctuary of Athena, perhaps at the time in which the sanctuary of Athena Pronaia was being monumentalized in the seventh century B.C.¹⁵⁶

¹⁵³ Rolley, Bommelaer, and Rougemont 1973.

¹⁵⁴ "Mycenaean and Geometric valuables found beneath the Artemis temple...are gifts deposited on the occasion of the foundation of the temple, and not direct relics of a Minoan-Mycenaean cult" Burkert 1985, 49; see also Desborough 1964, 44.

¹⁵⁵ Lerat 1958, 710.

Of particular note was a pit found near the archaic western altar containing Mycenaean terracotta figurines, a splinter of obsidian, small objects in glass paste, shell, and amber, and charcoal. The pit was sealed with a paving stone.¹⁵⁷ Above this pit, between c. 1.20 and 1.50 m. in depth, was a thick layer of black soil and ashes, filled with fragments of idols and burned Mycenaean sherds. These features recall the contemporary foundation deposit from the Artemision at Delos. Unlike at Delos, however, the Delphi deposit was not found in a secure relationship to any architectural feature, further obscuring its function.¹⁵⁸ Both the Delos and Delphi deposits indicate that Mycenaean material was purposefully gathered and deposited within their respective sanctuaries, and around the time of the monumentalization of the sanctuary. Perhaps, as Burkert and Desborough argued, both deposits were “foundation deposits.”¹⁵⁹ Only the Delos deposit, however, demonstrated the requisite relationship to temple architecture.

More convincing evidence of a foundation deposit was discovered at the sanctuary of **APOLLO AT DIDYMA**. Here, foundation deposits were discovered in association with two sanctuary buildings.

¹⁵⁶ Desborough suggests the material may have come from the area of the Temple of Apollo (1964, 124).

¹⁵⁷ Demangel 1926, 13-5; Lerat 1957, 708-10. The slab measures roughly 1.60 x 1.10 x 0.50 m.

¹⁵⁸ Demangel noted, however, that a similar layer to the one found above the pit and its stone cover was discovered within the tufa temple itself, between the foundations of the cella and those of the peristyle. The stratum could not be followed, however, to the pit (1936, 13): “Ce *stratum*, qui apparaît au Sud de l’autel occidental, se poursuit vers l’Ouest jusqu’aux soubassements du deuxième temple en tuf: entre les fondations méridionales de la cella et celles du peristyle de ce temple, ... la couche atteint une épaisseur de 0 (m) 50 à 0 (m) 80. Les énormes blocs des substructions du temple ne permettent pas de la suivre ailleurs...” In his catalogue of the finds, Demangel states that a Mycenaean figurine (Demangel 1926, fig. 12,4) was found at the southeast corner of the cella of the second tufa temple, under the foundations. This findspot is otherwise unattested in the text, and no elevations or plans of the area are given.

¹⁵⁹ Desborough 1964, 43; Burkert 1985, 49.

The first deposit was discovered within the Temple of Apollo (fig. 38). In the eastern part of the cella T. Wiegand discovered a rectangular pit or *bothros* of unusual type (fig. 39).¹⁶⁰ Measuring about 1.5 by 0.7 m., its northern and western walls were built of archaic marble roof tiles, the eastern wall of limestone blocks (fig. 40). The foundations of the archaic naiskos served as its southern wall.

Excavation of the pit revealed a complex stratigraphy: the pit had been sealed at the top by a thin floor of marble plates, below which lay a layer of lime plaster. Beneath the plaster lay a layer of earth, the removal of which revealed yet another marble floor—an upside-down marble roof tile—which covered a final layer of earth at the bottom. The two earth layers contained decorative objects of precious material, including three gilded silver rosettes and pieces of gold leaf, as well as some completely oxidized bits of bronze coins, bird bones, and pieces of iron.¹⁶¹

Although built against the foundations of the archaic naiskos, the pit itself is almost certainly later. The oxidized bronze coins are, judging from their small size, Hellenistic in date, to which the entire pit can be loosely dated.¹⁶²

Although the pit cannot be dated precisely, it seems likely to have been built at the time of construction for the Hellenistic temple, when the remains of the Archaic naiskos were cleared. The archaic rooftiles used in its construction may have been taken

¹⁶⁰ Wiegand 1924, 16-17; Wiegand 1941, 128-9. The pit measured 0.82 m. deep and 1.53 x 0.70 m. wide at its mouth.

¹⁶¹ Unfortunately, Wiegand does not describe the objects in detail, and no photographs of the objects have been published; and the objects have not, as far as I know, been published since Wiegand's initial report. Knackfuss gives another description in *Didyma I* (Knackfuss 1941, 128-9).

¹⁶² Knackfuss 1941, 128-9, Fontenrose 1988, 39-40.

from the ruins of the naiskos, which was destroyed by the Persians in 490 B.C.¹⁶³ The small number of finds and carefully constructed fill indicates that the pit was not open for a very long time, but was probably filled at a single event. Sometime thereafter, the pit was completely covered by the Hellenistic naiskos.

Both Knackfuss and Wiegand suggested that the pit was used as a dump for “deconsecrated” votives from the archaic temple, although the small number of finds seriously discounts this. Fontenrose suggested that the pit was used to “consecrate” the Hellenistic temple, i.e. as a foundation deposit.¹⁶⁴

Several factors argue for the identification of the pit and its contents as a foundation deposit. First it continues the eastern Greek tradition of placing foundation deposits beneath or within a central architectural feature. The Ephesus deposit may provide an early parallel for this, especially if the Earlier Basis is understood as a naiskos. Secondly, the Didyma deposit contained objects of the types discovered at Ephesus and elsewhere, including objects of precious material and coins as well as remnants of animal sacrifice. Of course, these finds are not unique to foundation deposits, but the close affinities with other eastern foundation deposits are compelling. Unique to the Didyma deposit is the elaboration of the deposit in both its construction and the manner in which the contents were layered. The use of layers of earth or sand in Near Eastern foundation deposits provides a close parallel for the Didyma deposit (see Chapter V).

In the same sanctuary of Apollo, another likely foundation deposit came to light during the excavations of the **ARCHAIC STOA** (figs. 41-2). This building is located

¹⁶³ Hdt. 6. 19.

¹⁶⁴ Knackfuss 1941, 129; Wiegand 1924, 17; Fontenrose 1988, 39.

just southwest of, and is partially covered by, the Hellenistic Temple of Apollo.¹⁶⁵ Near the southwest corner and at the level of the lower edge of the lowest foundation block,¹⁶⁶ a smashed Ionic bowl and a shallow bronze bowl (fig. 43) were discovered, both dating to the seventh century. The stratigraphy shows that the two finds were discovered in layers distinct from the occupation strata above and that their deposition coincided with the laying of the foundations. These facts prompted the excavators to identify the deposits as “Fundamentbeigaben.”¹⁶⁷

The Stoa deposit is unique among eastern Greek type foundation deposits explored thus far in both material and type of building in which it was found. Although not a temple, it is without a doubt that the archaic stoa was located in the seventh-century sanctuary.¹⁶⁸ The nature of some of the finds discovered within the stoa, such as a bronze lion-head situla, also indicates the building’s sacral function.

Another possible foundation deposit in the southern temple of the **SANCTUARY OF ARTEMIS AT KALAPODI (HYAMPOLIS)** awaits final publication, but deserves mention here. The early archaic phase of the southern temple was a prostyle tetrastyle building constructed largely of mudbrick which enclosed a small, white-stuccoed naiskos (fig. 44).¹⁶⁹ Directly in front of this naiskos, a pit was discovered to contain a wealth of

¹⁶⁵ Naumann and Tuchelt 1964. For excavation of the building, see Knackfuss 1941, 136.

¹⁶⁶ The lower edge of the western wall was measured at -100 and the deposit at -105 cm. (Naumann and Tuchelt 1964, 375).

¹⁶⁷ Ibid, 375.

¹⁶⁸ For the late seventh century sanctuary, see Tuchelt 1973, 14.

¹⁶⁹ Felsch 1987, 14-9; ibid 1991, 86.

objects: five ceramic vessels,¹⁷⁰ about 180 rings, beads, and a few other objects in bronze, iron, glass, and terracotta (fig. 45).¹⁷¹

Although the relationship of the pit to the temple is currently being studied by the excavators, Rainer Felsch considered the possibility that the pit might have served as a foundation deposit, as it seems to have been immediately covered over by the archaic leveling fill.¹⁷² It is impossible to confirm Felsch's hypothesis until the stratigraphy is fully published. At first consideration, the Didyma temple deposit presents an intriguing parallel to this find.

Another temple with votive material found buried beneath it is the early fifth century **TEMPLE OF ARTEMIS IN THE SANCTUARY OF DELIAN APOLLO ON PAROS**. The small distyle-in-antis temple was excavated by O. Rubensohn in 1899,¹⁷³ who observed a large, natural depression or pit in the bedrock below the temple cella (figs. 46-7). When excavated, the lower part of this pit was found to contain a fill of limestone and marble blocks with sandy soil between them; the layer was otherwise devoid of finds.¹⁷⁴ Above this stone filling, however, lay a great number of small finds which filled the pit to the level just below the floor underpinnings.¹⁷⁵

¹⁷⁰ An early Corinthian aryballos, three late Corinthian kotylai, and a skyphos (Felsch 1987, 17-9).

¹⁷¹ Felsch 1987, 17-18 n. 32a. Another pit, plastered with stucco like the naiskos, is reported in Felsch 1991 (86) but not in the earlier excavation report. The dimensions and exact positions of both pits are not given.

¹⁷² Felsch 1987, 17-18 n. 32a; *ibid* 1991, 86. Felsch characterized the deposit as a rich "Gründungsdepot."

¹⁷³ His publication would not appear until sixty years later (Rubensohn 1962). For temple architecture, see Schuller 1991.

¹⁷⁴ Rubensohn 1962, 9-10.

¹⁷⁵ Rubensohn 1962, 21.

Unfortunately, Rubensohn did not record the exact findspots of the material, making it impossible to determine whether the deposit was a discreet one. In addition, Rubensohn's catalogue of the small finds does not differentiate the objects from the temple fill with material found elsewhere in the excavation.¹⁷⁶ A large variety of finds are represented in Rubensohn's monograph: beads, scarabs, fibulae, and other jewelry, archaic terracotta figurines, bronze objects, and pottery. The majority of these must have come from the upper filling of the pit.¹⁷⁷

The deposit of votive objects below the cella floor is somewhat reminiscent of eastern Greek type foundation deposits, especially those with large amounts of jewelry and other objects (i.e. Ephesus, Delos).¹⁷⁸ Unfortunately, the lack of precise stratigraphic information about this pit makes it difficult to explain the nature of the Paros deposit.

A similar circumstance surrounds the deposit of archaic votive material beneath the classical **TEMPLE OF POSEIDON** at **ISTHMIA**. In the 1954 University of Chicago excavations, O. Broneer discovered several significant areas of archaic fill within the area of the Classical temple. Due to the heavy concentration of ash and charcoal, Broneer suggested that these were the remnants of the destruction layer left by the burning of the seventh-century temple sometime between 470 and 450 B.C.¹⁷⁹

¹⁷⁶ One exception is an Egyptian necklace which was discovered directly beneath one of the slabs of the cella floor underpinnings (Rubensohn 1962, 73). The necklace consisted of more than 30 pieces, including 18 faience scarabs, and other beads and rings made of bronze, shell, iron, stone, and glass.

¹⁷⁷ Schuller 1991, 6 n. 24.

¹⁷⁸ Schuller thought the objects were defunct votives buried as fill (1991, 6). No evidence for an earlier temple has been discovered however.

¹⁷⁹ Broneer 1971, 3-12.

This fill was found essentially in six separate deposits, four of which (labeled A-D in fig. 48) were studied in detail by Elizabeth Gebhard.¹⁸⁰ Each deposit contained ash, charcoal, and pottery fragments.¹⁸¹ Deposits A and B, however, were particularly rich, containing “nests” or tightly- packed clusters of small Archaic votive objects,¹⁸² as well as 128 silver and two bronze coins, also Archaic in date (fig. 49).¹⁸³

Judging from the nature of the finds, there is little question that the objects from these deposits represent collections of votive material from the destroyed seventh-century temple. In question, however, is the manner of deposition. Broneer thought that the material was discovered essentially *in situ* and suggested that various groupings of material could reflect their original position in the temple before the fire.¹⁸⁴ Noting that most of the coins and other objects were found within the “pronaos” of the seventh century temple, Broneer hypothesized the existence of a treasury box in this area.¹⁸⁵

Gebhard convincingly argues, however, that the deposits were most likely not *in situ*. The soil below the deposits is unlikely to have been the floor of the early temple,

¹⁸⁰ Gebhard 1998b.

¹⁸¹ These included oinochoai, aryballoi, mugs, and hand-made jugs. The pottery is largely Archaic in date, with some Mycenaean and early Iron Age material. See J. Bentz in Gebhard 1998b, Appendix A.

¹⁸² These included figurines of terracotta and precious metals, various athletic equipment, arms and armor, bronze vessels, jewelry and ornaments, small votives such as scarabs, shells, and gaming pieces, tools, and various other small objects of silver, gold, and bronze. An inventory of the finds is given in Gebhard 1998b, Appendix B.

¹⁸³ Seven of these were discovered in deposit C. Most of the coins are from Aigina and Corinth. The earliest coins are dated c. 550 and the latest to the second half of the fifth century (Broneer 1955, 135-6; Gebhard 1998b, 99-100).

¹⁸⁴ Broneer 1971, 4-5.

¹⁸⁵ Also Raubitschek 1969, 43. Gebhard goes further to state that some of the material might have been stored in wooden chests (1998b, 97). The location of the deposits within the pronaos of the seventh-century temple depends, however, on the siting and reconstruction of this temple offered by Broneer (Broneer 1971, 7-12), which has long been doubted by R.F. Rhodes (1984).

and the absence of larger debris, including large bronzes, may suggest the deposits were made “after a period of salvage, during which time reusable metal and other valuables were removed.”¹⁸⁶ More importantly, the uncertain siting of the early temple makes any such designation speculative at best.

The familiar question remains: why were so many valuable objects left behind in the debris? Oversight seems an unlikely culprit, nor can the deposits be considered the unwanted remains of a salvage operation. While Gebhard’s suggestion that larger, more usable metal objects were removed for recycling is compelling,¹⁸⁷ the smaller metal votives, especially the coins, can hardly have been considered valueless.

A second suggestion, that the finds were left as “an intentional deposition of a remnant of the gods’ possessions in his new temple” seems valid,¹⁸⁸ though the motive for the ritual remains illusive. Sinn first offered the suggestion of a foundation deposit for the Classical Temple.¹⁸⁹ While intriguing, the difficulty in this hasty designation is, as always, the lack of clear stratigraphic information. In this case, the Classical temple is too poorly preserved to determine its relationship to the deposits. Nevertheless, the finds were largely discovered in “nests”¹⁹⁰ which seemed to concentrate in one particular area, suggesting some kind of meaningful pattern of deposition.

In the **SANCTUARY OF ASKLEPIOS** at **PERGAMON** are the scanty remains of a small, pi-shaped Hellenistic building near the Temple of Asklepios, called the

¹⁸⁶ Gebhard 1998b, 98.

¹⁸⁷ See discussion of the re-use of votive material in the Appendix.

¹⁸⁸ Gebhard 1998b, 98.

¹⁸⁹ Sinn 1985, 136-7 n. 23.

¹⁹⁰ No details about the composition or position of the “nests” are given, however.

“Mosaikbau” (fig. 50).¹⁹¹ Its unusually well-preserved black and white floor mosaic, which can be dated on stylistic and technical grounds to the second third of the third century,¹⁹² fills the interior of the building with the exception of a narrow strip (0.57 m. wide) along the back wall (fig. 51). The lack of mosaic decoration here indicates the presence of a bench, a statue base, or other installation which likely served as the focal point for the building. When excavated, this undisturbed strip of earth was found to contain 15 bronze coins, all of which were contemporary with the mosaic,¹⁹³ and therefore must have been deposited (or, less likely, lost) around the time of construction. Since we can assume the presence of some installation at the back of the building, the coins must have been deposited without intention of recovery, and before the building was complete.

Although the function of the Mosaikbau is uncertain, it likely served as a cult building, perhaps a treasury or small shrine. If in fact a statue base once occupied the back of the building, as Ziegenaus suggested, the coin deposit resembles a foundation deposit of the eastern Greek type with respect to both material and findspot. Without a more thorough architectural context, however, the identification of the Mosaikbau deposit as a foundation deposit remains tenuous.

¹⁹¹ Ziegenaus and de Luca 1968, 28-9.

¹⁹² Ibid, 29.

¹⁹³ Ziegenaus and de Luca 1968, 106-7, Cat. nos. 59-74. Most of the coins are of Pergamene mint. The level of the coins is not published, nor is it clear if they were grouped in any particular order.

Summary and Conclusions

The archaeological evidence for foundation deposits in eastern Greece displays a homogeneity which has allowed for the identification of an eastern Greek “type.” The most salient feature of this type of foundation deposit is the kind of material they typically contained. Although they may include pottery and animal bones, eastern Greek type foundation deposits held coins, jewelry, and other objects made of luxury materials. Coins are especially prevalent, making up a significant portion, if not all, of the foundation deposits at Ephesus (both Earlier Basis and pot hoard deposits), Sardis, Priene, Perachora, Kastabos, Xanthos, and Didyma (temple deposit), and perhaps at Isthmia and Pergamon as well.

Jewelry is also commonly found in foundation deposits—fibulae, pins, rings, as well as appliquéés of various types were included in the foundation deposits from Ephesus (Earlier Basis) Priene, Perachora, Paros, and Isthmia. The material of these objects is almost always gold, silver, or electrum, while ivory, bronze, glass, and faience are less common. The emphasis on precious metals is particularly striking at Sardis, where the physical separation of silver from bronze expresses a particularly acute awareness of the material.

An unusual feature of the deposit from the Artemision at Delos is the inclusion of Bronze Age material. Mycenaean relics, including jewelry, figurines, and plaques, were deposited just before the foundations were laid, and after some kind of sacrifice was performed. The sheer amount of material deposited makes it unlikely that these were heirlooms; rather, they probably are the spoils of a chance discovery. The chance discovery of Mycenaean tombs, shrines, and other sites sometimes resulted in hero or ancestor worship in later historical times; similarly Mycenaean objects could also be the

focus of cult activity. Can the use of Mycenaean relics comment on the meaning of foundation rituals as practiced at Delos? I will return to this topic in Chapter VI.

Other finds sometimes contained in eastern Greek type foundation deposits are the remnants of a ritual meal and/or animal sacrifice. The deposits at Ephesus (Earlier Basis), Delos, and Didyma (temple deposit) were all recorded as containing animal bones. The absence of animal bones elsewhere, however, may not reflect a true depositional pattern. It is an unfortunate and well-known fact that many early excavations routinely ignored the presence of animal bones, even in “closed” contexts. The bones from the deposits at Delos and Didyma (temple deposit) were only summarily studied. Those at Delos were reported to be the rib of a goat, bones from a “smaller animal,” and bones from a large bird, while the bones from the Didyma deposit seemed to be of a bird. The loss of osteo-archaeological evidence represents a great lacuna in the understanding the nature of sacrificial activity in connection with foundation deposits.

Ceramics of various types were also sometimes found in foundation deposits, though usually in small quantities. The types of vessels varied widely, representing both drinking ware and votive types.

The materials appropriate for foundation deposits are not distinguished from normal votive objects in any significant way. No particular class of object seems to have been made specifically for foundation deposits. Coins are known to have been appropriate offerings in other cultic contexts in Greece, and the dedication of jewelry in sanctuaries is ubiquitous. What makes eastern Greek type foundation deposits unique among other kinds of ritual activities is the manner of their deposition. The types of buildings in which foundation deposits are found are all cult buildings, most of them

temples. The two non-temple buildings discussed here, the Archaic Stoa at Didyma and the Mosaikbau at Pergamon, are located within sanctuaries and may have had religious functions. The location of foundation deposits within each building could vary greatly. In terms of elevation, foundation deposits by their definition are hidden within the fabric of the temple, usually at the level of the foundations or within cult statue bases and sometimes under floors.

The cult statue base was one of the most common places in which foundation deposits were interred. At Ephesus (Earlier Basis), Sardis, Priene, Perachora, and perhaps Pergamon, foundation deposits were either strewn among the blocks of the bases or deposited below them. At Didyma (temple deposit), and perhaps Ephesus, the foundation deposit was similarly deposited beneath the naiskos which contained the cult statue. The as-yet unpublished material from Kalapodi may reveal a foundation deposit just in front of the temple's naiskos. Other foundation deposits were located in different areas of the temple: at Kastabos, the foundation deposit was buried in the center of the cella beneath the floor, while the Xanthos deposit was buried just inside the cella threshold. The Ephesus pot hoard was buried next to a temple corner, as were the deposits from the Archaic stoa at Didyma and probably also the deposit from Delos. The two deposits from Paros and Isthmia were similarly discovered beneath floors, but their identification as foundation deposits remains tenuous.

While most of the foundation deposits were simply thrown in pits or strewn among foundation blocks, some were discovered in containers, such as the Ephesian pot hoard. The pit forming part of the foundation deposit at Delos was covered by a stone

slab, while the temple deposit at Didyma was housed in an elaborately built pit, carefully filled in distinct layers and sealed with marble slabs.

Lastly, foundation deposits did not always mark the construction of an entirely new structure (as at Kastabos, Xanthos, Delos, and both deposits at Didyma), but could also be deposited during a major renovation project, as at Sardis, Priene, Perachora, and elsewhere.

CHAPTER III

CERAMIC/SACRIFICIAL TYPE FOUNDATION DEPOSITS

The evidence for foundation deposits at Ephesus and other eastern Greek sanctuaries illustrates a striking homogeneity in both type of material and geographic location. As will be argued in Chapter V, East Greek foundation deposits can be shown to have continued a ritual tradition inspired chiefly by Mesopotamian and Anatolian rites which can, in part, account for this unique cohesiveness. For all their consistency, however, the eastern Greek deposits, and indeed all foundation deposits, cannot be defined by their contents alone. No particular type of object is unique to Greek foundation deposits. Foundation deposits are instead defined primarily by their unique context, or their relationship to the buildings in which they were interred. It is this specific relationship with architecture that gives foundation deposits their unique ritual character and makes them identifiable in the archaeological record.

This chapter presents those foundation deposits which demonstrate this characteristic relationship to cult architecture but do not contain the distinctive coins, jewelry, and other objects of precious material commonly found in the Greek East. Instead, this second “type” of foundation deposit generally contains one or more ceramic vessels accompanied, in many cases, by the remains of animal or vegetable sacrifice. Such deposits have been discovered in sanctuaries throughout the Greek world, including

the Aegean islands, Crete, the Greek mainland, and Magna Graecia, and range in date from the Geometric to the Hellenistic period.

Although the foundation deposits presented here are arranged according to loose geographic lines, such groupings may be largely artificial and are not meant to signify distinct “types.” In contrast to East Greek deposits, this material displays significant variability in both type of material and method of deposition, making it difficult to identify regional characteristics. Nevertheless, in matters of cult, regional groupings are preferable to a chronological presentation.

As in the previous chapter, the archaeological context of each deposit is illustrated as fully as possible, with special consideration given the findspot and its relationship to the architecture. Shortcomings in published and unpublished documents (when available) are identified and discussed where relevant. Because of the inherent difficulties in identifying ritual behavior in the archaeological record and the exactness required of the archaeological reports, the identification of some of the deposits discussed below may stand in relative uncertainty. Several deposits, though questionably identified as foundation deposits by the excavator and/or other scholars, are included in this discussion in order to evaluate the likelihood of this identification.

Aegean Islands and Crete

In the so-called **TEMPLE D** at the **HERAION** at **SAMOS**, a particularly clear example of a foundation deposit containing ceramics and burned sacrifice was discovered. Temple D, one of several small, Archaic in-antis buildings in the sanctuary (figs. 52-3), was probably a treasury or other cult building.¹⁹⁴ Excavations revealed that Temple D was built upon artificially raised ground which consisted of three distinctive

¹⁹⁴ Final publication of the building appeared in Kienast 1985.

layers spread over an extended area around the building.¹⁹⁵ The bottom layer consisted of a carefully spread gravel which supported a layer of earth mixed with ashes and fragments of pottery.¹⁹⁶ A packing of stone chips covered these two layers. Temple D was constructed on this third layer.

Outside Temple D, just north of the antae, a wide pit (c. 1.20 m. in circumference at the top) was sunk into the two lower layers of the newly-raised ground level (fig. 54).¹⁹⁷ Its contents displayed a ritual character: at the bottom of the pit, a thick layer of ash (0.20 m.) covered the floor. Above this lay loose, carbon-filled earth within which eight broken vessels (two cups, four kylikes, one bowl, and an amphora) were embedded (fig. 55).¹⁹⁸ Over these vessels lay a circle of stone packing, which was in turn covered with earth.¹⁹⁹ The entire pit was found covered by the top layer of stone chip packing described above. Stratigraphically, the pit is contemporary with the ground-raising operation, and by extension, with the initial construction of Temple D. The ceramics in the pit fix the date of the pit and the building to around 500 B.C.²⁰⁰

¹⁹⁵ The layers were observed in the northern part of the building and for ca. 8 m. north of the antae and may have served to level the entire area. The same stratigraphy can be extrapolated from earlier excavations in the southern part of the building (Sinn 1985, 131).

¹⁹⁶ The pottery consisted of “countless” tiny fragments of vessels and votive figurines dating from the eighth to sixth centuries, probably refuse from the cult area (Sinn 1985, 132-4).

¹⁹⁷ Sinn 1985, 134-6. The pit was partially disturbed on the northwest side.

¹⁹⁸ Sinn 1985, Cat. nos. 34-41.

¹⁹⁹ In his excavation report, H. Kyrieleis included bones and fragments of iron spits or obeloi among the contents of the top earth layer of the pit (Kyrieleis 1980, 345). Sinn, however, discounts these objects in light of the disturbed nature of the pit, calling into question those objects not explicitly found beneath the stone packing (Sinn 1985, 136).

²⁰⁰ Sinn 1985, 140-1.

The excavators of Temple D concluded that the deposit must be the result of some ritual activity connected with the construction of the building itself. Because of the well-preserved stratigraphy, this activity can be shown to have taken place during the initial stages of ground preparation for the building: after the ground level had been partially raised, but before actual construction of the building had begun. The presence of six cups together with an amphora suggests that the ritual involved drinking (or libation) on a small scale. In addition, if the ashes, bones, and spits reported by Kyrieleis can be included in the deposit,²⁰¹ ritual dining or sacrifice may have taken place as well.

Despite the significant differences between this pit and other Greek foundation deposits known to him (those at Ephesus, Priene, and Perachora), U. Sinn recognized it as a foundation deposit in his insightful excursus on the topic.²⁰² His interpretation remains compelling, given the explicit relationship of the pit to the early, preparatory stages of construction.

Sinn suggested that another aspect about the construction of Temple D may have also carried ritual associations: namely, the layers of leveling fill themselves. While the purpose of raising the ground level was doubtless to protect the building from the surrounding marshy ground, the use of three distinct layers, especially the layer containing large amounts of ash, is notable. As Sinn points out, the artificial raising of the ground level with the use of ashes is an architectural technique attested by several ancient authors, and is associated with the architect Theodoros.²⁰³ Although the ancient

²⁰¹ See above, p. 67 n. 199.

²⁰² Sinn 1985, 134-43.

²⁰³ Vitruvius 3.4.2; Pliny *NH* 36.95; Diog. Laert. 2. 103.

authors maintain the functionality of this practice, the practical application of charcoal in architectural foundations is to be seriously doubted. The legendary use of charcoal in the foundations at Ephesus may preserve the memory of a local custom or ritual rather than architectural innovation.²⁰⁴ The use of charcoal and ash in this building may also have reflected an ancient cult practice relating to the foundation of temples.

Another archaic building in the sanctuary of Hera at Samos is the so-called **NORDBAU** (figs. 56-7). Although the exact function of this large, multi-room building is unknown, it likely served the cult of Hera as an “oikema,” or temple-like building which could also have served as a treasury.²⁰⁵ Excavation of the Nordbau yielded three separate deposits of ceramic vessels, all discovered at the level of the building’s foundations and all deemed “Baudeposita” by the excavator.²⁰⁶

The first deposit consisted of bowls (IIIa/1-2 in fig. 58) which were buried just west of the western cella wall within the sandy and almost sterile earth filling of the building’s podium.²⁰⁷ A short distance from these lay a fine Samian drinking cup which was discovered directly on the podium wall (IIIa/3 in fig. 58).²⁰⁸ The second deposit, found north of the northern cella wall foundations was also buried within an archaic leveling layer.²⁰⁹ A belly amphora and a shallow bowl (IIIb/1-2 in fig. 59) were

²⁰⁴ Sinn 1985, 132 and Furtwängler 1984, 100. The possible ritual nature of the use of sand in temple foundations of the Heraion at Samos and Temple B at Ephesus has already been noted (see Chapter II, 37-8).

²⁰⁵ Both phases of the building may be dated to the reign of Polykrates (Furtwängler 1989, 66).

²⁰⁶ Furtwängler 1989, 67-9.

²⁰⁷ Furtwängler 1989, 7, 128.

²⁰⁸ Furtwängler 1989, 67.

²⁰⁹ Furtwängler 1989, 67, 130.

discovered nested together. A third deposit, located in “Abschnitt H” north of the prothesis, was found in a leveling layer for the second phase of the building. Here a single shallow bowl (IVa/1) similar in type to those of the first two deposits was discovered.²¹⁰

Although originally thought to have been the careless refuse of builders,²¹¹ the deposits, Furtwängler argued, were likely ritually deposited during construction of the Nordbau and its podium. Evidence from an unrelated context suggests that the type of bowls found in these deposits may have been used for cultic purposes in this area. In a pit nearby, four belly amphorae and 15 carefully stacked bowls of this type were buried and covered with a tile, presumably as a result of some cult act.²¹²

Furtwängler’s interpretation of the three pits as foundation deposits is compelling, given the nature of their findspots and the possible association of the ceramics with other cult activity. Unlike the deposit at Temple D, however, neither the quantity of the finds nor the position of the deposits within the building seems extraordinary, and the pits do not seem to have been marked in any way. Other features which may once have distinguished these deposits, such as gifts of food or drink, have not survived.

A third instance of an archaic foundation deposit at the Heraion of Samos was discovered beneath the scant remains of the first dipteral **TEMPLE** of **HERA**. This deposit consisted of cup and jug dating to around 575 B.C.²¹³

²¹⁰ Furtwängler 1989, 67.

²¹¹ G. Kopcke, Bericht 1976, 2f (as reported in Furtwängler 1989, 67).

²¹² This fact “gibt zu bedenken, daß hinter den Nordbaudeposita noch mehr als nur Bauarbeiterhinterlassenschaft zu vermuten ist” (Furtwängler 1989, 67).

²¹³ H. Kienast, personal communication.

In the lower town of **MINOA** on Amorgos, the remains of a geometric wall near a Hellenistic temple contained a remarkable deposit of pottery (fig. 60).²¹⁴ Five PG or sub-PG skyphoi were discovered in a gap between the first and second courses of stones (fig. 61). Preliminary excavation reports recorded that the skyphoi were “full” of ashes, charcoal, and bones, possibly of a bird.²¹⁵

The function of this early wall is difficult to ascertain. Little remains of other geometric architecture in the area, although the proximity of a later temple led Marangou to suggest that the wall serves as a “temenos” wall for an early sanctuary.²¹⁶

Nevertheless, the peculiar findspot of the skyphoi gives confidence in the determination of this find as an early Greek foundation deposit. Nestled in a gap between the courses of the foundations, the skyphoi must have been deposited deliberately and during construction. The evidence for burning and animal bones adds to the ritual character of the deposit, suggesting ritual dining or sacrifice.

Another early Greek foundation deposit was discovered next to the early temple on the acropolis (Hagios Ioannis) at **GORTYN**, a building which has been the subject of much scholarship since its excavation from 1954 to 1958.²¹⁷ This unusual temple, in its early phase, displayed a multi-chambered cella²¹⁸ with a built bothros in the interior (fig. 62). The temple was first constructed in either the eighth or seventh century B.C., but

²¹⁴ Marangou 1986; *ibid* 1990, 180-2; Ainian 1997, 284.

²¹⁵ Marangou 1990, 180. No analysis of the bones has yet been published.

²¹⁶ Marangou 1990, 180.

²¹⁷ Rizza and Scrinari 1968. See Ainian 1997, 226 n. 1799 for full bibliography.

²¹⁸ Three compartments were discovered in the southwest corner of the building. The excavators restored a similar pattern in the eastern side, which has not been universally accepted (Schäfer 1972, 187, Ainian 1997, 227).

probably remained in use, after many renovations, as a temple to Athena Polias, perhaps even as late as the Roman period.²¹⁹

Excavation of the temple and surrounding area revealed a (broken) rectangular slab of white limestone (0.85 x 0.71 m.) located next to (0.40 m. from) the exterior foundations of the temple's southwest corner (figs. 63-4).²²⁰ The slab was found to seal a pit (fig. 65) in which the (rapidly disintegrating) remains of a vegetable offering were discovered:

Al di sotto di questa lastra, sullo *skuri*, misto a cenere, rimaneva intatto un impasto a forma di piccolo pane, di colore grigiastro misto a carboni e frammenti d'argilla, impregnato di una sostanza oleosa che si espandeva in larga macchia biancastra sul fondo dello *skuri* e che rapidamente si volatilizzò e scomparve a contatto con l'aria e col sole.²²¹

Chemical analysis of the oily earth beneath the slab revealed an unknown organic substance. Of special note was the presence of a "pleasing, aromatic substance" which had adhered to a lip fragment of a miniature cup.²²² Other sherds of miniature cups were recovered from the pit, some of which were scorched by a fire.²²³ In addition to the contents of the pit, a discreet deposit of ash mixed with carbon and small flakes of broken bone covered the slab.²²⁴

²¹⁹ Evidence for the cult of Athena Polias appears in Gortyn by the fifth century B.C. Votive figurines and architectural sculpture from earlier periods suggest the sanctuary was sacred to a female deity of Eastern origin, perhaps Astarte (Cassimatis 1990).

²²⁰ Levi 1955/56, 209-17; *ibid*, 1957/58; Rizza and Scrinari 1968, 23-59.

²²¹ Rizza and Scrinari 1968, 24.

²²² Rizza and Scrinari 1968, 24.

²²³ Rizza and Scrinari 1968, 25. Coldstream 2003, 280.

²²⁴ The ash and bone deposit measured about two square meters (Rizza and Scrinari 1968, 24). Unfortunately, no analysis of the bones appears to have been undertaken.

Because of its proximity to the lowest foundations of the southwest corner, the covered pit and its contents were identified as the remains of a foundation deposit which indicated the offering of some kind of (aromatic?) vegetable material, perhaps through libation. Some organic material may have been burned in miniature cups. The abundance of charcoal indicates that the sacrifice was probably burned and buried in the same pit, after which the remains were covered with a stone slab. Judging from the layer of charred material and animal bones above the slab, an animal sacrifice may also have taken place after the pit was sealed.

Rizza and Scrinari were convinced that the slab-covered pit deposit was contemporary with the foundations of the southwest corner of the temple, which was probably the first part of the building to have been constructed.²²⁵ The latest of the pottery fragments from the pit were dated to the PG period (fig. 66).²²⁶ The ash and bone deposit above the pit contained more pottery with PG characteristics. Two other finds from the deposit included a terracotta head of “subminoan” type and a fibula, both confirming the PG date of the ceramics. On the basis of the evidence above, the (first) temple was considered to have been constructed between the years 850 and 750 B.C.²²⁷

While a published section clearly illustrates the position of the stone slab and the pit it covers (fig. 64), the publication of the temple does not adequately demonstrate an unequivocal relationship between the pit and the southwest corner. Nowhere, for example, do Rizza and Scrinari clearly state that the discreet deposit of ash and bone lay

²²⁵ The temple is built on a slope, the lowest point of which is occupied by the southwest corner, where the foundations provided the footing for the rest of the building.

²²⁶ Coldstream 1977, 280.

²²⁷ Rizza and Scrinari 1968, 26, 47; Levi 1955/56, 216.

directly beneath this corner, as might be inferred by the deposit's large dimensions.²²⁸

The position of this and other stratigraphic layers which may have come into contact with the temple's foundations are not sufficiently illustrated,²²⁹ a shortcoming which has led some scholars to doubt the certainty with which the temple may be dated by the foundation deposit.²³⁰

Pointing to the lack of purely PG strata from other areas of the temple as well as to the daedalic architectural sculptures that once adorned it, a later date for the construction of the temple is not impossible, and may even be likely. G.F. La Torre argued that the daedalic architectural sculpture found in the excavations and the typology of the building itself should offer a more reliable date sometime within the seventh century.²³¹ Coldstream, too, preferred a later date, noting that the dedication of votives seems to have increased during the seventh century and suggests that the slab-covered pit belongs to an earlier settlement phase.²³²

These objections are significant ones but do not exclude the possibility of the high date given by Rizza and Scrinari. The architectural sculptures could well belong to a later, seventh-century phase of the temple, and the rise in seventh-century cult activity

²²⁸ It is not immediately clear how the levels given for the ash and bone deposit (–0.60 and –1.20; Rizza and Scrinari 1968, 26) correspond to the elevation of –2.29 given for the top of the slab (Plate D).

²²⁹ Schäfer's review of Rizza and Scrinari reiterates the inadequate explanation of stratigraphy, pointing especially to Rizza and Scrinari's reports of early orientalizing sherds within some "PG" layers (1972, 187-8). Recently, De Vita has defended the conclusions of Rizza and Scrinari; unfortunately, he adds no further stratigraphic information to the 1968 publication (1991, 315-7).

²³⁰ In addition, only four pottery fragments were published from the foundation deposit, yet there were clearly others. The fragment of the "lip" of a cup mentioned in the results of the chemical analysis, for example, (Rizza and Scrinari 1968, 25) is neither pictured nor discussed in the catalogue of pottery from the foundation deposit.

²³¹ La Torre 1993, 297 n. 4.

²³² Coldstream 1977, 280.

does not preclude the presence of early cult architecture on the site. In any case, as M.A. Ainian pointed out, a lower date for the temple may not require a re-interpretation of the foundation deposit. If the temple was in fact constructed at a later date, the ceramics within the deposit could well have been ‘heirlooms’ or older sacred material.²³³ In sum, while the publication of the temple’s stratigraphy is incomplete, there is no compelling reason to dismiss the identification of a foundation deposit at the southwest corner of the temple.

On the island of **NAXOS**, two possible foundation deposits were discovered in separate sanctuaries.²³⁴ The oldest was found at the sanctuary site of **YRIA**,²³⁵ where the rubble foundations of an early mudbrick predecessor to the Archaic temple of Dionysos(?) were discovered (fig. 68). Around this small building a large stone packing, probably Geometric in date, served as a terrace wall or platform. It would have protected the early structure from the marshy terrain to the south of the temple²³⁶ and was perhaps also used as a *peripatos* or walkway.²³⁷

According to preliminary reports, the terrace wall was enlarged shortly after it was first built. In this second construction, an inner retaining wall (draw arrow to “terasse” on plan) and an outer wall (marked with arrow in fig. 67) were constructed.

²³³ Ainian 1997, 227.

²³⁴ Naxian foundation deposits were presented by V. Lambrinoudakis in an unpublished paper read at the American School of Classical Studies (Lambrinoudakis 2002).

²³⁵ The site is not yet fully published. Relevant excavation reports include Lambrinoudakis and Gruben 1987 and Lambrinoudakis 1992; see also Gruben 1993. For full bibliography, see Ainian 1997, 189 n. 1430.

²³⁶ Lambrinoudakis originally reported that the ancient river Biblines ran only seven meters to the south of the temple (1992, 213); he later changes his interpretation to a marsh (Ainian 1997, 190 n. 1435).

²³⁷ Gruben 1993, 99.

Lambrinoudakis reported an unusual deposit at the southeast corner of the inner wall in which an undecorated MG oinochoe (fig. 69) was discovered on top of a skull of an ox or bull.²³⁸ Lambrinoudakis identified the sacrifice as belonging to a foundation ritual.²³⁹

As the sanctuary is not yet fully published, the exact placement of the deposit and its relationship to the sanctuary's terrace wall remains unclear. Still, a foundation deposit associated with a sanctuary's terrace/temenos wall is not exceptional in Greece.²⁴⁰

Unique to the Yria deposit, however, is the presence of an ox skull. While lacking parallels in Greek sites,²⁴¹ the practice of placing the skull of an ox in a foundation deposit is, however, well-known in Egyptian foundation rituals. As is discussed in Chapter V, these rituals may have influenced cult practice here as well as at Samos and elsewhere.

Another Naxian foundation deposit was discovered in association with the **TEMPLE OF APOLLO** on Palatia hill. A detailed architectural study of the archaic Ionic temple, undertaken from 1968 to 1972, allowed for a more precise reconstruction of the temple (fig. 69) as well as an important archaeological discovery.²⁴² During final cleaning of the bedrock inside the cella, previously undetected traces of the bedding for the northeast interior column were discovered. In the center of this bedding, a

²³⁸ Lambrinoudakis 1992, 214; Ainian 1997, 190.

²³⁹ Citing the deposit at the Artemision at Delos (see Chapter II pp. 47-51), Lambrinoudakis notes that both buildings were Naxian (1992, 214).

²⁴⁰ As at Asine (below, pp. 79-80).

²⁴¹ The skeleton of a ram was discovered in the deposit at the Temple of Apollo on Naxos (below).

²⁴² Four preliminary reports appeared in *AA*: 1968, 693-716; 1970, 135-53; 1972, 319-79; and 1982, 159-95. A full publication is awaited in the series *Denkmäler Antiker Architecture*, 18. *Architektur auf Naxos und Paros*. Gruben states that his reconstruction does not differ significantly from a previously published reconstruction (here, fig. 69).

rectangular stone slab came to light (fig. 70). The slab was found to cover a pit which was filled with clean sand and burned animal bones.²⁴³ The preserved remains included horn cores, parts of the skull, vertebrae, tail vertebrae, a femur, and a single tooth, probably the skeletal remains of a single ram offered as a holocaust.²⁴⁴

The above evidence indicates that these sacrificial contents were ritually deposited as a foundation deposit, having been interred after the bedrock was prepared to receive the interior column, but before it was finally put into place.²⁴⁵ The burial of animal bones and the sealing of the pit with a stone slab are reminiscent of other foundation deposits in Greece, including those at Gortyn and Didyma. The use of sand, an important aspect of Egyptian foundation rituals, may also be a significant feature of Greek foundation deposits.²⁴⁶ Unique to this deposit is its placement beneath an interior column.²⁴⁷

In addition to the above evidence from the Aegean, recent excavations at a sanctuary on **KYTHNOS** may have yielded a Hellenistic foundation deposit in the southern corridor of the temple complex there.²⁴⁸ A.M. Ainian reported that animal bones and a kantharos were buried as a possible foundation deposit during the Hellenistic

²⁴³ Gruben 1982, 162. It is not clear if the pit was actually dug into the bedrock or into soil lying on top of it.

²⁴⁴ According to analysis, the bones were burned at a very high temperature, after which the meat of the animal could no longer have been edible (i.e. a holocaust). Absent were the ribs and feet (Gruben 1982, 162 n. 6a).

²⁴⁵ Gruben 1982, 162.

²⁴⁶ See Chapter V pp. 175-6.

²⁴⁷ Unfortunately, nothing of the interior column was discovered in situ. It remains a possibility (however unlikely) that the pit was dug after the column was removed or destroyed.

²⁴⁸ The findings were reported in a paper delivered at the British School at Athens (Ainian 2004).

renovation of the Archaic sanctuary. Excavation reports are awaited to confirm his findings.

Peloponnesos

Sanctuary sites in the Peloponnesos have also yielded evidence of foundation deposits. The earliest instances have been identified by B. Wells, who published four separate examples of possible foundation deposits at the site of **ASINE**.

The first was discovered in association with the remains of **BUILDING C** (on the Karmaniola plot), a tenth-century apsidal stone socle (fig. 71).²⁴⁹ Although the function of the building is unknown, scholars have suggested that the large building, whose interior foundations likely supported a bench, served as a special function building, either as the home of a chieftain or as a cult building.²⁵⁰

Excavation revealed an intact PG miniature jug sitting directly on top of the stone socle (fig. 72).²⁵¹ Both the circumstances of its findspot and its state of preservation suggested to Wells that the jug was intentionally deposited there, perhaps having been built into the (no longer extant) mudbrick wall. Because no part of the mudbrick wall was preserved in situ, however, it cannot be certain that the jug was such an installation. If Wells' hypothesis is correct, it parallels the deposition at Minoa, where ceramic vessels were actually placed within the structure of the wall. Although the jug contained nothing remarkable, Wells conjectured that a libation may have been "poured onto the foundation of the building" before the mudbrick walls were erected on the socle.²⁵²

²⁴⁹ Wells 1983, 88-90; Ainian 1997, 68-70.

²⁵⁰ Wells 1988, 265; Ainian 1997, 70, especially. n. 215.

²⁵¹ Wells 1983, 82, no. 524.

Excavations elsewhere at Asine yielded more compelling evidence for ceramic foundation deposits, all dating to the Geometric period. The first of these was a deposit of ceramic vessels in association with a fortification or temenos wall on **MT**.

BARBOUNA (marked B on fig. 73), the heavily fortified site of the cult of Apollo Pytheos.²⁵³ Four vessels, including two kraters and an amphora with a cup as its cover,²⁵⁴ were discovered in the virgin soil against Wall 2, and one in a natural cavity in the bedrock. The vessels seem to have been deposited standing up; the walls of the two kraters were still upright when excavated. Wells concluded that the deposition of these vessels must have coincided with the erection of the wall, and thus were intentionally placed, likely as a “building sacrifice.”²⁵⁵ Although nothing of the vessels’ contents was preserved, some of the vessels seem to have been deliberately halved, either horizontally or vertically (fig. 74).²⁵⁶

A similar deposit found in the earlier excavations on Asine’s Geometric **ACROPOLIS** (Kastraki hill) lends strength to Wells’ interpretation. Deposit D or the so-called “Crown Prince’s Deposit” was discovered next to a long circuit wall above the entrance to the acropolis (marked “D” in fig. 75).²⁵⁷ The deposit consisted of about twenty late geometric drinking and pouring vessels, including an amphora, four

²⁵² Wells 1988, 265.

²⁵³ The cult existed as early as the late eighth century B.C. (Wells 2002, 96-7).

²⁵⁴ Excavated as Trench B: Kraters: F B85:4, F B85:5, amphora: F B85:6. Wells reports that two more fragmentary kraters were discovered nearby, also next to the wall (Wells 1988, 261).

²⁵⁵ Wells 1988, 261.

²⁵⁶ Wells does not state how many vessels received this treatment; judging from the illustrations, there were at least two.

²⁵⁷ Wells 1988, 262-4.

oinochoai, a kantharos, two skyphoi, and several cups (figs. 76-7).²⁵⁸ The assemblage seemed to form “a veritable wine service” deposited together at the foot of the wall.²⁵⁹ Without detailing the stratigraphy, Wells again concludes that the vessels were presumably interred before or during the construction of the circuit wall.

A possible third deposit from the foot of Mt. Barbouna was also discovered in the early excavations of Asine. This deposit was discovered next to a long stretch of a circuit wall (marked “5” in fig. 73) and contained several Geometric vessels which were “surrounded by stones.” Though originally interpreted as the remains of a tomb, Wells tentatively identifies it as a foundation deposit in the tradition of those cited above.²⁶⁰ Although the recorded stratigraphic information is far from complete, the occurrence of several fairly large ceramic deposits near the Geometric walls of Asine would seem to support Wells’ interpretation as foundation deposits.

The Shrine or **HERÖON OF OPHELTES/ARCHEMOROS** at **NEMEA** yielded a foundation deposit discovered in association with the temenos wall of its Hellenistic phase. In addition, a set of unique ceramic deposits discovered in the Archaic tumulus may represent a series of foundation deposits.²⁶¹

In its earlier, Archaic phase, the shrine to the local hero Opheltes (re-named Archemoros after his death) consisted of rubble walls (seen next to the ashlar Hellenistic

²⁵⁸ Only 12 of the “about 20” vases are discussed in the original publication (Persson and Frödin 1938, 330-3).

²⁵⁹ Wells 1988, 262.

²⁶⁰ Wells 1988, 264.

²⁶¹ The Heröon is currently being studied by Jorge Bravo in his forthcoming dissertation “The Hero Shrine of Opheltes/Archemoros at Nemea: A Case Study of the Ancient Greek Hero Cult.” See Miller 1981 and 2002.

temenos walls in figs. 78-9) which surrounded a large tumulus (fig. 80). The shrine, which was in use at least by the second half of the sixth century, was probably dedicated (as was its Hellenistic successor) to the worship of the local hero Opheltes, whose tomb, according to Pausanias, was located at Nemea.²⁶²

The sixth-century tumulus was built of alternating layers of reddish and whitish earth heaped on an existing mound of unknown date.²⁶³ Each of these layers was conspicuously lacking in sherds or other material, except for the few complete vessels which seem to have been deliberately deposited as each successive layer was set. In one layer, for example, a single mug was discovered, and in another, an oinochoe.²⁶⁴ A third layer contained a skyphos and a fourth, a kantharos, and so on.²⁶⁵ One layer contained an especially elaborate deposit of four skyphoi placed around an oinochoe (fig. 81), while another contained a bronze phiale (figs. 82).²⁶⁶ A terracotta centaur was discovered in yet another layer (fig. 83).

The vessels from these strata are shapes used primarily for drinking and pouring and seem to have been deliberately placed as the tumulus was being constructed. Their purpose is not immediately clear. Miller suggested the vessels are the remains of a ritual of purification: “The general impression is that each layer was sanctified, it would

²⁶² Paus. 2.15.2. Other evidence, including the plan of the shrine and the character of votive objects found there identify the Hellenistic enclosure as the Heröon of Opheltes.

²⁶³ The core of the tumulus consisted of a mound of “sticky dark red clay” which contained Geometric and Mycenaean sherds (Miller 2002, 246-7). The results of the excavations await final publication (above, p. 80 n. 261). If originally a Bronze Age structure, the tumulus may be considered the focus of “tomb cult” as defined by Carla Antonaccio (1995).

²⁶⁴ P 1558, P 1661.

²⁶⁵ P 1660, P 1671. Most of these and other ceramics found in similar contexts date to the early sixth century B.C. (Miller 2002, 246).

²⁶⁶ P 1593 and 1578, P 1579, P 1584, P 1586, and BR 1387.

appear, by the pouring of a libation and the dedication of the vessel used in that libation.”²⁶⁷

Although these deposits are not associated with a temple building in the strictest sense, the tumulus was the monumental focus of ritual activity in the shrine. Like other foundation deposits, the ceramics interred within the tumulus likely indicate the performance of ritual during the construction of the monument. Here the emphasis is on libation or drinking, after which the vessels were committed to the structure itself.

Of further interest is a deposit made in association with the Hellenistic temenos walls of the Heröon. A small bell-krater was discovered lying next to the foundations of the northern wall and its easternmost interior buttress next to the entrance to the sanctuary (figs. 84-5). As at Gortyn and Naxos (Temple of Apollo), the vessel was covered by a stone slab. The contents of the krater revealed a greasy, reddish-brown earth and were interpreted as the remains of unidentified organic material.²⁶⁸ The context of the vessel plainly indicates that it was contemporary with the construction of the walls—it (and its stone cover) rested on and was covered by the stone working chips which filled the foundation trenches for the temenos walls.²⁶⁹ The krater and its contents were therefore sealed during the early phases of construction as a foundation deposit.

A foundation deposit consisting of miniature vessels and animal bones was discovered in the excavations of the Classical **TEMPLE OF ATHENA ALEA** at

²⁶⁷ Miller 2002, 246.

²⁶⁸ Miller 1981, 63 n. 45. No analysis of the contents has been published.

²⁶⁹ Stylistically, the krater can be dated to the early Hellenistic period, confirming a third-century date for the Heröon (Miller 1981, 62).

TEGEA (fig. 86). Fragments of eight miniature kotylai (fig. 87)²⁷⁰ were discovered in the foundation trench on the west side of the foundations of the wall separating the cella and the pronaos.²⁷¹ A small amount of animal bones of unknown type was also recovered from this layer.²⁷² Miniature votive vessels are ubiquitous in the Sanctuary of Athena Alea from archaic to Hellenistic times and are by nature cultic vessels. Their presence in a foundation trench of the temple indicates they were also used in a foundation ritual of some kind. The contents of these vessels are no longer preserved, but the presence of animal bones is suggestive of sacrificial activity.

More miniature ceramics were discovered in an unusually rich deposit within the fifth-century **TEMPLE OF APHRODITE** at **ARGOS**.²⁷³ A wide pit in the shape of a funnel was discovered beneath the floor of the pronaos of this small distyle in-antis temple (fig. 88).²⁷⁴ The pit, which G. Daux considered to be contemporary with the construction of the temple, was filled with a large collection of votive offerings, primarily terracotta figurines and miniature vessels, many of which were found intact. The terracotta figurines are varied: among them are broken female heads with elaborate headwear and jewelry (fig. 89), a figure playing a lyre, and a female figure sitting on a

²⁷⁰ Hammond 1998, 289-96, cat. nos. 195, 197, 199, 200, 202, 207, 220, and 221.

²⁷¹ Hammond 1998, 228.

²⁷² The foundation deposit was excavated as context D1/7, which included 15 grams of animal bones (type not reported).

²⁷³ Daux 1969, 994f. See also Tomlinson 1972, 208-9.

²⁷⁴ The pit measured c. 2.0 m. in diameter at the mouth and 0.7-0.8 m. in depth. Unfortunately, the pit is not drawn on the plan. Daux reports enigmatic poros slabs found directly behind the eastern façade seem to have been related to the pit, although their relationship is unclear: "...se trouvaient dressées deux dalles de pôros, d'une hauteur maximum de 1 m, dont la raison d'être n'apparaît pas très clairement, mais qui sont sans doute en rapport direct avec le dépôt de fondation trouvé sous le pronaos [sic]." (Daux 1969, 994-6). Though not indicated on the published plan, the blocks in question are probably those marked with arrows in fig. 88).

quadruped (nos. 25-6 in fig. 90). Most of the figurines date to the sixth century B.C., while some (e.g. no. 19 in fig 89 and no. 24 in fig. 90) may date as early as end of the seventh century. The ceramics consisted of miniature cups (with or without handles), krateriskoi, and miniature oinochoai or amphorae. In addition, a “fairly great” number of bronze and terracotta rings was discovered.²⁷⁵

Daux considered this pit and its contents to be a foundation deposit of the fifth-century temple. Although it likely contained votives from the older sanctuary which it replaced,²⁷⁶ the fact that the objects were discovered in a pit and not carelessly strewn among the foundations may speak to the special/ritual nature of its deposition, rather than the haphazard disposal of defunct votives.²⁷⁷ Daux also recorded two other pits located next to the northeast corner, which also contained figurines and miniature vessels. These “secondary” deposits are not described in any further detail, but their position near the corners of the temple may be of interest.

A final foundation deposit was discovered in a small shrine located within the **STOA OF PHILIP** in the Arcadian city of **MEGALOPOLIS**. Recent study of the large, winged stoa at the north edge of the agora revealed an unusual set of foundations in the eastern end of the central aisle (figs. 91-2).²⁷⁸ Using the eastern wall of the stoa for

²⁷⁵ No further information about these objects is given, nor are they illustrated.

²⁷⁶ Daux identified a stretch of rubble foundations located inside the cella as part of an earlier temple.

²⁷⁷ See Appendix.

²⁷⁸ Called the “T” foundations (Lauter and Münkner 1997).

its back wall, a single row of reused blocks formed nearly square foundations for a small structure (c. 5 m. in length). Only a single block of the superstructure survived in situ.²⁷⁹

The scant architectural remains suggest little about the function of the building. However, traces of two sets of fencing were discovered in front of the structure, suggesting it may have served a cultic function. Cuttings on the easternmost columns of the central aisle revealed that column H was bound to J by a parapet or fence (c. 1.2 m. high). Columns G and K were similarly linked, restricting access to the small building to a direct approach taken from the central aisle. In addition, three small stone pickets displayed transverse cuttings corresponding to the beams of another low fence. Rising to a height of about 22 cm. above the euthynteria and forming a line 1.5 m. in front of the building's façade, this ankle-high barrier would have been more "symbolic" than functional.²⁸⁰ These measures, clearly taken to restrict access to the small building, find numerous parallels with temples and shrines all over the Greek world.

A test trench at the northeast corner of the building revealed two unusual features which Lauter suggested were foundation deposits. The first was a shallow pit (semicircle marked POT 1 in fig. 94) containing a heavy concentration of charcoal and the fragments of a fairly complete chytra (fig. 95).²⁸¹ Dug into the packing for the (much earlier) stoa

²⁷⁹ This block was an inscribed statue base dedicated in the early second century B.C. to Xenainetos, probably brother to Philopoimen (Lauter and Münkner 1997, 391, 399).

²⁸⁰ Lauter and Münkner 1997, 390.

²⁸¹ Both vessels can be dated roughly to the second century B.C. (Lauter and Münkner 1997, 404-5). This accords roughly with the terminus ante quem in the early second century given by the Xenainetos block.

floor (POT 2-3) the relationship between the pit and the square structure is not clear, since the overlying layer (POT 0) consisted of disturbed backfill.²⁸²

Adding to this find, however, is the discovery of the foundation trench directly adjacent to the pit (area marked POT 1 to the right of the semicircle in fig. 94). The excavation of a small section of this trench yielded the remains of a lamp (fig. 96). The lamp, although incomplete, was set conspicuously against the northern foundations. Its deposition is therefore likely contemporary with the construction of the building. If, as Lauter maintained, the shallow pit containing charcoal and fragments of a chytra can also be assigned to construction of the building, this deposit would suggest a sacrifice or consumption of a ritual.²⁸³

Attica, Boeotia, Euboea, and Thebes

At **THORIKOS**, a PG building located in Necropolis West 4 (**BUILDING III/XXIV**) yielded two foundation deposits.²⁸⁴ Below the level of the clay floor of the building's largest room (X-XII, fig. 97), two jugs were found nestled in gaps in masonry of the walls, one in the northeast and one in the southeast corner (fig. 98).²⁸⁵ The contents of the jugs were not recorded.

²⁸² Lauter and Münkner 1997, 394.

²⁸³ Lauter suggested the remains of a sacrificial fire were mixed with the already broken chytra at the time of deposition (Lauter and Münkner 1997, 394).

²⁸⁴ Bingen 1967a, 29; *ibid* 1967b, 32f.; *ibid* 1969, 102-9; *ibid* 1984, 144-46; Mussche 1974, 25-39.

²⁸⁵ The gap appears in a lower part of the wall; the specific course number is not specified. Northeast deposit: Bingen 1967a, 29 (TC 64.471); northwest deposit Bingen 1967b, 32 (TC 65.594). Both jugs date to the late PG period.

As at Minoa and elsewhere, the two deposits were built into the (lower) fabric of the wall, making their identification as foundation deposits very likely.²⁸⁶ Perhaps the jugs may have contained a liquid offering or were used as part of a drinking ritual as the building was being erected.

Important to the suggestion of ritual activity is the identification of the function of this early building, about which scholars are not agreed. The form of this early building, which preserves a bench running along the walls of the main building, is not particularly indicative of its function. Rather, the interpretation of the building depends on the character of the finds and of the surrounding area. The finds from the largest room of the building suggested to the excavators that, in its first PG phase at least, the building could have functioned as a metal workshop of some kind. In room X-XII, several pits were found in the clay and ash floor, some of which contained ashes and fragments of litharge, a byproduct from the process of cupellation. As J. Bingen pointed out, the presence of this material indicates merely that cupellation was a technique used in silver production during this period; it does not necessarily indicate that the process occurred in this building.²⁸⁷ Nevertheless, the presence of this material and the later installations for silver production in this area are suggestive.²⁸⁸

Both H. Lauter and P. Themelis have argued that the building was designated for cult activity, however. In addition to the unusual placement of the jugs and “astounding quality” of the pottery found in the building, Lauter noted that the area surrounding the

²⁸⁶ As suggested by Ainian 1997, 284 and Lauter 1985, 163.

²⁸⁷ Bingen 1967a, 29-30, *ibid* 1967b, 34. No tools, for example, were found in the building. On the identification of metal workshops based on archaeological finds, see Bjorkman 1993.

²⁸⁸ Ainian notes similarities in plan with the roughly contemporary metal shop at Pithekoussai (1997, 147 n. 1013).

building was used as a cemetery at least as early as the LG period. He suggested that the building may be connected with a cult of the dead, especially considering that at least part of the building was in use while the area was being used as a cemetery.²⁸⁹ P. Themelis similarly identified the building as a Geometric “grave building,” a type known from other cemeteries.²⁹⁰ The discovery of a louterion (a shape often used in cultic contexts) in the doorway between rooms XXVI and III may provide additional evidence for the cultic function for the building.²⁹¹ Other finds of interest include three circular pits containing EG sherds, ashes, small bones, beads, loom weights, shells and pebbles. In addition, a square enclosure lined with slabs was found in room III.

Whether the building was originally intended for cult use, however, is difficult to prove, as there is a significant chronological gap between the construction of the building and the first graves that appear in this area. The earliest grave (grave 58) was dated by Bingen to the last half of the ninth century B.C.²⁹² Some of the graves are even dug within the room of X-XII, indicating that by the LG period, this part of the building had gone out of use. In addition, room III shows signs of renovation, its western entrance having been blocked up.²⁹³

Therefore, even if the Late Geometric phase of the building can be associated with the cult of the dead, there is a significant gap between this phase and the phase of its

²⁸⁹ Lauter 1985, 163.

²⁹⁰ Themelis 1976, 53f.

²⁹¹ Ainian 1997, 147; Bingen 1967b, 57-8. See also Kurtz and Boardman 1971, 151.

²⁹² Bingen 1967b, 38-42; Coldstream 1977, 70.

²⁹³ Ainian suggested the building was destroyed in the late PG period. After a gap during the MG period, only room III was restored, its western entrance blocked, and room XXVI was added to the south (1997, 146).

construction, during which the jugs were interred and the original function of the building remains unclear. Lauter suggested that the presence of foundation deposits alone speaks to the cultic function of the building.²⁹⁴ This assessment should be taken with caution, however, for while foundation deposits do appear primarily in cult buildings, this may not be an exclusive designation.²⁹⁵

An unusual and elaborate deposit was discovered within an Archaic poros statue base in the **TEMPLE OF ATHENA NIKE** at **ATHENS**. Although foundation deposits have appeared in other cult statue bases, in this example, the base appears to have been re-carved for the purpose of containing a foundation deposit beneath the floor of the Archaic or early Classical naiskos.

During work for the first restoration of the Temple of Athena Nike and its bastion, N. Balanos discovered a statue base set within the pi-shaped foundations of a small “naiskos” below the later fifth-century Ionic temple (figs. 99-100).²⁹⁶ The naiskos, constructed of Aeginetan poros, is thought to be of the early or mid-fifth century B.C.²⁹⁷ Made of grey-brown poros, the base is set at the back of the building and significantly off its axis. Because it was found reused in this context (see below), the base has been dated to a period earlier than the naiskos, perhaps to the first half of the sixth century B.C. Although no remains of a sixth-century temple were discovered *in situ*, an early Archaic

²⁹⁴ Lauter 1985, 163.

²⁹⁵ See Chapter V p. 144 n. 432.

²⁹⁶ Balanos 1956. See Mark 1993, 1-11 for a history of investigation.

²⁹⁷ Mark argues that the naiskos was built in the mid-fifth century B.C., corresponding to the famous Nike Temple decree of the same period (*IG I³ 35*) Mark 1993, 42-68. Giraud (1994, 32-8) and I. Shear (1999) believe the naiskos was built shortly after the Persian destruction of the Acropolis.

altar found beneath the later “square altar” (next to NE corner of temple) attests to a pre-naiskos phase of the Nike sanctuary, to which the base may have originally belonged.²⁹⁸

The shape of the statue base, made from two joining poros blocks, is unusual and its deep, three-stepped central cavity betrays a complex history of reuse (figs. 101-2).²⁹⁹ Ira Mark identified the first (top) cutting of the central cavity as a plinth cutting for an archaic statue—more specifically, for the xoanon of Athena Nike attested by Pausanias (fig. 103).³⁰⁰ This cutting is the only one respected by the anathyrosis on the joining faces of the two blocks, and is therefore contemporary with the original use of the blocks as a statue base in the pre-naiskos sanctuary of Athena Nike.

More difficult to assess is the function of the base during the period of the naiskos and later. At some point, the base was re-worked, and two deep “steps” were cut through the floor of the plinth cutting.³⁰¹ These cuttings mark the disuse of the blocks as a statue base (at least in its original design). The purpose of these new cuttings is somewhat enigmatic, but is likely related to the finds which were discovered in the lowest level. At the bottom of these cuttings Balanos discovered a number of anthropomorphic terracotta figurines, (fig. 104) as well as fragments of small (miniature?) vases and two “very

²⁹⁸ The altar bears a dedicatory inscription dated roughly to the mid-sixth century B.C. (Mark 1993, 33). For the pre-naiskos phase of the sanctuary (Stage 1), see Mark 1993 125-8. The sanctuary was likely destroyed by the Persian destruction of the Acropolis.

²⁹⁹ For a detailed study of the base, see Mark 1993, 20-30.

³⁰⁰ Paus. 3.15.7 and 5.26.6. The cutting has three straight sides and a curved fourth, indicating it may have accommodated a seated figure. Because the base is composed of two blocks, Mark argues that the base was held in place by the surrounding blocks of a larger base (Mark 1993, 24-5).

³⁰¹ The left face of the base was also trimmed back in this phase (Stage 3). These cuttings cut through the original anathyrosis lines and are marked by distinctive flat chisel marks (Mark 1993, 22, 29-30).

small” bones.³⁰² Unfortunately, all the contents of the base were lost after excavation. According to Balanos, the figurines measured four to ten centimeters in length. From the photographs, the figurines appear to be of a crude type, perhaps handmade. The body is a thin cylinder which flares out at the bottom; triangular projections form the arms, and the head is pinched flat. These figurines are similar to types found in Attic sanctuaries, such as at Kiapha Thiti (fig. 105).³⁰³

It is clear that the base was re-used as a repository for the figurines, vessels, and bone fragments, but when? Crucial to the understanding of the so-called repository is its relationship to the naiskos architecture. As stated above, the repository/base sat at an angle within the naiskos foundations, making it unlikely that it would have been re-used as a cult statue base with the naiskos. In addition, Mark’s reconstruction places the highest rim of the base at a full 0.25 m. below the level of the naiskos floor (clearly seen below the euthynteria block E3, fig. 106).³⁰⁴ The base/repository was not a functional part of the naiskos, being neither load bearing nor visible, and was covered by the naiskos floor. Therefore, the deposit was not likely made after the naiskos was built, nor could the repository have been situated much before. That the reworking and positioning of the repository were contemporary with the construction of the naiskos is supported by

³⁰² Balanos 1956, 785; Mark 1993, 22. See also excavation notes by Balanos, published by Mark (1993, 145, Page 10.)

³⁰³ Most figurines from this site are from seventh- and sixth-century contexts, however (Küpper 1990).

³⁰⁴ Mark 1993, 52 n. 24. The elevation of the rim is +140.67 on the north, while the floor measures +140.918. Giraud (1994) believed the base still served as the cult statue base in the naiskos. His reconstruction is informed by the misplacement of the level of the floor to coincide with the top of the foundation levels (i.e. below the euthynteria). The misalignment of the base with the naiskos, however, (as well as the off-center cavity) makes it unlikely that the repository was used as a cult statue base during this period.

underpinnings of the repository, which are of similar type and the same elevation as that of the naiskos.³⁰⁵

These facts suggest that the old, damaged statue base from the destroyed sixth-century shrine of Athena Nike was purposefully reworked to contain a foundation deposit of figurines, miniature votive vessels, and the remains of animal sacrifice.

The Nike Temple deposit is unique among Greek foundation deposits in the elaborateness of its container. A fairly similar repository, though not associated with architecture, was discovered in the Athenian Agora.³⁰⁶ It consisted of several slabs, a well head, and a re-worked Doric capital for a cover. Disturbed in antiquity, the cavity was filled with bones, bits of gold and bronze, and fragments of pottery.

An architectural feature at the **TEMPLE of ZEUS at LABRAUNDA** may also provide a parallel. A stone “box” constructed of two courses of stone was found to abut the eastern foundations of the temple (marked with arrow in fig. 107).³⁰⁷ Like the Nike Temple and Agora repositories, the bottom part of the interior was smaller than the mouth, perhaps to accommodate a lid. In this case, the stone container was created by the projecting lower course and not carved. Although no finds were discovered within the structure, its position at the level of the fourth and fifth foundation courses (fig. 108) makes its suggested function as a *thesauros* unlikely. Unfortunately, its relationship to the temple is unknown—it does not bond with the foundations nor does it align exactly with the temple’s orientation.

³⁰⁵ “The asymmetrical underpinnings and irregular undersurface of the repository make clear that it is contemporary with the naiskos; both sat directly on the Stage II ground” (Mark 1993, 52).

³⁰⁶ Thompson 1958, 148-53. It was found near the Panathenaic way, just to the north of the Altar of Ares.

³⁰⁷ Hellström 1982, 24-5.

At **THEBES**, a late sixth-century tholos at the **KABIRION** yielded an interesting example of a ceramic foundation deposit. The building, known as the “Mittlere Rundbau” (marked with arrow in fig. 109) displays features for dining, including a round central hearth and a limestone bench running around the interior for seating a large number of people.³⁰⁸

Immediately next to the lower edge of the threshold block in the entrance, two vessels, a small kantharos nestled inside a one-handed bowl, were discovered intact. (fig. 110).³⁰⁹ Nothing of their contents was reported. These vessels, which date to around the end of the sixth century B.C., were considered a “Fundamentbeigabe” by the excavators on account of their position beneath the threshold.³¹⁰ The sterile earth below the building excludes the possibility of the vessels belonging to an earlier occupation phase, and the identification of a foundation deposit can reasonably be accepted. Although the building is not a temple or shrine, it is located within a sanctuary and probably housed ritual dining activities.

A shallow pit containing ceramics and the remains of animal sacrifice was discovered beneath the **HERŌON** at the **WEST GATE** of **ERETRIA** (fig. 111).³¹¹ This early deposit, identified by the excavator as a foundation deposit, was made among the “royal” graves of the Archaic West Gate.

³⁰⁸ Bruns 1967, 231-7. Heyder and Mallwitz 1978, 44-7. On round dining rooms, see Cooper and Morris 1990.

³⁰⁹ Bruns 1967, 234.

³¹⁰ Bruns 1967, 234.

³¹¹ Bérard 1970, 1978.

In the area just south of the West Gate, 16 late Geometric graves of extraordinary distinction were discovered. Of this number, seven were adult cremations interred within a bronze lebes and surrounded by fieldstones.³¹² The other nine graves were inhumations of juveniles. Often containing weapons and/or jewelry, the lavishness of these burials clearly indicated the elevated status possessed by the deceased, perhaps members of a privileged “genos” in which a man’s status as warrior played a significant role.³¹³ One of the burials (tomb 6) was particularly rich in grave goods, and subsequently dubbed the “prince’s” tomb.³¹⁴ The inclusion of children’s graves suggests the area was used as a burial plot for a single (extended?) family.

Shortly after the latest grave was interred, around 690 B.C.,³¹⁵ a triangular building was erected over the burial plot. The building’s unique design and the presence of later cult buildings in the area prompted Bérard to identify the structure as an heröon, dedicated to the worship of a local king or hero at the site of his (and his family’s) tomb.³¹⁶

While excavating the triangular foundations, Bérard discovered a foundation deposit in a pit covered by one of the foundation blocks near the southeast corner

³¹² Tomb 10 was actually buried in a single rock hollowed out to receive a cauldron. For graves, see Bérard 1970, 13-22, 33-47.

³¹³ Contemporary graves elsewhere in Eretria are strikingly poorer than these (Ainian 1987, 14).

³¹⁴ Bérard 1970, 13-17.

³¹⁵ The earliest of these graves is dated to c. 720-715 B.C. (Ainian 1987, 14).

³¹⁶ Only a few graves were actually circumscribed by the building. It is unknown what the triangular foundations would have carried. For discussion of triangular shrines in Greece, see Bérard 1970, 58-9. The triangular “crossroads” shrine in the Agora at Athens may also have been an heröon (Lalonde 1968, 131-2).

(marked 21 in fig. 111).³¹⁷ Measuring 0.55 m. in diameter and 0.35 m. in depth, its contents were a mixture of sand and clay with inclusions of charcoal, chunks of reddish earth, a small amount of grey clay, and agglomerated (possibly scorched) sand. Within the soil matrix were fragments of animal bones, including the remains of a horn,³¹⁸ shells, courseware sherds, and a series of finely decorated late Geometric sherds belonging to several large vases (fig. 112). The small size of the pit and lack of human remains indicate that the pit is not a grave. In addition, the fragments of large ceramics found in the pit are notably absent from the burials.

The discovery of the pit beneath the foundations of the heröon at Eretria is reminiscent of other foundation deposits discussed above. Although the presence of animal bones may suggest animal sacrifice, the recovered ceramic sherds are too few to indicate the original shapes of the vessels. This fact is problematic, since most ceramics discovered in foundation deposits are well preserved. In addition, the date of the sherds in the foundation deposit is significantly earlier than the date given by Bérard for the triangular heröon. He reconciles this discrepancy by suggesting the sherds were taken from another cult place and deposited at the foundation of the heröon.³¹⁹ Despite these difficulties, the position of the pit is suggestive of a foundation deposit made at the establishment of a monumental heröon.

Asia Minor

³¹⁷ Bérard 1970, 46, 57-8.

³¹⁸ No other information about the animal bones is given.

³¹⁹ Bérard 1970, 57.

Preliminary reports from the excavation of **BAU Z**, a late Hellenistic building located in the lower city between the Sanctuaries of Demeter and Hera at **PERGAMON** (fig. 113) have revealed an unusual set of ceramic foundation deposits.³²⁰ Although the plan of this large peristyle building resembles those of houses elsewhere in the city, its location speaks to a public use. Radt has suggested that the building may have served as the city's Prytaneion, basing his arguments on dedicatory inscriptions discovered nearby and the bath installations.³²¹ This interpretation fits neatly the building's domestic installations as well as its position next to other public buildings.

Whatever the function of Bau Z, evidence of a sacrificial fire and three distinct deposits were discovered in the northeastern part of the building.³²² In one room (marked with a single arrow in fig. 113), about two meters east of the western wall and half a meter from the northern wall, a large, unworked stone was discovered sitting on the bedrock at a level about 25 cm. below the room's floor.³²³ On top of the relatively flat surface of the stone was discovered a layer of ash (ca. 5 cm. thick) which had been covered by a roof tile. At the western foot of the stone, more evidence of burning was detected, including burned earth and charcoal.³²⁴ No remains of other burned material were recovered. Radt reports that both the stone and the traces of burning at its foot were both surrounded and covered by a thick layer (up to 10 cm.) of small stones. In this unusual scenario, it seems likely that whatever was burned was then deposited on the

³²⁰ Radt 1994, 408-22.

³²¹ Radt 1999, 109.

³²² Radt 1994, 419-21.

³²³ The elevation of the floor is given at 214.47.

³²⁴ The associated pottery (of which nothing more is reported) is Hellenistic in date.

stone and covered with a roof tile, after which the whole area was buried under a leveling fill.

Three ceramic deposits were also discovered below the floor of another room in the northeastern section of Bau Z (marked with two arrows in fig. 113). All were found along the northern wall at a distance of roughly half a meter from it. The first consisted of a skyphos which contained five knucklebones and was sealed by a plate (fig. 114).³²⁵ It was found 30 cm. from the western wall. The second deposit, found roughly equidistant from the eastern and western walls of the room, consisted of a small oinochoe, next to which lay a lamp that had been placed on a larger pottery sherd and covered by a jug which had been halved down its vertical axis (fig. 115).³²⁶ The third deposit lay 30 cm. from the western wall and consisted of a lamp covered by a bowl.³²⁷ The nozzle of the lamp was found protruding from an (intentional?) break in the wall of the bowl.

Sicily

Three examples of possible foundation deposits have also been discovered in ancient Greek sites on Sicily. The first is a curious shaft built in the foundations of the **TEMPLE OF OLYMPIAN ZEUS** at **AGRIGENTO**. During the excavation of the entrance to the cella, a square shaft with stone-lined walls was discovered between two of

³²⁵ The skyphos is dated to around 100 B.C. and the plate to the early first century B.C. A knucklebone from earlier excavations at Pergamon was inscribed with the name of the witch Circe, whose identity as a legendary magician may have alluded to the special, perhaps magical power of these objects. (Radt 1994 420, n. 45).

³²⁶ The oinochoe belongs in the early first century B.C. and the jug is also late Hellenistic. The lamp is earlier, perhaps dating to the second century (Radt 1994, 420 n. 46).

³²⁷ The lamp was dated to the first century B.C. and the bowl to the late Hellenic period (Radt 1994, 420 n. 47).

the large pilaster foundations.³²⁸ The shaft was plastered on the interior and contained river sand as well as fragments of animal bones and sherds of courseware.³²⁹

The function of this peculiar structure is not known, and subsequent studies of the architecture have not included this feature in discussions or on plans.³³⁰ A ritual function for the pit is indeed suggested by the presence of animal bones; Fuhrmann suggested that the shaft could have contained a foundation deposit.³³¹ A second (unlikely) possibility is that the structure would have served as the foundations for a (very small) stairwell, an architectural elaboration well-attested in many temples at Agrigento and elsewhere.³³² Unfortunately, this feature was not fully studied or drawn. It remains a possible, if hypothetical, possibility for a built foundation deposit in Sicily.

Other distinctive deposits were discovered in association with the fourth-century city walls at **GELA** (Capo Soprano). At points along the wall near the postern gate (fig. 116), three separate deposits were discovered, each consisting of a pyxis, a silver coin, and a lamp (missing in the third deposit) (fig. 117).³³³ The unusual contents and clear repetition of these deposits suggest a ritual context. Their findspots at the level of the wall's foundations make the interpretation as foundation deposits plausible.³³⁴ It is

³²⁸ Ricci says between two pilasters, Fuhrman reports between *every two* pilasters. Since only one such pit is described, we may rely on Ricci's description.

³²⁹ Ricci 1940/41.

³³⁰ For example, De Waele 1980, Abb. 1.

³³¹ Fuhrmann, 1941, 687-8. Ricci had already suggested a ritual function (1940/41, 36).

³³² The temple to Herakles and others at Agrigento have such staircases located just inside the entrance to the cella. Here, as elsewhere, the foundations for such an installation are large and conspicuous. No reconstruction with stairs has ever been suggested for the Olympieion.

³³³ Orlandini 1957, 72. The coins were all of the mid-fourth century B.C.

unusual, however that foundation deposits should appear in association with a city wall and not obviously in connection with a sanctuary.

Finally, a passing reference to a “cache” of coins discovered “in the original south wall” of the **BOULEUTERION** at **MORGANTINA** may prove an interesting find when the building is fully published.³³⁵ Until then, these finds cannot significantly contribute to this study.

Altars

Lastly, deposits from altars have been reported at several Greek sites and seem to resemble foundation deposits elsewhere. At **OLYMPIA**, Furtwängler reported a pitcher that was walled up inside the foundations of an altar to the south of the Heraion.³³⁶ No other details are given, and it is not known whether the jug, with missing (broken) neck, would originally have been partially visible or even in use (i.e. for libations). A similar deposit of a vessel “walled up” in the altar of Aphaia at **AEGINA** was also reported.³³⁷

In the **ATHENIAN AGORA**, the fill of the **ALTAR** of **APHRODITE OURANIA** yielded material which T.L. Shear identified as a deliberate deposit made during its reconstruction after the Persian sack of 480 B.C.³³⁸ The fill between the three extant slabs in the interior consisted mostly of ash and burnt animal bones, presumably

³³⁴ Orlandini 1957, 73.

³³⁵ Sjöqvist 1964, 141. The coins, all issued by Hieron II, date to the second half of the third century B.C.

³³⁶ Furtwängler 1890, 198 n. 1283.

³³⁷ Hock reports, citing personal communication with Furtwängler, “ein Gefäß unter ähnlichen Umständen [i.e. as at Olympia] eingemauert...” (Hock 1905, 78). This find is otherwise unpublished.

³³⁸ Shear 1984, 24-33, 38. The altar was reconstructed around 430-420 B.C., based on pottery found in the altar’s fill.

refuse from the sacrifices performed on the altar prior to its reconstruction.³³⁹ In addition, a pair of polished knucklebones (one inscribed with the letter “E”), two silver coins, an iron ring, and a small amount of pottery were discovered.³⁴⁰ Shear maintained that the ring and the coins were “deliberately buried” in the fill of the altar, though he is not explicit about this point.³⁴¹ This example, though cited as a foundation deposit by I. Mark,³⁴² remains an uncertain example of a Greek foundation deposit. The small number of finds within the altar’s fill makes it difficult to distinguish deliberate and accidental deposition.

Miscellaneous Deposits

Like the deposit at the Altar of Aphrodite Ourania, interesting deposits from elsewhere in Greece have been identified as foundation deposits. Unfortunately, they are accompanied with so little convincing contextual evidence as to make this identification impossible to maintain. A brief account of these deposits is given here since they appear in other publications as foundation deposits.

Excavation of the **HERÖON** at **LEFKANDI** revealed over a hundred non-structural pits scattered throughout several rooms of the large building (fig. 118).³⁴³ The pits were dug into leveled-out bedrock on which the heröon was constructed. While

³³⁹ A total of 1,369 bones were discovered in the fill. Analysis revealed that about 80% of the bones were from goats, while about 20% were from birds. Of the bird bones, 81% were doves. Both the goat and the dove were sacred to Aphrodite. (Shear 1984, 39; full faunal analysis by G.V. Foster appeared with Shear’s article).

³⁴⁰ Shear 1984, 31, 38. The coins were an obol and a triobol dated to the third quarter of the fifth century B.C. (ibid, n. 49).

³⁴¹ Shear 1984, 38.

³⁴² 1993, 52.

³⁴³ For complete list of non-structural pits, see Sackett 1993, 65-7, Table 4.

some pits may have been used for storage or other functions,³⁴⁴ in some places it was possible to determine that the pits had been covered entirely by the floor and were not in use after the building was erected.³⁴⁵

The contents of most of these enigmatic pits were not conclusive to their function. Most simply contained earth, sometimes mixed with ashes, and, very rarely, pottery sherds.³⁴⁶ Several rock-cut pits discovered in the East and Central Rooms, however, were more suggestive of ritual activity and displayed signs of burning. Adjacent to the clay ash container in the southeast corner of the Central Room, for example, 13 pits were discovered beneath the floor (fig. 119).³⁴⁷ Dug into the intensely scorched bedrock, the contents of these were primarily earth, clay, and disintegrated rock. Three pits also contained small fragments of burnt bone (all apparently unidentifiable except for a bone from a dog).³⁴⁸

The function of these pits remains unknown, but it is likely that they served some ritual purpose. L.H. Sackett suggested they may have contained offerings at the time of construction of the building, in the manner of a foundation deposit.³⁴⁹ While the pits were in fact in use before the building was constructed, a more plausible explanation

³⁴⁴ Especially those from the Apse Room. Popham 1993a, 26.

³⁴⁵ Popham 1993a, 12.

³⁴⁶ West Corridor pit 1 contained a stone button.

³⁴⁷ Popham 1993a, 15. The contents of the clay box were taken to represent the collected remains of the funeral pyre for the warrior (Popham 1993b, 99-100).

³⁴⁸ The pits are roughly circular, 9-16 cm. deep, and with a maximum diameter of 12-27 cm. (Popham 1993a, 15).

³⁴⁹ Sackett 1993, 74, also Ainian 1987, 55.

offered by Popham³⁵⁰ is that pits are related to the funeral pyre or other funerary ritual activity associated with the shaft burials in the center of the building. Since the clay ash box likely contained the remains of the warrior's funerary pyre, it is likely that the pits in question were also related to funerary rites.³⁵¹

The Lefkandi pits therefore provide no solid evidence for foundation deposits. In the context of this early building whose ritual character is only partially understood, these pits remain enigmatic in the history of Greek ritual practice.³⁵²

Another important early building in Euboea, the “Bay Hut” or early **TEMPLE of APOLLO DAPHNEPHOROS** at **ERETRIA** was also reported to have a foundation deposit associated with it. C. Bérard wrote that beneath the west anta of the apsidal geometric building, was discovered a “possible foundation deposit.”³⁵³ Unfortunately, Bérard does not provide any details about this find, and his observation is not repeated in the wealth of bibliography about this early building.

Another reported foundation deposit was discovered in connection with a cult site on the mountain of **TOURKOVOUNIA** outside **ATHENS**. On the eastern side of the northern peak stood thick, podium-like foundations for a small oval building which was

³⁵⁰ Popham 1993b, 99-100; Ainian 1997, 55. The scorched area seems not to have been confined to this area, but extended also to the northern part of this room as well as to part of the East Room, though not with the intensity as observed in the area in question (Popham 1993a, 12).

³⁵¹ This interpretation precludes the possibility that the building was originally erected for non-funerary purposes, since the funerary rituals took place before construction of the building (Popham 1993b, 100). Against this view is the presence of possible storage pits in the Apse room, suggesting the building was not originally intended for destruction (Calligas 1988; See Ainian 1987, 55 for summary of scholarship on function of the Tomba Building).

³⁵² See contra Weikart (2002, 37) who suggests that the clay box itself contained a foundation deposit. Although he contends the box was sunk into the floor, the excavation report makes it clear that the box extended at least 20 cm. above the floor level, a working installation of the Central Room (Popham 1993a, 15).

³⁵³ Bérard 1971, 65. The unexplained “foundation deposit” is also cited by Ainian (1997, 284).

first built in the late eighth century.³⁵⁴ Miniature vessels, drinking vases, and figurines discovered in the interior suggest ritual activity which lasted until the third century A.D. (with interruptions).³⁵⁵

On the southern peak were found scanty remains of a semicircular line of stones (fig. 120). Although a modern quarry and concrete wall have totally destroyed the western side, it seems likely the line would have continued in a circle with a diameter of around 14 meters. In places, an inner line of stones set on higher ground than those on the perimeter suggested the presence of a stone-lined tumulus.³⁵⁶ Inside the eastern section of the feature beneath the lowest course of the circular foundations, a ring of fieldstones surrounded a perfectly semicircular pit. The contents included only hard-packed ash with no inclusions.³⁵⁷ Lauter suggested that a sacrifice was performed at the inauguration of the construction.³⁵⁸ Although intriguing, the scanty remains of the curb make the identification of the pit as a foundation deposit extremely tenuous. In doubt, too, is Lauter's conclusion that the tumulus and oval building are related as a tomb site/heröon. While there is evidence of cult activity within the oval building, there is none to support any connection with the tumulus.

³⁵⁴ Lauter 1985. The building measures 7.6 m. by 11.5 m. For summary architecture and finds, see Ainian 1997, 87-8.

³⁵⁵ The nature of the cult is unknown, although chthonic aspects have been identified (Lauter 1985, 130 n. 162).

³⁵⁶ Excavation produced nothing which might indicate burials, however, nor can the structure be firmly dated (Lauter 1985, 41-5).

³⁵⁷ Ainian reports the presence of bones in the pit (1997, 88), but Lauter is explicit: "Ihr Inhalt bestand aus sehr fest verbackener, hellgrauer Aschenmasse ohne jedwede Beimengung verkohlter Teilchen, Knochen oder gar Keramik" (1985, 43).

³⁵⁸ Lauter 1985, 43.

Another possible foundation deposit was reported in association with the so-called “**DRAGON HOUSE**,” of **MT. OCHE** in Attica. This rectangular building, built of large, coarse marble blocks (figs. 121-2) belongs to a class of enigmatic buildings called dragon houses.³⁵⁹ Dragon houses are primarily located in mountainous areas in Attica and southern Euboea, usually near quarries. The function of these houses remains unclear, but there is evidence that at least some may have been used for cult purposes, perhaps by local quarry workers.³⁶⁰ Excavation of the Mt. Oche building yielded a hoard of cups which were observed to have been deposited upside down, and inside each other “in a recess of the inner foundations.”³⁶¹ While Carpenter and Boyd (hesitatingly) suggested a possible foundation deposit,³⁶² the lack of recorded stratigraphy makes the certainty of this identification impossible.

Summary and Conclusions

The foundation deposits presented here display significant variation in type of material and manner of deposition. All foundation deposits, however, display evidence of ritual activity associated with the early stages of a building’s construction. In some cases, the foundation deposit can be shown to have been made at a very early stage: at Samos (Temple D), the foundation deposit was made while preparation of the ground level was being undertaken, a scenario also hypothesized for the enigmatic pits beneath the Tomba building at Lefkandi. The discovery of burning directly on the bedrock

³⁵⁹ Moutsopoulos 1960, 163, Carpenter and Boyd 1977. For dragon houses in general, see most recently Reber 2001.

³⁶⁰ Carpenter and Boyd 1977, 205-9. C. Smith is investigating the role of dragon houses in “workers’ cult” in a forthcoming dissertation.

³⁶¹ Moutsopoulos 1960, 162-3; Carpenter and Boyd 1977, 209-10.

³⁶² Carpenter and Boyd 1977, 210.

foundations beneath Bau Z at Pergamon also may indicate ritual activity performed at a very early point during (even before?) construction.

The contents of the foundation deposits presented in this chapter generally consist of ceramic vessels. These are most often drinking and pouring vessels, including cups, bowls, kraters, jugs, and oinochoae, suggesting that ritual dining and/or sacrifice was an important part of the ceremonies performed during construction. Dining and drinking are, of course, Greek sacred activities par excellence, and their ubiquity in foundation rituals should not be surprising.

In some cases, the ceramics discovered within foundation deposits may be ritual or votive vessels created specifically for cultic use: this is certainly the case with the miniature vessels at Tegea and Argos, and possibly for the bowls from the foundation deposit in the Nordbau at Samos as well. Some of the ceramics may have been intentionally broken, as is surmised for some of the vessels in the Barbouna deposit at Asine. Here the vessels may have been intentionally halved before deposition, a condition also observed in a jug from a foundation deposit beneath Bau Z at Pergamon. This treatment, in the latter example at least, likely served to facilitate its function as a cover for the lamp. A bowl from the third deposit at Pergamon may also have been broken to accommodate the lamp it covered.

Ceramic vessels from foundation deposits could also be intentionally positioned. Among the ceramics from Bau Z at Pergamon, several vessels served as covers or lids for another. The foundation deposit at Minoa was reported to contain skyphoi that were stacked inside each other, as they were in the foundation deposits at the Kabirion at Thebes.

The ceramic evidence for ritual dining and/or sacrificial activity is compounded by evidence of burning and remains of sacrificial material preserved at some sites. The presence of ash/charcoal, bones, and (rarely) vegetable remains suggest that the vessels contained or were used in the consumption of sacrificial material of various kinds. After the ceremonies had ended, it was deemed appropriate to bury at least some, if not all, the utensils involved. At Minoa, the remains of the sacrificial animal(s) were deposited inside the skyphoi.

Unfortunately, the kinds of materials which the vessels may have contained points to a significant gap in the archaeological record. Detailed floral and faunal analysis for much of the evidence is lacking. In rare cases, such as at Yria and at the Temple of Apollo on Naxos, the skull of a bull and the skeleton of a ram reveal the identity of the sacrificial animals. In the latter example, the preservation of most of the skeleton indicates a holocaust sacrifice. The remains of vegetable offerings of some kind were identified elsewhere, including the “aromatic” substance at Gortyn and an oily substance at the Hellenistic foundation deposit at Nemea. That only two examples of vegetable offering appear in the archaeological record should not be taken as a reflection of actual practice, but as the result of poor preservation and/or excavation techniques.

The inclusion of older (defunct?) votive material in a foundation deposit is an interesting phenomenon already encountered at Delos and at the Temple of Aphrodite at Argos. Deposits such as these are often difficult to distinguish from dumps of “sacred garbage.”³⁶³ Foundation deposits which contain older votive material may have

³⁶³ See discussion in Appendix.

communicated a gesture of cultic continuity as the temple or sanctuary was being rebuilt (see Chapter VI for discussion).

The use of figurines, first encountered with the small sphyrrelaton figurines at Ephesus, is noted in the foundation deposits at the Nike Temple in Athens, at the Temple of Aphrodite at Argos, and the Archaic deposit at Nemea. Knucklebones were found in one of the deposits at Pergamon (as well as inside the Altar to Aphrodite at Athens). While these are traditionally gaming pieces, they also occur as votive objects, and may even have possessed magical properties.

An interesting aspect of several foundation deposits is the conspicuous use of sand. Sand is encountered in the foundation deposits at Naxos (Temple of Apollo) and at the Olympieion at Agrigento. The particular meanings associated with the use of sand are discussed in Chapter V.

Evidence from several sites suggests that more than one foundation deposit could be made within a single building. Several separate deposits were made at the Archaic Heröon at Nemea, and two jugs were discovered in separate corners at Building III/XXIV at Thorikos. Three deposits outside the city walls at Gela are striking for their distinctive repetition in the number and type of material deposited. The use of coins in foundation deposits is familiar from Eastern Greek practices, while the inclusion of a lamp seems to parallel only the deposits at Bau Z at Pergamon, two of which also preserved lamps.

Like those presented in Chapter II, the types of buildings in which these foundation deposits were discovered are primarily temples or shrines. At least two are hero shrines (Nemea and Eretria). Other kinds of sacred buildings, have yielded foundation deposits, including the treasuries or cult buildings in the sanctuary of Hera at

Samos (Temple D, Nordbau), and the temenos walls at Yria on Naxos and at Asine (Barbouna deposits).

The foundation deposits at Gela and at Pergamon may not necessarily have been made in association with sacred buildings. Although Bau Z at Pergamon was located next to two sanctuaries, its role was likely that of a prytaneion. Gela presents a unique circumstance in the inclusion of city walls to the known types of building which have yielded foundation deposits. The foundation deposits from these two structures are similar in both content and repetition.

The placement of foundation deposits within a structure could vary widely. Foundation deposits appearing in or next to corners (Gortyn, Thorikos) are again fairly common. The deposit at the Temple of Apollo on Naxos was discovered under an interior column. The deposit at Temple D on Samos illustrates that a foundation deposit could even occur outside the structure. Some foundation deposits were physically incorporated into the fabric of the structure (Minoa and Thorikos), while others were placed nearby, sometimes in foundation trenches (Tegea, Hellenistic Nemea, and Megalopolis).

Lastly, the methods of deposition encountered in these examples are similar to those of East Greek type foundation deposits. Foundation deposits were either made in pits or were actually walled up into the fabric of the foundations. Occasionally, the pits were sealed by a stone slab, as at Gortyn, Nemea (Hellenistic deposit), the Temple of Apollo on Naxos and probably the temple of Athena Nike at Athens. Deposits at Temple D on Samos and at Bau Z at Pergamon were covered by a circular stone packing. The Nike Temple deposit and that at the Olympieion at Agrigento are particularly elaborate.

At Athens, a statue base was re-carved with a deep cavity to hold a deposit of figurines, while at Agrigento a stone box was actually built within the foundations.

CHAPTER IV

GREEK FOUNDATION RITUALS: A RECONSTRUCTION FROM THE ARCHAEOLOGICAL EVIDENCE

The archaeological evidence illustrated in the previous chapters demonstrates that foundation deposits were regularly interred in Greek buildings—usually sacred buildings—from Geometric to Hellenistic times and in most areas of the Hellenic world.³⁶⁴ The diversity of the evidence is striking. Findspot, types of material used, and manner of deposition could vary widely among Greek foundation deposits, although distinctive characteristics have been observed along geographic lines.

In all their forms, foundation deposits were ritually interred as an act made in exclusive association with construction of sacred architecture. As is often noted, this phenomenon is not unique to Greece but is paralleled by well-known cultic traditions in other ancient Mediterranean cultures, where foundation deposits are regular and well-defined features of temples, palaces, and even tombs. These traditions and their relationship to Greek foundation rituals are considered in Chapter V.

In ancient Egypt and Mesopotamia foundation deposits were but one (albeit major) element in a wider set of ritual acts collectively known as foundation rituals. These rituals could involve a variety of other cult activities which were performed during

³⁶⁴ A notable exception is the absence of foundation deposits from the central and northern areas of Greece, regions which do not have a long tradition of monumental sacred architecture before the Hellenistic period.

construction of a sacred building. In Greece, evidence from the foundation deposits suggests that here, too, other types of ritual activities may have taken place during the beginning stages of construction as foundation rituals. Evidence of burning, together with the discovery of animal and vegetal remains, and the frequent presence of ceramic vessels (especially drinking and pouring vessels) and other objects within and around foundation deposits present the likely possibility that in Greece, the burial of foundation deposits was but a single element in a wider set of foundation rituals.

What kind of foundation rituals can be reconstructed for ancient Greece? Without the benefit of written evidence,³⁶⁵ the picture remains murky. Most of the archaeological evidence for Greek foundation rituals is gleaned from the archaeological context of Greek foundation deposits themselves, which occasionally preserve intriguing clues to other, more ephemeral ritual acts.

Because of the fragmentary nature of the evidence, the picture of Greek foundation rituals remains a partial one. The evidence considered here cannot provide a reconstruction of a uniform set of foundation rituals for the Aegean, but suggests possible aspects of what must have been a highly diverse cult practice. Indeed, one might expect as much variety in foundation rituals as is present in the foundation deposits.

Nevertheless, several persistent features observed in Greek foundation deposits invite consideration of Greek foundation deposits in a wider ritual context.

Pre-Building Rituals

The unusual discovery of charcoal, ash, and other signs of burning on the bedrock foundations of Bau Z at Pergamon indicate that some type of ritual involving a burnt

³⁶⁵ See Chapter I pp. 9-13 for discussion of literary evidence.

offering was performed on the building site before preparation for construction began. Although the fire was probably lit on the bedrock itself, some of its ashes were carefully deposited on the flat surface of a large rock—which had likely been moved to the site for this purpose—and covered by a roof tile. Although this example can be considered a foundation deposit since the remains were carefully and deliberately collected and sealed in a discreet area, it is clear that some unknown material was burned in association with it.

Other carefully excavated foundation deposits can be shown to have been made at a slightly later stage: during leveling or filling operations at the building site. This phenomenon is clearly illustrated at Ephesus, where a foundation deposit of 19 coins sealed in a jar (the so-called ‘pot hoard’) was buried in a layer of sand. This layer, likely a construction layer and not a flood stratum, was intentionally laid to facilitate an architectural renewal of the peripteros. The foundation deposit at Temple D on Samos was similarly buried in construction layers, as was the foundation deposit from the Temple of Hemithea at Kastabos, the Temple of Leto at Xanthos, and others.

These examples demonstrate that the burial of foundation deposits could be performed before even a single foundation block had been laid. In the Temple D deposit and at Bau Z at Pergamon, the discovery of ash and charcoal suggests that a burnt sacrifice of some kind may have been offered at this time. The drinking vessels in the Temple D deposit may also attest to ritual drinking or libation.

Sinn called the performance of ritual activity at a newly-prepared building site a “bauvorbereitend” sacrifice and likened it to the initial marking of the temple plan known

from Egyptian and Mesopotamian rituals.³⁶⁶ While there is no need to distinguish these “preparatory” rituals from other evidence for foundation rituals, it is important to recognize that certain elements of the foundation ritual—the placement of foundation deposits, and perhaps dining and drinking as well—took place before actual construction of the building had begun. In these cases, it is clear that the building site had already been designated for the sacred building (perhaps the plan had already been marked out) when the rituals were performed. It is even likely that the rituals served to establish or confirm the sacredness of the chosen site.

Another aspect of pre-building activity which may be connected with foundation rituals is the use of sand or other material in the preparation of the ground to receive the new construction. At Ephesus, the use of sand in the raising of the ground level of the peripteros may be associated with cult activity as well as having served a practical purpose. Compelling arguments for the cultic use of sand in the foundation of the Temple of Hera at Samos have already been made by Kienast and others, who noted that it is not only an important element of Egyptian foundation rituals but also a conscious reference to the Egyptian creation myth.³⁶⁷ In addition, the conspicuous use of clean sand as fill for foundation deposits at Agrigento and at the Temple of Apollo at Naxos may well reflect this association.

The layer of charcoal spread over the building site of Temple D at Samos may have conveyed a similar attitude towards other building materials and their magical/mythological properties. Scholars have argued that Pliny’s account of the layers

³⁶⁶ Sinn 1985, 136-7.

³⁶⁷ See Chapter II pp. 36-8 and Chapter III pp. 68-9.

of charcoal and fleece beneath the Artemision at Ephesus may have recalled a distinctive local custom or cult tradition rather than an actual innovation in architectural engineering.³⁶⁸ The leveling layers at Temple D may therefore present an illustration of this curious architectural practice.³⁶⁹

Animal Sacrifice

Other aspects of Greek foundation rituals are evidenced by the plentiful traces of burning in foundation deposits. Mixtures of earth, charcoal, and ash frequently fill Greek foundation deposits, suggesting that a fire was lit in connection with the foundation deposit. In some cases, such as at Gortyn, the heavy concentration of charcoal may indicate that a fire burned in the same pit that served to contain the foundation deposit, but this need not be the case. It is also possible that a fire was lit nearby (as at Bau Z at Pergamon and elsewhere), the charred remains of which were then buried in the foundation deposit.

In many cases, finds of charcoal and ash are accompanied by the remains of a sacrificial animal. This suggests that the performance of animal sacrifice and/or ritual dining was an important part of the Greek foundation ritual. Faunal evidence might be lacking from the sample of Greek foundation deposits because of a lack of archaeological rigor in both excavation and study, making it impossible to speculate further about the nature of the sacrifice. When recorded at all, the animal bones from foundation deposits are usually small, and sometimes show traces of burning. Most remain unidentified. Occasionally, larger bones have been discovered, including the rib of a goat (reported at

³⁶⁸ NH 2.201, 36.95. See Chapter II p. 37.

³⁶⁹ See Chapter V p. 187-8 for use of charcoal in Lydian architecture.

Delos), the skull of a bull in the Yria deposit on Naxos, and the almost complete skeleton of a ram at the Temple of Apollo on Naxos. In the case of the Temple of Apollo, a holocaust sacrifice may be inferred by the high temperature at which the animal was burned.

Vegetable Sacrifice

Evidence for the burnt offering of vegetable matter was preserved only at two sites. At the Temple of Athena at Gortyn, the excavators described an oily substance beneath the cover slab of the foundation deposit. Although it quickly evaporated on contact with the air, a small portion of an unknown aromatic substance was found still adhering to the lip of a miniature cup found within the deposit. In the Hellenistic foundation deposit at the Heröon at Nemea, an unknown “greasy” substance was discovered in a small krater.³⁷⁰

Both these examples suggest that some kind of organic material was placed within ceramic vessels offered as part of the foundation deposit. At Gortyn the vessel was a miniature cup. Miniature vases are often thought to have held small, sometimes valuable, offerings. It is likely that the miniature vessels from other foundation deposits—at Tegea, for example—also held some small amount of organic offering.

Libation/Drinking Rituals

The most characteristic feature of the second type of foundation deposit is the inclusion of drinking and pouring vessels. Some deposits have yielded fairly large assemblages of ceramics, such as the “drinking sets” of Deposit D at Asine and Temple D on Samos, which included both drinking cups and larger pouring/mixing vases. These

³⁷⁰ Chapter III p. 72 and p. 82.

collections suggest that drinking rituals may have taken place at the construction site. Deposit D yielded the largest number of drinking cups, presumably for use by at least a handful of participants.

Smaller ceramic assemblages are more usual in foundation deposits of this type. These range from several vessels to single pots and included drinking cups (skyphoi, kantharoi, kotylai, and kylikes), bowls, oinochoai, kraters, and amphorae as well as other shapes.³⁷¹ The vessels were usually deposited together, with the exception of the unique deposit in the Archaic heröon at Nemea, where a single vessel or a cluster of vessels were deposited separately in each construction layer of the tumulus.

The presence of a bronze phiale in one of the layers of the Nemean heröon is particularly evocative of libation, as is the kernos discovered in the Artemision deposit at Delos. No evidence of the liquids which may have been consumed or poured as libation is preserved, unless the “greasy” organic substances reported in the deposits at Gortyn and the Hellenistic Heröon at Nemea are the traces of oil or other liquid.

Foundation Deposits

Although animal and vegetable sacrifice, ritual drinking and/or libation may have been important aspects of Greek foundation rituals, most of the evidence for these comes from secondary contexts: the foundation deposits. Foundation deposits are the best-attested aspect of Greek foundation rituals. The evidence for foundation deposits has been discussed at length in Chapters II-III, yet their general characteristics may be reviewed here.

³⁷¹ More unusual shapes included a pyxis, lamps, and an aryballos.

Foundation deposits were interred in or near a sacred building at the beginning of construction (or during reconstruction).³⁷² Occasionally, the evidence pinpoints a specific moment for this activity: as previously discussed, the foundation deposits could be laid before any construction of the building was completed. Those deposits within wall or statue base foundations and those in foundation trenches similarly indicate a specific time during construction in which the foundation deposit was made. In all cases, the location of the foundation deposits at or below the level of the floor indicates that each deposit was made at a very early stage in construction, likely before much (if any) of the building's superstructure had been erected.

Foundation deposits could contain a variety of objects. In general, the contents of Greek foundation deposits seem to fall into two general types. The first type of foundation deposit (discussed in Chapter II) is found primarily in association with temples and sanctuary buildings in the sanctuaries of eastern Greece. These deposits form a particularly homogenous group and are distinguished by conspicuously precious materials (gold, silver, electrum, etc.) found among their contents. These items included coins, jewelry or other small, portable items, including figurines and appliqué. Coins are especially prevalent among eastern foundation deposits. These objects often differ very little or not at all from other votive material found in other contexts in the sanctuary, and are distinguished from votive gifts primarily by their careful assemblage and findspot.

³⁷² As has been shown in Chapters II-III, the building receiving foundation rituals need not be entirely new. Several foundation deposits (Sardis, Priene, Perachora, etc.) are connected with reconstruction projects or even the refurnishing of older buildings.

The second type of foundation deposit displays less homogeneity than the eastern Greek type but can also be characterized by its contents. This type is usually found on the mainland but also on the Aegean islands, Crete, and Sicily. These deposits are distinguished primarily by the inclusion of ceramics and the remains of sacrificial activity (evidence of burning, animal bones, etc.). As suggested above, many of the ceramics found in this type of foundation deposit may have been used in ritual dining or drinking. It seems to have been appropriate, therefore, to include those vessels used in ritual dining or drinking among the contents of the foundation deposit.

In other cases, it is clear that the ceramics were deposited not as ritual paraphernalia, but as containers for other offerings. Foundation deposits often contained miniature vessels which may have held offerings of aromatic material (incense or scented oils?) as they did at Gortyn. Miniature ceramics also appear in the deposits of Building C at Asine, the Temple of Athena Alea at Tegea, and possibly in the Nike Temple deposit at Athens. Although they are often considered “votive” gifts (they are ubiquitous in the Archaic and Classical Sanctuary of Alea at Tegea), miniature vessels may in fact have been deposited more for their contents than for their inherent value.

Other kinds of vessels were also used to contain various offerings: the krater from the Hellenistic deposit of the Heröon at Nemea was clearly used as a container for some unknown substance, and the skyphoi at Minoa were reported to contain the remnants of a sacrificed bird(?). The skyphos from Bau Z at Pergamon held five knucklebones and was sealed with a close-fitting plate. Certainly the undecorated pot from the pot hoard deposit at Ephesus was not so prized as the coins it contained. The presence lamps in several foundation deposits at the city walls at Gela and in Bau Z at Pergamon is difficult to

interpret: one may consider that rituals took place under cover of night, requiring artificial light.³⁷³

In some cases, the ceramics in foundation deposits were modified in a particular way, often through special arrangement. In the foundation deposit from the Mittlere Rundbau at Thebes, the kantharos was carefully placed within a one-handled bowl. The skyphoi at Minoa were also reported to have been stacked together. The two lamp deposits at Bau Z at Pergamon were covered by vessels, one of which (a jug) may have been intentionally halved. Such treatment is also evidenced at Asine, where the Barbouna deposits contained at least two vessels which had been intentionally halved before deposition. Besides the halved jug from a deposit in Bau Z at Pergamon, another bowl seems to have been punctured to allow the nozzle of the lamp to fit beneath it. In general, the ritual breaking of ceramic vessels is not widespread among Greek foundation deposits. Indeed they often yield ceramics in good states of preservation, indicating that most were deposited whole.

In addition to pottery, Greek foundation deposits often contained the remains of sacrificial activity (described above). Like the remains of drinking or libation rituals, it seems that the remnants of sacrificial activity, including ashes and charcoal from the fire itself, were also considered appropriate material to bury within the foundation deposit. In at least one case, a whole animal was burned as a holocaust offering, the majority of which was then interred within the foundation deposit. In another, only the skull (of a bull) was deposited.³⁷⁴

³⁷³ Lamps are also a prominent feature of Phoenician foundation deposits (See Chapter V pp. 171-4).

Other kinds of materials discovered in foundation deposits, though infrequently included, deserve consideration. The presence of older (even antique) material or “heirlooms” is a unique feature of the deposits from the Artemision on Delos and the Temple of Aphrodite at Argos. In the former, Mycenaean objects, likely chance discoveries from an unknown location, were interred within the foundations of the temple. In the Argive deposit, older votive material from the same sanctuary was collected and deposited in the new construction. The inclusion of older objects, especially defunct votive material from an older sanctuary, is not unknown in other ancient traditions, especially those of Mesopotamian origin.³⁷⁵

Figurines are also attested among the contents of Greek foundation deposits. Tiny sphyrrelaton figurines were included among the rich finds of the Earlier Basis deposits at Ephesus, including four standing females (perhaps priestesses or Artemis) and eight hawks.³⁷⁶ Part of a small ivory hawk-priestess statuette was also found. These statuettes differ in no obvious way from the finds outside the foundation deposits, and can be seen, but for the manner of their deposition, as regular votive offerings. In contrast to the Ephesian figurines, those discovered in the Nike deposit at Athens were relatively crude, handmade figurines with no distinguishing iconography. Figurines of this type were not found elsewhere on the Athenian Acropolis. Figurines of various types were also

³⁷⁴ Bulls’ skulls were also appropriate for Egyptian foundation deposits. See Chapter V pp. 134-5.

³⁷⁵ See Chapter V pp. 161-3 for discussion. The proto-Corinthian pottery discovered in the fourth-century the foundation deposit at Perachora may also have been “relics.” Their poor state of preservation, however makes this interpretation difficult to support.

³⁷⁶ See Jacobsthal 1951, 90-3 for discussion of the figurines from the foundation deposit.

discovered in the Temple of Aphrodite at Argos. Lastly, a figurine of a smiting god, of probable Levantine origin, was also recovered from the Delos deposit.³⁷⁷

The inclusion of five knucklebones in a deposit at Bau Z at Pergamon is totally unique among Greek foundation deposits. Usually gaming pieces, knucklebones may have had magical properties as well.

Foundation deposits are by definition made sometime during the beginning of construction, a quality best demonstrated by their position within a building. Foundation deposits are generally located next to or near the foundations of the building, and are occasionally interred within the foundations themselves (i.e. placed in gaps in the masonry) or in foundation trenches. Most foundation deposits were discovered at or below floor level, and some were discovered in leveling/preparatory layers of earth (see above). Corners of buildings were especially common locations for foundation deposits, but they could be found in a number of places, including next to thresholds and beneath or between columns. In the East especially, foundation deposits were located in or near the center or eastern part of the temple. In several cases, the cult statue base housed the foundation deposits. Other examples were found in an inner naiskos or simply in the middle of the cella floor.

Some foundation deposits were discovered in containers which could vary from the small jug containing the “pot hoard” at Ephesus to the large, stone statue base-turned-repository in the naiskos of the Temple of Athena Nike. A stone box similarly contained the foundation deposit at Agrigento. A more elaborate container, constructed from

³⁷⁷ This figurine may be contemporary with the Bronze Age material. See Negbi 1982 for discussion of EIA figurines from the Levant. For the inclusion of figurines in Near Eastern foundation deposits, see Chapter V pp. 152-7.

rooftiles and a small limestone wall, held the foundation deposits in the Temple of Apollo at Didyma, in which layers of earth and marble plates were arranged in alternating layers. Although not technically a container, a flat-topped stone served as the repository for ashes at Bau Z at Pergamon.

Several foundation deposits showed signs of having been sealed once their contents had been put into place. Because foundation deposits were never visible once the construction was finished, these measures can be seen as ritually closing, and not marking, the foundation deposit. A circular packing of stones sealed the Temple D deposit on Samos; a thick layer of stones similarly surrounded and covered a sacrificial site/foundation deposit beneath Bau Z at Pergamon. Stone slabs were frequently used to cover foundation deposits. The deposits at the Artemision at Delos, the Temple of Apollo at Didyma, Temple of Athena at Gortyn, the Temple of Apollo at Naxos, and the Hellenistic Heröon at Nemea were all covered by stone slabs. The deposit beneath the Temple of Athena Nike at Athens was also probably covered by a stone slab for which a shelf was carved into the stone repository. The ash deposit at Bau Z at Pergamon was covered by a terracotta roof tile. Two foundation deposits were discovered in “built” containers—the stone-lined shaft at Agrigento and the deposit at Didyma.

Archaeological evidence shows that Greek foundation rituals consisted of, at the very least, the ritual interment of foundation deposits. From evidence gathered from the position and contents of these deposits, however, it is possible to glean something of the other, more ephemeral ritual activities which may also have been performed during the initial stages of a building’s construction. Though incomplete, the newly expanded picture of Greek foundation allows for a comparative study with other ritual traditions

found in the ancient Mediterranean by which the many dark areas of these previously enigmatic rituals may be illuminated.

CHAPTER V

GREEK FOUNDATION RITUALS AND THE MEDITERRANEAN CONTEXT

From the fragmentary archaeological evidence, this study has shown that foundation rituals were practiced throughout the Greek world from the Early Iron Age to the Hellenistic period. Despite being regular features of Greek building practices, foundation rituals have received little serious attention in modern scholarship, most notably with respect to their meaning and function. Recently, Vesa-Pekka Herva observed that foundation deposits have not been treated in a meaningful way. Although writing about foundation rituals of Bronze Age Greece, he noted that the imprecise terminology often casually applied to these rituals contributes to a vague sense of religiosity and masks potential complexities.³⁷⁸ For example, foundation deposits are often summarily described as “sacred offerings,” or “votives,” terms which are rarely elaborated. The same criticisms can be made of scholarship dealing with post-Bronze Age foundation rituals. Whether a result or a cause of this vagueness, the interpretation of Greek foundation rituals has never been systematically attempted.

The goal of this chapter is to provide a footing for a critical evaluation of the function and meaning of foundation rituals in Greek society. Even with the newly-compiled evidence for foundation deposits, however, there is much about Greek

³⁷⁸ Herva 2005, 218. See also Chapter I pp. 16-7.

foundation rituals that remains obscure. Certain aspects such as the number, identity, and roles of the individuals involved in the rituals,³⁷⁹ or specific motivating factors for the ritual, for example, are extremely difficult to identify archaeologically, and ancient literary sources are silent on these matters.

As with any fragmentary body of evidence, the evaluation of the meaning and function of foundation rituals must be based on a contextual approach in order to address these questions. Greek foundation rituals have sometimes been considered through the lens of anthropological studies of building rituals from other cultures. The resulting interpretations, I argue, fall short of offering significant insights to Greek foundation rituals. First, these approaches consider only generalities rather than the specifics of the archaeological evidence. Secondly, they assume that Greek foundation rituals are expressions of local superstition, ignoring their historical context.

Several methodological approaches have been introduced in studies of Greek foundation rituals in an attempt to contextualize the diverse sets of archaeological evidence. These studies draw heavily upon anthropological and folkloric perspectives by which ancient Greek foundation rituals are compared to medieval and modern building sacrifices, which sometimes have been considered to be later manifestations of the ancient cult practice.³⁸⁰

Building sacrifice is a common theme in the poetic traditions of many cultures, including medieval and modern Balkan poetry. Several legends about the construction of buildings describe how resident spirits or *genii* of the surrounding landscape cause

³⁷⁹ Some of the ceramic deposits suggest the participation of several participants, however. See Chapter IV pp. 115-6.

³⁸⁰ See especially Lawson 1964 and Wells 1985.

disastrous ruin when not duly propitiated by the builders. One of the most famous of these accounts is the legend of the bridge of Arta in northwest Greece,³⁸¹ which tells of the nightly destruction brought about by the genius who resides in the river below. In this story, only the gruesome sacrifice of a human being (tragically, the master builder's own wife) could propitiate the demon of the river in order for construction to proceed. Other legends similarly report the sacrifice and walling up of innocents within a newly-built structure in order to keep evil spirits from destroying it.³⁸²

Though they offer interesting versions of a seemingly worldwide phenomenon, the legend of Arta and others like it are not useful analogies for the analysis of ancient Greek foundation rituals. Besides the anachronistic comparison of medieval and modern traditions to ancient ones, there is nothing to suggest that the two functioned in a similar way. Still, the function of modern building sacrifices. The latter are commonly assumed for ancient ones as well, resulting in the conclusion that ancient foundation rituals are performed to propitiate an evil spirit or to provide the building with a benevolent one. Instead of addressing the complex content and structure of Greek foundation deposits, this explanation links two disparate traditions solely on the basis that they are both cultic traditions associated with architecture. Other ethnographic investigations of foundation rituals have reinforced this commonly held opinion.³⁸³ Mauss and Hubert wrote that “In

³⁸¹ Lawson 1964, 263-4.

³⁸² For building sacrifices in modern literature, see especially Diplich 1976. Human sacrifice is a prevailing theme in these stories. The actual role of the victim has been interpreted in two ways: as either a sacrifice to the genius, or the victim might also become a benevolent, protective genius for the building. According to Lawson, animals could sometimes be substituted for human sacrifice, which then go on to become protective spirits for the building (Lawson 1964, 266-8). This recalls the modern Greek custom of sacrificing an ox, ram, goat, or cock as “peace-offering” to the genius of the land before a building is erected (idem, 264).

building sacrifice for example, one sets out to create a spirit who will be the guardian of the house, altar, or town that one is building or wants to build, and which will become the power within it.”³⁸⁴ In this case, the resulting conclusion is the same: a spirit is either propitiated or a new spirit created in order to protect the building from harm.

To be sure, the propitiation of gods or spirits was, in fact, an important motivating factor in the performance of foundation rituals in ancient as it was in modern times. This is especially apparent in certain types of Mesopotamian foundation deposits that contain figurines and other amuletic objects.³⁸⁵ Yet even a superficial examination of the evidence for Greek foundation rituals indicated a more complex ritual than is usually surmised. The possible role of ritual dining and drinking, for example, or an analysis of the kinds of materials deposited and sacrificed at a building site have gone unexamined in discussions of function and meaning in Greek foundation rituals.³⁸⁶

Anthropological approaches to Greek foundation rituals have therefore not yielded compelling interpretations of function and meaning because they ignore both the historical context and the specific character of the archaeological evidence. They assume that Greek foundation rituals are manifestations of relatively homogenous, worldwide phenomena propelled by motivations inherent all human religious systems.

A more instructive context for the study of foundation rituals is one which considers the contemporary traditions of foundation rituals known throughout the ancient Mediterranean, especially those in ancient Egypt, Mesopotamia, Anatolia, and the

³⁸³ See, for example, MacGillivray, Sackett, and Driessen 1999.

³⁸⁴ 1964, 65.

³⁸⁵ Nakamura 2004, and Ambos 2004, 70-1, 76-7, 79-80. See Chapter VI pp. 190-4 for discussion.

³⁸⁶ Including, for example, the recent dissertation by Michael Weikart (2002).

Levant. There are several reasons to prefer an historical approach to Greek foundation rituals. First, a comparative study with the traditions of the ancient Mediterranean is essential in helping to identify those aspects of ancient culture and religion which influence and are affected by the performance of foundation rituals. This approach offers a more complex view of the meaning of foundation rituals in ancient society, illustrating, among other things, that foundation rituals serve to construct a social and economic message about the architecture and its patrons.

Besides offering a comparative view which helps to establish the meaning and function of Mediterranean foundation rituals generally, a detailed examination of Near Eastern cultic traditions is relevant to this study because, as is argued in this chapter, Greek foundation rituals can be shown to derive, at least partially, from Near Eastern cultic traditions. Several scholars have suggested an eastern origin for Greek foundation rituals without precisely defining. Walter Burkert, for example, suggested that the foundation deposit at Gortyn may be taken as evidence that Near Eastern priests were active on Crete.³⁸⁷ The foundation deposit in the Tekke Tomb near Knossos has also been taken as evidence for the Near Eastern identity of its owner (see Appendix), and the use of coins in the Ephesian Central Basis deposit has been loosely compared to the foundation deposit at Im-shushinak.³⁸⁸

In this chapter I argue that Greek foundation rituals were not isolated cult practices, but belonged to a cultic *koiné* that existed throughout the ancient Mediterranean, especially in Mesopotamia and Egypt. I describe the position of Greek

³⁸⁷ Burkert 1983, 118.

³⁸⁸ Robinson 1951.

foundation rituals in the broader context of the ancient Mediterranean, drawing parallels and, in some cases, lines of influence that concretely relate Greek foundation rituals to those of the ancient Near East. The historical approach adopted in this chapter provides new information about the nature of foundation rituals in their Greek idiom and provides a solid footing whereby the function and meaning of Greek foundation rituals may be evaluated in Chapter VI.

Egyptian Foundation Rituals

Attested from Early Dynastic³⁸⁹ to Ptolemaic times, Egyptian foundation rituals are the oldest and best-known of those performed in the ancient Mediterranean. Egyptian foundation rituals and foundation deposits have been thoroughly examined by James Weinstein, whose unpublished dissertation remains the only comprehensive work on the subject.³⁹⁰ It is from this work that the following summary is principally derived.

Egyptian foundation rituals were performed at the construction sites of temples, tombs (both royal and private), palaces, forts, city walls, and other structures. These rituals, meticulously recorded in several sets of relief sculptures and inscriptions, were known collectively as the “stretching of the cord” and consisted of roughly eight elements.³⁹¹ Although certain aspects in the sequence of events changed over the

³⁸⁹ Although no archaeological evidence for foundation rituals can definitively be dated to the Early Dynastic period, the “stretching of the cord” ceremony (see below) is mentioned in two early texts from this period (Weinstein 1973, 24).

³⁹⁰ Weinstein, 1973. See also his useful entry in the *Oxford Encyclopedia of Ancient Egypt* (Weinstein 2001). Two important articles by Pierre Montet (1960, 1964) discuss the appearance of foundation rituals in texts and illustrations but do not consider the archaeological evidence.

³⁹¹ Two final rituals are also described in the sequence, but are best considered as rituals of consecration, not foundation rituals, since they take place after the temple is constructed.

centuries, the basic ritual cycle is most completely depicted on the walls of the second hypostyle hall of the temple of Horus at Edfu.³⁹²

According to the Edfu texts, the first two elements of the Egyptian foundation rituals are first, the king's exit from his palace and second, his arrival at the building site. In the Edfu reliefs, the king is preceded by standard-bearers and the god Inmutef and is accompanied by Horus and Hathor. A relief of the same ritual scenes at Karnak shows the king being greeted at the new temple site by Amun-Re, the god who would reside in the future temple. These two elements seem to have gained importance in the sequence of rituals only in the Ptolemaic period; they are rarely included in earlier representations.³⁹³ Nevertheless, they introduce an important aspect of all parts of the foundation ritual: the central role of the king. In these and in each subsequent ritual act, the king himself is depicted as the primary agent in the performance of foundation rituals, usually with divine assistance.

The third ritual act in the sequence is given the title "stretching of the cord" (*pd šs*) in the Edfu texts. It is the most important and most frequently represented of the Egyptian foundation rituals and lends its name to the entire sequence of foundation rituals. In this episode, the king fixes the four corners of the temple with assistance from Seshat, the goddess of writing and measurement. The king uses a tool called the *merkhet*, a notched ruler with two plumb-lines used for astronomical observations, to orient the building plan according to the appropriate constellation. Once the desired orientation of

³⁹² See Montet 1960 and 1964 for reconstruction of the Edfu foundation rituals. Other important reliefs can be found in the Ptolemaic temples at Dendera, Philae, and Kom Obo. It is important to note that these reliefs may specifically refer to foundation ceremonies performed for temples and other important buildings such as royal funerary complexes; foundation rituals for secular structures and rock-cut tombs may have appeared differently (Weinstein 1973, 6).

³⁹³ Weinstein 1973, 8. An early example of the first or second scene may be found on a door jamb of Khasekhemwy of the Second Dynasty at Hierakonpolis.

the temple was achieved, the king and the goddess use a mace to drive poles into the earth at the corners of the temple. Between these poles a cord is “stretched” to mark the limits of the temple, as is illustrated in a relief at Edfu (fig. 123). This ritual ends somewhat enigmatically with the “loosening of the cord,” an act which is not depicted in relief. Since it follows the marking of the general ground plan, it has been suggested that it refers to the marking of the various interior elements of the temple, such as the hypostyle hall, inner sanctuary, etc.³⁹⁴

The fourth ritual in the series is the excavation of the foundation trench by the king and is entitled “hoeing the earth.” In the accompanying relief sculpture, the king grasps a large hoe with both hands (fig. 124). The texts indicate that the king is to dig “as far as the limit of Nun.” Here, as in later scenes, the foundation ritual attempts to mimic certain realities described in the Egyptian cosmogony. Nun is the name of the primeval waters of chaos out of which the world was created. According to Egyptian creation myths, out of Nun rose the primeval mound of earth on which the first temple was built. In the context of the temple foundations, the “limit of Nun” may have been symbolized by the water table. This ritual is sometimes reflected in the contents of Egyptian foundation deposits (especially in the 18th Dynasty), which can include model hoes (see below).³⁹⁵

In the fifth scene of the foundation ritual sequence at Edfu, the king molds the first brick. In the relief sculpture, the king holds a brick mold in his left hand and smoothes the wet brick with his right (fig. 125). In the accompanying inscription, the

³⁹⁴ The name of this part of the rite may etymologically be related to the staking out of the ground plan (Weinstein 1973, 11-2).

³⁹⁵ Weinstein 1973, 417-8.

king is called the “Heir of Khnum,” the potter god, and molds four bricks, one for each corner of the temple. Although Egyptian temples were constructed primarily of stone, mudbrick foundations and temenos walls were common. The use of mudbrick may also be an archaizing feature, meant to reference earlier times when temples were made of brick and wood rather than stone.³⁹⁶ Like the previous scene, the making of the first brick is also represented in foundation deposits, which often contain a symbolic “first brick” from at least the Middle Kingdom to the Late Period.

The sixth foundation ritual is entitled “Pouring of the Sand.” In this scene the king pours sand from a large vessel into the foundation trenches (fig. 126). Sand was commonly used in the foundations of Egyptian temples, especially in the Ptolemaic period. Mudbrick case-work filled with sand provided the foundations for temples and other buildings at Tanis, Karnak, and elsewhere.

In the context of foundation rituals, however, sand was more than a functional building material: it held mythological associations as well. A. Jeffrey Spencer argued that in temple construction, the pouring of sand in the foundation trenches would have signified the primeval mound which grew out of the waters of Nun, and upon which the first temple was built.³⁹⁷ Like the fourth foundation ritual, “hoeing the earth,” the pouring of the sand established continuity between the primeval temple built by the gods and the new construction. Sand was also a purifying substance in ancient Egypt, and its use in foundation rituals would have signified the purification of the future temple site.³⁹⁸

³⁹⁶ Weinstein 1973, 13.

³⁹⁷ Spencer 1979.

³⁹⁸ Weinstein 1973, 420-3, 434; Ritner 1993, 155.

The seventh ritual in the sequence at Edfu is entitled “Placing the plaques of gold and costly stones at the four corners of the temple.” In the Edfu relief of the ritual (fig. 127) and in the several other versions that exist, the king is depicted holding a tray on which small plaques (either 17 or 24) are stacked. The accompanying texts report that the plaques were made of several different materials, including gold, silver, copper, lapis lazuli, and turquoise. Small plaques made of these materials and others have been found in numerous foundation deposits throughout Egypt, confirming the practice described here.

In the eighth and last ritual connected with the foundation of the temple, the king moves the first stone block into place with a lever (fig. 128). With the exception of the seventh foundation ritual, this episode and the preceding ones are ritualized building acts, made extraordinary through the express participation of the king and the gods. As in all the other foundation rituals, this act is performed by the king himself, who assumes the central role in the planning and construction of the temple.

The seventh foundation ritual described in the Edfu texts is the deposition of small plaques in foundation deposits. This practice is well-attested through archaeological discovery of foundation deposits, many of which contained plaques similar to those described in the ritual texts.

Foundation deposits in Egypt were made primarily in association with temples, but were also found in other types of buildings such as tombs, palaces, fortification walls, and other structures. They were usually found in pits dug near the corners of the temple (as the ritual texts indicate) but were also made on the axis of the building, at the corners

of individual halls, courtyards, or shrines, along the main processional routes, and beneath other important areas of the temple, such as pylons, columns, and obelisks.

Known foundation deposits date at least from the Old Kingdom and were continuously deposited in buildings down to Greco-Roman times.³⁹⁹ The first Egyptian foundation deposits consisted of simple pits containing food offerings and ceramics. At mastaba M3 of the Step Pyramid of Djoser at Saqqara, for example, a conical pit was discovered at three of the building's four corners. Two of these pits were empty, while the third contained an assemblage of "attached" miniature stone jars: one quadruple and several double vases.⁴⁰⁰ Miniature ceramic and stone vessels were common in other Old Kingdom foundation deposits.

Food offerings were also common in this period. A fifth-dynasty relief from the sun temple of Neuserre at Abusir depicts a double "Stretching of the cord" episode along with an unusual representation of laying foundation deposits (fig. 129). In this scene, the king kneels beside a U-shaped pit containing the heads of a bull and a goose or duck. The king holds a small jar in each hand. To the right, an outstretched hand belonging to a second figure (no longer preserved) holds a small cup from the left. Judging from other illustrations of foundation rituals at Edfu, this figure might be interpreted as a deity who assists the king in his duties.

Several foundation deposits confirm the practice of bovine sacrifice in foundation rituals. Bull skulls were discovered in a foundation deposit at the sixth-Dynasty Horus

³⁹⁹ An ambiguous pit from the Predynastic temple of Montu at Armant was originally published as a foundation deposit but has since come into doubt (Weinstein 1973, 23-4).

⁴⁰⁰ Weinstein 1973, 24-5 (corpus entry 1).

complex at Hierakonpolis and in two deposits in the Osiris temple complex at Abydos. A third deposit at Abydos contained a bovine skull and several leg bones.⁴⁰¹

Grindstones were also commonly deposited in foundation deposits from the Old Kingdom and continued to be a consistent feature of Egyptian foundation deposits through the Ptolemaic period. The earliest known example of a grindstone in a foundation deposit was discovered at the 4th-Dynasty valley temple of Huni at Meidum.⁴⁰²

Foundation deposits from the Middle Kingdom are more numerous and more complex than Old Kingdom deposits with respect to the structure and type of materials they contained. Found in temples, mortuary complexes, tombs (both royal and private), and fortresses, foundation deposits were usually made in large, usually square pits which were sometimes lined with bricks. These were occasionally covered with stone slabs, brickwork, or plaster.⁴⁰³ An important exception is the mortuary temple of Senusret II, where two foundation deposits seem to have been simply laid in the sand layer below the building (that is, in a leveling layer or in the sand-filled foundation trenches) instead of in pits.

Several foundation deposits discovered at the funerary complex of Nebhepetra Montuhotep II at Deir el-Bahri reflect some new trends in Middle Kingdom foundation deposits.⁴⁰⁴ They were found beneath the four corners of the temple platform, beneath

⁴⁰¹ Weinstein 1973, 28-9 (corpus entries 2-3). The earliest evidence for a bird sacrifice in an Egyptian foundation deposit is the 11th-Dynasty pyramid complex of Nehepetra Mentuhotep II (see below p. 136).

⁴⁰² Weinstein 1973 (corpus entry 2).

⁴⁰³ Weinstein 1973, 43-6.

the corners of the pyramid, the corners of the princesses' chapels, and the courtyard. Many of these contained materials familiar from Old Kingdom deposits, including ceramics (some of which held food offerings such as jujubes, barley, grapes, and figs) and the remains of bull sacrifices. In addition, the heads of "birds," were recorded in the pyramid foundation deposits. These were perhaps of ducks or geese as illustrated by the pre-dynastic relief of the foundation ceremony at Abusir.⁴⁰⁵

New kinds of objects appearing in Middle Kingdom foundation deposits were to become standard in Egyptian foundation deposits for many centuries. Among the more important offerings were mudbricks which contained a small inscribed plaque embedded within them. In the temple platform deposits of Nebhepetra Montuhotep II, three such mudbricks were discovered in each deposit; a fourth was solid. These mudbricks may well represent the building materials used in construction of the foundations, perhaps even the first mudbrick created by the king during the fifth foundation ritual.

The plaques contained within the mudbricks were made of copper (bronze?), calcite, or wood.⁴⁰⁶ Bricks from other Middle Kingdom foundation deposits contained plaques of faience and silver.⁴⁰⁷ Each plaque was inscribed with the name and epithet of the king, frequently following the standard scheme: "Beloved of (deity) X, lord/mistress of (town/temple/mortuary complex) Y."⁴⁰⁸ The tradition of inscribing plaques with the name of the royal patron remained a particularly prominent feature of later foundation

⁴⁰⁴ Weinstein 1973, 33-7 (corpus entry 5).

⁴⁰⁵ See above, p. 134.

⁴⁰⁶ Weinstein 1973, 34.

⁴⁰⁷ Weinstein 1973, 47.

⁴⁰⁸ In the case of Nebhepetra Mentuhotep, the inscription reads, "Beloved of Montu, Lord of the Theban Nome" (Weinstein 1973, 35).

deposits, although they eventually appear without the brick encasement. An important feature of these plaques is the range of materials used for them—the variety of materials used to produce these plaques increases in later foundation deposits.

Another new and fairly consistent element of foundation deposits from the Middle Kingdom and later is the inclusion of tools that might commonly be used for carpentry and stone work. These tools often appear in miniature form. The pyramid deposits at the Nebhepetre Montuhotep complex contained copper or bronze tools such as axes, adzes, and chisels. Like the mudbricks, the deposition of tools in foundation deposits seem to be representative of objects commonly associated with the construction of a building.

As in Old Kingdom deposits, grinders and grindstones appear in Middle Kingdom foundation deposits, although, like the building tools, they too appear in miniature form.⁴⁰⁹ Middle Kingdom foundation deposits could include other miscellaneous small items, including beads of faience, carnelian, and other materials.

The organization of objects within Middle Kingdom foundation deposits could be highly regular and in some cases, seemed to follow a specific depositional pattern. In foundation deposits from Lisht and Medamud, the ceramics were placed in the pit first, then the bull sacrifices, and finally the mud brick.⁴¹⁰ Sometimes the objects were grouped together by type and separated from other groups by a layer of sand or gravel.⁴¹¹ In addition, objects often appeared in specific multiples; four and nine seem to have been favorite numbers in foundation deposits.

⁴⁰⁹ Weinstein 1973, 50.

⁴¹⁰ Weinstein 1973, 49-50 (corpus entries 21a and 10b). In several deposits from the New Kingdom, bull sacrifices were placed last within the foundation pit (ibid, 114 n. 60).

⁴¹¹ Several New Kingdom deposits were also partitioned this way (Weinstein 1973, 50, 113).

There is an abundance of evidence for New Kingdom foundation deposits, especially during the great construction projects at Thebes and Abydos in the 15th and early 14th centuries B.C. New Kingdom deposits largely continue Middle Kingdom traditions, but with several new variations.⁴¹² New Kingdom foundation deposits also achieved a greater uniformity than earlier ones.

New architectural settings for foundation deposits appear in the New Kingdom: in addition to a building's corners and central axes, foundation deposits were buried under obelisks. Foundation deposits discovered near two statue bases at the Ptah temple complex at Memphis suggest that statues could also provide the place of deposition.⁴¹³ Foundation deposits also appear in the context of a royal palace for the first time at the North Palace of Amenhotep III at Malkata.⁴¹⁴ In this example, the foundation deposit (consisting only of ceramics), was laid in a foundation trench. The tendency to place foundation deposits in foundation trenches rather than in pits increased toward the end of the New Kingdom.⁴¹⁵

Familiar types of objects, such as ceramics, model tools, and alabaster ointment jars, beads, and food offerings (especially bull sacrifices)⁴¹⁶ continue to appear in New

⁴¹² The lack of foundation deposits from Amarna may indicate a suspension of foundation rituals during the religious revolution of Akhenaten (Weinstein 560).

⁴¹³ Weinstein 1973, 102-3 corpus entry 66a[1].

⁴¹⁴ Weinstein 1973, 103 corpus entry 73.

⁴¹⁵ Weinstein 1973, 250. Weinstein considered this development to indicate "indifference" to foundation deposits, noting also a general lack in quality of offerings in the Ramesside period, which tended "toward the mass production and use of monotonously uniform and crudely fabricated types of objects" (idem, 225, c.f. 250-1).

⁴¹⁶ The most common remains of bull sacrifices in foundation deposits from this period are the skull and/or foreleg (Weinstein 1973, 134).

Kingdom foundation deposits. New types of model tools which strongly reference that craft of the builder are also common, including brick molds, mallets, and mason's floats.

New types of objects commonly found in New Kingdom foundation deposits include baskets, mats and models of food offerings, including model heads of bulls and ducks, and also of lettuce, dates, and a variety of other animal and plant offerings. Other small objects, including knot-amulets, rings, beads, and scarabs are also common in foundation deposits from this period, especially in later New Kingdom deposits.⁴¹⁷

Inscribed plaques continue to be important objects in New Kingdom foundation deposits. Measuring from 8 to 14 centimeters in height, they carry the name of the building's patron and the god who favors him. Unlike in Middle Kingdom deposits, however, the plaques are not encased within mudbricks.⁴¹⁸ Smaller plaques of faience or steatite also carrying the name of the king are known from foundation deposits of this period.

In the later New Kingdom, assemblages of miniature plaques (both inscribed and uninscribed) of various materials, including faience, glass, copper or bronze, gold, silver, and electrum, are common. These interesting collections, such as that discovered in a foundation deposit of Nectanebo I at Tell el-Balamun (fig. 130) have been interpreted as samples or "swatches" of materials used in building.⁴¹⁹ Montet argued against this interpretation, noting that granite and limestone, the most common building materials in

⁴¹⁷ Miniature faience, glass, and metal objects form the majority of many 19th and 20th Dynasty foundation deposits (Weinstein 1973, 238).

⁴¹⁸ Weinstein considered that the absence of mudbricks might suggest the declining importance of the material for buildings of this period, especially for tombs in the Valley of the Kings (1973, 98 n. 17). Nevertheless, brick molds were still considered appropriate offerings, and the molding of the first brick remained a standard (if archaizing) feature of the foundation ritual.

⁴¹⁹ Wilkinson 2000, 39.

Egypt, are not represented. Instead, he claimed the materials were used for their protective qualities, observing that in certain ritual texts, the stones represent a supernatural force. In this way, the plaques can be seen as contributing to the safety of the building.⁴²⁰

Deposits from the Third Intermediate and Late Period Egypt are very similar to those of the New Kingdom, although there is less variety in the types of objects they contained. Construction in the Third Intermediate period was largely limited to temples in the Nile Delta during the reign of the 21st and 22nd Dynasty kings Psusennes I, Siamun, and Osorkon III. A foundation deposit of Psusennes I at Tanis contained objects familiar from New Kingdom deposits: four inscribed green faience plaques, four miniature copper or bronze plaques, four faience cups, beads, and ceramic vessels.⁴²¹ Four later deposits of Siamun contained similar collections, including copper or bronze plaques (again four per deposit),⁴²² a model mud brick, a bull sacrifice, and bird bones. In addition to these was a set of miniature plaques of gold, silver, and faience, alabaster (calcite), carnelian, turquoise and lapis lazuli.

Similar assemblages are found in deposits from the 26th to 30th Dynasties, the majority of which contained many or all of the following items: miniature inscribed stone and metal plaques, a rectangular faience plaque, a model bud brick, resin and ore samples, a grinder and grindstone, a bull sacrifice, and ceramics, most of which are

⁴²⁰ Montet 1960, 177.

⁴²¹ Weinstein 1973, 289-90, corpus entry 117a. None of the model tools usually encountered in New Kingdom deposits was found in Third Intermediate Period deposits.

⁴²² Weinstein 1973, 290, corpus entry 120a.

miniatures.⁴²³ Miniature plaques made of various materials were especially prominent from the 21st Dynasty to the Ptolemaic period.⁴²⁴ These plaques are surely “plaques of gold and costly stone” described by the Edfu texts and illustrated in its relief sculpture.

Ptolemaic foundation deposits resembled those of the Late Period with little variation and deserve only cursory mention here. Weinstein divided them into two groups: the first, Group I deposits, differs little from the deposits of the 26th to 30th dynasties. Group II deposits were found in association with Hellenized Egyptian divinities such as Sarapis, Harpocrates, and Aphrodite Ourania and consist almost solely of the now ubiquitous miniature plaques.⁴²⁵ These are made of an especially wide range of materials, including faience, turquoise, lapis lazuli, sandstone, agate, breccia, quartz, glass, gold, silver, iron, lead, copper or bronze, and perhaps even wood.⁴²⁶

Mesopotamian Foundation Rituals

Abundant archaeological and textual evidence attests to the regular performance of foundation rituals in ancient Mesopotamia from Sumerian to Parthian times. This evidence provides diverse accounts of prayers, incantations, sacrifices, the deposition of foundation deposits, and other ritual acts that accompanied the construction of temples, palaces, houses, and tombs. Unlike Egyptian foundation rituals, no unifying sequence of ritual acts seems to have governed the performance of foundation rituals in ancient

⁴²³ Weinstein 1973, 297.

⁴²⁴ Weinstein 1973, 291.

⁴²⁵ Weinstein 1973, 352. Foundation deposits from Ptolemaic Egypt essentially follow traditional Egyptian practices and therefore are not included among the corpus of Greek foundation rituals in this study. Important examples include deposits at the Serapeion and the Temple of Harpocrates at Alexandria, the Temple of Osiris at Kanopus, and the Panhellenion at Naukratis.

⁴²⁶ Weinstein 1973, 359.

Mesopotamia. Even the most regularly attested feature, the foundation deposit, could display remarkable variation.

In order to present the most pertinent evidence for this study, the following discussion is largely limited to the evidence for Mesopotamian foundation rituals from the first millennium B.C., or Assyrian and neo-Babylonian and related rituals. Early foundation rituals are briefly considered when relevant to the appearance of foundation rituals from later periods.

Two publications are of particular importance to the study of Mesopotamian rituals from the first millennium. The first is Richard Ellis' *Foundation Deposits in Ancient Mesopotamia* (1968), the only comprehensive work on Mesopotamian foundation rituals. Although primarily concerned with foundation deposits, Ellis attempts to illustrate a more complete picture of Mesopotamian foundation rituals by matching the archaeological evidence with some of the better-known ritual texts and building inscriptions.

The second major work is the recent book by Claus Ambos, *Mesopotamische Baurituale aus dem 1. Jahrtausend v. Chr.* (2004). This study is a thorough philological analysis of the ritual texts and inscriptions describing foundation rituals from Assyrian and neo-Babylonian contexts.⁴²⁷ In many cases, the ritual texts presented by Ambos provide important insights into those ritual aspects which do not appear in the archaeological record, such as omens and certain types of purification rituals. In some cases, Ambos' philological study can be used as a companion to Ellis' work in order to

⁴²⁷ Besides textual analysis, Ambos also gives thoughtful insight into the theological setting of foundation rituals and their intended function and meaning, topics which are revisited in Chapter VI.

illustrate a more complete picture of foundation rituals performed in ancient Mesopotamia.

Certain problems arise, however, when dealing with ritual texts concerning the construction of private houses. Literary evidence for foundation rituals associated with houses must be considered with caution and cannot automatically be used to complement evidence gained from foundation deposits. This is largely due to the fact that foundation deposits, either through chance preservation or other reasons,⁴²⁸ are primarily associated with temples and palaces, that is, works associated with the royal house. Many ritual texts clearly indicate a private context, however. Central to this issue is whether foundation rituals from private contexts can inform those performed in royal contexts. Ambos suggests that domestic foundation rituals are essentially poorer, smaller versions of royal ones, and can therefore be considered with other kinds of textual evidence.⁴²⁹ Against this view is Ann Guinan, who argued that domestic foundation rituals are distinct from royal ones, and are, in fact, deliberately set apart from them in order to underscore an essential social disparity between the common inhabitants of houses and those of palaces and temples.⁴³⁰ It is my view that the foundation rituals associated with royal building projects highlight the central role of the king and project his exclusive relationship with the gods.⁴³¹ The underlying messages of foundation rituals performed

⁴²⁸ That foundation deposits have primarily been discovered in association with royal building projects may be due to greater modern archaeological interest in these buildings than in domestic structures.

⁴²⁹ Ambos 2004, 37-9.

⁴³⁰ Guinan 1996. See below pp. 164-6 for discussion of the use of precious materials in domestic and royal foundation rituals.

⁴³¹ See Chapter VI.

in association with royal building projects are unique ones—politically motivated, and cannot have been fully replicated on a “lower scale” or private social context as Ambos suggests. Nevertheless, certain aspects of domestic foundation rituals may provide important parallels which add to our knowledge of the cultic atmosphere surrounding the act of construction in Mesopotamia.⁴³²

The ritual interment of foundation deposits during the construction (or renovation) of a new temple or palace is well attested in Mesopotamia from the Early Dynastic period to Hellenistic times. Although mentioned in texts, the best evidence for foundation deposits comes from archaeological discovery. As in ancient Egypt, Mesopotamian foundation deposits were associated with palaces, temples, and, less commonly, tombs. They were usually positioned at a level below (sometimes directly beneath) the foundations of the building, and at its significant points, including entrances, corners, and other important wall intersections. Foundation deposits were often deposited in a receptacle, such as a stone box, but in later periods they were more often inserted into the foundations with no special container.

Mesopotamian foundation deposits from all periods regularly contained tablets, perhaps the most recognizable and ubiquitous object from such contexts. These tablets often held “building inscriptions” which recorded the name of the king and the building

⁴³² In Greece, fundamental differences may similarly exist in foundation deposits from temples and those found in private contexts. The latter may include a certain class of ritual deposit known as “ritual pyres” or “ceremonial pyres” in various sections of fifth- to third-century Athens, including the Athenian Agora, the Kerameikos, the Areopagus, and the “Makrygiannis” plot of the Acropolis Metro Station excavations. These deposits have been tentatively identified as a kind of private foundation deposit associated with the construction or renovation of private houses or workshops. For full bibliography of the Agora deposits, see Rotroff 1997, and more recently, Rotroff and Jordan 1999, Eleutheratou 2000 and 2001. See also the forthcoming dissertation by C. Smith for alternative interpretations.

project in a formulaic manner.⁴³³ The tablets themselves ranged considerably in size and were made of various kinds of materials. Foundation deposits of the “peg-deposit” type from the third millennium B.C. (discussed below) usually contained one or more tablets of stone, metal, or both. These tablets were usually flat on one side and convex on the other, a scheme reminiscent of the plano-convex bricks used in early Mesopotamian architecture.⁴³⁴ Stone, metal, and clay tablets are also attested from Old Assyrian and Old and Middle Babylonian times. Though none was found in situ, their original use in foundation deposits may be surmised from both earlier and later evidence.⁴³⁵ Gold tablets were especially popular during Middle Assyrian and early Neo-Assyrian times. At the temple of Ištar at Assur, a gold tablet of Shalmaneser I was discovered with two small gold and silver tablets of Tukulti-Ninurta I.⁴³⁶

The foundation deposits of Tukulti-Ninurta I at the double shrine of Ištar Aššuritū and Dinītu at Assur are particularly complex and deserve special consideration here.⁴³⁷ Built into the foundations of the wall behind the dais of the Aššuritū shrine, the principal deposit (fig. 131) consisted of three enormous inscribed lead blocks (averaging 74 x 37 x

⁴³³ Uninscribed tablets were not unknown in Mesopotamian foundation deposits, however. Early Dynastic foundation deposits at Mari contained uninscribed tablets of lapis lazuli, white stone, and silver (Ellis 1968, 47-8). These are reminiscent of the small rectangular pieces of precious materials at Temple Oval at Khafajah (Ellis 1968, 76; see below pp. 151-2) which in turn reflect the “miniature plaques” common in Egyptian foundation deposits.

⁴³⁴ Frankfort 1963, 20-1. The plaques are usually interpreted as “models” of bricks, perhaps in reference to the ritual making of bricks by the king (see below pp. 166-8). However, the earliest known tablets such as those at Mari are flat on both sides and may not have originally been intended to imitate plano-convex bricks (idem, 78 n. 203).

⁴³⁵ Ellis 1968, 95-6.

⁴³⁶ Ellis 1968, 97-8. These tablets were likely buried by Shalmaneser III. See below, pp. 162-3 for the discovery and reburial of older foundation deposits (tablets and mudbricks).

⁴³⁷ Ellis 1968, 98-9.

37 cm.) which were placed side-by-side on the mudbrick foundations of the wall. On the middle block were placed two small inscribed tablets of gold and silver and a small square of sheet copper. On top of the lead blocks were strewn small fragments of stones, glass beads, and bits of twigs or wood.⁴³⁸ This layer was in turn covered by a large, inscribed limestone slab on top of which were found traces of grass mats and “more valuable trifles,” including beads and “what may have been bits of ivory.”⁴³⁹ On top of the bed of beads were laid one gold and one silver tablet and a square sheet of gold, which were then covered by a fourth lead block. A similar foundation deposit was discovered behind the dais in the cella of the Dinītu shrine.

A second foundation deposit in the Ištar cella was discovered just above the floor pavement beneath the dais. This deposit consisted of another pair of gold and silver tablets which rested on a “cushion” of beads and stone chips. The lowest course of the dais was also strewn with a layer of beads, a few “oddly shaped stone objects” and a lapis figure of Hittite workmanship.⁴⁴⁰ More inscribed lead blocks were found beneath two corners of the building and seem to have rested on layers of reeds and clay and on a layer of beads which had been laid over the stone foundations.

A third foundation deposit was discovered in a cavity in the brickwork behind the dais. This deposit contained five stone tablets which, although dating to the time of Adad-Nirari, were probably re-deposited by Tukulti-Ninurta.⁴⁴¹ The bottom of the cavity

⁴³⁸ The deposition of these materials in foundation deposits is known as “streugaben.” See below pp. 149-52 for discussion.

⁴³⁹ Ellis 1968, 98.

⁴⁴⁰ Ellis 1968, 98-9, 138.

had been scattered with beads upon which the tablets were set upright. The tablets were then covered with sand of a yellow-green hue, which the excavator suggested may have resulted from the pouring of oil or other organic liquids into it,⁴⁴² and then sealed with a mud mortar. Similar deposits containing tablets of Adad-nirari I were discovered within cavities in fortification and temple walls at Assur.⁴⁴³

A foundation deposit in the palace Sargon II at Khorsabad contained five tablets of gold, silver, copper, lead, and magnesite. These were discovered sealed within a stone box, a feature also common in later foundation deposits. An excerpt from one of these tablets refers to the tablets themselves: “I wrote my name on tablets of gold, silver, copper, tin, lead, lapis lazuli, and alabaster, and I deposited (them) in their (several palaces’) foundations.”⁴⁴⁴ A similar building inscription of Assurnasirpal II records, “On tablets of silver and gold I laid the foundation of the palace of Apqu to (be) my royal residence.”⁴⁴⁵

Perhaps contemporary with Sargon II’s foundation deposits are several similar deposits found in an Urartian temple at Toprakkale.⁴⁴⁶ In depressions under the corners

⁴⁴¹ The text of the tablets commands the finder to return “my inscribed monument” (i.e. the tablets themselves) to their places. Since they were discovered in a wall belonging to a reconstruction phase of Tukulti-Ninurta, “We may assume that Tukulti-Ninurta did as requested, and that the original position of the tablets was similar to that in which he left them” (Ellis 1968, 97).

⁴⁴² Ellis 1968, 99-100.

⁴⁴³ Ellis 1968, 97.

⁴⁴⁴ Ellis 1968, 101-2; Appendix A, 16. Another inscription from the palace names these materials and more, including white limestone, jasper(?), iron, and cuttings of fragrant plants (idem, Appendix A, 17).

⁴⁴⁵ Ellis 1968, Appendix A, 13.

⁴⁴⁶ The date of the temple is uncertain, but the city was founded in the late eighth century B.C. and destroyed in the seventh century.

of the square building, foundation deposits consisting of a square bronze plate and two small scraps of gold and silver were discovered. Neither piece was inscribed.

The practice of depositing tablets continued into the Achaemenid period. Several inscribed tablets made of stone, clay, and precious metals have been assigned to the reigns of Ariaramnes and Artaxerxes. Of these, only the gold and silver tablets from the foundation deposit of Darius II at Persepolis were found *in situ* (discussed below, p. 179-81). Many similar tablets are known in various museums and collections, though they are without provenience. Ellis notes, however, that all stone, metal and clay tablets with building inscriptions from the Isin-Larsa to the Achaemenid period were probably from foundation deposits.⁴⁴⁷

Building inscriptions were also inscribed on cylinders and related objects such as cylinders and prisms.⁴⁴⁸ These objects were regularly built into the walls of temples, sometimes buried in spaces reserved in the brickwork. Like other foundation deposits, cylinders and prisms were often discovered at the corners of a building, although most were found above the ground level rather than in the foundations. Since they seem to have been planted “at intervals” during the course of construction rather than strictly at its outset, Ellis is hesitant to identify these objects as foundation deposits. Nevertheless, the commemorative nature of prisms and cylinders parallels that of foundation tablets, and many findspots are comparable to those of other foundation deposits. Three cylinders of Nabopolassar were discovered in a layer of sand beneath the floor of the temple of Ninurta at Babylon, for example. A cylinder of Assurbanipal was re-buried with

⁴⁴⁷ Ellis 1968, 104.

⁴⁴⁸ Ellis 1968, 108-24.

foundation tablets of Nebuchadnezzar beneath the floor of a small room near the cella of Emah at Babylon.⁴⁴⁹

A major element in neo-Assyrian and Babylonian foundation deposits is the deposition of small pieces (e.g. beads, small jewelry, or amorphous bits) of metal, stone, and other material (sometimes called “*Streugaben*”) into the foundations of a new building. Both archaeological and inscriptional evidence attest to this widespread practice. A building inscription of Šamši-Adad I, for example, boasts: “The wall of the temple upon silver, gold, lapis lazuli and carnelian [I laid].”⁴⁵⁰ A similar claim is made by a building inscription of Shalmaneser I, which records: “On its foundations I placed stones, silver, gold, iron, copper, tin and aromatic plants, on (a layer of) aromatic plants. I mixed its plaster with oil, scented oil, cedar resin, honey, and ghee.”⁴⁵¹ An inscription of Sargon II reads, “I aligned its masonry on gold, silver, copper, precious stones, cuttings...”⁴⁵² Other inscriptions from Sennacherib, Esarhaddon, Nabopolassar, Nabonidus and Nebuchadnezzar II echo these sentiments.⁴⁵³ A particularly descriptive inscription of Sennacherib describes precious stones, metals, fragrant plants, and fine oils which were poured out onto the foundations “as if they were river water.”⁴⁵⁴

⁴⁴⁹ Ellis 1968, 111.

⁴⁵⁰ *Keilschrifttexte aus Assur historischen Inhalts* 1, No. 2, II 20-III 2 (cited in Ellis 1968, Appendix A, 6).

⁴⁵¹ *Keilschrifttexte aus Assur historischen Inhalts* 1, No. 13, IV 20-3 (cited in Ellis 1968, Appendix A, 11).

⁴⁵² Ellis 1968, Appendix A, 15.

⁴⁵³ See discussion in Ellis 1968, 134-5.

⁴⁵⁴ Ellis 1968, Appendix A, 19.

These inscriptions describe the types of precious materials that could be deposited among the foundations of the new structure, but they do not reveal the form they took. We have already observed similar inscriptions that refer specifically to tablets. While it is possible that these inscriptions, too, refer to the deposition of tablets, they also call to mind the materials present in the *Streugaben* type of foundation deposits so common in neo-Assyrian and Babylonian buildings.⁴⁵⁵

Particularly illustrative of the *Streugaben* type of foundation deposit are the complex deposits in the Ištar shrine at Assur mentioned above (pp. 145-7). Here bits of gold and silver (and ivory?), fragments of stones, glass beads, and twigs accompanied gold and silver tablets both behind and beneath each dais of the twin shrines. More beads were discovered in the lowest courses of the dais itself.⁴⁵⁶ A similar deposit was found in each of the twin cellas of the Nabu Temple at Assur, where bits of gold and silver were strewn over the lower courses of the dais, “most thickly towards the rear.”⁴⁵⁷

Another deposit of similar type was discovered beneath part of the city gates of Khorsabad. Here hundreds of small objects, including shells, beads, bits of stone, as well as seals, amulets and other objects were buried in a layer of sand.⁴⁵⁸ Shells frequently are included among the *Streugaben* foundation deposits of this period, though they are never mentioned in textual sources. Jewelry could also appear in large quantities, as in the foundation deposit discovered built into the wall behind the niche in Nabonidus’

⁴⁵⁵ For complete discussion of *Streugaben* foundation deposits, see Ellis 1968, 131-8.

⁴⁵⁶ Above, p. 146, n. 440.

⁴⁵⁷ Ellis 1968, 137. The construction dates to the reign of Sin-šar-iškun. The weight of the metal from both daises was more than a kilogram.

⁴⁵⁸ Ellis 1968, 133. Almost all the objects were pierced with holes.

Nunhursag Temple in Kish.⁴⁵⁹ Other deposits were discovered at the corners of the main ziggurat at Assur. Dating to the reign of Shalmaneser III, each followed the familiar pattern: a large number of beads and bits of iron and lead was deposited with a pair of inscribed gold and silver disks.⁴⁶⁰

An unusual foundation deposit perhaps dating to the reign of Sargon II was discovered in the antechamber of the northern sanctuary of the Nabu Temple at Nimrud. Here a small, square pit lined with clay was divided by a grill at the top into four chambers. In each chamber was found a small disk of gold or silver marked with intersecting lines.⁴⁶¹

Although best known from Assyrian and Neo-Babylonian buildings, foundation deposits with *Streugaben* were not unknown in earlier times. Ellis suggested Shalmaneser's deposits at the main ziggurat in Assur may have directly copied foundation deposits made by Šamši-Adad I almost a thousand years earlier, when the ziggurat was first constructed. Also found at the corners, the foundation deposits of Šamši-Adad consisted of a dense concentration (c. 1.50 m. in diameter) of small bits of shell and glass, frit, and stone beads which were laid directly on the bedrock (roughly six courses below the deposits of Shalmaneser).⁴⁶²

Another early deposit was discovered in the sand layer spread over the building site at the Temple Oval at Khafajah, where two deposits at each of the two preserved corners contained small rectangular bits of gold, copper, lapis lazuli, and slate. In one

⁴⁵⁹ Ellis 1968, 137.

⁴⁶⁰ Ellis 1968, 133.

⁴⁶¹ Ellis 1968, 141.

⁴⁶² Ellis 1968, 133.

corner, crystal and a millstone were found, while the other also contained a sample of carnelian, a nail, an “oar-shaped” tool of copper, and bronze wire.⁴⁶³

The presence of figurines in Mesopotamian foundation deposits is variously attested from the archaeological evidence. Among the earliest foundation deposits discovered in ancient Mesopotamia are the so-called “peg deposits,” a type primarily found in buildings from the third millennium B.C.⁴⁶⁴ Although these deposits were made in much earlier contexts than those principally relevant to this study, they illustrate the antiquity of the iconography of the king as a laborer, an important theme in other aspects of later foundation rituals.⁴⁶⁵

Peg deposits are foundation deposits containing one or more peg- or nail- shaped objects, usually of copper, that were thrust directly into the soil or into mud brickwork in the lower part of a building (fig. 132). Later peg deposits were deposited in capsules or boxes made of square baked bricks (fig. 133). Although the earliest “pegs” were aniconic (such as those from Mari, fig. 132),⁴⁶⁶ most examples incorporated anthropomorphic or zoomorphic figurines fashioned into a “peg” shape.⁴⁶⁷

The earliest peg-figurines represent the torso of a long-haired human with clasped hands; the body tapers into peg beginning at the waist. These were sometimes paired with a flat copper disk through which the peg could be fixed (fig. 134). In some cases,

⁴⁶³ Ellis 1968, 132.

⁴⁶⁴ The last known peg deposits were made no later than the mid-18th century B.C. (Ellis 1968, 70).

⁴⁶⁵ See below p. 166-9.

⁴⁶⁶ Ellis 1968, 47-8.

⁴⁶⁷ See principally Van Buren 1931 for peg figurines.

the pegs and coppers disks were inscribed with joining halves of the same inscription, which, like foundation tablets, stated the name of the ruler and the building project to be undertaken.

Later, the peg-figurines of the rulers of Lagash display a more complex iconography, and fall into three main categories. The first type depicts a bearded god wearing a short kilt and horned hat. In his hand he grasps the large peg which extends below the imaginary ground on which he kneels (fig. 135). A second type of peg-figurine is crowned by a reclining bull or lion), and the third type is a *canephoros* figure grasping a large basket on top of the head (fig. 136).

The meaning of the peg figurine is unclear. Several scholars have plausibly suggested that the “peg” aspect of these figurines is meant to represent nails such as would be used in hanging objects from mudbrick walls or in the construction of wooden buildings, although it is notable that the pegs maintain a vertical orientation.⁴⁶⁸ Van Buren argued that they represent doorposts.⁴⁶⁹ Other suggestions include the use of pegs in the marking out of the groundplan, the use of pegs in sealing business transactions associated with construction, and the use of pegs for magical purposes.⁴⁷⁰

Of these interpretations, the marking of the ground plan is intriguing because of possible interconnections with the first Egyptian foundation ritual, namely, the “stretching of the cord.” Pegs or poles such as these were almost certainly used in construction, as a hymn in Old Babylonian illustrates: “Let him lay out the temple

⁴⁶⁸ Even the peg-figurines which were not inserted into the earth were “propped up” in vertical position (Ellis 1968, 72).

⁴⁶⁹ Van Buren 1931.

⁴⁷⁰ See Ellis 1968, 77-93.

correctly; let him place the pegs.”⁴⁷¹ Ellis is reluctant to associate foundation pegs with surveying pegs, however, since not all pegs were discovered at corners or other important parts of the groundplan: a deposit at Telloh revealed foundation pegs arranged in concentric circles, for example.⁴⁷²

The anthropomorphic and zoomorphic peg-figurines are only slightly less enigmatic. Some figures seem to display an exaggerated bust, prompting some scholars to interpret them as female (as in fig. 136 right). Ellis vehemently argued against this position: “Probably all the figurines, both of Early Dynastic and later times, were meant to represent men; it is only unfamiliar artistic habits, and perhaps also different standards of manly beauty, that have created confusion among modern viewers.”⁴⁷³ Figurines with clasped hands, for example, imitate the gesture of the worshipper, and although some wear the horned hat of gods, others do not, and are likely to represent humans. The bovine figurine is not well understood, and perhaps represents an attribute of Ištar.⁴⁷⁴ The kneeling god peg-figurines are interesting because they seem to be holding the peg, perhaps even thrusting it into the ground. The latter interpretation provides an even stronger parallel to the first Egyptian foundation ritual, especially if the pegs can be identified as surveying tools.

More convincing is the interpretation of the canephoros type of peg-figurines. These seem to echo an iconographic theme well known in both later relief sculpture and

⁴⁷¹ Cited from Ellis 1968, 82.

⁴⁷² Ellis 1968, 51.

⁴⁷³ Ellis 1968, 73-4.

⁴⁷⁴ The connection of the bull with the goddess is not entirely satisfactory, and is not “intimate or specific” to her iconographic repertoire (Ellis 1968, 75).

in inscriptions, namely, the king carrying mudbrick and mortar for the fashioning of bricks. The ceremonial carrying of these building materials in baskets is illustrated in a relief now in the British Museum illustrating Assurbanipal carrying a basket on his head (fig. 137).⁴⁷⁵ An inscription of Nabopolassar clearly records this royal iconography: “I made an image of my royal person carrying a basket, and deposited it in the foundation platform.”⁴⁷⁶ Although it is impossible to know what sort of image is meant, whether relief sculpture, figurine, or some other kind of illustration, the iconography clearly echoes that of the canephoros peg-figurines and other similar representations.

Several later deposits containing figurines of various types have been tenuously connected with foundation deposits. In some cases, however, there is difficulty in identifying the deposit as a foundation deposit due to the ambiguous nature of its relationship with its associated building.⁴⁷⁷

More clearly associated with foundation deposits is a series of figurines depicting male gods which were deposited beneath the daises of several Assyrian and Babylonian temples.⁴⁷⁸ These handmade figurines, standing 10-20 cm. high, represent a bearded god wearing a long robe and frequently a horned cap. In one hand the god holds a staff while

⁴⁷⁵ A second stele of Assurbanipal and one of his brother, Shamash-shum-akin (also in the British Museum) depict a similar scene. The earliest known example of this sculptural motif dates to Ur-Nanshe of Lagash (see above).

⁴⁷⁶ Ellis 1968, Appendix A, 26.

⁴⁷⁷ Two “hoards” of uncertain function from the Inšušinak Temple at Susa, for example, contained statuettes of worshippers, tools, weapons, seals, and many kind of ornaments in addition to bits of gold and silver. One deposit seems to have rested on a pavement made of six glazed bricks and covered with another pavement. Ellis doubts their identification as foundation deposits, however, “because of the poor condition of the architectural remains and of the manner in which they were excavated and published.” The hoards are dated to the 13th or 12th century B.C. (Ellis 1968, 141-2).

⁴⁷⁸ Ellis 1967; Schmitt 2004. Ellis catalogued ten such figurines, nine of which had secure provenience from temples. All but one were discovered in Babylon (the ninth in Assur).

the other arm falls to his side (fig. 138). Most of these figurines were inscribed with the inscription, “Envoy of the gods, the commander, master of all the (divine) offices.” This is a title fitting for the messenger-counselor god Ninšubur/Papsukkal, with whom the figurines have been plausibly identified.⁴⁷⁹

Papsukkal figurines were deposited within the dais of a temple or on the axis of the temple, usually at the level of the foundations.⁴⁸⁰ At the Ninurta Temple in Babylon dated to the Nabopolassar’s reign, for example, a brick box was built into the bottom of the foundations, on axis with the main cella. In it was discovered a clay Papsukkal figurine holding a perishable staff with a gold ferrule. At the Babylonian temple of Gula, dated to the reign of Nebuchadnezzar II, a brick box containing a Papsukkal figurine with a gold wire staff was discovered at the bottom of the foundations of the dais. Another box with Papsukkal figurine dating to the reign of Nabonidus was discovered below the center of the dais of the latest phase of the temple of Ištar of Agade.⁴⁸¹

At least one ritual text confirms that Papsukkal/Ninšubur figurines were important aspects of foundation rituals in Assyria and Babylonia.⁴⁸² The text opens with the title: “tablet for that which one needs in order to lay the foundations of a house of god.” The text goes on to describe the deposition of a Ninšubur statuette in the foundations:

⁴⁷⁹ This identification was first suggested by Ellis in 1967.

⁴⁸⁰ Ellis notes that these figurines differ from the various types of apotropaic figurines commonly found in neo-Assyrian and Babylonian contexts, since the former were found at the bottom of the foundations (i.e. at the beginning of construction), while the latter were usually buried just under floors of buildings. For Assyrian apotropaic figurines, see most recently Nakamura 2004.

⁴⁸¹ Ellis 1967, 54-7. Two empty boxes near the throne base of Sargon at Khorsabad may have contained similar figurines.

⁴⁸² See Ambos 2004, 76-7, 155-66

Wenn du die Fundamente eines Gotteshauses anlegst/gehst du...zur
Tongrube./...Du sprichst folgendermaßen: ‘Tongrube, empfang deinen
Kaufpreis!/Am dritten Tage werde ich mit deinem Lehm *eine Statuette*
von Ninšubur herstellen!’/...Dort, wo du die Fundamente des
Gotteshauses anlegst, stellst du dich hin und sprichst folgendermaßen:/
‘Herr, deinen Wesir will ich herstellen!’ [my emphasis]

The text then describes the procuring of 16 other (unidentified) statuettes and the specific locations where they are to be buried. Two kneeling statues of juniper are to be deposited at the cella door; six statuettes of oak in the middle of the courtyard; two statuettes of cedar for the door of the treasury; three statuettes of pine for the middle door, and three statuettes of wax for the outer door. This text is not only interesting for its description of the confirmation of Ninšubur/Papsukkal figurines in foundation deposits, but also because it prescribes specific places and materials for each of the figurines. Although no such place is prescribed for the Ninšubur figurine mentioned in the text, the presence of such figurines along the central axis of the cella and/or beneath the dais was likely ritually prescribed as well.

In ritual texts sacrifice is very frequently paired with building activity of all kinds. Sacrifices offered to the building gods Kulla and Mušdamma are especially prominent, though a variety of other gods may also partake.⁴⁸³ One text calls for incantations and sacrifice in honor of the god Enmešara, the “ruler of the underworld and lord of Hades,” at whose command the foundations are made, standing firm like the god’s throne.⁴⁸⁴ Although the kinds of sacrifice are not always explicit, some texts describe the slaughter

⁴⁸³ See below p. 166 n. 518.

⁴⁸⁴ Text K48 + from “Series A” of Nineveh; cited in Ambos 2004, 70: “Das Fundament dieser Stätte möge auf deinen Befehl hin vor dir Bestand haben. Dieser Unterbau möge wie der Sitz deiner Herrschaft in der Unterwelt fest stehen.”

of a sheep, whose blood is to be poured into the foundations together with honey, milk, wine, beer, and oil. Another text from Assur records that two sheep were slaughtered over the foundations of a new room.⁴⁸⁵ Although these rituals are associated with the construction of houses, a letter to Esarhaddon confirms a similar practice in the context of a temple: the ram is to be slaughtered and its blood poured over the foundation stones.⁴⁸⁶ The *takpertum* ritual (below p. 161) also describes the slaughter of a sheep and a goat.

The archaeological evidence for ritual dining, drinking, and sacrifice in Mesopotamian foundation ritual is highly varied—a result, no doubt, of its highly fugitive nature. Nevertheless, archaeological evidence suggesting the performance of these activities (ceramics and animal bones) is known from foundation deposits of every period. Several late examples of possible libation/food offering merit brief mention here. A three-handled jar, whose interior walls had been stained by some liquid, was found in a balustrade wall of the northern ziggurat stairway at Ur dating to the time of Nabonidus and may have been used for libation.⁴⁸⁷ Similarly, Ellis thought the remains of a clay cup “hidden behind an orthostat” in the Palace at Nimrud may have also held a food or drink offering.⁴⁸⁸ An interesting deposit under the doorway to the cella of the Parthian Temple of Inanna at Nippur consisted of a skeleton of a lamb and a bird together with a pair of bowls, one acting as a cover for the other.⁴⁸⁹

⁴⁸⁵ Ambos 2004, 71.

⁴⁸⁶ Ambos 2004, 71.

⁴⁸⁷ Ellis 1968, 45, 130.

⁴⁸⁸ Ellis 1968, 130.

Animal bones are also occasionally present in Mesopotamian foundation deposits. These appear so sporadically in the archaeological record, however, that Ellis deemed animal sacrifice a relatively unusual and unimportant part of Mesopotamian foundation rituals.⁴⁹⁰ Nevertheless, a few examples of animal sacrifice have been recorded. The bones of an unidentified animal were found with bits of gold leaf under the throne base in Assurnasirpal's Northwest palace at Nimrud, and the entire skeleton of a gazelle was discovered under a corridor there.⁴⁹¹ In this last example, it is clear that the animal sacrificed was not a food offering since it was buried whole. As Ellis points out, "It seems that it was not the food value of the flesh, but the character of the animal when alive that interested the builder."⁴⁹² An early example of this kind of animal sacrifice includes the burial of the forelimbs of a leopard and lion at the White Temple at Uruk, a practice which may have reflected an association of temples with felines, especially as protective agents.⁴⁹³

In addition to foundation deposits and sacrifice, some of the most important elements of Mesopotamian foundation rituals included preparatory measures to be taken before the construction of a new temple (or renovation of an older one) could begin.

⁴⁸⁹ Ellis expressed some doubt that this deposit was buried at the time of construction (1968, 130). Note, however, the frequent use of bowls in this manner in Levantine foundation deposits (below, pp. 171-4).

⁴⁹⁰ Ellis 1968, 42. Several points must be kept in mind, however: first, that the remains of animal and vegetable sacrifice performed at foundation rituals may not always have been deposited into foundation deposits, and second, that the excavation and recording of such finds were not always a priority for archaeologists, especially in the late 19th and 20th centuries, when many of the buildings were excavated.

⁴⁹¹ Ellis 1968, 44.

⁴⁹² Ellis 1968, 42.

⁴⁹³ Ellis cites a seal roughly contemporary with the White Temple that shows a priest carrying the carcass of large feline towards a temple--that its paws are missing may relate to the unusual find at Uruk. Cylinder A of Gudea likens the new temple to a "panther clasping an angry lion." Elsewhere in the same cylinder, Gudea stations a young lion and young panther at the doors of the temple (Ellis 1968, 43).

These involve the selection and preparation of the building site to receive the new sacred structure.

Evidence from Mesopotamia from the third millennium B.C. attests to purification rituals designed to prepare the building site for construction. One interesting preparatory measure which may have paralleled similar Egyptian rites is the filling of foundation trenches with clean or ritually purified earth or sand. At the site of the Temple Oval at Kafajah, for example, a large hole (the size of the temple's temenos wall) had been dug to a depth of around eight meters and filled with clean sand as a foundation for the temple. Likely not a practical building technique, this work was probably ceremonial in nature.⁴⁹⁴ Ellis suggests that the use of sand in a temple's foundation functions as a purification rite—bringing in “clean” earth upon which to build the temple. A related sentiment may be illustrated in an inscription of Ur-Bau of Lagash, which records that the king dug a foundation trench and piled the loose earth which he then purified (perhaps with fire). He then returned the earth to the pit and proceeded with construction.⁴⁹⁵ There is also emphasis on “clean” earth in several neo-Babylonian building inscriptions, which may also indicate the performance of a purification rite.⁴⁹⁶ Like the layer of sand beneath the Early Dynastic Temple Oval, the layer of sand beneath the city gates of Khorsabad may have signified “pure” or “clean” earth brought to prepare

⁴⁹⁴ “There can be no doubt that this tremendous job was undertaken for religious reasons” (Ellis 1968, 10). Ellis suggests that these elaborate purification rites were particularly acute for temples built on sites which had been previously inhabited, noting that the Temple Oval in Khafajah, was built on land formerly used for domestic buildings. The interest in the purity of the building site may be expressed in an inscription of Tukulti-Ninurta II which describes the building of a temple “where no house or (other) dwelling was...” (cited in Ellis 1968, 12).

⁴⁹⁵ Ellis 1968, 10, Appendix A, 3.

⁴⁹⁶ Ellis 1968, 13-4. A building inscription of Nebuchadnezzar, for example, claims, “I surrounded it [the temple] with a thick revetment of bitumen and baked bricks. I filled its interior with clean earth” (cited in Ellis 1968, Appendix A, 28).

the building site.⁴⁹⁷ At Babylon, the temples of Ninurta, Gula, and Ištar of Agade all had thin layers of sand beneath the cellas or other parts of the temple.⁴⁹⁸ In addition, the frequent presence of sand in foundation deposits may further underscore the ritual significance of this material during construction.

Other ritual texts attest to the importance of purifying a building site through other means. A text of Nabopolassar records “I purified that place with exorcism, the art of Ea and Marduk.”⁴⁹⁹ Another ritual text describes an enigmatic purification ritual called the *takpertum* which is described as taking place next to the foundations of a newly-built structure. The *takpertum* is described as the ritual slaughter of a goat whose blood purifies the king; after this, the purification of the palace is achieved with a goat, a sheep, and other ritual paraphernalia.⁵⁰⁰

In addition to purification rites, other preparatory measures emphasize the importance of associating a new construction with an older one. These rituals sought to underscore physical continuity from old temple to new, a theme of great importance in the history of Mesopotamian architecture (temples were often rebuilt on the same site for centuries) and one which figures prominently in foundation rituals. This concept was expressed in a number of ways. Building inscriptions from many periods record the extraordinary lengths to which kings would seek out older foundations before building

⁴⁹⁷ See above, pp. 159-61.

⁴⁹⁸ Ellis 1968, 15.

⁴⁹⁹ Cited in Ellis 1968, 16.

⁵⁰⁰ Ambos 2004, 78-9.

anew. Inscriptions of the Neo-Babylonian periods are especially vivid in describing this procedure.⁵⁰¹ One inscription of Nabonidus claims:

I [Nabonidus] discovered its ancient foundation [of Ebabbara, temple to Šamaš in Sippar] which Sargon, a former king, had made. I laid its brick foundation solidly on the foundation that Sargon had made, neither protruding nor receding an inch.⁵⁰²

Elsewhere Nabonidus denigrates an earlier king who, having failed to find these foundations, built a temple “not worthy of his [Šamaš] lordly rank” which consequently fell into ruin.⁵⁰³ An inscription of Nebuchadnezzar echoes those of Nabonidus:

At that time for Lugal-Marada, my lord, I carefully searched for the ancient foundation of his temple in Marad, the old foundation of which no earlier king had seen since the old days. I laid its foundation on the foundation of Naram-Sin, my distant ancestor. I did not alter his inscription, but deposited my inscription together with his. I laid its (the temple’s) foundations on the foundation of Naram-Sin, king of Babylon.⁵⁰⁴

As this inscription indicates, the desire to achieve continuity with more ancient religious structures was not only expressed through the discovery of older foundations, but also through the finding and re-depositing of the ancient “inscription,” or foundation deposit tablet. This activity is described in a cylinder of Nabonidus, who claimed “I deposited with my (own) inscription an inscription of Hammurapi, an ancient king, (written) on an alabaster tablet which I found inside it (a ruined temple); I placed (them) forever).”⁵⁰⁵ Another inscription describes Nabonidus’ discovery of a building inscription of Naram-Sin, which he deposited together with his own inscription after

⁵⁰¹ Nabonidus and Nebuchadnezzar claim to have rebuilt several temples on older foundations. The excavation of one of the temples named (the temple Eanna of Ištar in Uruk) confirms this claim: “There the Neo-Babylonian reconstructions do appear to have kept to the outlines of earlier versions, and to have used the wall-stumps of Sargon II as foundations...” (Ellis 1968, 15).

⁵⁰² Cited in Ellis 1968, Appendix A, 33.

⁵⁰³ Cited in Ellis 1968, Appendix A, 31.

⁵⁰⁴ Cited in Ellis 1968, Appendix A, 30.

⁵⁰⁵ Ellis 1968, Appendix A, 32.

anointing it and offering sacrifices.⁵⁰⁶ I have already mentioned examples of the reburial of older building inscriptions by Tukulti-Ninurta (who reburied of tablets of Adad-Nirari) and by Shalmaneser III (who re-deposited tablets of Shalmaneser I and Tukulti-Ninurta I).⁵⁰⁷

This “antiquarian” interest in foundation rituals sometimes extended to the discovery of the so-called “first brick,” which, as is discussed below, is special brick ritually made and deposited by the king.

When the wall of the temple falls into ruin, in order to demolish and refound that temple, the diviner shall investigate(?) its site... The builder of that temple shall put on clear clothes and put a tin bracelet on his arm; he shall take an axe of lead, remove the first brick, and put it in a restricted place. You set up an offering table in front of the brick for the god of foundations, and you offer sacrifices.⁵⁰⁸

Just as older temple foundations were respected and even sought during rebuilding, this ritual similarly honors the older temple by focusing ritual attention on a representative of its structure, a single brick.⁵⁰⁹ This text above is part of a ritual known as the *kalû* ritual, a complex series of rites which occurred during the demolition of a temple in order to make way for the new construction. The purpose of the *kalû* ritual may have been to relieve tensions with the divine occupant of the older building by bridging the gap between old and new structures, thus avoiding “any misunderstanding with the god as to

⁵⁰⁶ Ambos 2004, 75 n. 535.

⁵⁰⁷ Above, p. 145 n. 436.

⁵⁰⁸ Cited in Ellis 1968, Appendix A, 43.

⁵⁰⁹ The translation “first brick” can also be understood as “earlier brick” (Ambos 2004, 77). It is not clear how the first brick would be recognized by a later builder, and such an object has never been identified archaeologically. According to inscriptional evidence for the ritual making of the first brick, however, it would presumably have been distinctive through the precious materials mixed in with the clay (see below pp. 167-8).

why his house was being demolished and his services interrupted.”⁵¹⁰ This complex ritual involved lamentations sung by the *kalû* singer, who describes the state of emergency that befalls a sanctuary from which a god has left.⁵¹¹

Ambos recently argued that the discovery of older foundations during construction was, despite the tone of the building inscriptions discussed above, not a circumstance immediately to be wished for, but had the potential to work destruction on the new building and its owner.⁵¹² An important series of ritual texts called the *šumma alu* describes a terrible fate for those who happen to discover gold, silver, bronze, ghee, or aromatic plants (that is, materials used in foundation deposits and the making of the first brick) during the construction of a house.

The texts warn: “If a man discovers gold while demolishing a house or in the old foundation, the building of that house is not approved by a god; the owner of the house will die.” Another passage predicts that “If a man discovers copper while demolishing a house or in the old foundation, the owner of the house will become rich, acquire fame, and (then) become poor.”⁵¹³ Other passages describe ruin, poverty, and death for the owner and his family following the discovery of foundation deposits.

Although the *šumma alu* texts refer explicitly to the building of private houses, Ambos claims that construction of temples, too, was susceptible to these dangers. Ambos argues that the materials used in foundation deposits acquire magical and potentially destructive properties when deposited. Upon later discovery, the services of a conjurer

⁵¹⁰ Ellis 1968, 13.

⁵¹¹ For a full discussion of the ritual laments, see Ambos 2004, 53-7.

⁵¹² Ambos 2004, 29-36.

⁵¹³ Freedman 1998, 85.

were required to make them benign. As evidence of this, Ambos cites another ritual text which prescribes that a combination of oil, honey, milk, wine, stones, silver, gold, and perfumed plants (a combination usual in foundation deposits) be discarded into the river, presumably to expunge their destructive power from the building site.⁵¹⁴

This interpretation is difficult to reconcile with the royal building inscriptions described above, which record the boastful proclamations made by kings who find (and even seek) old foundation deposits when constructing a new temple. Such building inscriptions suggest that this discovery is, in fact, to be desired and not feared.⁵¹⁵ A. Guinan resolves this difficulty by noting that the discovery of precious materials is an indication of a temple or other royal structure.⁵¹⁶ The danger associated with this discovery as described in the texts of the *šumma alu* series would only occur when the new construction is a private house. Thus the negative aspects of this discovery therefore reveal a taboo against the building of profane (non-royal) structures on land previously occupied by royal building projects. The strict separation of royal and private architectural features is emphasized elsewhere in the ritual series by pronouncing inauspicious the domestic use of architectural features normally associated with a king's building activities, such as high parapets and lavish exteriors. As the deposition of extravagant foundation deposits is also a recognizable aspect of royal building projects

⁵¹⁴ Ambos 2004, 69-70.

⁵¹⁵ Although an inscription of Nabonidus vividly describes the king's trepidation at the construction of a temple, these fears are not caused by discovery of foundation deposits, but illustrate a general fear of "making a false step" (Ellis 1968, 7): "I was afraid of their august command; I became anxious and fearful, anxiety overcame me, my face was haggard. I was not neglectful, I was not careless, I did not relax" (cited in Ellis 1968, Appendix A, 37). A second inscription of Nabonidus similarly describes the "heart-pounding" fear the king felt at rebuilding the ruined temple to Šamaš (Ambos 2004, 54).

⁵¹⁶ Guinan 1996.

and strictly the prerogative of kings, so does their rediscovery in a domestic context have severe negative implications for the building and its owner.

In Mesopotamia the making of mudbricks for the construction of temples was, like the fifth Egyptian foundation ritual, “surrounded with ceremony.”⁵¹⁷ Brick-making was the trade of the god Kulla, whom Ea created from clay in order to rebuild temples.⁵¹⁸ In addition to brick-making, his name may have been synonymous with masonry as well as with building rituals in general.⁵¹⁹

In temple construction, however, the making of bricks was frequently associated with the king, much as it was in ancient Egypt. According to one Babylonian text, “The king makes the bricks in the brick-mold; all the people build their houses.”⁵²⁰ Brick-making was an important ceremonial duty of the king during the construction of a temple from very early times. An inscribed cylinder (Cylinder A) of Gudea describes the king carrying a basket and brick mold into the temple, where he then molded and prepared a brick. When it was finished, he lifted the brick and carried it to his people.⁵²¹ Gudea is described as a triumphant temple-builder, carrying the basket of mud on his head “like a holy crown.” A relief from Telloh now in the Louvre depicts Ur-Nanshe carrying a basket on his head in front of his family (fig. 139).

⁵¹⁷ Ellis 1968, 17.

⁵¹⁸ See Ellis 1968, 18-20 and Ambos 2004, 67. Esharhaddon claimed to have sacrificed to Kulla during a construction project in Babylon. An inscription of Sargon II records sacrifices made to him and Mušdamma, the master builder god.

⁵¹⁹ Ellis 1968, 18; Ambos 2004, 3.

⁵²⁰ Cited in Ellis 1968, Appendix A, 44.

⁵²¹ Cited in Ellis 1968, Appendix A, 4.

Later Assyrian and Neo-Babylonian inscriptions also describe rulers who ceremoniously mold bricks for their temples and palaces. Esarhaddon records his participation in the rebuilding of a temple: “I made a brick with my clean hands. I showed the people the might of Aššur, my lord. I put a basket on my head and carried it myself....For my health and long life I carried the first brick on my neck.”⁵²² Similar inscriptions are known from the reigns of Assurbanipal, Nabopolassar and his sons. The tradition of brick-making by the king continued even as late as Antiochus I, who recorded, “When I wished to build Esagila and Ezida, with my clean hand I molded the bricks for Esagila and Ezida with fine oil in the land of Hatti.”⁵²³

In most of the inscriptions describing the king in his brick-making role, references are made to mixing the mortar with oil, honey, and other fragrant substances. Gudea is described as having sprinkled the stacks of bricks with oil.⁵²⁴ Also mentioned is a paste made of various plants and woods, presumably also for mixing into the brick mortar. An inscription of Irišum I states “Into all the walls I mixed ghee and honey.”⁵²⁵ Assyrian and Neo-Babylonian texts similarly describe the mixing of mortar with perfumed oils, honey, ghee, cedar oil and resin, cuttings of fragrant substances, beer, and wine.⁵²⁶

Pictorial representations of brick-making kings corroborate the textual evidence. Two stelai of Assurbanipal (fig. 137) and one of Šamaš-šum-ukin now in the British

⁵²² Cited in Ellis 1968, Appendix A, 19.

⁵²³ Cited in Ellis 1968, Appendix A, 42.

⁵²⁴ Cylinder A (above, n. 521).

⁵²⁵ *Keilschrifttexte aus Assur historischen Inhalts* 2, No. 11, 26-9 (cited in Ellis 1968, Appendix A, 5).

⁵²⁶ Ellis 1968, 30. Notably, the same kinds of materials appropriate for mixing into brick-mortar are similar to those appropriate for foundation deposits.

Museum depict the kings as *canephoroi*. This iconography is vividly explained in an inscription of Nabopolassar: “I bent my neck before my lord Marduk. I girt up the skirts of my royal garment and carried bricks and clay on my head.”⁵²⁷ In addition, the *canephoros* peg-figurines found in early foundation deposits have been identified as miniature representations of the king in his brick-making role, attesting to the longevity and centrality of this theme in Mesopotamian foundation rituals (above, pp. 154-5).

There is some evidence that rulers also (at least symbolically) participated in the other construction activities, especially the laying of the foundations. In Gudea’s Cylinder A, the king personally laid the foundations and erects the walls. Esarhaddon also took an active role in construction: ‘I laid its foundations; I made its brickwork solid.’⁵²⁸ Nabopolassar records, “I had my second-born, my favorite, wield the hoe and the spade.”⁵²⁹ An inscription from Sennacherib records the king digging a foundation trench which reached the groundwater.⁵³⁰ That the trench should reach groundwater makes an interesting parallel to Egyptian foundation rituals where the king similarly reaches the water table (above, p. 131). It is not certain whether these waters have similar mythological associations as the Egyptian Nun, however.

Another possible and often overlooked aspect of Mesopotamian foundation rituals is the recital of public speeches. B.M. Porter suggested that the text of building inscriptions recorded on tablets (as well as on cylinders, prisms) may have been read aloud in a speech or announcement before they were interred as foundation deposits.

⁵²⁷ Above, p. 155 n. 476.

⁵²⁸ Above, p. 167, n. 522.

⁵²⁹ Above p. 155 n. 476.

⁵³⁰ Ambos 2004, 68.

These speeches would have served to describe the building project and its royal patron to the public as “Effective vehicles for delivering the king’s message to his people in verbal form before the burial of the documents for audiences in the future.”⁵³¹ In a similar vein, Ambos identified another text—a poem—which may have served as a public announcement of the king’s building projects.⁵³²

As mentioned above, the series of ritual texts known as the *šumma alu* records a important series of omens, which, although in the context of private house construction, could be observed during the initial stages of construction, including during the brick-production, during the demolition of an older structure, and during most other phases of construction of houses.⁵³³ Through the observation of omens, humans could gauge divine disposition toward the intended building project, and thus determine the health of both the structure and its owner.⁵³⁴ Although the observation of good and evil omens may not represent a foundation ritual in the strictest sense, the sentiments conveyed by these texts illustrate that the approval of the gods was of paramount importance during almost all stages of building, not only for the success of the building project, but for the owner of the building as well. They also indicate the countless ways in which a building project was susceptible to non-architectonic dangers which no doubt produced grave uncertainty as to whether the project was indeed favored by the gods. Ambos argues that foundation

⁵³¹ Porter 1993, 113.

⁵³² Ambos 2004, 75. The text was discovered in a house in Assur which apparently belonged to a family of *nāru*, or priestly singers whose participation in foundation ceremonies is documented (but not well-understood) in several texts (see idem, 13-4).

⁵³³ Guinan 1996; Ambos 2004, 29-36.

⁵³⁴ Common predictions included long life/early death, luck/misfortune, stability/instability, or loss of property/prosperity.

rituals are linked to the observation of omens as a means by which evil could be prevented, not simply recognized. While most omens described in the *šumma alu* concern the building of a house, omens could also be observed during the construction of sanctuaries and palaces. The collapse of a temple, for example, was considered to be an evil omen which expressed the displeasure of the gods with some aspect of its maintenance or reconstruction.⁵³⁵

Hittite Foundation Rituals

Very few foundation deposits have been discovered in association with Hittite buildings. A vase filled with earth discovered below the southern bastion of the city walls at Thermi (V) has been identified as a possible foundation deposit.⁵³⁶ In Boğazköy, several large groups of ceramics were discovered next to foundation walls, including plates, drinking vessels (mugs, cups, and flasks), and a jug of apparently ritual type.⁵³⁷

Despite the paucity of foundation deposits from the Hittite world, a (proto-Hattic) ritual text from Boğazköy describes in unusual detail the rituals performed at the founding of a temple or house:

When they rebuild a temple that had been destroyed or (build) a new house...they deposit under the foundations as follows one mina of refined(?) copper, four bronze pegs, one small iron hammer. In the center, at the place of the *kurakki*, he digs up the ground. He deposits the copper therein, fixes it down on all sides with the pegs and afterward hits it with the hammer...Beneath the four corner (stones), each one of them, he deposits as follows: one foundation stone of silver, one foundation stone of gold, one foundation stone of lapis, one foundation stone of jasper, one foundation stone of marble, one foundation stone of iron, one foundation stone of copper, one foundation stone of bronze, one foundation stone of diorite.⁵³⁸

⁵³⁵ Ambos 2004, 36.

⁵³⁶ Naumann 1971, 62-3.

⁵³⁷ Naumann 1971, 63.

⁵³⁸ Translated by A. Goetze in Pritchard 1969, 356-7.

Like Mesopotamian foundation rituals, the burial of precious materials in the foundations of the temple is a prominent feature of this Hittite ritual. Particularly notable, however, is the prescription for specific types and specific amounts of materials to be deposited at specific points in the building (details not offered by Mesopotamian texts). Parallel to Egyptian foundation plaques is the burial of single amounts of various materials in a foundation deposit (see Chapter VI pp. 194-6 for discussion). Also described are the parts of the building which receive foundation deposits, including the corners, the “cult stand,” the hearth, and the door.

Levantine Foundation Rituals

Foundation deposits are also known from various Levantine sites and from Cyprus. The excavators of Tel-Miqne (Philistine Ekron) identified a seventh-century B.C. foundation deposit lying beneath an unidentified wall. The deposit consisted of a hoard of beads and (mostly damaged) jewelry contained within a small jug.⁵³⁹

Other foundation deposits include the so-called “lamp and bowl” deposits common in Phoenician sites from the 13th to the 11th centuries B.C.⁵⁴⁰ These deposits usually consist of a lamp nestled between two bowls, one inverted on top of the other, and were occasionally accompanied by other ceramics. Phoenician lamp-and-bowl deposits are found in both public and private buildings, usually very close to or beneath wall foundations, often at the corners of a room or at the threshold. Scholars are agreed

⁵³⁹ Gitin and Golani 2001. See Appendix for discussion of similar so-called “goldsmith’s hoards.” Other deposits of beads, jewelry, ingots, and *Hacksilber* were discovered at the site but cannot be securely identified as foundation deposits, though some were “hidden” beneath floors. Three of the hoards were discovered in an auxiliary building of a shrine to Asherat.

⁵⁴⁰ See most recently, Bunimowitz and Zimhoni 1993.

that these deposits are in fact foundation deposits, laid down at the beginning of the building's construction presumably for cultic purposes.⁵⁴¹

Lamp-and-bowl deposits were first brought to light in the late 19th-century excavations at Tell el-Hesi but are best known at Gezer, where the greatest number have appeared.⁵⁴² These deposits exhibit several characteristics familiar from Egyptian and Assyrian foundation deposits. First, lamp-and-bowl deposits were frequently interred at important points in the building's plan, a regular feature of both Egyptian and Mesopotamian foundation deposits. In addition, the bowls were sometimes filled with sand; the use of sand in both Egyptian and Mesopotamian foundation rituals is well-documented. Lamp-and-bowl deposits have been regarded as Egyptianizing in character, especially since they seem to appear at a time of growing Egyptian influence over the region.⁵⁴³ Mesopotamian influence can also be detected in lamp-and-bowl deposits, as illustrated by a foundation deposit of Shalmaneser III at Assur. This deposit consisted of one silver and two gold tablets which were encapsulated in two bowls, one inverted over the other.⁵⁴⁴ The Parthian foundation deposit at Nippur (above, p. 158) also contained two similarly positioned bowls, perhaps in imitation of Assyrian deposits. Whatever its origin, the use of bowls in this manner becomes a standard feature of Phoenician foundation deposits. Also uniquely Phoenician is the regular inclusion of lamps.

Outside of the Levant, lamp-and-bowl deposits have been discovered at Carthage and on the island of Cyprus. The city of Carthage has yielded several foundation

⁵⁴¹ This function was first assigned to the deposits by Bliss (Bunimowitz and Zimhoni 1993, 122).

⁵⁴² See Macalister 1912, 434.

⁵⁴³ Bunimowitz and Zimhoni 1993, 122-4.

⁵⁴⁴ See above, p. 145.

deposits, both lamp-and-bowl deposits and other types.⁵⁴⁵ A lamp-and-bowl foundation deposit was discovered beneath the late-eighth century B.C. floor of “House 1,” which by the fifth century had become a sanctuary. This deposit consisted of a three-nozzle lamp buried in a round pit covered by an upright bowl filled with plant ashes. Another deposit from the same structure, associated with a renovation perhaps in the early seventh century B.C., consisted of a flask which had been broken at the neck in ancient times and was covered by a stone.

Foundation deposits are also known from Phoenician-controlled parts of Cyprus and Sicily. A lamp buried near the central column of the central room of the House of the Amphorae at Motya may attest to the Phoenician use of lamps in foundation deposits as late as the fourth or third century B.C.⁵⁴⁶ On Cyprus, several examples of lamp-and-bowl deposits have been discovered at Kouklia and Vouni.⁵⁴⁷ Excavations at the so-called “palace” building at Amathonte also revealed several foundation deposits consisting of wide jugs that contained fragments of lamps and bowls (fig. 140).⁵⁴⁸ One of these deposits held finely sifted soil and wood carbon; several were covered by a layer of stones.⁵⁴⁹

Two other possible foundation deposits of different types have been discovered on Cyprus. A unique deposit beneath the floor of an Iron Age temple at Kition was

⁵⁴⁵ Mansel 2003.

⁵⁴⁶ The lamp itself seems to antedate the room by two centuries, however (Mansel 2003, 131).

⁵⁴⁷ Petit 1989, 144.

⁵⁴⁸ Petit 1989.

⁵⁴⁹ These deposits were discovered beneath large storage pithoi but were evidently unrelated to them (Petit 1989, 143).

identified as a foundation deposit made in connection with a renovation of the building. Two T-shaped bronze objects and a peg were arranged in a pile and placed within a construction layer (fig. 141).⁵⁵⁰ The Swedish excavations at Hagios Iakovos uncovered an assemblage of six jars built into a wall in the Iron Age sanctuary there.⁵⁵¹

The Near Eastern Context of Greek Foundation Rituals

With the summary of the fundamental aspects of foundation rituals in the ancient Mediterranean set out above, we are in a better position to consider more completely the nature of Greek foundation rituals both through comparison and contextualization.

In comparing the evidence for Greek foundation rituals to those of the ancient Near East and Egypt, we may better understand the position of the Greek evidence as it may have existed in a larger cultic system. As the deposition of foundation deposits was a single element in a larger series of foundation rituals in the Near East and Egypt, we can infer that Greek foundation deposits also may have been only one aspect of a potentially complex series of foundation rituals. In Greece, these likely included pre-building rituals and sacrifice and/or ritual dining, two elements already suggested by the archaeological evidence.⁵⁵²

The consideration of Near Eastern and Egyptian foundation rituals also opens up lines of inquiry not considered in previous studies of Greek foundation rituals, such as the possible role of specific gods in construction, the possible numerological or magical

⁵⁵⁰ Karageorghis and Demas 1985, 109.

⁵⁵¹ Gjerstad et al. 1934, 366.

⁵⁵² See Chapter IV.

meanings in the contents of foundation rituals, and the use of special materials in construction.

Many characteristics of Near Eastern and Egyptian foundation rituals can also be observed in the evidence for Greek foundation rituals. These similarities cannot be merely parallel developments, but reveal direct cultural influences from eastern traditions. Like countless other aspects of ancient Greek cult, therefore, Greek foundation rituals can be considered intimately related to Near Eastern and Egyptian practices.

Many observable characteristics are shared by both Greek and Near Eastern foundation rituals. Both Greek and Near Eastern foundation deposits are commonly found at structurally significant parts of the building, including at corners of buildings and at thresholds. In some Greek temples, columns were also appropriate locations for deposits. In addition, both Mesopotamian and eastern Greek foundation deposits were regularly deposited beneath or near the point where the image of the divinity would stand: in Mesopotamian temples, this meant beneath or behind the dais of the cella, while foundation deposits in East Greece were commonly deposited beneath the cult statue base or naiskos. This aspect helps forge an especially close link between East Greek and Mesopotamian foundation rituals.⁵⁵³

Another important aspect of ancient foundation rituals which appears in Mesopotamian, Egyptian, and Levantine traditions is the frequent use of sand or fine soil in both the preparation of a building site and in foundation deposits. The use of sand in both foundations/leveling layers and in foundation deposits has also been identified in

⁵⁵³ In Egypt, too, foundation deposits have been discovered near statue bases (see above, p. 138), though this observation is not immediately reminiscent of Mesopotamian and Greek examples.

association with several sacred Greek buildings, including at Ephesus, at Delos, and in foundation deposits at Agrigento and Naxos. This material may have served to purify the building site a function also associated with Mesopotamian foundation rituals involving fire. The use of charcoal in the construction of Temple D on Samos may present an interesting parallel to this well-known Mesopotamian rite, as may also the evidence for burning beneath Bau Z at Pergamon. I have argued elsewhere that use of charcoal in the tradition of Theodoros of Samos may have similar cultic overtones.⁵⁵⁴

Libation, animal and vegetable sacrifice are well documented in both Greek and Near Eastern foundation deposits. A more striking similarity is the presence of bovine sacrifice. Both pictorial representation and archaeological discovery attest that the sacrifice of a bull was an important aspect of Egyptian foundation deposits. The discovery of a bull skull in a foundation deposit at Yria on Naxos strongly suggests a link with the Egyptian tradition.

One of the most common kinds of artifacts discovered in ancient Mediterranean foundation deposits is pottery. The ceramic evidence is exceedingly diverse in both shape and fabric, but is never specifically mentioned in descriptions of foundation rituals.⁵⁵⁵ In view of this, ceramics may not have been deposited for their own intrinsic value, but contained a sacrifice or were used in drinking/libation rituals. No complete study of ceramics in either Mesopotamian or Egyptian foundation deposits has been undertaken, making it impossible to identify more meaningful trends in ceramic assemblages from foundation deposits.

⁵⁵⁴ Chapter II pp. 36-7, Chapter III pp. 68-9.

⁵⁵⁵ The early Egyptian relief at Abusir discussed above (p. 134) is the only explicit reference to ceramics associated with a foundation deposit.

Already noted in Greek foundation deposits, however, is the occasional tendency to arrange ceramics in a special way, whether by careful stacking, as at Minoa, or by nestling one vessel inside another, as at Thebes and Pergamon. The foundation deposits from Gela and Pergamon display particular affinity with Phoenician lamp-and-bowl foundation deposits through the presence of lamps, and perhaps also with the bronze bowl from the Archaic stoa at Didyma. A lamp nestled within a bowl at the Stoa of Philip at Megalopolis is also reminiscent of Phoenician deposits.

Several stone containers were used for foundation deposits in Greece, including the reworked statue base below the Temple of Athena Nike at Athens (with parallels in the Agora and Labraunda), and the stone shaft constructed for the foundation deposits at Agrigento. The use of stone or brick boxes to house foundation deposits is well attested throughout the history of Mesopotamian foundation deposits, including in later Persian examples (below, pp. 179-81).

Other aspects of arranging the contents of foundation deposits suggest an interest in numerological concerns. Specific amounts of materials appear in Egyptian ritual texts and in foundation deposits. Mesopotamian ritual texts are rife with references to specific numbers of objects used in foundation rituals. The evidence for this is sparse in Greece, although the three deposits at Gela indicate a prescribed formula there.

Unlike the Papsukkal figurines in neo-Assyrian and Babylonian contexts, the use of figurines in Greek foundation deposits is attested in only several examples, and with little uniformity. The foundation deposit from the Artemision at Delos contained a figurine of a smiting god of probable Levantine origin.

Perhaps the most striking feature of Near Eastern foundation deposits is the deposition of precious materials in the foundations of the new construction. Egyptian foundation deposits from the very earliest times to the Hellenistic period contained precious materials in the form of small tablets. The amount and type of material seems to have been deposited according to a specific formula. In many foundation deposits, one tablet of each type of material was discovered.

In Mesopotamia, too, inscribed tablets of gold and silver are among the most frequent contents of foundation deposits over many centuries, from Sumerian peg-deposits to Persian foundation deposits. Tablets often appeared in duplicates made of different materials (for example, a gold tablet paired with a replica in silver or copper). The separation of bronze coins from silver in the foundation deposits at Sardis is an interesting feature which may reflect a similar interest in the replication of foundation deposits in different materials.

Besides tablets, however, bits of precious metals could also be interred within a building's foundations, either by strewing them among the foundations, as several building inscriptions indicate, or by adding them to the material of the bricks themselves. The inclusion of precious materials is one of the most common boasts in the neo-Assyrian and Babylonian building inscriptions that describe foundation deposits. The inclusion of precious metals in the foundations of buildings during construction is also a defining characteristic of the eastern Greek type of foundation deposit. Like Mesopotamian *Streugaben* deposits, east Greek foundation deposits were also strewn in foundations of statue bases.

That eastern Greek coin deposits resemble *Streugaben* deposits in almost every way suggests that the Greek practice ultimately derived from this tradition. In addition, the use of coins in foundation deposits from the late sixth-century Apadana at Persepolis (fig. 142) attests to the appropriateness of coins in the context of a strongly Assyrianizing tradition.⁵⁵⁶ Two foundation deposits were discovered beneath the walls of both the northeast and southeast corners of the main hall (fig. 143), each sealed within a large stone box. A square depression in the exposed bedrock at the destroyed northwest corner suggested a (now lost) third foundation deposit at that corner, and by analogy at the southwest corner as well. Each box contained two tablets within it; one of gold (fig. 144) and one of silver. Below each box were discovered four gold coins and two of silver.⁵⁵⁷ The gold coins were all Croesid staters while the silver coins were Greek: one Aeginetan, one Thracian and three Cypriot. The tablets discovered within the boxes carried a trilingual inscription in Babylonian, Old Persian, and Elamite:⁵⁵⁸

Darius the great king, king of kings, king of countries, son of Hystaspes, the Achaemenid. Says Darius the king: This is the kingdom which I hold, from the Scythians who are beyond Sogdiana, from there to Ethiopia; from India, from there to Sardis—(the kingdom) which to me Ahuramazda gave, the greatest of the gods. May Ahuramazda protect me and my royal house.

As we have seen, the type of foundation deposit consisting of a stone box containing a building inscription on plates of precious metals has a long history in ancient Mesopotamia, and the Persepolis deposits are certainly revivals of this tradition.⁵⁵⁹

⁵⁵⁶ The boxes measured 45 cm. square and 15 cm. high and were sealed by a tightly-fitting lid (Schmidt 1953, 70, 79, idem 1957, 110-4).

⁵⁵⁷ A third silver coin of possible Cypriot origin was discovered during later examination of the trench and may have belonged to the southeastern deposit (Schmidt 1953, 70, and 1957, 110).

⁵⁵⁸ Schmidt 1953, 70.

Persian emulation of Assyrian kingship is well-documented, and in matters of building especially, Persian kings sought to present themselves as heirs to Assyrian and Babylonian culture.⁵⁶⁰ The Cyrus cylinder from Babylon, for example, describes King Cyrus as completing the walls of Babylon in strict accordance with the original plan of Nebuchadnezzar.⁵⁶¹

The use of Lydian and Greek coins is difficult to interpret. These coins may have been put into circulation at Persepolis by Lydian and Greek craftsmen who are known to have worked at Persepolis.⁵⁶² On the other hand, the coins may have been part of Darius' propagandistic program. Antigoni Zournatzi recently argued that the coins were minted in regions recently subdued by Darius I and that they symbolized the king's preoccupation with commemorating the "distant Persian domination of the West."⁵⁶³

More significant for this study is that the use of coins in the Persepolis foundation deposits parallels the use of coins in the Greek East where, since at least the time of the seventh-century Artemision, they were an important feature of foundation deposits. What is the nature of this link? Could the coins have been placed there by Greek and Lydian architects working on the building? It seems unlikely that foreign workers had a significant role in the makeup of the Persepolis foundation deposits. Like their Assyrian

⁵⁵⁹ Other foundation tablets from Darius' reign have been discovered out of context at Ecbatana (Herzfeld 1938, 413).

⁵⁶⁰ Briant 2002, 165. See also Panaino 2000 for the Mesopotamian origins of Achaemenid kingship.

⁵⁶¹ The literary style of the cylinder itself closely resembles Babylonian texts (Kuhrt 1987, 51).

⁵⁶² See especially Root 1983.

⁵⁶³ In a paper delivered 2004 Annual Meetings of the Archaeological Institute of America, "The Apadana Coin Hoards, Darius I, and the West."

forerunners, these foundation deposits were intimately linked to kingship and were likely determined by Darius I or his close advisors.

Considering the Mesopotamian context of both the foundation deposits and the Mesopotamian character of Persian building projects in general, I suggest that the inclusion of coins in the Persepolis deposits had its formal precedent in Mesopotamian *Streugaben* deposits. The inclusion of coins in the Persepolis deposits can be seen as expressions of this same interest in burying precious metals as foundation deposits, but using the new medium of the minted coin.

The use of coins in the Persepolis deposits suggests that eastern Greek type foundation deposits can be considered a similar “translation” of Mesopotamian *Streugaben* deposits. Since the use of coins in the Ephesus deposits pre-dates the Persepolis deposits, we cannot be sure that this conversion did not take place in a Greek context.⁵⁶⁴ Nevertheless, the fact that coins appear in the otherwise Assyrianizing deposits at Persepolis speaks to their appropriateness in the context of Mesopotamian traditions.

Near Eastern Contacts with Greece

I have argued above that the character of Greek foundation deposits speaks to the wide-ranging influence of the Near East on this cultic practice, especially as it appears in eastern Greece. Although wide-ranging impact of the Near East on many aspects of Greek culture is widely recognized,⁵⁶⁵ it is useful to consider the possible methods by

⁵⁶⁴ One might also prefer a Lydian context for the “conversion” of *Streugaben* to coin deposits. Unfortunately, no foundation deposits have been found in connection with (Archaic) Lydian buildings.

⁵⁶⁵ For a recent discussion of the historiography of the influence of the Near East on Greek culture, see Burkert 2004, Introduction. Several recent symposia have addressed this influence on Greek material

which this cultural transmission was achieved. Although a full discussion of Near Eastern cultural contact with Greece cannot be attempted here, several points deserve brief consideration.

A common explanation for the presence of Near Eastern objects, cult practices, and literary or philosophical ideas in Greek culture is the assumption that immigrant craftsmen traveled to and even settled in Greece. The argument for immigrant workers in Greece, seemingly supported by a famous passage in Homer,⁵⁶⁶ has been invoked to account for the many foreign elements in early Cretan art especially, including the bronze shields and ivories from the Idaean Cave. The Near Eastern appearance of these and other artifacts has led some scholars to argue that Near Eastern craftsmen lived and worked in Crete.⁵⁶⁷ Burkert expanded this thesis in matters of Greek religion, suggesting, for example, that Greek interest in purification rites was stimulated by itinerant Near Eastern magicians and seers. Near Eastern cult practices were again thought to have been especially prominent on Crete, where he considered the foundation deposit at Gortyn to be definitive evidence of foreign cult.⁵⁶⁸

In his study of possible models for the movement of Near Eastern craftsmen throughout the Mediterranean, Carlo Zaccagnini cast doubt on the notion of a free labor

culture especially, including Kopcke and Tokumaru 1992, Tsetschladze 1999, and Papenfuß and Strocka 2001.

⁵⁶⁶ *Od.* 17.382-6: “Who will personally invite a foreigner, unless he is a craftsman, a diviner, a healer, a carpenter, a divine singer who delights with his songs? These are the ones among men who are sought on the broad earth” (cited in Zaccagnini 1983, 257).

⁵⁶⁷ This argument was set out by Dunbabin and Boardman (1979). For summary of scholarship on immigrant craftsmen in Greece, see Hoffman 1997, Chapter 3.

⁵⁶⁸ Burkert 1983, 118.

market in the Near East where craftsmen could travel abroad to find work.⁵⁶⁹ Using literary evidence from the Mari archives, he posited three patterns of mobility: the first is a redistributive model in which the movement of craftsmen was controlled by the palace or temple. In this scheme, the palace could send specialized workers to the countryside or to other cities when the need arose, but strictly controlled the duration of their stay away from the controlling city. The second model is a reciprocal one, in which craftsmen and other specialized workers were sent to other palace organizations in patterns of gift-exchange. Letters requesting physicians, conjurers, and sculptors from the Near Eastern and Egyptian Kingdoms attest to this widespread activity—notable in this case, too, is the strict bureaucratic control over the movement of labor. Zaccagnini's third model, which is less relevant for the Greek world, involves the deportation of craftsmen due to military siege, such as the deportation of craftsmen from Jerusalem by Nebuchadnezzar. Presumably, however, the deportees would have been assimilated into the conquering power's city.

Although Zaccagnini's distributive models are compelling in light of palatial literary evidence, his theses do not discredit the possible presence of the itinerant or immigrant craftsmen in Greece. His models work particularly well in the context of large empires with complex bureaucracies, or precisely the context of the literary evidence. He admits that alternative scenarios may have existed in the Levant, where craftsmen not tied to a central authority may have offered their skills to the most suitable employer.⁵⁷⁰

⁵⁶⁹ Zaccagnini 1983.

⁵⁷⁰ Zaccagnini 1983, 264.

While immigrant workers from the Near East may have had some capacity to move abroad in search of work in Early Iron Age and Archaic Greece, a more important and difficult question is whether there is positive archaeological evidence for it. This question has recently been addressed by Gail Hoffman in her study of the role of Near Eastern contacts in early Cretan culture. She argues that the presence of immigrant craftsmen is very difficult to prove, especially given the lack of Near Eastern pottery or architecture on Crete.⁵⁷¹ Still, Hoffman admits that the likelihood of itinerant or immigrant craftsmen working in Greece must have had some significant impact on the arts of early Greece.

Other kinds of contact with the Near East can be inferred by Greek architectural forms and technical methods. Egyptian influence on the development of Greek architecture, as in early Greek sculpture, has long been recognized. Technical skills, including planning, quarrying, and construction, but also specific architectural forms (especially those related to the Doric order) have been credited to Egyptian architectural traditions. Some of the most significant similarities between Egyptian and Doric architecture include the taenia, which in Egyptian architecture appears on the cornice, the number of flutes found in some early Doric architecture (16), and the upward taper of the columns.⁵⁷² The peristyle, too, occurs in some shrine complexes in Egypt, and may have served as an example for Greek architects.⁵⁷³

⁵⁷¹ See also Kunze 1931.

⁵⁷² Coulton 1977, 39.

⁵⁷³ For a recent discussion of Egyptian temples of this type, see Haeny 2001.

The relationship of Egyptian architectural techniques and forms to Greek ones is undeniable, yet the nature and extent of this influence is debated. The seventh-century temples at Corinth and Isthmia suggest that the techniques and forms related to the development of Greek monumental architecture developed locally.⁵⁷⁴ The influence of Egyptian architecture may be felt more strongly in other areas. At the Sanctuary of Hera on Samos, for example, Hermann Kienast credited the rapid transformation of mudbrick to stone architecture to Egyptian influence.⁵⁷⁵ When considering Early Greek contact with Egypt, the Greek settlement at Naukratis is an obvious starting point. Certainly Greeks would have come into contact with the stone architecture of Egypt in the seventh century (and possibly earlier), when Amasis granted the charter for the emporion; how the transmission of quarrying, masonry, and other skills was achieved in this context, however, is problematic.

For eastern Greek type of foundation deposit at least, stimulus from Mesopotamian cultures seems to have been more strongly felt. While the existence of possible Greek emporia in Syria (Al Mina, Tell Sukas) continues to shed light on the role of the Greeks in the Near East,⁵⁷⁶ much of Mesopotamian culture was introduced in Greece through intermediary agents. Central to this discussion is the role of the Phoenicians in the West. Phoenician commercial activities have long been credited with

⁵⁷⁴ Rhodes 1987 and 2003.

⁵⁷⁵ Kienast 2001. The clear Egyptian character of much of the Archaic votive material in the Heraion seems to support this view.

⁵⁷⁶ The interpretation of Al Mina as a Greek colony by Henri Frankfort, Thomas Dunbabin, and John Boardman (among others), continues to be questioned by scholars. Most recently, Joanna Luke has argued a trading port controlled by the Levantine hinterland (Luke 2003). See Niemeyer 2004 for a summary of the controversy.

the introduction of both Near Eastern imports in the major sanctuaries of Greece.⁵⁷⁷

Possible Phoenician workshops and the discovery of a Phoenician shrine on Crete help to underscore the role of Phoenicians in the development of early Greek art.⁵⁷⁸

Recent work on Phoenician contact with Greece has suggested a greater physical presence of Phoenicians on mainland as well, especially in the Corinthia. Sarah Morris and John Papadopoulos have recently argued that Phoenicians held a large administrative role in Corinthian pottery industry.⁵⁷⁹ The influence of Phoenicians on Greek religion is also evidenced in the Corinthia, as witnessed by the Phoenician origins of the cult of Aphrodite on Acrocorinth, a hero tomb at the isthmus connected with the Phoenician god Melkart, and the cult of child-killer Medea. It is notable that the only foundation deposit that definitively resembles eastern Greek ones is that at the harbor sanctuary at Perachora. I have already mentioned the possible connection of foundation deposits at Gela, Pergamon, Didyma, and perhaps Megalopolis to Canaanite traditions.⁵⁸⁰

In addition, Phoenicians may have introduced architectural practices to Greece as well. Christopher Ratté speculated that Phoenician stone masons may have been employed in the construction of Greek buildings on Sicily, where Greeks and Phoenicians lived in close proximity.⁵⁸¹ Conversely, the impact of Greek style in Carthaginian architecture testifies “to close contacts between the civilizations involved,

⁵⁷⁷ Strøm 1992.

⁵⁷⁸ Shaw 1998. The specific role of Near Eastern and Greek artists in the assimilation of Near Eastern culture in Greek art is widely debated. See Hoffman 1995 for discussion.

⁵⁷⁹ Morris and Papadopoulos 1998.

⁵⁸⁰ See above, p. 177.

⁵⁸¹ Ratté 1993, 9-10.

and are the result of an intense transcultural dialogue which has always taken place irrespective of current ideologies or hostile political circumstances.”⁵⁸²

Ionian Greeks may also have come to know Near Eastern architectural practices through Lydian contacts. The appearance of megalithic ashlar masonry in the Greek East, long considered to be associated with Egyptian influence, may have had Lydian roots as well. Ratté suggested that the building program initiated by Alyattes, including the massive fortifications at Sardis and his own tomb built of megalithic masonry, was modeled in part on Near Eastern models.⁵⁸³ The grand scale of Lydian monumental architecture could have provided the impetus (and perhaps financial support and organizational help) for Greek tyrants to engage in similar types of construction. In addition, both Lydian and Greek masons are known to have worked on Persian building projects at Susa and Persepolis.

Although no foundation deposits have been discovered in association with Lydian structures, the context of royal emulation in Lydian architecture makes this avenue particularly intriguing to the study of Greek foundation rituals. Besides the unique foundation deposit in Hellenistic Temple of Athena at Sardis, which is particularly evocative of Near Eastern prototypes,⁵⁸⁴ the layer of charcoal said to have been used by Theodoros at Ephesus may also have Lydian connections. A layer of charcoal was discovered above the ceiling of the tomb of Alyattes.⁵⁸⁵ Theodoros’ recorded dealings

⁵⁸² Niemeyer 2004, 39.

⁵⁸³ Ratté 1993.

⁵⁸⁴ See Chapter VI pp. 195-6 for discussion.

⁵⁸⁵ Ratté 1993, 3.

with Croesus help solidify this link.⁵⁸⁶ If the use of charcoal in the preparation of a building site (in both myth and in actual practice), can in fact be associated with foundation rituals, the role of Lydia in the development of Greek foundation rituals is indeed a significant one.

⁵⁸⁶ Hdt. 1.51.

CHAPTER VI

FOUNDATION RITUALS: FUNCTION AND MEANING

While the dedication of votives in Greek sanctuaries and their social, economic, and religious function have been the focus of several studies,⁵⁸⁷ other modes of dedication, including the burial of foundation deposits, have received little investigation.⁵⁸⁸ As Robin Osborne recently observed, there is a tendency in modern scholarship “to think that classifying something as a foundation deposit is the end, rather than the beginning, of an analysis.”⁵⁸⁹ This dissertation has argued that the presence of foundation deposits in association with Greek buildings suggests the performance of a larger set of rituals that included dining and drinking, sacrifice and libation, as well as the intentional burial of various kinds of objects. Foundation rituals indicate that in many areas of Greece and in all historical periods, the act of constructing a sacred building necessitated these measures. The purpose of this chapter is to consider why foundation rituals were considered necessary and how these rituals inform our understanding of architecture in ancient Greek society.

⁵⁸⁷ See most recently Osborne 2004 for bibliography, especially Van Straten 1981, Linders and Nordquist 1987, Snodgrass 1989/90, and Morgan 1990.

⁵⁸⁸ See however Garfinkel 1994 and Bjorkman 1994 and 1999 for studies of buried objects in Near Eastern contexts.

⁵⁸⁹ Osborne 2004, 7.

Propitiation

In many ancient Mediterranean cultures, the division of the physical world into earth, sea, and sky also served to structure (and divide) the realms of the gods. Association with the earth (and the underworld), the sea, or the sky often served as a god's primary attribute in the cosmological systems of many ancient religions and affected the nature and location of their worship. Sky-gods were often worshipped on the peaks of mountains, for example, while caves were often considered sacred to deities of the underworld. The place of humans in this metaphysical structure was strictly enforced—no human could reach Mt. Olympus (except on the invitation from the gods) just as entry into the underworld (for the living) was also impossible, or at least extremely hazardous, as Greek myths make clear (as Orpheus, Theseus, Odysseus).

In Mesopotamia, unauthorized passage into the underworld was also dangerous for humans, and, as indicated by ritual texts, this transgression could occur with the simple act of digging into the earth. This was thought to have been an invasion of the territory of gods and genii who inhabited the earth.⁵⁹⁰ Included among the offending acts could be the digging of graves, wells, and, interestingly, the digging of foundation trenches for the construction of a new building. These trespasses could arouse divine anger and often resulted in disaster for both the building and its owner. There was, therefore, a strong need to pacify the gods: one text prescribes propitiation of Kūbu, a god of the underworld, at the inauguration of a house.⁵⁹¹ Other texts describe the

⁵⁹⁰ Ambos 2004, 70.

⁵⁹¹ Ambos 2004, 70 and n. 498.

propitiation of the god Enmešarra, lord of the underworld, to whom one also appealed for the stability of the structure.⁵⁹²

Mesopotamian foundation rituals may be associated with this desire to propitiate the gods of the underworld. This could have been achieved with the performance of sacrifices, which are well-attested in ritual texts associated with construction activities. Foundation deposits, too, may have served a similar purpose. The burial of precious materials may have been “gifts” to these gods. Herzfeld wrote of the foundation deposits at Persepolis, “According to Babylonian belief, gold was the product of Arallu, the mountain in the Nether World, and to put money into the foundations...looks like a sacrifice to the Nether World, or giving to Hell what belongs to it.”⁵⁹³

Foundation deposits sometimes contained material meant not to propitiate, but to ward off the evil intent of spirits. In Mesopotamia, figurines buried at a building site had a clear apotropaic function, as many of them show threatening postures or bear apotropaic inscriptions.⁵⁹⁴ Although not all buried deposits of figurines in Mesopotamia can be described as foundation deposits, those discovered within known foundation deposits may have functioned in a similar way. These include the Ninšubur/Papsukkal figurines and perhaps even early peg-figurines (above, Chapter V pp. 152-7), which, though not particularly threatening, may have communicated divine protection or sanction of the building.

⁵⁹² Ambos 2004, 70.

⁵⁹³ Herzfeld 1938, 413.

⁵⁹⁴ Ellis 1967, 60-1.

Particularly transgressive in the eyes of the gods was the deliberate dismantling of part or all of an older temple, even if done with intent to rebuild. The entire *kalû* ritual may have been performed to propitiate the offended god with ritual lamentations for the dismantling of the temple.⁵⁹⁵

Greek foundation rituals may also have functioned as propitiatory measures in the wake of potentially transgressive acts associated with construction.⁵⁹⁶ In Greece as well as in Mesopotamia, the realm of the earth and underworld was considered the domain of gods who were classified in antiquity as *chthonic*. These included, for example, Hades, Demeter, and Persephone, though Olympian gods such as Zeus, and especially Hermes (Psychopompos) who guides the souls of the dead to the underworld also had prominent chthonic functions.⁵⁹⁷

The role of the god Hermes, the god of “boundaries and of the transgression of boundaries,”⁵⁹⁸ deserves particular consideration in Greek foundation rituals. He is associated with graves, which were placed under his protection, perhaps because they, like the souls he was thought to assist, physically crossed the boundaries of earth and the underworld. Hermes may also have played a significant role in other kinds of digging, including that associated with the construction of buildings. Although conjectural, the association of Hermes with foundation rituals may find some support in the prominent role of Ninšubur/Papsukkal figurines in some Mesopotamian foundation deposits. Like

⁵⁹⁵ Chapter V pp. 163-4.

⁵⁹⁶ As was assumed for the Nordbau deposit at Samos (Furtwängler and Kienast 1989, 69; see Chapter III pp. 69-70).

⁵⁹⁷ Burkert 1985, 199-203; Mikalson 2005, 38-40.

⁵⁹⁸ Burkert 1985, 158.

Hermes, Ninšubur/Papsukkal was a divine messenger; his staff was his primary attribute. The precise role of the Near Eastern god in the construction of buildings is unknown, however.

Of further relevance to the propitiatory role of Greek foundation rituals are several passages in myth that refer to gods receiving sacrifices at the beginning of construction. Unfortunately, these appear as isolated observations; their ritual context (if one existed) is unclear. In the *Iliad*, Poseidon complains to Zeus that the Greeks did not sacrifice to the gods before building a wall and digging a moat around their ships.⁵⁹⁹ It is interesting that Poseidon also acts as a builder at Troy together with Apollo in the myth of Laomedon (see below, p. 206). We should note that god Poseidon's realm included not only the sea, but the earth as well.⁶⁰⁰ Pausanias' reference to gods called the "builders before" is also of interest. His account of the city of Megara records the story of the erection of the city walls, which were built by the city's mythical founder Alkathoos. Alkathoos was said to have sacrificed to the gods called "προδομεῖς," or the "builders before" when preparing to build the city walls.⁶⁰¹ This sacrifice took place before the erection of the walls, and not after (i.e. as *ἰδρυσίς*).⁶⁰² Whether the *prodomeis* are to be understood as local deities or the term was an epithet associated with Olympian gods is unclear.

⁵⁹⁹ *Iliad* 7.433-64.

⁶⁰⁰ Burkert 1985, 137.

⁶⁰¹ Paus. 1.42.1

⁶⁰² See above, Chapter I pp. 10-1.

While the association of foundation rituals with Hermes, Poseidon, or the mysterious “builders before” is an intriguing possibility, Greek foundation rituals need not have been offered to any specific deity.⁶⁰³ No reference to any god has been discovered in association with Greek foundation deposits. The ivory and sphyrelaton figurines at Ephesus depict female figures, including a “hawk-priestess,” and are relevant to the goddess of the sanctuary. They do not appear to differ in any significant way from votive material found elsewhere in the sanctuary.⁶⁰⁴ Furthermore, the identity of the crude figurines in the Athena Nike Temple deposit (if meant to be representative at all) is unknown. Egyptian foundation rituals appear not to have been “received” by any deity, though several gods participate in the rituals themselves.⁶⁰⁵

Magical Properties: Materials and Numbers

Near Eastern foundation deposits contained materials that possessed magical properties. Protective amulets were sometimes found in Egyptian foundation deposits, for example.⁶⁰⁶ In addition, certain kinds of materials were thought to have had intrinsic magical powers, and their burial in foundation deposits may have been thought to protect the building. In Mesopotamia, we have already noted that the discovery of a certain type of material at a building site could convey a particular omen.⁶⁰⁷ The magical qualities of

⁶⁰³ Michael Donderer’s association of Greek foundation rituals with chthonic female cult was based on only a handful of foundation deposits (Donderer 1984, 177).

⁶⁰⁴ Hawks are important iconographic aspect of Artemis at Ephesus; whether the figurines represent the goddess, worshippers, or some other figure is not determined.

⁶⁰⁵ The ubiquitous inscribed plaques in Egyptian foundation deposits named the god who received the temple; whether the resident deity also received the foundation offerings is not totally clear. That no information about the reception of offerings exists in the pictorial representations suggests that this was not an important aspect of the rituals.

⁶⁰⁶ Above, Chapter V p. 139.

some kinds of materials were perhaps desirable in foundation deposits as well. The duplication of an object in many different types of material is a phenomenon found in deposits from both Egypt (miniature plaques or “swatches”) and Mesopotamia (the duplication of foundation tablets or figurines in several different kinds of materials). The inclusion of different types of materials may indicate that each type of material brought its own intrinsic magical power which served to protect the building.

That materials in foundation deposits could also impart their desirable qualities on the building itself is evidenced by a Hittite text from Boğazköy:

“See! beneath the foundations they have deposited gold for (firm) founding. Just as the gold is firm, (as) moreover it is clean (and) strong, (as) the mind of the gods is set on it, and (as) it is dear to god and man, even so let the gods be set on this temple (and) let it be dear (to them)!”⁶⁰⁸

In this case, gold, which is “firm,” “clean,” and “strong,” is not only a descriptive metaphor but assists the building in achieving these properties as well.⁶⁰⁹

Possible consideration for the magical qualities inherent in certain types of materials can perhaps be detected in the almost exclusive use of precious metals in the eastern Greek type foundation deposits.⁶¹⁰ In addition, the use of coins as amuletic objects has a very long history in ancient Greece and in later periods; their power likely derived from the intrinsic magical properties of gold and silver.⁶¹¹ This concept is most clearly detected in the foundation deposit at Sardis, where the bronze and silver coins

⁶⁰⁷ Above, Chapter V pp. 169-70.

⁶⁰⁸ Translated by A. Goetze in Pritchard 1969, 356-7.

⁶⁰⁹ Ambos 2004, 74.

⁶¹⁰ The intrinsic worth of these materials is of course also notable; see below, p. 201 for discussion.

⁶¹¹ Viet and Maué 1982, 65.

were carefully separated. This recalls a Hittite inscription from Boğazköy which prescribes that foundation stones made of nine different materials be deposited under each of the corners of a temple.⁶¹² The Sardis deposit may have followed a similar prescriptive formula.

The magical properties of ancient Mediterranean foundation deposits are also reflected in the practice of depositing materials in specific quantities. Such numerological considerations are significant in Egyptian foundation deposits. In the Ptolemaic inscriptions of foundation rituals, the number of plaques dedicated by the king was either 17 or 24. Although these numbers are not attested in any actual foundation deposit, the numbers four and nine were fairly common.⁶¹³ Although few Greek foundation deposits exhibit definite numerological concerns, that certain “sets” of materials were deposited at Gela may speak to a similar fixed formula for the numbers as well as the kinds of materials to be buried in foundation deposits.

Purification

Related to the protective function of foundation rituals is the act of purifying the land before construction. The spreading of gypsum in Egyptian foundation rituals was thought to have cleansed the building site. The use of “clean” earth is similarly a prominent feature in Mesopotamian foundation rituals. As I have previously argued, the parallel use of sand in Greek foundation deposits and the special attention given to leveling layers (including the purported use of charcoal and fleeces) may also have been associated with the purification of sacred land.

⁶¹² Above, Chapter V pp. 170-1.

⁶¹³ Weinstein 1973, 368-9; above, Chapter V p. 137.

Continuity with the Past

One of the most salient features of Near Eastern foundation rituals is the keen awareness of the history of a particular site. Foundation rituals help to establish continuity with older buildings and their patrons. In Mesopotamia, the search for the physical remains of older temples and their foundation deposits is an oft-stated concern. Not only do building inscriptions boast of the lengths to which a king has gone to discover these remains, but he might also recover and re-bury older foundation deposits together with his own.⁶¹⁴ This can be viewed not only as a sign of respect for earlier constructions and their patrons, but an attempt to legitimize the construction of the new building. In this way, foundation rituals help to establish the perception that the construction of temples was not so much an independent act of the present king, but a continuation of a long historical tradition that was “tried and approved by the gods in the past.”⁶¹⁵

Egyptian foundation rituals also stress continuity with the past, though with a mythological past rather than an historical one. The symbolism employed in the discovery of the water table and the filling up of the foundations with sand link the new construction to the first temple, built by the gods on the primeval mound from the midst of watery chaos. Here the construction of a new temple was not constrained by the particulars of previous royal building projects, but claimed as its direct predecessor the primeval temple, from where it derived its legitimacy.

⁶¹⁴ Petrie identified two similar instances of the discovery and re-burial of older foundation deposits at Abydos. Here, faience plaques of Apries were placed directly above a pit containing foundation deposits of Thutmose III (Weinstein 1973, 299-300).

⁶¹⁵ Frankfort 1978, 270.

In ancient Greece, the use of older foundations in the construction of a new temple is well attested. Besides the obvious economic advantage, the re-use of the plan of an older temple and (in some cases) its building materials served to establish religious continuity and in doing so, promoting the legitimacy and prestige of the building.⁶¹⁶ In Greece, the site of a temple could establish continuity not only with the recent past, but with a mythological/heroic past as well. The discovery of Mycenaean buildings or objects in antiquity, for example, prompted the construction of hero-shrines.⁶¹⁷

It is likely that the re-use of older materials in Greek foundation deposits is also related to the desire for the legitimacy and prestige associated with the mythological past. The Mycenaean objects in the foundation deposit in the Archaic Temple of Artemis on Delos may have communicated this kind of statement about the (invented) antiquity of the temple site.

Commemoration

Foundation deposits from Mesopotamian and Egyptian buildings explicitly record the name of the building's (royal) patron, sometimes to the point of redundancy. The name of the Egyptian king was regularly inscribed on various materials used in foundation deposits, most notably on plaques. The name of the Mesopotamian king

⁶¹⁶ The most famous example of the re-use of older building materials is the Parthenon, built in part from the ruins of its predecessor. Not done purely out of thrift, the incorporation of Older Parthenon column drums associated the new temple with a recent, though already "mythological" past: the victory over the Persians. Built "out of the ashes" of its predecessor, the Parthenon "reminded the world that Athens had also been the initial defender of the Greeks against the Persians...the miraculous hero of the most magnificent Greek military victory of all history" (Rhodes 1995, 40-1).

⁶¹⁷ See Antonaccio 1995. The hypothetic use of laurel leaved in the so-called "bay hut" of Eretria might have proved an interesting parallel to the symbolic linking to the primeval temple of Apollo, i.e. the first temple of laurel at Delphi (below, p. 205). The use of this material in this building and in fact its identification as a temple, however, are conjectural.

(usually with a description of his larger building project) was similarly recorded on various objects buried within the temple, including cylinders, prisms, and tablets.

It has been observed that the inscriptions buried in foundation deposits were ultimately inaccessible to others.⁶¹⁸ This raises several questions: why were these inscriptions buried? Who was the intended audience? Weinstein considered that the inscriptions were buried Egyptian foundation deposits so that patron's name would be preserved in case of later destruction of the temple.⁶¹⁹ The desire to preserve one's name in case of accidental or deliberate destruction (i.e. in cases of renovation) was a likely motive for the burial of Mesopotamian building inscriptions as well: we have already observed that older inscriptions were discovered and even sought by builders (Chapter V, pp. 162-3). Presumably building inscriptions were buried with the knowledge that later builders might come across them. One text forbids the destruction of building inscriptions, suggesting an awareness that foundation deposits could be discovered by future rulers. In this way, foundation deposits served a commemorative function, recording for posterity the architectural accomplishments of kings.

Building inscriptions may have had a religious function as well. The frequent inclusion of prayers for the life and success of the patron suggests that the inscriptions were thought to have communicated to the gods, perhaps as reminders of their obligation to the patron in return for his piety.⁶²⁰

⁶¹⁸ This has prompted one scholar to suggest that these inscriptions were publicly read before burial (above, Chapter V p. 169).

⁶¹⁹ Weinstein 1973, 35.

⁶²⁰ Ellis 1968, 166-7.

Only one Greek foundation deposit contained material which may have preserved the name and image of the presumed donor, the coin deposit of Orophernes of Cappadocia in the statue base of the Temple of Athena at Priene. Three of the coins discovered in the statue base at Priene held the image of the prince, who is also thought to have reconstructed the temple. In stark contrast to Mesopotamian and Egyptian deposits, Greek foundation deposits seem not to have had an overt commemorative function; no inscriptions have been found in Greek foundation deposits. This is to be expected, however, as commemorative or dedicatory inscriptions recording the name of the patron are normally found on the exterior of Greek buildings themselves, usually on the stylobate, on columns, or, more commonly, on the architrave.⁶²¹

Foundation Rituals and Patronage

Ancient Near Eastern foundation rituals have been aptly considered “royal” rituals. From the descriptions given by texts and relief sculptures, foundation rituals in Egypt were exclusively the prerogative of the king, who personally laid out the ground plan, dug the foundation trenches, molded the bricks, and performed other ritual tasks. The king’s personal involvement in the foundation rituals of each temple was stated unequivocally, though the ruler need not have actually visited the site.⁶²²

⁶²¹ Gretchen Umholz’ recent study (2002) on architectural dedication inscriptions argues that, in contrast to pervasive opinion that such inscriptions were considered taboo or hubristic in Greece, inscriptions such as these were regularly inscribed on Greek buildings from the sixth century B.C. to Hellenistic times.

⁶²² Despite the depiction of the king on all known representations of foundation rituals “A priest...and/or high official probably substituted for the king at ceremonies conducted at all but the most important structures” (Weinstein 2001, 559).

Public Displays of Wealth

Although many of the materials in Near Eastern foundation deposits may have possessed magical qualities useful for the general health and preservation of the building, the burial of large amounts of costly materials was likely a powerful public statement of the patron's ability to acquire and, more importantly, to dispose of expensive and exotic materials. The burial of large amounts of these materials in Assyrian and Babylonian *Streugaben* deposits would have been at once a sumptuous display of wealth and an impressive act of piety, inspiring admiration and awe among onlookers.⁶²³

There can be little doubt that the predominance of precious metals, especially coins, in the eastern Greek type of foundation deposit must have been viewed as a similar act of munificence. Unfortunately, both the identity and number of possible patrons are difficult to reconstruct given the lack of commemorative objects in Greek foundation deposits, and it is beyond the scope of this study to consider the patron of every building associated with a foundation deposit.⁶²⁴ Nevertheless, the disposal of large amounts of gold, silver, ivory, etc.—by any individual or group—would have been—under most circumstances—an impressive statement of wealth in the service of the gods.⁶²⁵

⁶²³ Ellis 1968, 138-40, 167-8.

⁶²⁴ Further research in this area would be instructive in understanding the social and political circumstances surrounding the burial of foundation deposits. I plan to address this topic in the context of eastern Greek foundation deposits in a future study.

⁶²⁵ Against this view is R. de Mecquenem, who suggested that the objects from a 12th c. B.C. foundation deposit at Susa could have been a collection of relatively small contributions by many members of the community (cited in Robinson 1951, 158). As possible corollary, Robinson also cites the passage in Strabo (14.1.22) which relates that the Ephesians rebuilt the Artemision “having collected the ornaments of the women and their own individual belongings and having sold also the pillars of the former temple.” The context makes clear that the women's jewelry was collected in order to raise funds for the construction, not for burial as foundation deposit.

Kingship and the Gods: Building as Divine Act

It has already been observed that each episode in Egyptian foundation rituals (except the burial of foundation deposits) mirrored very closely the everyday tasks of actual construction. From site selection and planning to the positioning of the first block, foundation rituals emphasized that every aspect of temple building was the prerogative of the king, who symbolically acted as architect, mason, and laborer. While one might be tempted to read an interesting inversion of status in this situation, foundation rituals illustrated instead that the king shared these activities with—and even inherited them from—the gods who oversaw and assisted the regent.

The partnership between the king and the gods expressed in foundation rituals is not surprising given the context of Egyptian religion, where the king was represented and worshipped as a god during his lifetime. That this partnership should be expressed in the context of construction speaks to the perception of temple building not only as a royal activity, but a divine one as well. We recall that the ultimate precedent for building—the primeval temple upon which all other temples were ideologically based—was established by the gods. In performing the various tasks of planning and construction, the king mimics an ancient tradition first set out by the gods. In this way, Egyptian foundation rituals perpetuated the perception of building as originally the domain of the gods. By assuming the role of architect and builder, the king was envisioned not as a human craftsman, but as heir to an ultimately divine tradition.

As in Egypt, Mesopotamian foundation rituals are also strictly the prerogative of the king,⁶²⁶ who is presented as both architect and builder. Since the time Gudea, images

and building inscriptions illustrate an active participation of the king in the planning and construction of temples and palaces. In the first millennium B.C., this idea is most commonly expressed in the carrying and molding bricks (Chapter V pp. 166-8). A building inscription of Nabopolassar is particularly expressive: “I bent my neck for Marduk, my lord; and, girding up the robes of my royalty, I carried bricks and clay upon my head.”⁶²⁷ Elsewhere, the royal princes assist: “[I had] my own small child...wield the hoe and the spade, I laid a basket made of gold and silver [on him].”⁶²⁸ These activities proclaimed a close alliance with the gods. The making of mudbricks, for example, was an activity associated with the god Kulla. Rather than performing their tasks side-by-side with the gods, however, Mesopotamian kings build in dutiful service to them. Several texts make clear that when the god demands a temple to be built, the king must dutifully comply.

Although the divine request to build was often met with trepidation,⁶²⁹ building inscriptions make clear that the king’s loyal service was to be rewarded. Xerxes’ building inscription in the Persepolis deposits ends with a declaration of service followed by a prayer for compensatory protection from the gods, using a literary formula used for hundreds of years: “What I built, and what my father built, all that by the favor of

⁶²⁶ Priests and other specialists might perform other specialized duties (e.g. the *kalû* singer and diviners). While foundation rituals may also have been performed at the inauguration of private houses, there is some evidence that these may have differed significantly from those performed for the construction of temples and palaces (Guinan 1996 and above, Chapter V pp. 164-6).

⁶²⁷ Above, Chapter V p. 150.

⁶²⁸ Cited in Ellis Appendix A, 26.

⁶²⁹ Above, Chapter V, p. 165 n. 515. Unlike in Egypt, the wrath of the gods was a common theme in Mesopotamian building inscriptions (Frankfort 1978, 267-9).

Ahuramazda we built. Saith Xerxes the King: May Ahuramazda protect me, and my kingdom, and what was built by me.”⁶³⁰

Foundation rituals reveal that as a builder, the king participated in a privileged system of dutiful service and reward. I have already argued that royal foundation rituals were probably considered taboo in private construction, which prevented others from claiming these royal advantages.⁶³¹ Foundation rituals emphasized that both heavy responsibility and the potential rewards of building were reserved for the king and his family.

Although Hittite foundation rituals are largely unknown, the text describing foundation rituals from Boğazköy (above, Chapter V pp. 170-1) offers a vivid account of the close association of architecture with the gods. The following words were to be spoken aloud by the officiant:

“See! This temple which we have built for thee...it is not we who have (really) built it, all the gods have built it. The gods—those (who are) craftsmen—have built it. Telepinus has laid the foundations. The walls above them, Ea, the king of wisdom, has built (them). Timber and stone, all the mountains have brought (them). But the mortar, the goddesses have brought (it). They have laid foundations of silver and gold...”⁶³²

As in Egypt, the gods are portrayed as laborers and builders, carrying building materials and laying the foundations.

In the ancient Mediterranean, architecture was explicitly identified as a divine act. In Mesopotamia, construction proceeds with a divine imperative, while in Egypt (and perhaps in Bronze Age Anatolia) the gods themselves are builders. Foundation rituals

⁶³⁰ Schmidt 1957, 51.

⁶³¹ Above, Chapter V pp. 165-6.

⁶³² A. Goetze in Pritchard 1969, 356.

illustrate this close relationship while asserting a privileged place for the king, who, either as partner or “first servant,” linked himself to this divine tradition.

In considering the role of architecture in Greek culture, we find that the portrayal of building as a divine activity is no less obviously illustrated than in any of the kingdoms of the ancient Near East. In Greece, however, the most convincing evidence of this is set forth in Greek myths about the founding of temples and other buildings. These myths demonstrate that the construction of buildings, especially temples, was often commanded, supervised, or even accomplished by the gods themselves.

The most extensive mythological account of building concerns the sanctuary of Apollo at Delphi, where the earliest temples were said to have been constructed by gods, legendary architects, and even animals.⁶³³ The first temple, constructed of laurel branches, was succeeded by a temple built by bees using wax and feathers. The third temple was said to have been made of bronze by Hephaistos. The decision to build the fourth temple was made by Apollo himself, who removed the bronze temple from Delphi and sent it to the land of the Hyperboreans. Apollo’s temple was one of stone, the foundations of which were laid by the god himself. Work on the temple was continued by the legendary Trophonios (considered to be a son of Apollo) and Agamedes.⁶³⁴ Trophonios, whose oracle was established at Levadia, also built a treasury for Hyrieus at Orchomenos and a sanctuary for Poseidon at Mantinea.⁶³⁵

⁶³³ Paus. 10.5.9-13. See Sourvinou-Inwood 1979.

⁶³⁴ *Homeric Hymn to Pythian Apollo* 3.294-9.

⁶³⁵ Paus. 9.37.5; 8.10.2-3.

Apollo had other architectural projects: he was said to have helped Alkathoos build the acropolis of Megara.⁶³⁶ He is also credited, together with Poseidon, with building the walls of Troy.⁶³⁷ Other semi-divine heroic figures participated in the founding of temples, including Adrastus, Nausithoos, Pelops, and Doros, mythical founder of the Doric order.⁶³⁸ Besides the third temple at Delphi, Hephaistos is credited with building other houses for the gods, including the palace of Zeus on Mt. Olympus.⁶³⁹ We are told that architecture in Tartarus, too, was constructed of bronze (perhaps also the work of Hephaistos), including a fence which Poseidon had built.⁶⁴⁰

In myth, mortals inherit the craft of building from the gods; the plan and foundations of the stone temple at Delphi were established by Apollo, leaving Trophonios and his mortal colleague to finish the project. Aeschylus credits Prometheus with teaching humans how to build.⁶⁴¹

Besides actual construction, gods could be intimately involved other aspects of building. Demeter makes the decision to build her temple at Eleusis, a command which is enforced by the dutiful king.⁶⁴² Leto makes the same request of the personified Delos.⁶⁴³ Athena was said to have given approval of her temple at Thebes.⁶⁴⁴

⁶³⁶ Paus. 1.42.1

⁶³⁷ *Iliad* 7.452, 21.441-57; Apollodorus 2.5.9. Disguised as mortals, Apollo and Poseidon worked on the fortifications at Troy for a year, when they were dismissed by king Laomedon without pay.

⁶³⁸ Strabo 13.1.13; *Odyssey* 6.9; Paus. 5.1.7; Vitruv. 4. 1.

⁶³⁹ *Iliad* 20.10.

⁶⁴⁰ Hesiod *Theogony* 808-14; 725; 733.

⁶⁴¹ *Prom.* 442-53.

⁶⁴² *Homeric Hymn to Demeter* 2.270-74; 2.295-304.

The legend of the founding of Messene by Epaminondas gives a particularly elaborate sequence of supernatural events which guide the general and his followers in the selection of an appropriate building site.⁶⁴⁵ In a dream, Epaminondas is commanded to rebuild Messene while his general, also visited by a dream, is instructed to dig where a yew and myrtle are found growing together on Mt. Ithome. Upon doing so, they discovered a hydria with a rolled-up foil on which the mysteries of the Eleusinian cult were inscribed. After this, Epaminondas consulted oracles and diviners to gain assurance of the gods' pleasure with the impending project. After a whole day of sacrifices, work on the city walls began.

These stories recount the direct or indirect participation of gods, heroes, oracles, and other supernatural forces during all stages of planning and construction of important buildings. From site selection to the mundane act of collecting building materials, the overt involvement of gods and their agents in the construction of buildings helps to construct a view of how architecture may have been perceived by the ancient Greeks. Like those of Near Eastern traditions, the mythological accounts of divine involvement in the building of cities and temples may have helped to construct a view of building which was perhaps ultimately associated with the gods. As Ulrich Sinn recognized, the foundation of Messene is particularly Near Eastern in character, with the prominent role of dreams, oracles, and omens in choosing the future building site.⁶⁴⁶

⁶⁴³ *Homeric Hymn to Delian Apollo* 3.50-62.

⁶⁴⁴ Paus. 2.6.3.

⁶⁴⁵ Paus. 4.26.6–27.6.

⁶⁴⁶ Sinn 1985.

Conclusions

The linking of humans and gods through architectural patronage is a familiar theme in the history of ancient Mediterranean architecture, where the presentation of building under divine sanction is a fundamental aspect of kingship. Though the formulas may vary, a single principle is observed time and again: the architectural patron, usually a king or ruler, acts as an earthly liaison to the gods who are also builders. The public illustration of this alliance was one of the most important functions of foundation rituals in the ancient Mediterranean.

The cultic *koine* linking foundation rituals in the ancient Mediterranean extended to Greek culture, where similar attitudes toward building and patronage can be detected. Greek foundation rituals borrowed heavily from Near Eastern traditions—this is clear from the many formal similarities between eastern Greek type foundation deposits and those from neo-Assyrian and Babylonian contexts. This finding not only contributes to our understanding of Near Eastern building traditions on Greek architecture, but also provides a wider realm of analogy for the interpretation of Greek foundation rituals, especially with respect to function and meaning. Like their Near Eastern counterparts, Greek foundation rituals may have served as rites of purification, to propitiate gods or spirits, or magically to protect the new construction.

More importantly, the performance of foundation rituals in ancient Greece has other implications for the study of Greek architecture. Foundation rituals may have expressed those ideas about the role of architecture in society so clearly illustrated in the Near East. Similar kinds of attitudes about the divine nature of building and construction can be detected in Greek myth suggesting that this may have been so.

The most difficult obstacle in exploring the social role of foundation rituals is that Greek culture was not monarchical, and the hierarchies so ingrained in Near Eastern kingdoms were never a widespread feature of Greek society. Still, ideas about royal patronage may have been received in the context of archaic East Greece, where the emulation of Near Eastern kingship was an important aspect of early building projects undertaken by kings and tyrants.⁶⁴⁷ This would help to explain, for example, the sumptuousness of eastern Greek type foundation deposits. In Hellenistic times, too, changing ideas about the role of the individual in architectural patronage which allowed for lavish personal investment in architecture may have been receptive to the royal context of Near Eastern foundation rituals.⁶⁴⁸

In addition, the traditional view that individual patronage in Greece (and the public proclamation of such) was discouraged in Archaic and Classical times has been called into question. Gretchen Umholz' study of architectural inscriptions suggests that patrons readily inscribed their names on the buildings they financed.⁶⁴⁹ This resonates with the recent view put forth by Walter Burkert and others that the Greek temple was itself a votive which could be dedicated much like statuary or other objects.⁶⁵⁰ By dedicating "most visible and expensive offerings" in Greek sanctuaries, whether city-states, institutions, or individuals, the largesse of architectural patrons may have been more obvious than previously assumed. No Greek foundation deposit (except tentatively that at Priene) can conclusively be connected to an individual or institution because of the

⁶⁴⁷ Morris 2003, 16-7. See also Ratté 1993.

⁶⁴⁸ Coulton 1977, 14.

⁶⁴⁹ Above, p. 200, n. 621.

⁶⁵⁰ Burkert 1988 and 1996. See also Jones 2002, 377.

lack of commemorative objects. Although the task of identifying the patron of each Greek building in which foundation deposits were buried would require an historical analysis too great to attempt here, such a study could yield important results in the future.

APPENDIX

“SACRED GARBAGE” AND SECURITY HOARDS

The most striking characteristic of foundation deposits from East Greece is the frequent inclusion of small, portable objects of high value. It must be kept in mind, however, that none of the objects encountered in foundation deposits is unique to foundation deposits; there is no class of object created for foundation deposits. The jewelry, figurines, and the many other objects interred in foundation deposits are also found in other cultic contexts, as votives or funerary offerings, for example. Coins are particularly versatile, having both extra-religious and cultic uses. As a whole, the evidence for eastern Greek type foundation deposits demonstrates homogeneity with respect to both the material and method of deposition. In certain cases, however, one is made keenly aware of the ambiguity of the archaeological context. Even where stratigraphic information is relatively complete, the motivation behind the deposition is not always clear, especially when aspects fall outside expected patterns. In these cases, the designation of “foundation deposit” must be weighed against plausible alternative interpretations.

Two phenomena which most closely resemble eastern Greek foundation deposits both in material and manner of deposition are first, deposits of old or defunct sacred objects collected and buried within the sanctuary and second, security hoards. While not meant to be an exhaustive study, the following discussion of both these kinds of deposits

is useful for highlighting the difficulties involved in the identification of foundation deposits and the unique characteristics they possess.

Disposing of Dedications: The Problem of ‘Sacred Garbage’ in Greek Sanctuaries

Votives from sanctuaries are rarely discovered *in situ*, but rather in secondary contexts of reuse and disposal. Nevertheless, it is well-attested from literary sources that Greek sanctuaries could become filled with the many dedications offered by worshippers from all levels of society. Greek shrines and sanctuaries were at times cluttered with both large and small dedications. In the sanctuary of Asklepios on Rhodes, a decree was issued banning the dedication of votives in walkways: apparently the number of votives had begun to impede pedestrian traffic.⁶⁵¹

From time to time it was necessary to clear out old, broken, or otherwise unwanted votive gifts and dispose of them. Inscriptions reveal that unwanted metal votive offerings could be melted down, either to create a new votive offering or to repair an older one. On one such occasion, an inscription was commissioned to record the names of each offerer along with a short description of the votive object to be melted down “so that the memory of the votive offerings should remain for the offerer.”⁶⁵² As this inscription suggests, it was important (especially in the interest of the dedicators) to preserve the memory of these pious acts of devotion, even as the objects themselves were being put of out use.

As Tullia Linders has shown, the disposal of votives also ran the risk of displeasing the gods as well. Votive objects, as the property of the gods, could only be

⁶⁵¹ Van Straten 1981, 78.

⁶⁵² *IG* II² 1534 (Cited in Van Straten 1981, 80).

melted down in strict accordance with proper laws and undertaken in an “irreproachable manner.”⁶⁵³ In one inscription, the prescribed methods of recasting defective offerings in the small sanctuary of the Hero Doctor in Athens are followed by the explanatory phrase: “so that the relations of the council and people with the gods remain pious.”⁶⁵⁴ Linders argued that votive objects remained the property of the god throughout their lifetime, and changes to the nature of the object could only be carried out according to prescribed laws created to avoid offending the gods and dedicators alike.

Inscriptions dealing with the disposal of votives rarely describe the fate of those old or defunct offerings of baser material or lesser value. The disposal of painted panels, terracotta figurines, plaques, and countless other kinds of votives is attested by archaeological evidence alone. Excavations from many sanctuaries have shown that such votives, too, were often cleared out of the sanctuary, especially when the building underwent reorganization or renovation. Not able to be recycled like their metal counterparts, votives of stone, clay, etc. were deposited together within the sanctuary and deposited in various ways. Although no comprehensive study of the archaeological evidence from Greece has been undertaken, several examples help to illustrate the phenomenon of ‘sacred garbage’ in the Greek Sanctuary.

At the Temple of Asklepios in Corinth, old votives from the sixth-century sanctuary were cleared out as the buildings for the new temple and sanctuary were erected in the fourth century. At least seven distinct deposits were found in various

⁶⁵³ Linders 1989/90, 285.

⁶⁵⁴ *IG II²* 839, 840 (Cited in Linders 1989/90).

bedrock cuttings of the older shrine.⁶⁵⁵ The deposits contained the votives from the old sanctuary, including terracotta body-part votives as well as lamps, miniature vessels, and other pottery. It is notable that these objects were buried within the limits of the sanctuary, either out of convenience (votives provided ready filling material for older foundation trenches) or out of reverence for the consecrated objects. Although impossible to prove, it seems likely that the votives were deliberately kept within the sanctuary limits because of religious proscriptions. Presumably the gods cherished all votives—not simply those in metal—and the inviolability of the divine property held sway even for these.

In spite of this, the votives seem not to have been deposited with any particular care or according to any organizational scheme. Rather, they were haphazardly thrown into the cuttings: joining fragments of one votive could sometimes be found in different pits, for example, swept together and dumped without attention to their preservation. They may have even been broken during this operation. On the other hand, the breaking of an object and the separation of parts through burial may not always indicate carelessness. In his discussion of the Kritios Boy, whose head was buried apart from its body, Jeffrey Hurwit reminds us that votive statues may have been ritually “killed” before burial in order to dissipate their power.⁶⁵⁶ Interestingly, metal objects were not among the finds at Corinth, suggesting that perhaps these were collected separately and melted down like those recorded in inscriptions.

⁶⁵⁵ Deposits were found in the cutting for the east wall of the oikos; in the drain channel; in the well north of the temple, as filling of the basin, for example (Roebuck 1951, 113-4).

⁶⁵⁶ Hurwit 1989, 62. An interesting parallel is offered by J. Bjorkman, who studied the instances of burial of votives and the deliberate separating of parts of the same artifact in Mesopotamia. She concludes that most examples of this come from deposits of discarded votives, or “fill deposits” (1999, 111).

In the Sanctuary of Demeter and the Dioscouri at Messene, large quantities of discarded votive material were discovered in the floor packing of two porticoes and a courtyard.⁶⁵⁷ Terracotta plaques, figurines and miniature cups were found mixed with hundreds of pottery fragments. In addition, rooftiles, antefixes, and mudbrick were also found, as well as stones, wood, charcoal, ashes, and animal bones. A few metal objects and coins were discarded along with the rest of the material.

As at Corinth, the votive material here seems to have been haphazardly buried, also serving as leveling fill for the new construction. The Messene votives are also mixed with destruction debris: architectural material, including roof tiles and mudbrick, and possibly refuse from nearby dining or sacrificial activity (bones and ashes).

Another deposit of old archaic votives was found at the Argive Heraion. Near the foot of the retaining wall next to the Eastern Building (fig. 145), the excavators discovered a large cache of terracotta figurines, miniature vessels, and bronze and iron objects, including a small bronze kouros, and a silver clasp.⁶⁵⁸ Caskey and Amandry concluded that the deposit represented old votives, perhaps discarded after the Archaic temple was destroyed by fire.⁶⁵⁹

This deposit is remarkable not only for the number of finds, but also for the manner in which they were grouped. The larger pots were found at the bottom of the Archaic deposit, while miniature vessels (especially hydriai) were placed above them.

⁶⁵⁷ Themelis 1998, 160-1. Porticoes nos. 3 and 18 and courtyard no. 4

⁶⁵⁸ Caskey and Amandry 1952. The excavators did not attempt to excavate the whole deposit, which was spread over a wide area.

⁶⁵⁹ Caskey and Amandry 1952, 211.

Above the layers of pottery lay most of the metal objects.⁶⁶⁰ Unlike the discarded votives of Corinth and Messene, the votive material from the Argive Heraion deposit seems to have been deliberately organized according to type. In addition, the votives were not discarded within the temple platform, but were removed and buried nearby. Lastly, the finds from the so-called “black stratum” in the sanctuary of Zeus at Olympia may represent a similar sweeping up of old votives during the reorganization of the sanctuary in the second quarter of the seventh century.⁶⁶¹

These few examples partially illustrate how ancient Greeks treated the old and defunct objects of their sanctuaries. Literary sources indicate that votives were viewed as the property of the gods even after their luster faded, and were dealt with according to prescribed guidelines. The cursory archaeological evidence presented above seems to indicate that those votives which could not be re-used or recycled in the service of the god or goddess were disposed of by burial. It seems likely that this always took place within the sanctuary where they were dedicated. In at least one case, the votives may have been specially grouped before deposition. Further study of this phenomenon is needed in order to identify more concrete patterns.

Archaeologically, the relationship of these votive deposits to eastern Greek foundation deposits is a close one. As noted above, the material in eastern Greek foundation deposits is frequently identical to that of temple votives. In addition, because the initiation of a new construction project often provides the motive for clearing out of

⁶⁶⁰ Caskey and Amandry 1952, 175.

⁶⁶¹ The black stratum was found in the area between the Pelopeion and the Temple of Hera and contained large amounts of ash and fragments of cauldrons, tripod legs, jewelry, figurines, and other objects. See Mallwitz 1988, 81-3 for summary.

old votives from the temple, votive deposits are sometimes found just below the new structures, as at Corinth.

Some important distinctions should be kept in mind, however. Deposits of discarded votives, unlike the foundation deposits described in Chapter II, are not confined by a discreet deposit. Instead, they are often spread out across a wide area and are not bounded by an architectural feature.⁶⁶² Other distinctions, such as the inclusion of coins and the relationship to architectural features, are less clear. The case of the votive deposits at Isthmia, for example, presents ambiguity in its identification as either a foundation deposit or a deposit of discarded votives.⁶⁶³

Of further interest concerning the deposition of unwanted votive material is the likely sacral nature of this act as well. As previously mentioned, the discarding of votives could be a cause for displeasure among the gods if not performed properly. Unfortunately, whether the stipulations of “proper” disposal include the performance of ritual, as in Mesopotamian fills,⁶⁶⁴ is unknown.

The Problem of Security Hoards: The Tekke Deposits and the ‘Goldsmith’s Hoard’ at Eretria

A second phenomenon involving the burial of coins or other versions of portable wealth is that of the security hoard. The term “hoard” is a generic one and can be used to describe any collection of valuables. As most hoards are rarely found in secure

⁶⁶² The geometric votive deposit at the Temple of Hera Akraia at Perachora, for example, measured some 17 meters long and 5 meters wide (Payne 1940, 31).

⁶⁶³ See Chapter II pp. 57-9.

⁶⁶⁴ For the burial of unwanted votives in Mesopotamia, see Bjorkman 1994 and Garkinkel 1994, esp. 178-80.

archaeological contexts, little about the motives behind the collecting of such material can be surmised.

In some cases, however, a hoard may be discovered in a discreet context so as to indicate that material was buried or otherwise hidden from view with the intention of later retrieval.⁶⁶⁵ How these ‘security hoards’ came to be is frequently explained by the following pattern: the owner or owners of the valuables, fearing theft or destruction, stores his or her wealth in a secret place, either for general safekeeping or in the face of some larger, temporary threat, such as impending war or invasion. It is impossible to prove the exact motive for the burial of hoards. What is certain is that those who were either not willing or not able to retrieve their property left their goods to be discovered centuries later.

Though they may be found in a variety of contexts, security hoards are frequently found buried beneath floors of houses. At Thorikos, for example, a large hoard of fourth-century coins was discovered in a jug buried beneath the floor of a house.⁶⁶⁶

Because security hoards are intentionally buried, it may be difficult to distinguish assemblages of personal wealth from foundation deposits. In most cases, architectural context provides the most important clue: security hoards are often buried within or near a house or other private structure, while foundation deposits, as they are defined here, are normally found in sanctuary buildings. Even this distinction is problematic, especially when the role of the ancient Greek temple as a “bank” for personal wealth is considered. A study by Bogaert has shown that temples were sometimes used as banks in which

⁶⁶⁵ For recent bibliography on hoards and their function, see Balmuth 2001.

⁶⁶⁶ Mussche et al. 1973, 7-9. Such hoards are frequent in the Levant (Stern 2001, Gitin and Golani 2001).

money could be deposited or borrowed by individuals.⁶⁶⁷ The Hellenistic prince Orophernes is said to have deposited a large sum at the Temple of Athena at Priene, for example.⁶⁶⁸ For this reason, J.C. Carter suggested a tentative connection between the foundation deposit at Priene and the temple's function as a bank.⁶⁶⁹ This hypothesis can be refuted on various grounds, the most significant of which is that the Priene deposit was never meant to be recovered, since it was buried within the statue base.

At other sites, security hoards have been more convincingly identified. At Eretria, in a plot north of the Temple of Apollo, P. Themelis uncovered a scrap of a Geometric wall which, curved at one end, presumably formed an apsidal building like so many other buildings on this site.⁶⁷⁰ In the inner part of this curve and below the foundations, a skyphos with lid was found to contain a large number of gold and electrum pieces, weighing a total of about half a kilogram. The majority of the pieces are "raw" ingots of a variety of sizes, from large flat pieces to bars to small, round globules (some of which were hammered flat) cut into irregular pieces. Some ingots were cast in sea-shells. Distorted pieces of jewelry and wire were also among the finds.⁶⁷¹

Themelis suggested that the hoard belonged to a goldsmith, due to the fact that the hoard seemed to resemble a "stock-in-trade," a cache of raw materials and broken pieces to be melted down and re-worked. The absence of goldsmithing installations, tools, or

⁶⁶⁷ Bogaert 1968.

⁶⁶⁸ The treasure was likely kept within the temple which was secured by gates and grilles (Carter 1983, 234-5). See Chapter II, p. 43 n. 122.

⁶⁶⁹ Carter 1983, 234.

⁶⁷⁰ Themelis 1983.

⁶⁷¹ Including foil pieces with embossed patterns and figures, and a twisted fibula.

other evidence casts doubt as to the identity of the owner.⁶⁷² Unfortunately, no other evidence can be gained as to the function of the building, nor is the archaeological context of the deposits particularly revealing. The Eretria deposit seems best explained as a security hoard, intended for eventual retrieval.

More controversial is the pair of jewelry ‘hoards’ discovered within a tholos tomb at Chaniale Tekke (hereafter Tekke) near Knossos.⁶⁷³ These enigmatic deposits, originally deemed foundation deposits by J. Boardman, play a central role in modern understanding of early Cretan art history, especially with respect to the nature and extent of Near Eastern influence there. In the course of evaluating the significance of the Tekke deposits, a rather circular argument has appeared in which the appearance of foundation deposits has been used to illustrate Near Eastern presence on the island, while Near Eastern presence on the island is used to support the identification of the Tekke deposits as foundation deposits. The Tekke material has received recent attention by G. Hoffman, who attempts to clarify their role in the history of early Cretan art and culture.⁶⁷⁴ Because the Tekke deposits play a particularly important and complex role in the discussion of foundation deposits, it is useful to discuss them here at some length.

Excavating near Knossos in 1940, R.W. Hutchinson discovered two chamber tombs and a tholos tomb in the region of Chaniale Tekke (fig. 146).⁶⁷⁵ Although the

⁶⁷² Bjorkman 1999. In addition, Kroll (2001) has recently argued that the material may have served as pre-monetary material, as in the Levant. See contra, Schaps 2001.

⁶⁷³ Boardman 1967; Boardman and Hutchinson 1954.

⁶⁷⁴ Hoffman 1997.

⁶⁷⁵ The region is also known as Ambelokipi Teke.

tholos tomb (Tomb 2) is likely of Minoan date⁶⁷⁶ the majority of finds from the chamber and the dromos (as well as from the two chamber tombs nearby) date from the Protogeometric to Orientalizing periods, during which time the tholos was re-appropriated, presumably for use as a family burial chamber.⁶⁷⁷ Finds include fragments of at least 19 pithos cremation burials from the Geometric to Early Orientalizing periods.⁶⁷⁸ No burials were found *in situ*, however, as the entire chamber seems to have been disturbed in antiquity. No significant stratigraphy could be identified.⁶⁷⁹

Inside the chamber, a layer of clean sand was discerned to be the floor level.⁶⁸⁰ Beneath this layer was virgin soil, into which two small vessels had been buried on the north and south sides of the threshold.⁶⁸¹ An ovoid jar was buried on the northern side, and a feeding-cup in course red ware was buried on the southern side (fig. 147). Both the vessels were dated to the Protogeometric period.⁶⁸² Each vessel was found to contain a collection of valuables, including finished gold jewelry and bits of ‘raw,’ or unworked metal, such as gold dumps and bars, a silver dump, and other bits of gold (fig. 148).⁶⁸³

⁶⁷⁶ Hutchinson noted that some of the stones displayed Minoan tooling (Boardman and Hutchinson 1954, 216 n. 2). A few MM sherds and some fragments of a LMII sarcophagus were found inside the tomb.

⁶⁷⁷ Boardman 1967, 57. The re-use of tholoi is common in Iron Age Crete. See Coldstream 1997, and Eaby forthcoming.

⁶⁷⁸ Boardman 1967, 222. There is no evidence, however, of burial pithoi dating to PGB, the earliest period of re-use. See below, pp. 227-30 for an alternative interpretation of the function of the tholos during this period.

⁶⁷⁹ Boardman and Hutchinson 1954, 216.

⁶⁸⁰ This layer was at the level below the bottom face of the threshold block which served as a step (down) from the dromos into the chamber.

⁶⁸¹ Boardman and Hutchinson 1954, 216.

⁶⁸² Boardman 1967, 59.

Much of the jewelry is of extraordinary workmanship, with intricate designs in both cloisonné and granulation. Some pieces incorporated amber and rock crystal elements as well.

In his analysis, Boardman points out that many of these objects have close Near Eastern parallels, especially the gold pendant, which is a version of an Assyrian earring-pendant.⁶⁸⁴ Besides the eastern appearance of the jewelry, other finds from the chamber and dromos display a significant Eastern character, including a Cypriot stand/rod tripod (or a faithful Cretan copy), a faience bottle, and an ostrich egg.⁶⁸⁵ In addition, some of the pottery closely resembles Cypriot forms.

Working from the hypothesis that the goldsmithing techniques of granulation and cloisonné were directly introduced to Crete by Near Eastern craftsmen in the ninth and eighth centuries B.C., Boardman suggested that the two Tekke deposits provided archaeological evidence for this early and direct influence on Cretan art.⁶⁸⁶ The early date of the Tekke deposits and their overwhelming Near Eastern character, when taken together, could be accounted for by the presence of immigrant jewelers from the East who lived and worked on Crete in the Early Iron Age. The Tekke tomb, according to Boardman, might have belonged to the family of such a metalworker.

While Boardman's hypothesis has generally been accepted in scholarship,⁶⁸⁷ it has recently been criticized by Hoffman with respect to three important aspects.

⁶⁸³ For the catalogue of finds, see Boardman and Hutchinson 1954, 226-7 nos. 1-16 (northern pot); 227 nos. 17-44 (southern pot); revised in Boardman 1967, 68-9.

⁶⁸⁴ Boardman (1967, 62 at. no. 19), citing a parallel at Tell Halaf.

⁶⁸⁵ The ostrich egg is most certainly an import.

⁶⁸⁶ Boardman 1967, 63ff.

First is the assumption that immigrant craftsmen lived and worked in Crete. This is a complex topic which concerns the larger problem of assuming ethnic identity through art historical analysis and cannot be fully addressed here.⁶⁸⁸ Although she ultimately concedes that immigrant craftsmen likely lived in Crete,⁶⁸⁹ Hoffman suggests that it is always extremely difficult to detect the presence of immigrant workers through stylistic analysis alone.⁶⁹⁰

Downplaying the role of immigrant craftsmen, Hoffman notes that certain stylistic and iconographic details, as well as the use of certain materials, seem to argue for production in Crete.⁶⁹¹ Hoffman astutely concedes that the “determination of the ethnicity of the jeweler who made the Tekke jewelry based solely or even primarily on its art historical analysis would be difficult and would find no scholarly consensus.”⁶⁹²

Boardman’s second hypothesis, that the Tekke deposits (and therefore the tomb) must have belonged to a jeweler (if not an immigrant from the East) is based on the presence of “raw” materials (gold and silver bars and unfinished pieces), which might have been the working materials of a goldsmith.

⁶⁸⁷ The Tekke deposits are “cited so widely by scholars as definite evidence for the presence of immigrant craftsmen in the Greek world that [they have] become almost an archetypal case” (Hoffman 1997, 189; see n. 119 for bibliography). Admittedly, this acceptance was gained despite Boardman’s own cautionary preface to his own conclusions “What follows is a personal view” (1967, 63) and “this account may seem overbold” (1967, 67).

⁶⁸⁸ See Hoffman 1997, Chapter 3 for a balanced assessment of the evidence of immigrants on Crete.

⁶⁸⁹ Perhaps the most famous example is the case of the ivory and bronze objects found at the Idaean Cave. The ivories were assumed to have been made by those with training in ivory carving, presumably Near Easterners. Likewise, the bronzes display an intimate familiarity with Near Eastern imagery and style, yet certain elements of the imagery are specific to the ritual at the cave, thus suggesting a foreigner working on-site for Cretan patrons.

⁶⁹⁰ Hoffman 1997, 188.

⁶⁹¹ Hoffman 1997, 239.

⁶⁹² See Hoffman 1997, 213-34 for stylistic analysis of the jewelry.

Here Boardman follows a common interpretation of hoards of this type. Yet the identification of “jeweler’s hoards” or “silversmith hoards” on the basis of raw, broken, or unfinished material, as Bjorkman has demonstrated, is commonly unfounded.⁶⁹³ Without evidence of tools or other signs of metal-processing, there is no basis to speculate as to the trade of its owner. In addition, such “raw” forms of gold and silver were frequent in the Near East as a kind of pre-monetary barter material, weighed out and even cut according to need.⁶⁹⁴ Thus it is unlikely that the contents of the Tekke hoard can tell us anything about the trade of the tomb’s owner. Indeed, this sort of evidence would be surprising in the context of a tomb.

Boardman’s last point, however, is most important for this study. He noted that the jewelry and other materials hidden below the floor of the tomb were likely not intended as grave goods, which in Greece are normally placed in the burial space and not beneath the floor.⁶⁹⁵ Instead, Boardman suggested that the vessels were “deposited in a manner which recalls nothing more than the eastern practice of burying foundation deposits to consecrate and protect a structure.”⁶⁹⁶ As foundation deposits were all but unknown in Greece when the Tekke deposits were discovered, no doubt the association with the Near East made this interpretation an attractive one for Boardman.

⁶⁹³ Bjorkman 1993.

⁶⁹⁴ For possible use of bullion as money in Greece, see Robinson 1950; Kraay and Moorey 1968; and recently, Kroll 2001 and Gitin and Golani, 2001. A recent study by J. Ogden suggests the customers, not the smith himself, often provided the raw material to be worked. The smith would therefore not likely have had such a quantity of material on hand (1992, 57-8).

⁶⁹⁵ Boardman 1967, 58.

⁶⁹⁶ Boardman 1967, 63.

Nevertheless, there are some serious objections to this interpretation, some of which Hoffman has recently outlined.⁶⁹⁷

Hoffman first offers an objection on typological grounds, claiming that “Near Eastern foundation deposits are not characteristically composed of the wealth of individuals.”⁶⁹⁸ Foundation deposits in the Near East, and especially the Levant, however, sometimes contain objects of “wealth” including bits of gold and silver, and other luxury goods, as they do in the eastern Greek type. Hoffman’s second objection to Boardman’s theory is that foundation deposits usually include “miniature replicas of building materials (bricks, pegs, etc.) and construction tools.”⁶⁹⁹ Bricks, pegs, and construction tools are indeed frequently the contents of Mesopotamian and Egyptian foundation deposits, but by no means are they present in every foundation deposit nor are they even usual in later Assyrian, neo-Babylonian, and Late Period Egyptian foundation deposits.

A more serious objection is that the two Tekke deposits were not discovered *directly* beneath an architectural feature, but next to one (the threshold block). Hoffman writes that foundation deposits are normally covered by architectural features, and those which are not must be considered “hoards.” This rigid designation, while meant to clear up the confusion between hoard and foundation deposit, does not reflect the reality that foundation deposits are sometimes simply buried beneath floors, and not architectural features. We know this from Egyptian examples, where the contents of the foundation

⁶⁹⁷ Hoffman 1997, 196, 207-10.

⁶⁹⁸ Hoffman 1997, 196.

⁶⁹⁹ Hoffman 1997, 196.

deposit leave no doubt as to their identity. Moreover, the deposits were not laid when Tekke tomb was first constructed but during appropriation for secondary burial. One might therefore not expect a foundation deposit to be located beneath the walls which were already in place before the new owners claimed it.

The most convincing argument against the identification of the Tekke deposits as foundation deposits is the type of building with which they are associated or located. The foundation deposits in Greece are overwhelmingly associated with sacred buildings: temples, treasuries, and in rarer cases, with other great public works such as city walls. In Mesopotamia, the situation is similar, though in Egypt foundation deposits were sometimes located in burial complexes, though usually in connection with a mortuary temple.⁷⁰⁰ Though rare, examples of foundation deposits have been discovered in connection with private Egyptian tombs, including five deposits made in shallow pits at an 18th Dynasty tomb of Senenmūt.⁷⁰¹

In sum, the architectural context of the Tekke deposits would make them unique among known foundation deposits in Greece. Without significant comparanda in a funerary context, the Tekke deposits cannot convincingly be identified as foundation deposits. Without more evidence, however, this aspect also cannot disprove the possibility. Hoffman's alternative suggestion of a security hoard also presents difficulties. In the pre-monetary Levant, hoards of silver objects were frequently stored in clay vessels, much like the Tekke deposits, and buried beneath floors. What

⁷⁰⁰ Such as the mortuary temple of Hatshepsut at Deir el Bahri (Weinstein 1973, 168-70).

⁷⁰¹ Tomb 353; see Dorman 1991, esp. 149-58: "Foundation deposits clearly associated with private architecture are rare indeed for ancient Egypt, and even rarer for private tombs" (149). See also Weinstein 1973, 168-70, no. 34 and O'Connor 1967.

differentiates a hoard from a foundation deposit is not material or location⁷⁰² but the availability of the material to be (potentially) located and retrieved. And, as Boardman reiterated, the Tekke deposits would have been not only buried below the floor but also sealed inside the chamber, circumstances incompatible with the interpretation of a security deposit.⁷⁰³

The Tekke Tholos: Tomb or Shrine?

An interesting find within the tholos may further inform the architectural context of the two deposits. Among the finds excavated from the chamber were fragments of a rectangular architectural model (fig. 149), one of the few objects contemporary with the PGB Tekke deposits.⁷⁰⁴ The model has a flat roof with raised chimney-hole in the center. Above the removable door is a long window, while two small windows pierce the back wall. Inside, the center of the floor is sunken slightly, and a high bench runs along the back wall.

The function of architectural models in post-palatial Crete has been studied by Rebecca Mersereau, who argues that they were likely cult objects.⁷⁰⁵ The models, first appearing in LMIII, seem to coincide chronologically with the Iron-Age cult of the

⁷⁰² Contrary to Hoffman, who states (erroneously): “Hoardings are placed near but not under architectural features such as doorways and columns, while foundation deposits are often covered by these architectural features.” (1997, 196).

⁷⁰³ Hoffman admits the infelicities of this interpretation (1997, 206 n. 56). She suggests an alternative: that the deposits were made after a general cleaning of the tomb’s contents, either in preparation for initial reuse, or after a robbery or other damage to the tomb (idem, 211 n. 74).

⁷⁰⁴ The large model (c. 31 cm. high) is dated to the third quarter of the 9th century based on the full- and half-concentric circle motif on the door. See Boardman 1967, 65-6; Schattner 1990, 27-8, cat. no. 3.

⁷⁰⁵ Mersereau, 1991 and 1993. Mersereau’s study included only architectural models of cylindrical form. However, I see no reason why her conclusions should not also extend to other, non-cylindrical models from this period on Crete, especially since she convincingly establishes that the cylindrical shape is not a significant symbolic or iconographic feature.

“Minoan goddess with upraised arms,” or MGUA, a dominant feature in post-Bronze Age Cretan cult.⁷⁰⁶ Mersereau notes that models are often discovered in proximity to other cultic implements, albeit in domestic contexts.⁷⁰⁷ Mersereau’s best evidence for assigning a cultic function to the architectural models, however, is the iconography of two examples from Knossos and Archanes (figs. 150-1). Both these models preserve a figurine of the MGUA herself in the interior.⁷⁰⁸ In the cylindrical model from Knossos, a large female with upraised hands (shown from the hips up) and elongated proportions is attached to the center of the floor. Like the Tekke model, a removable door (now lost) would have been attached to the exterior.

The Archanes model is more elaborate. Inside, a seated female with upraised hands wears a polos or crown. On the conical roof lie two humans who crane their necks as if to peer inside the model through the small opening (chimney?) in the center of the roof.⁷⁰⁹ A four-legged animal with a long tail rests nearby.⁷¹⁰ Many suggestions as to the meaning of this unusual scene have been offered; the model has been interpreted as representing a tomb, an underground shrine, or the house of the dead, among others.⁷¹¹ Most scholars agree that the model represents a kind of abstract cultic space in which the goddess is somehow made manifest to others. Although the Tekke model preserves no

⁷⁰⁶ For *MGUA* cult, see Gesell 1985.

⁷⁰⁷ No architectural model has actually been found at any MGUA shrine (Mersereau 1993, 18).

⁷⁰⁸ The earlier, LMIIIC-Subminoan model from Knossos was discovered at the Spring Chamber Shrine (Mersereau 1993, cat. 18). The later PGB model from Archanes (Mersereau 1993 cat. 19) was found in a tholos tomb.

⁷⁰⁹ See Mersereau 1993, 42 for full bibliography on meaning of the iconography.

⁷¹⁰ It is probably a cat or dog. The muzzle and ears are restorations (Mersereau 1993, 41).

⁷¹¹ For summary of scholarship, see Mersereau 1993, 20-1.

such female goddess in its interior, it may once have done so. Perhaps the sunken central part of the floor received such an object.⁷¹² The interior bench is also evocative of a cultic space and may signify the platforms or benches found in many MGUA shrines.⁷¹³

Like the iconography, the precise function of the architectural models remains obscure. What little can be understood of the iconography tells us that the models (at least the ones with preserved interior images and probably all) had to do with the dominant cult of the Minoan goddess with upraised hands.⁷¹⁴ Mersereau suggested that the removable doorway on all architectural models may indicate the desire to place something inside and protect it during transport.⁷¹⁵ Alternatively, Hägg and Marinatos suggested that the removable door could facilitate the periodic revelation of the goddess inside to viewers, much like the “epiphanies” from earlier Minoan cult.⁷¹⁶

How does the funerary context of the Tekke model, presumably a cult object, inform our view of the Tekke tomb? A funerary context for architectural models on Crete is rare: only one other model, the Archanes model, is known to come from a tholos tomb. The majority came from town sites, sometimes in the company of other cult material.⁷¹⁷ The uncertain function of Cretan architectural models makes it difficult to

⁷¹² Hägg and Marinatos 1991, 306 n. 40. “It is not too hazardous to presume that those [models] that were found empty once housed similar figurines, which were worked as separate pieces and not fastened to the floor...”

⁷¹³ For post-palatial bench sanctuaries, see Gesell 1985, 41-7.

⁷¹⁴ The function of architectural models in antiquity is not well understood and is a topic I hope to address elsewhere.

⁷¹⁵ Mersereau 1993, 19.

⁷¹⁶ Hägg and Marinatos 1991, 306-7.

assess the role of the Tekke and Archanes models as grave goods. As Mersereau points out, the grave goods of early Iron Age Knossos are quite varied and eclectic, and may be “just another variant in the wide range of objects that Knossians found appropriate to put in the tomb.”⁷¹⁸ Recalling that no evidence of a cremation urn or pithos burial from the PGB complex was discovered, Boardman inquires, “To what extent might the immigrants have treated and equipped the tombs at first as shrines as well as burial places?”⁷¹⁹

While the mere presence of an architectural model cannot argue for the use of the space as a shrine, the idea of a Bronze Age tomb being re-used as focus for cult activity is not unprecedented in Greece. On Crete, Bosanquet suggested that a tholos (Tomb A) at Praisos had been used for hero-worship,⁷²⁰ and the use of Mycenaean tombs as foci of cult activity in early Greece is well-attested.⁷²¹ It is perhaps notable that both the Tekke and the Archanes tholoi, while located in a cemetery, were architecturally distinct from the surrounding chamber tombs.⁷²²

Boardman’s suggested interpretation of a foundation deposit cannot be proved. Nevertheless, the present evidence suggests to the author that the position of the deposits, buried beneath the floor and next to an important architectural feature, but more

⁷¹⁷ As the Archanes model was excavated illicitly, the exact findspot cannot be certain. From the description given by the owner after its discovery, it was probably discovered within a tholos tomb (Mersereau 1993, 42). See *idem*, 22 (Table 1) for summary of findspots.

⁷¹⁸ Mersereau 1993, 13 n. 61 (following Whitley 1991).

⁷¹⁹ Boardman 1967, 65-6. The only other PGB material included the house model, five “strange, beautiful, and quite impractical” basket-handled jars, an oinochoe, and the deposit vessels.

⁷²⁰ Bosanquet, 1901-02, 240-5. Whitley casts doubt on this assessment, stating the likelihood of later burials (1999, 25 n. 114.).

⁷²¹ Antonaccio 1995.

⁷²² Mersereau 1993, 42.

importantly, their inaccessibility lends a favorable light to the possibility of a foundation deposit.

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ILLUSTRATIONS

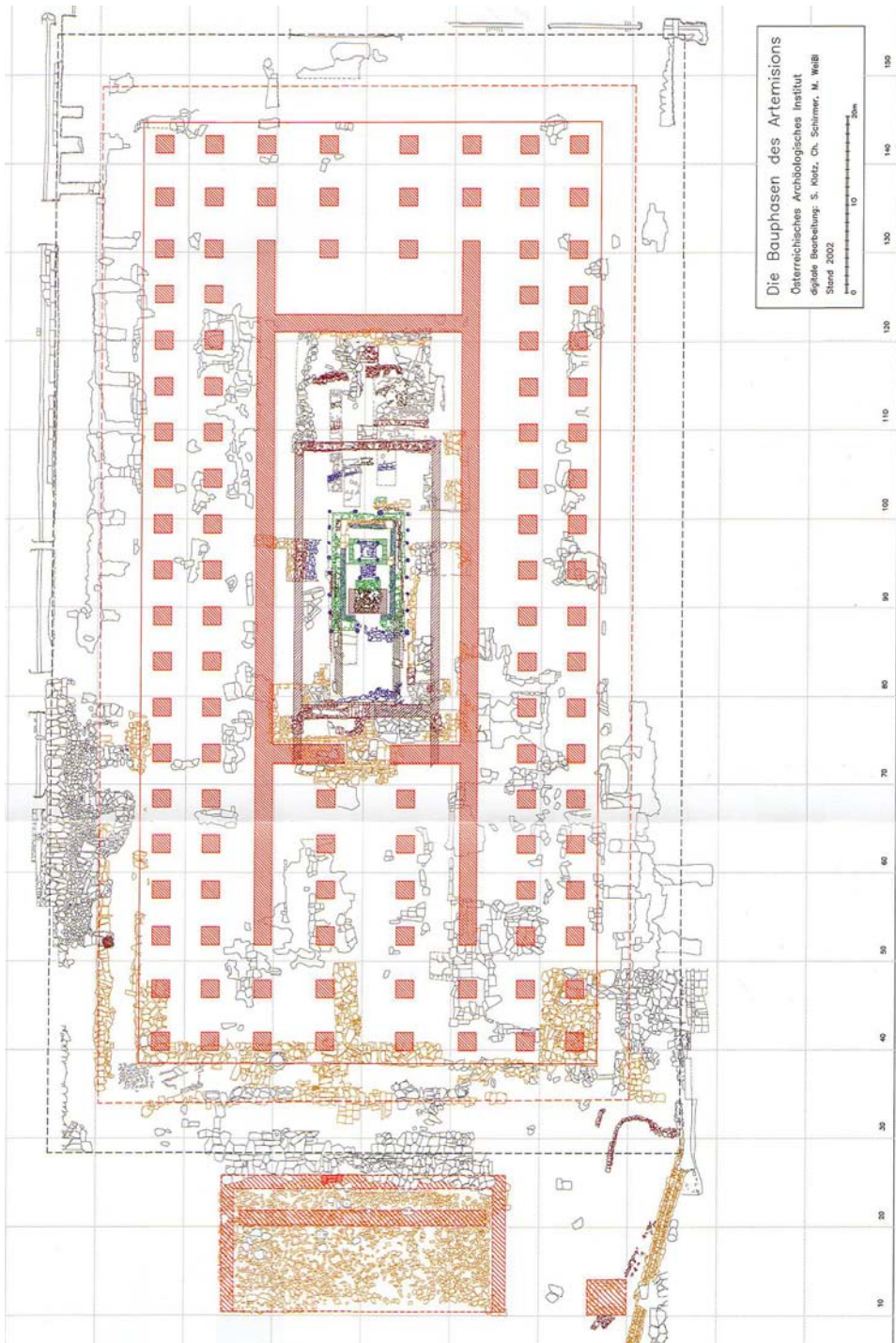


Fig. 1 Reconstruction of the Architectural Remains of the Artemision at Ephesus (Weissl 2002)

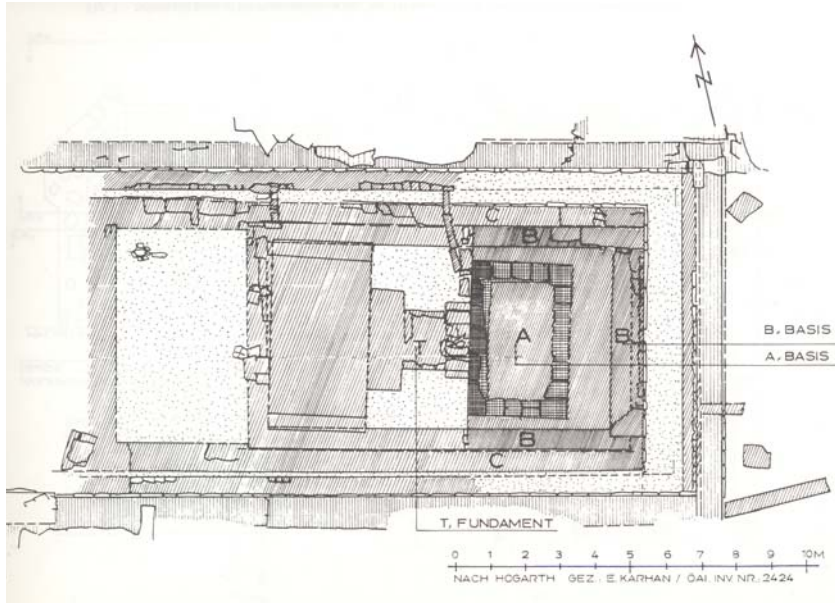


Fig. 2 Hogarth's Reconstruction of the Central Basis (Bammer 1990 after Hogarth 1908)

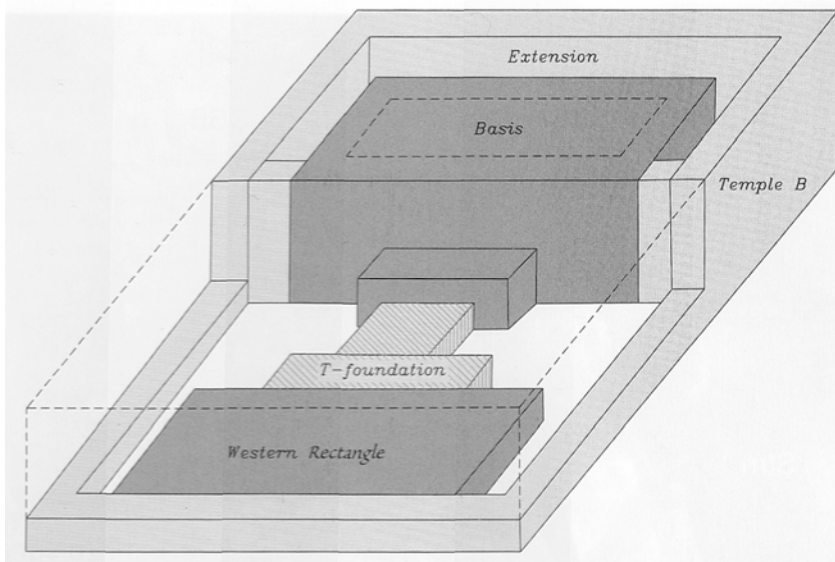


Fig. 3 Hogarth's Isometric Reconstruction of the Central Basis (Hogarth 1908)

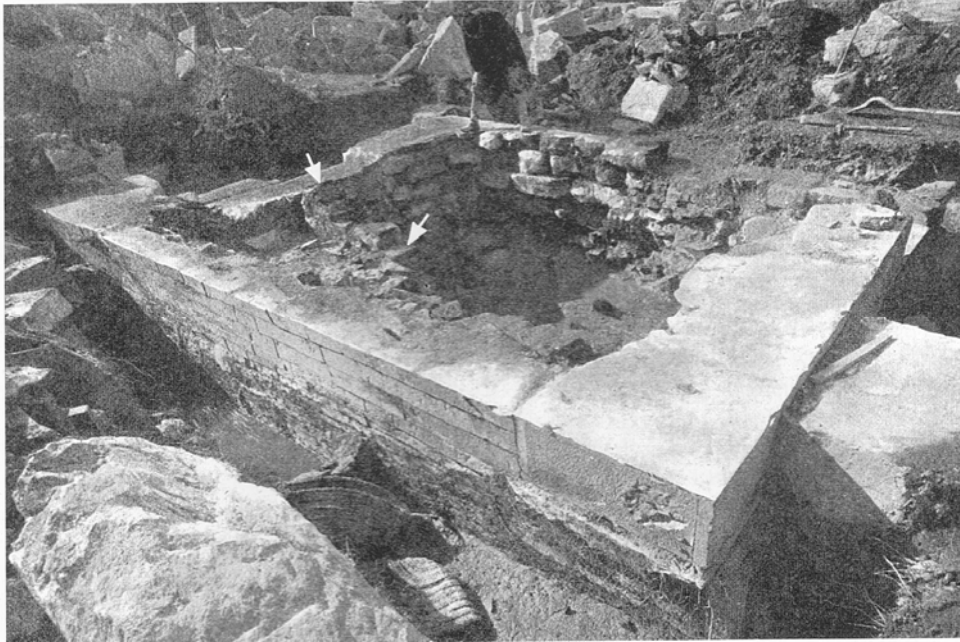


Fig. 4 Photograph of Central Basis from the northeast with arrows marking eastern wall of Earlier Basis (Weissl 2002 after Hogarth)

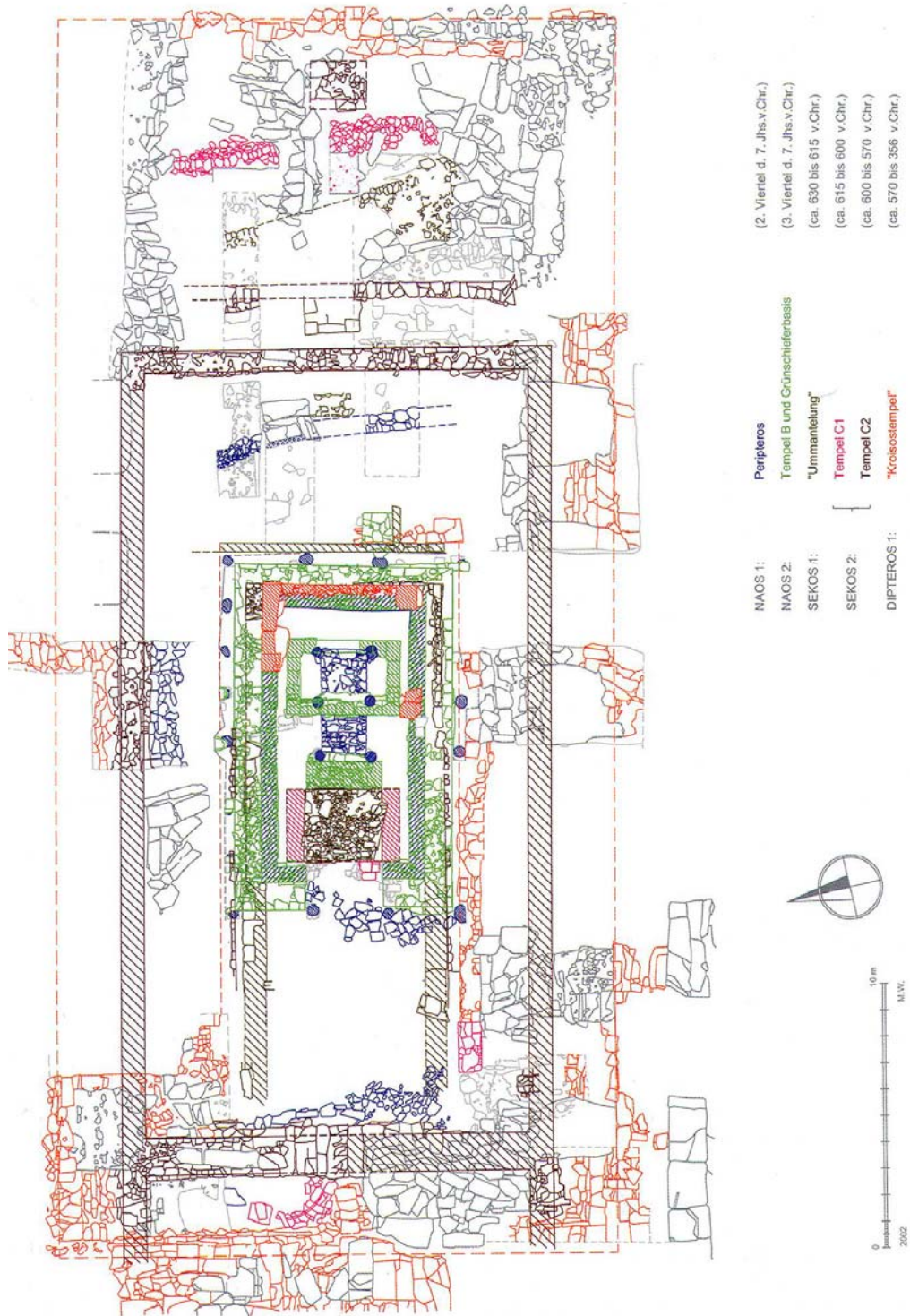


Fig. 5 Reconstruction of the central architectural remains of the Artemision (Weissl 2002)

Ost

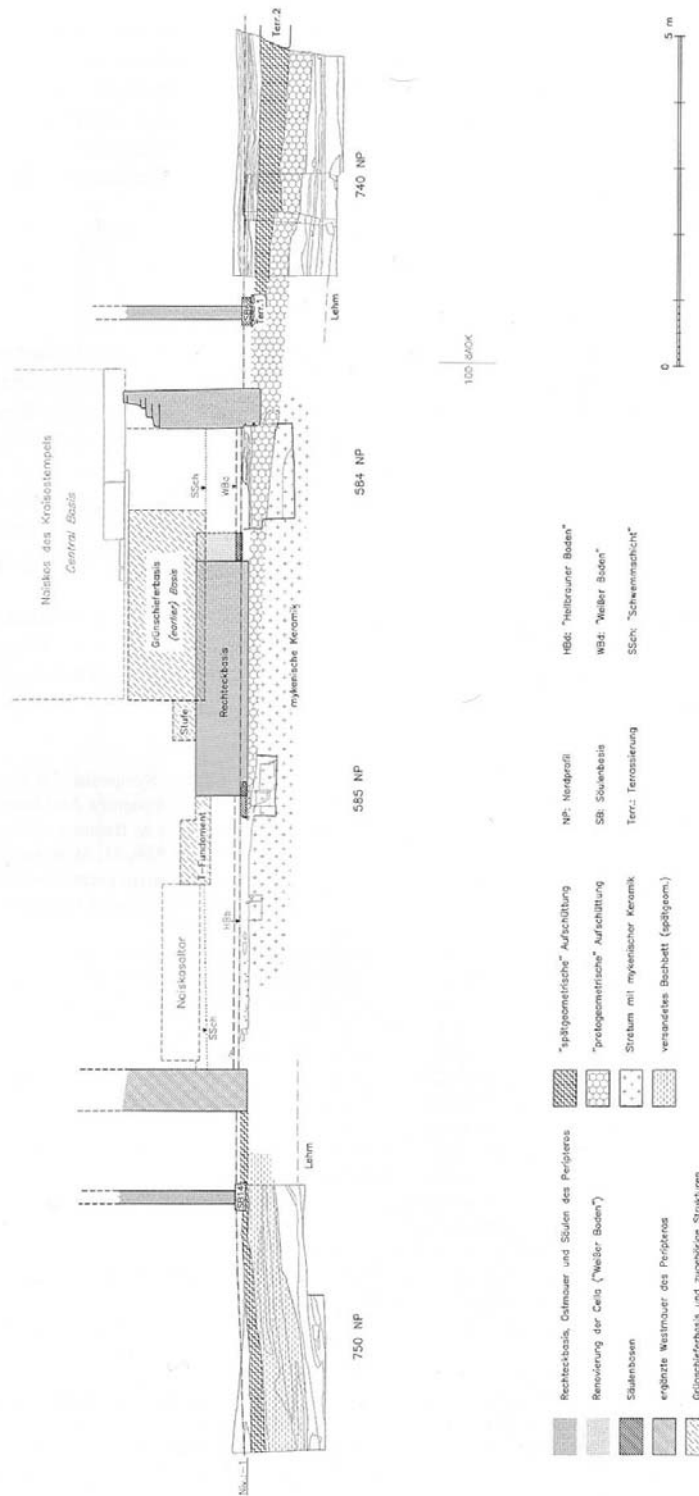


Fig. 6 Reconstructed section (W-E) of the Central Basis (Weissl 2002)

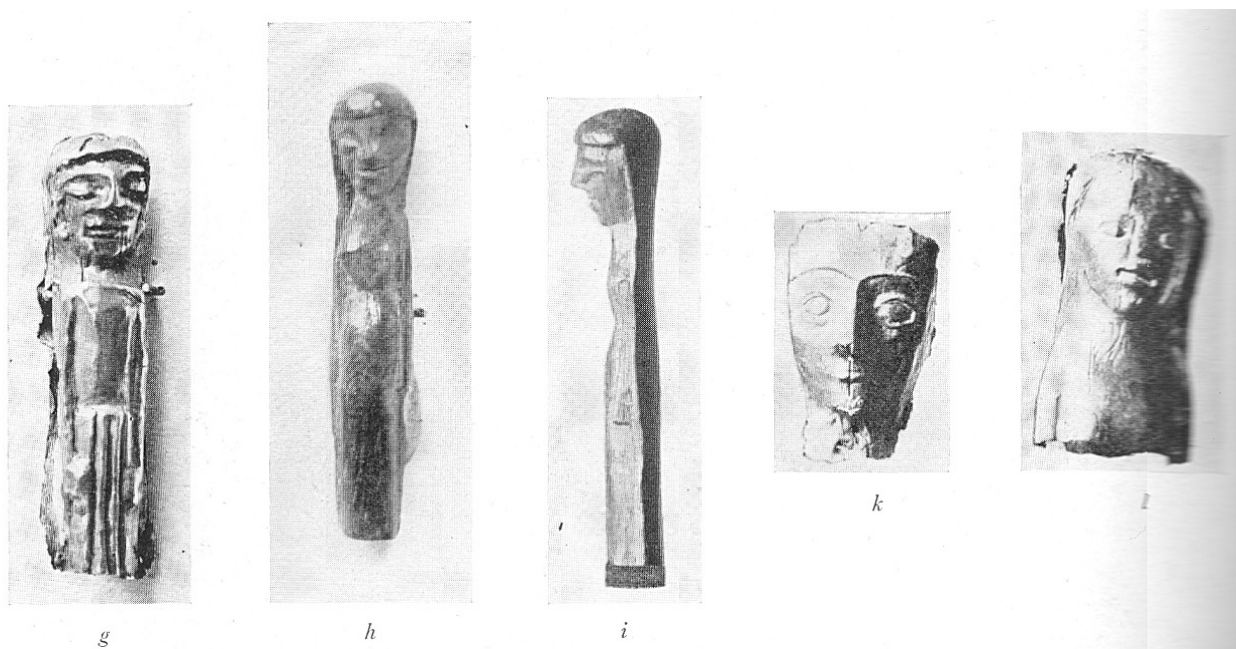
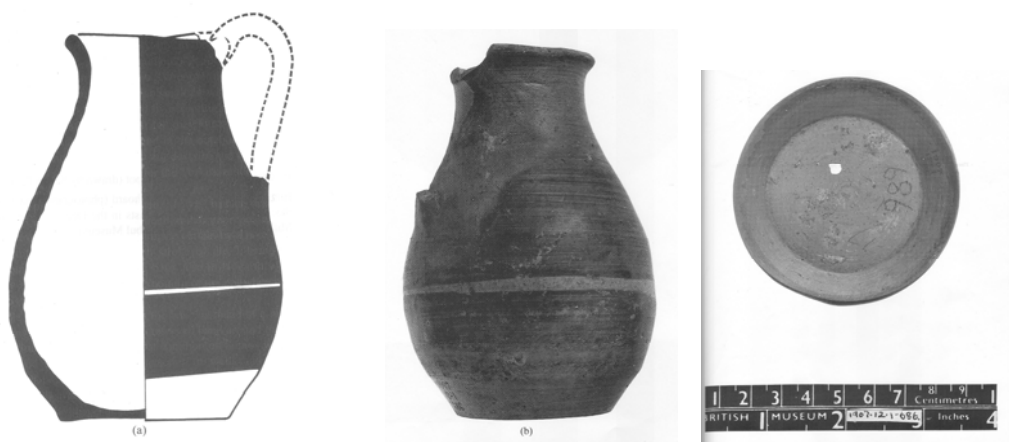


Fig. 9 Sphyrrelaton figurines from the Earlier Basis deposit (Jacobsthal 1951 after Hogarth)



Fig. 10 Electrotypes of hawks from the Central Basis in the British Museum (photos: author)



Figs. 11-13 Drawing, side view, and bottom view of “pot hoard” jug (Williams 1991-1993)

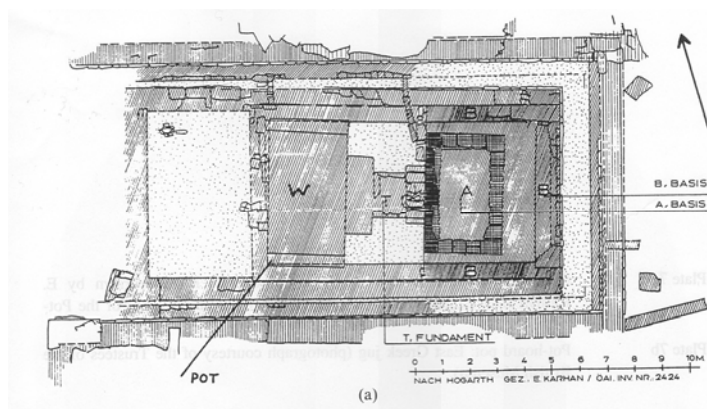


Fig. 14 Find spot of pot hoard (Williams 1991-1993)

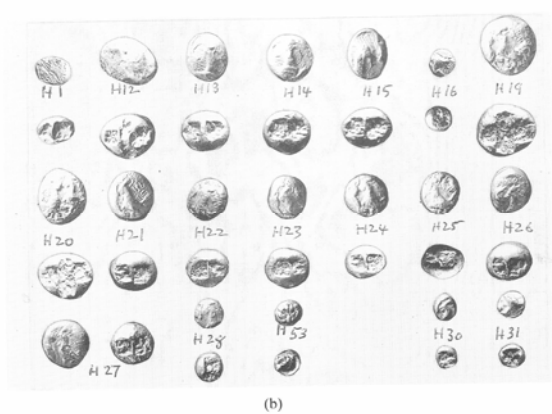


Fig. 15 Coins from pot hoard (Williams 1991-1993)

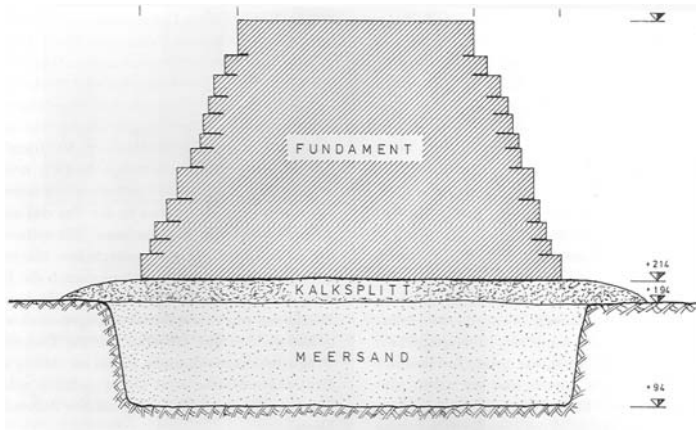


Fig. 16 Schematic drawing of sand foundations of Hera III at Samos (Kienast 2001)

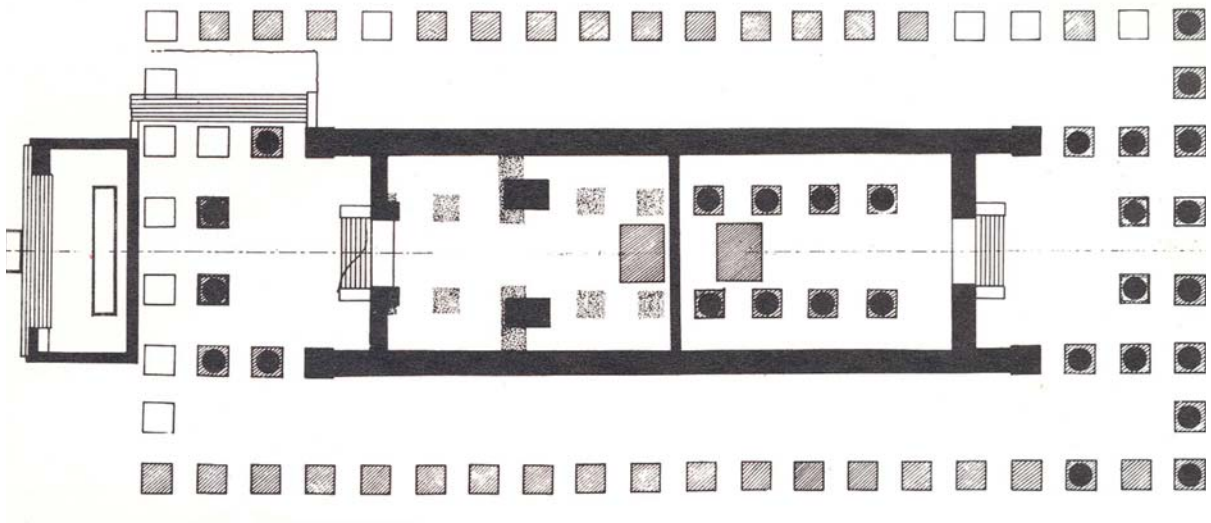


Fig. 17 Temple of Artemis at Sardis, plan (Hanfmann and Frazer 1975).

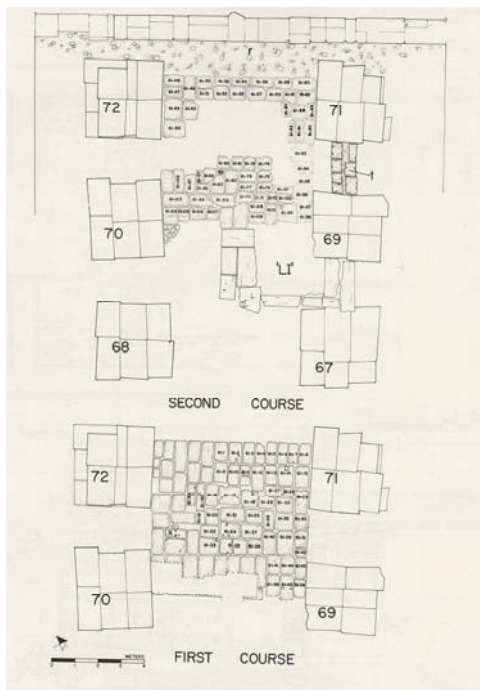


Fig. 18 State plan of eastern statue base (Hanfmann and Frazer 1975)

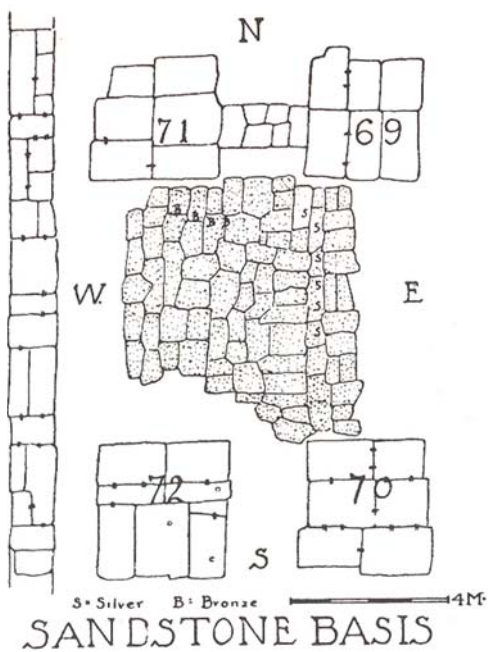


Fig. 19 Location of bronze and silver coins in relation to eastern statue base (Hanfmann and Frazer 1975 after Butler)

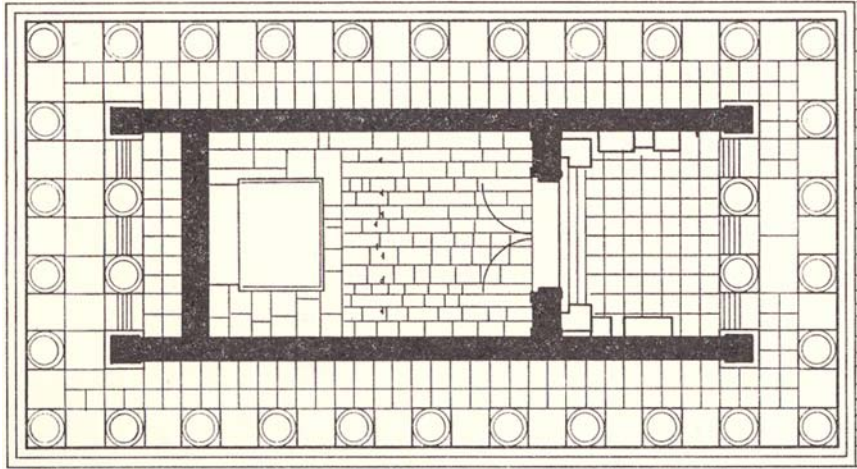


Fig. 20 Temple of Athena Polias at Priene (Carter 1983)

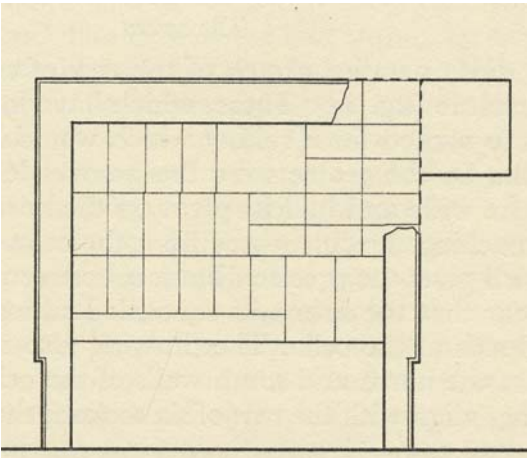


Fig. 21 Reconstruction of statue base (Carter 1983 after Pullan)



Fig. 22 Photograph of cult statue base in 1869 (Carter 1983)



Fig. 23 Coin of Orophernes from the statue base (Carter 1983)

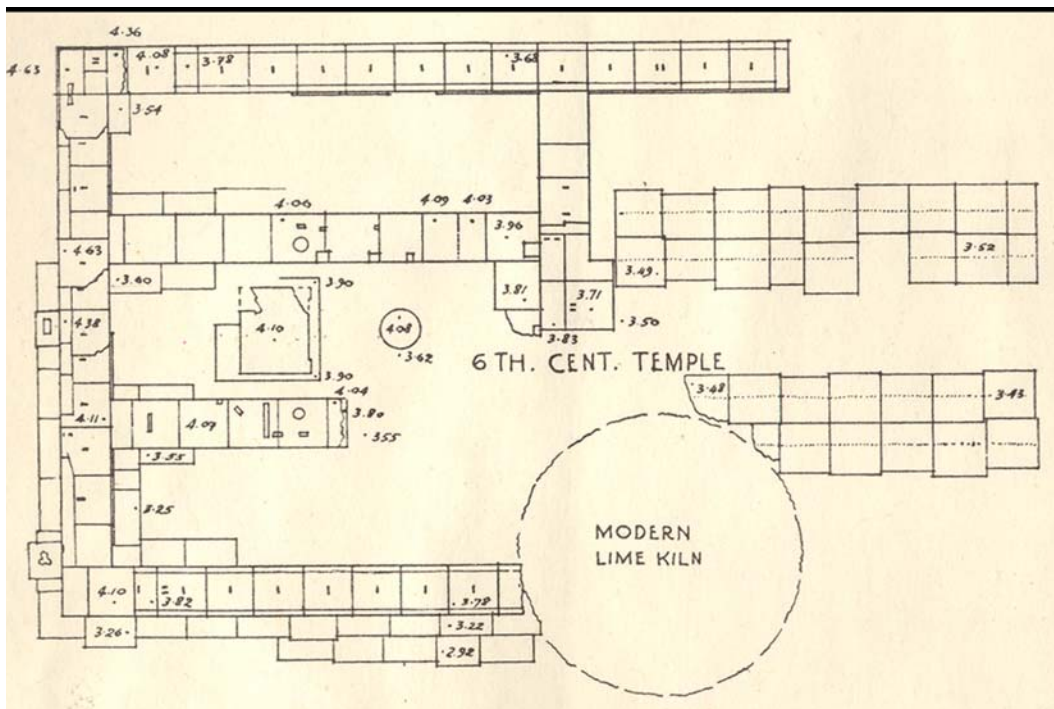


Fig. 24 Plan of the temple of Hera Akraia at Perachora (Payne 1931/32).



Fig. 25 Statue base *in situ* (Menadier 1997)

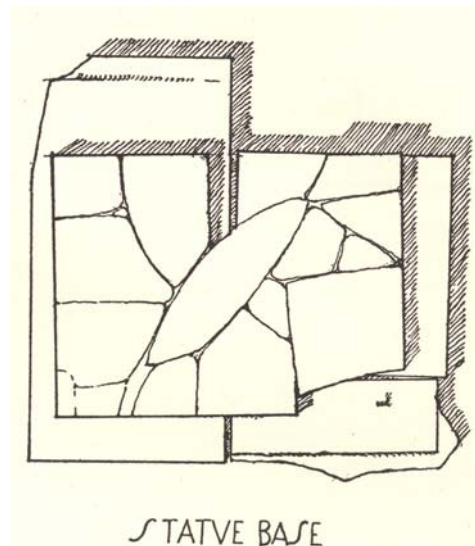


Fig. 26 Drawing of the statue base (Payne 1931/32)

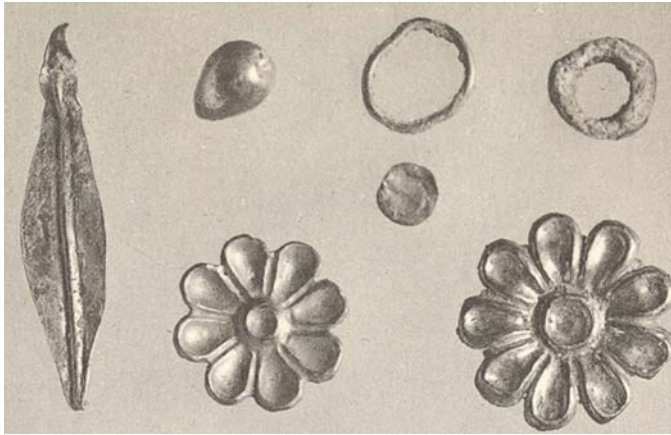


Fig. 27 Objects from the statue base (Payne 1931/32)

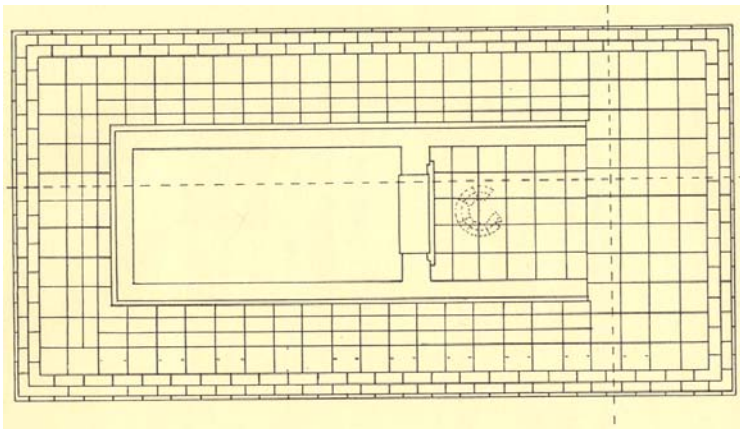


Fig. 28 Temple of Hemithea at Kastabos, plan (Cook 1966)

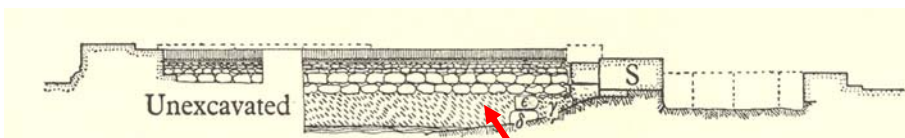


Fig. 29 Section through the cella (E-W) with arrow pointing to deposit find spot (after Cook 1966)

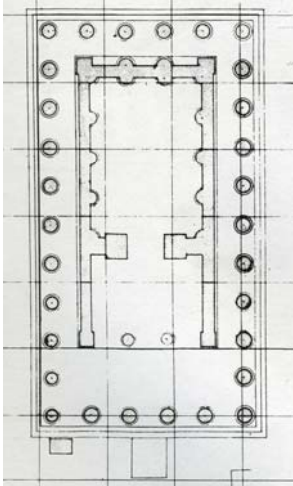


Fig. 30 Plan of the temple of Leto in the Letöon of Xanthos (Hansen and Le Roy 1976)

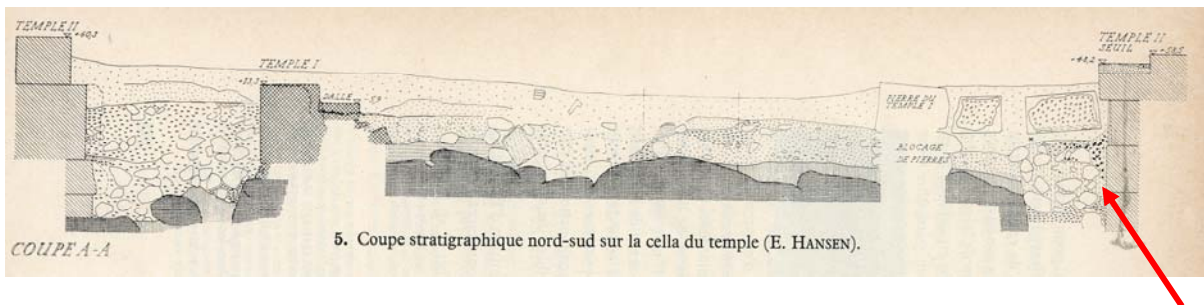


Fig. 31 Section through the cella (N-S) with arrow pointing to deposit find spot (after Hansen and Le Roy 1976)

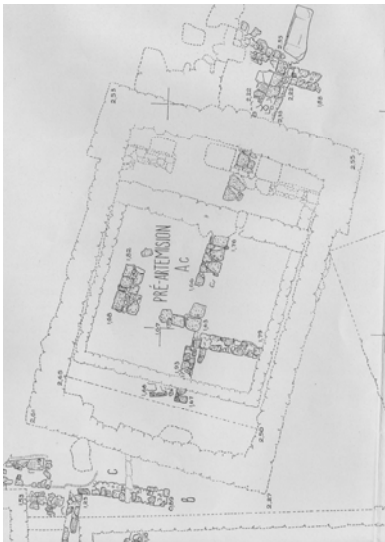


Fig. 32 Plan of the temple of Artemis on Delos (Santerre 1948)

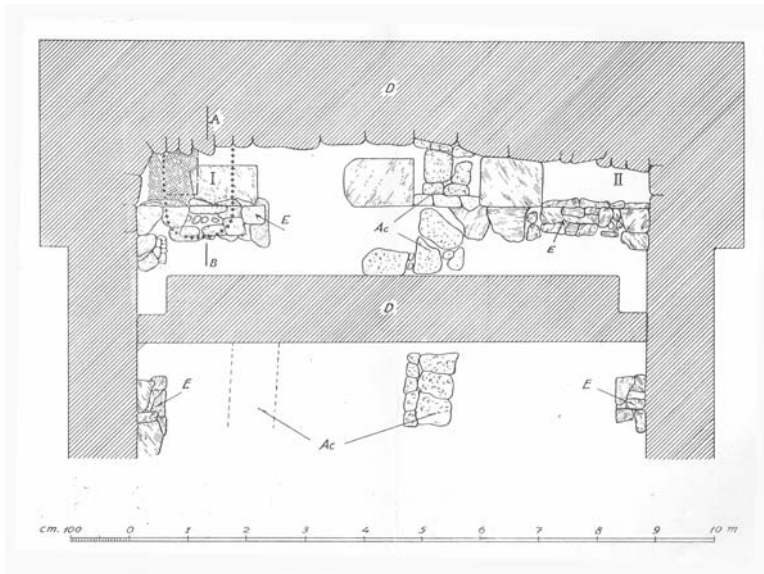


Fig. 33 Temple of Artemis on Delos, early remains (Santerre 1948)



Fig. 34 Selection of objects from foundation deposit (Santerre 1948)

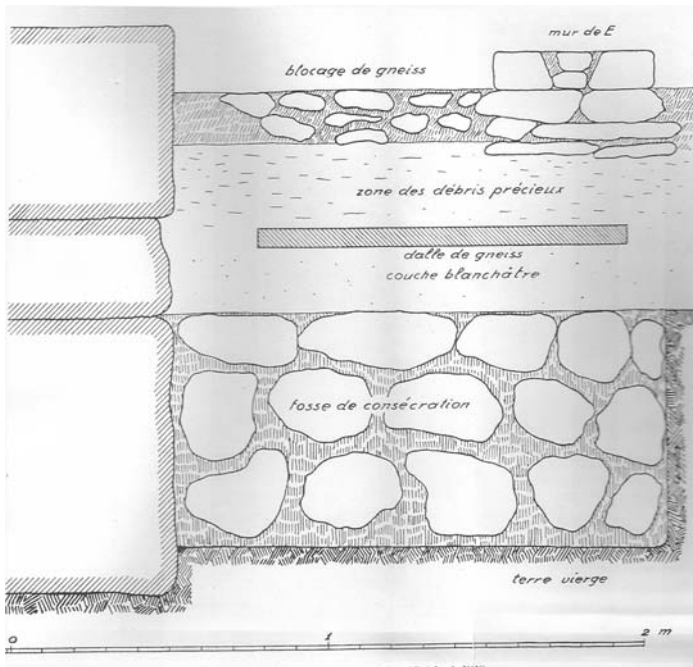


Fig. 35 Section A-B (Santerre 1948)



Fig. 36 Figurine from *depot* (Santerre 1948)

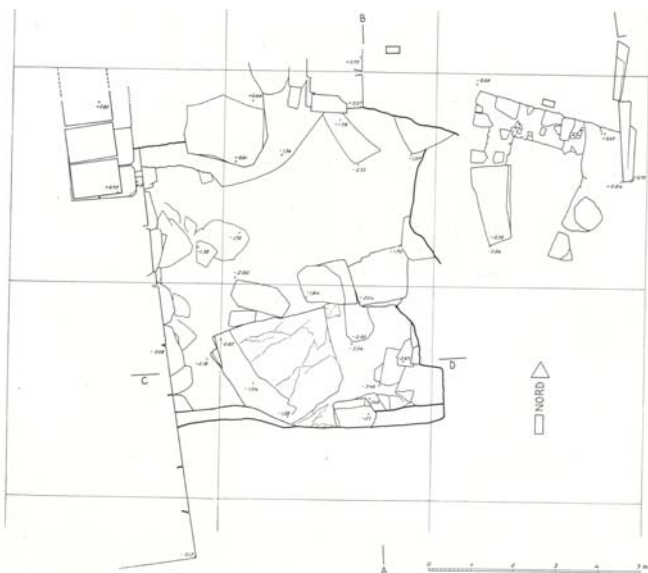


Fig. 37 Plan of area east of the tufa temple, sanctuary of Athena Pronaia, Delphi (Lerat 1957)

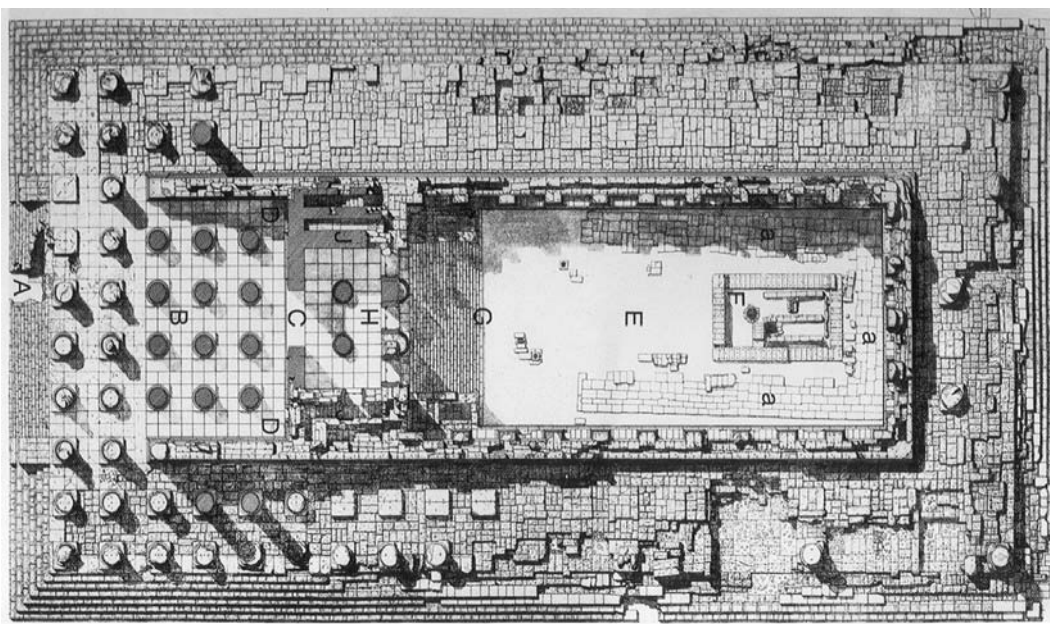


Fig. 38 Plan of the temple of Apollo at Didyma

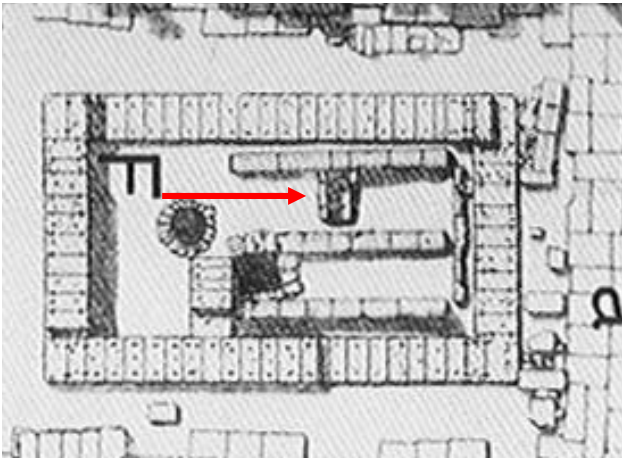


Fig. 39 Detail of figure 38 with arrow pointing to the bothros



Fig. 40 Photographs of the bothros: interior and view of eastern wall (Voigtländer 1972)

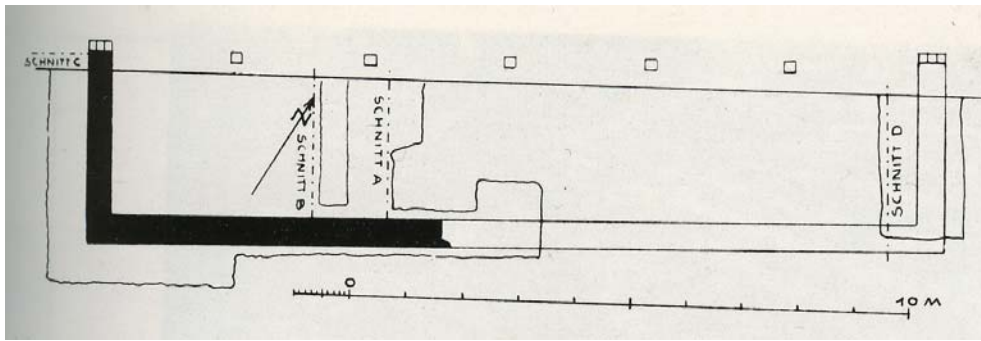


Fig. 41 Plan of Archaic stoa at Didyma (Naumann and Tuchelt 1964)

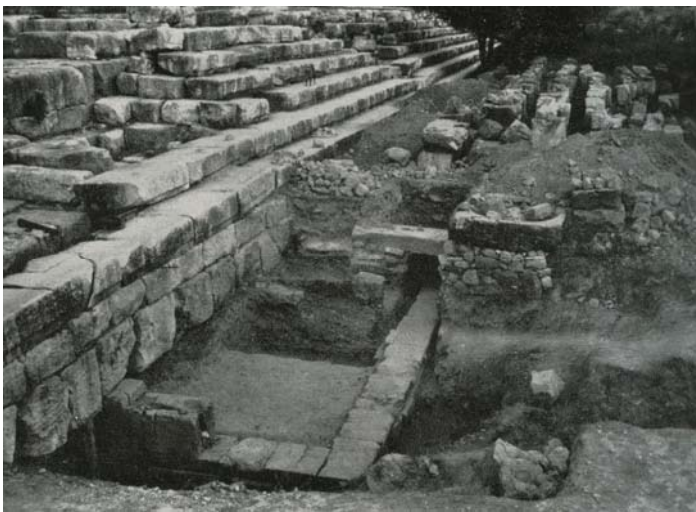


Fig. 42 Photograph of stoa from west (Naumann and Tuchelt 1964)

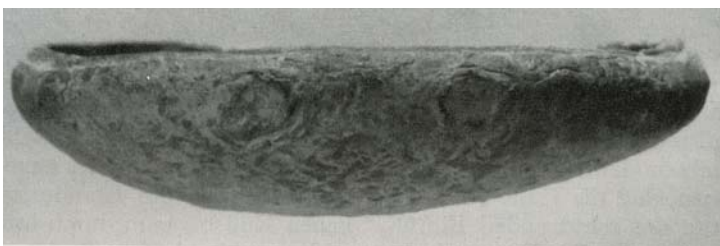


Fig. 43 Bronze bowl from stoa deposit (Naumann and Tuchelt 1964)

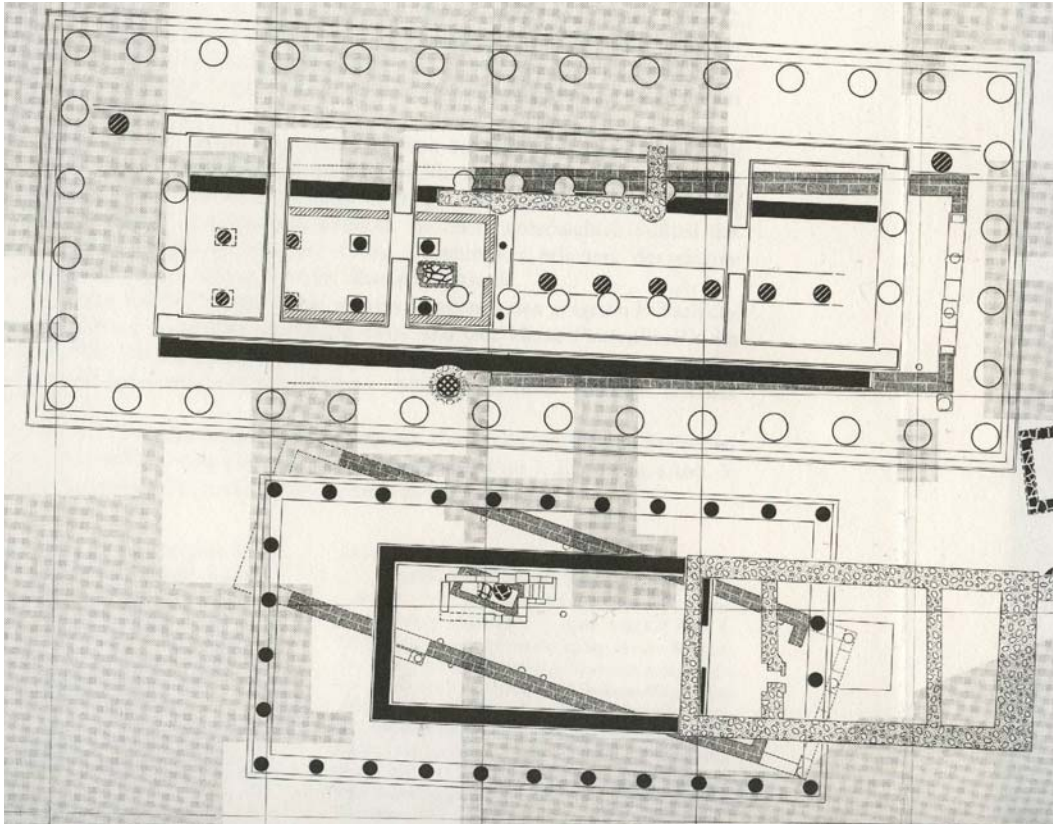


Fig. 44 Plan of temples at Kalapodi (Felsch 1987)

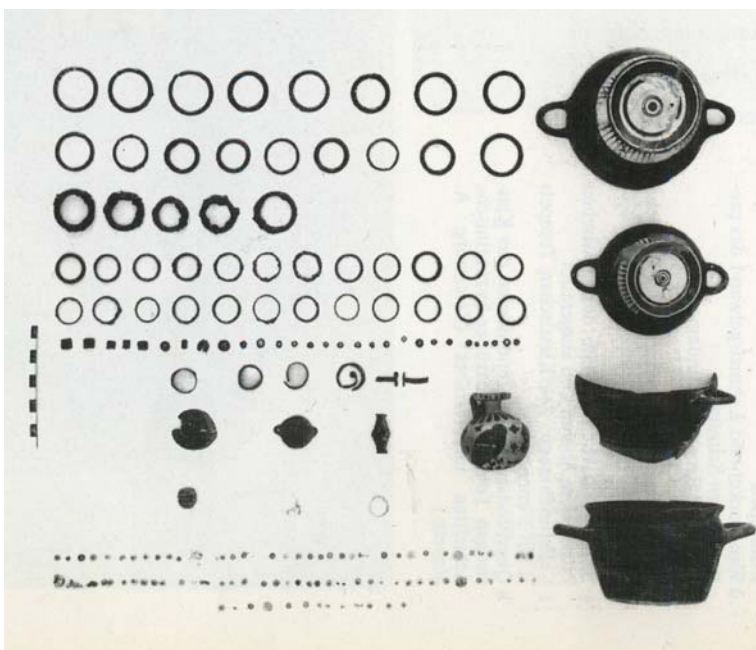


Fig. 45 Finds from the deposit (Felsch 1987)

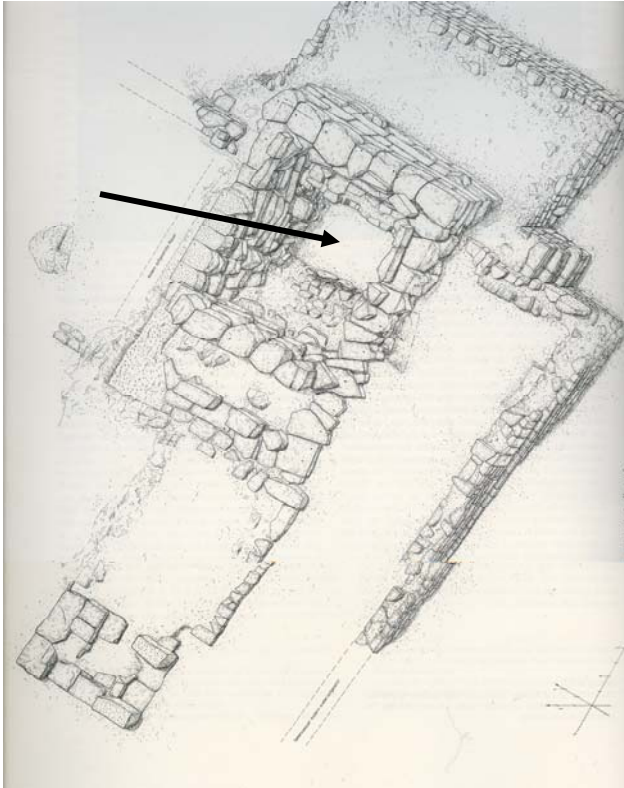


Fig. 46 Isometric view of the temple of Artemis in the sanctuary of Apollo on Paros with arrow pointing to depression (after Schuller 1991)

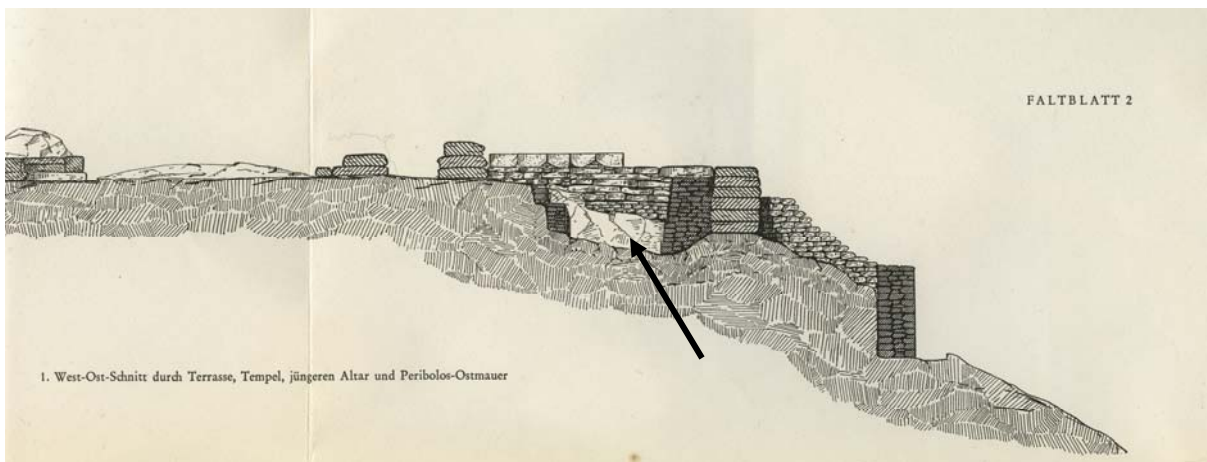


Fig. 47 Section (W-E) through the temple with arrow pointing to depression (after Rubensohn 1962)

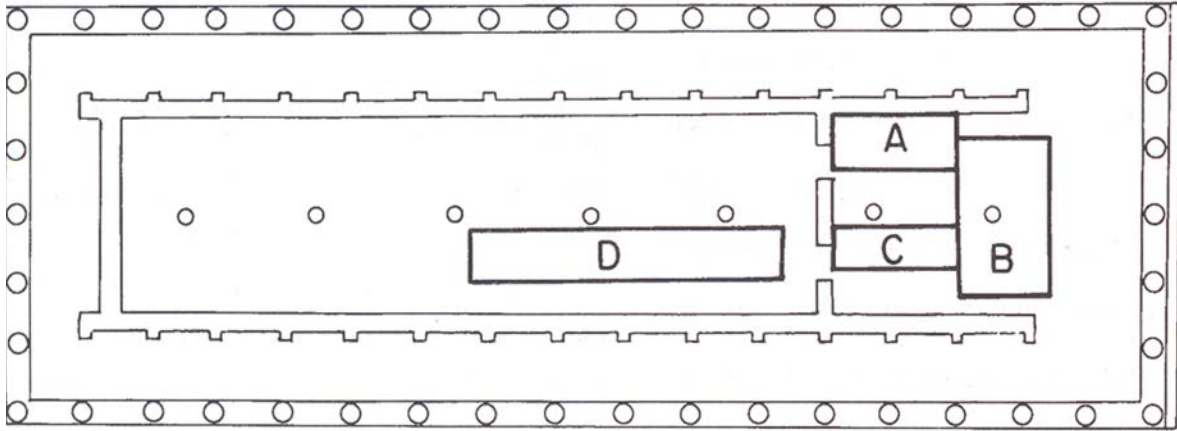


Fig. 48 Plan of the temple of Poseidon at Isthmia (Gebhard 1998b)

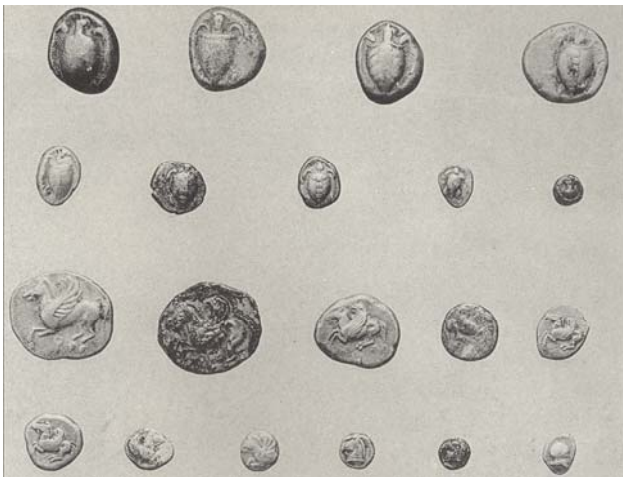


Fig. 49 Selection of coins from the Isthmia deposits (Broneer 1955)

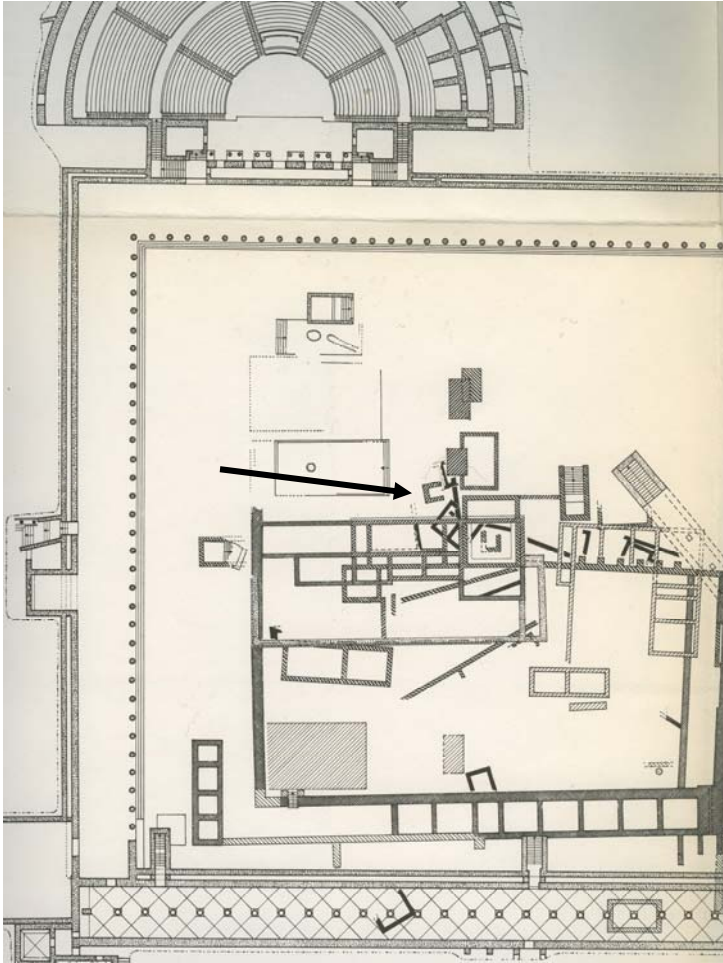


Fig. 50 Partial plan of Asklepieion at Pergamon with arrow pointing to Mosaikbau (after Ziegenaus and de Luca 1968)



Fig. 51 Mosaikbau from west (Ziegenaus and de Luca 1968)

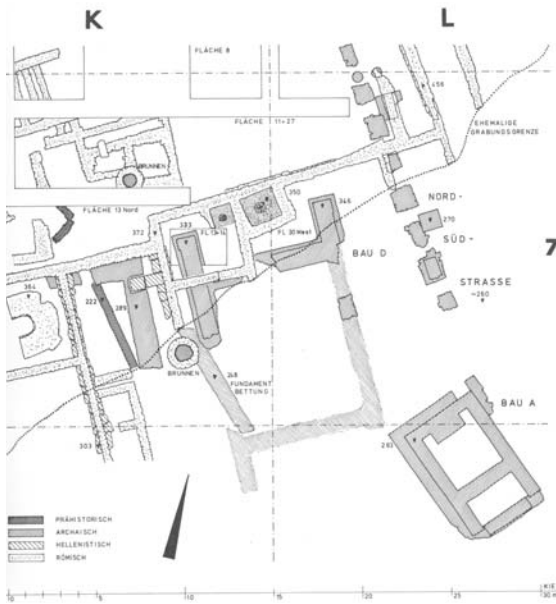


Fig. 52 Plan of Temple D on Samos and surrounding area (Kienast 1985)



Fig. 53 Plan of Temple D with pit (Kienast 1985)

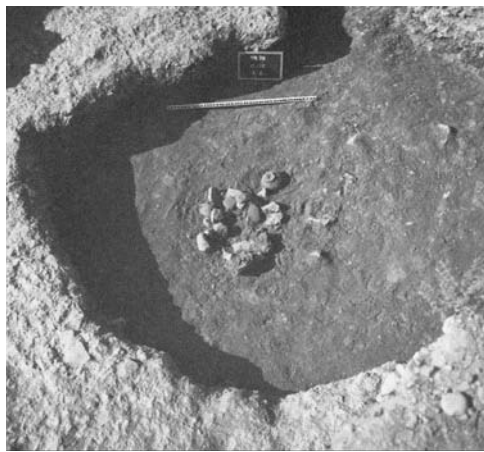


Fig. 54 Photograph of deposit *in situ* (Sinn 1985)



Fig. 55 Deposit ceramics (Sinn 1985)

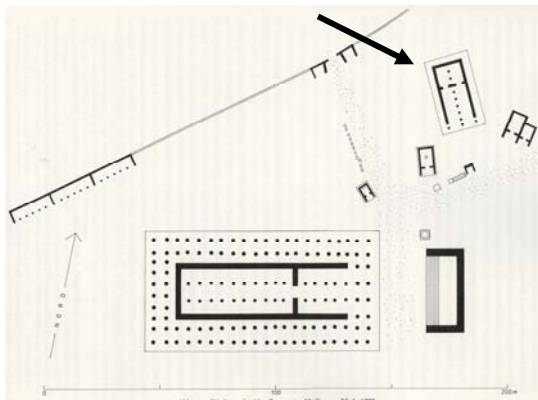


Fig. 56 Plan of Nordbau on Samos and surrounding area (after Furtwängler and Kienast 1989)

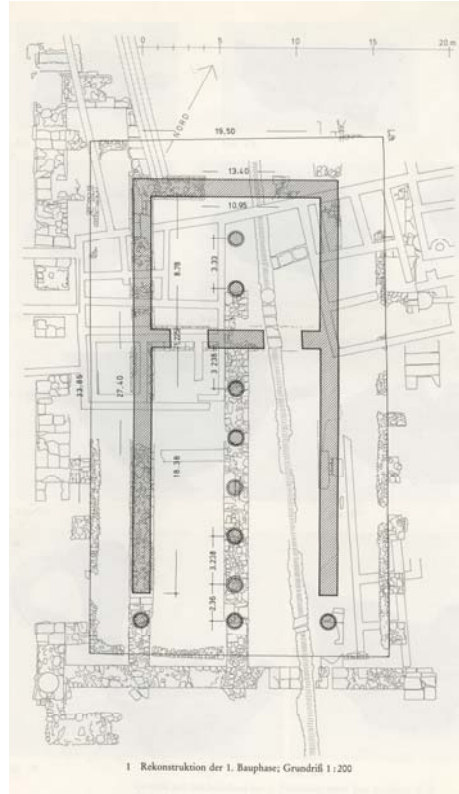


Fig. 57 Plan of Nordbau (Furtwängler and Kienast 1989)



Fig. 58 Ceramics from deposit 1 (Furtwängler and Kienast 1989)



Fig. 59 Ceramics from deposit 2 (Furtwängler and Kienast 1989)

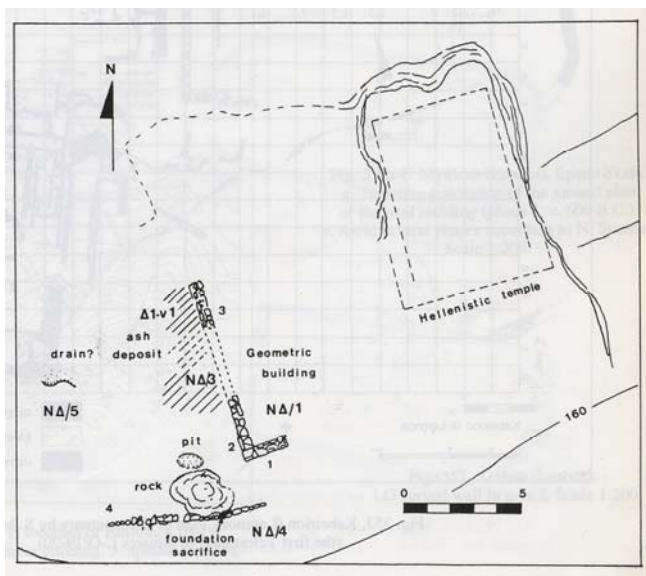


Fig. 60 Minoa, plan of temple area (Ainian 1997)

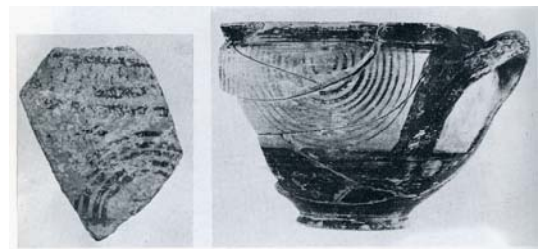


Fig. 61 Ceramics from deposit (Marangou 1968)

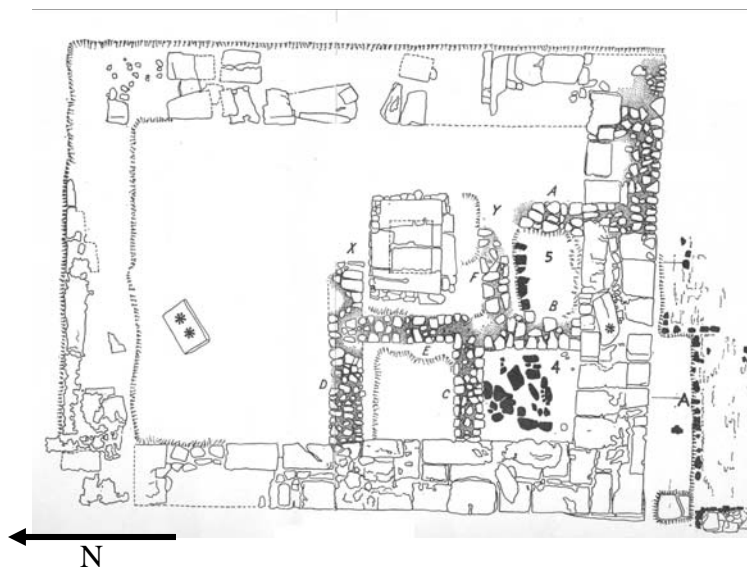


Fig. 62 Plan of the temple of Athena at Gortyn (after Rizza and Scrinari 1968)



Fig. 63 Photograph of temple at southwest corner (Rizza and Scrinari 1968)

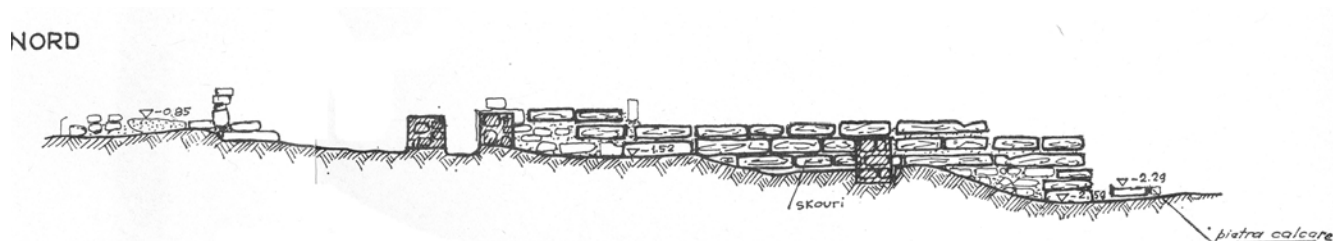


Fig. 64 Section of temple (N-S) through western wall (Rizza and Scrinari 1968)



Fig. 65 Photograph of pit beneath slab (Rizza and Scrinari 1968)

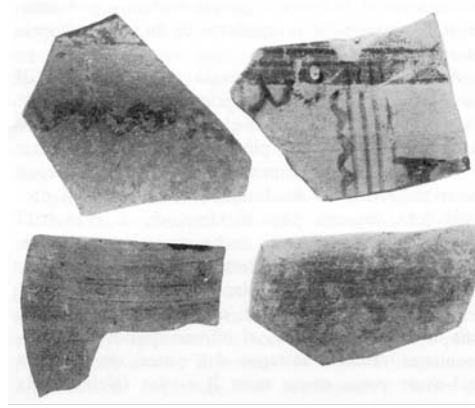


Fig. 66 Selection of PG pottery from deposit (Rizza and Scrinari 1968)

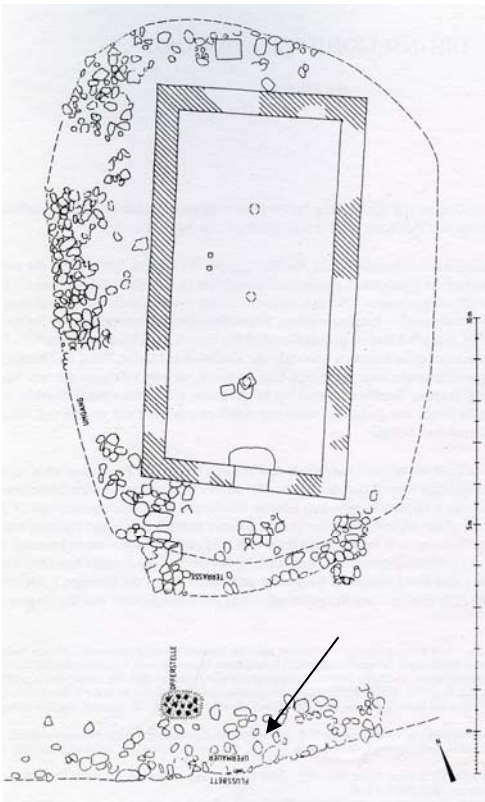


Fig. 67 Plan of Archaic temple at Yria on Naxos (Gruben 1993)



Fig. 68 Oinochoe from deposit (Lambrinoudakis 1992)

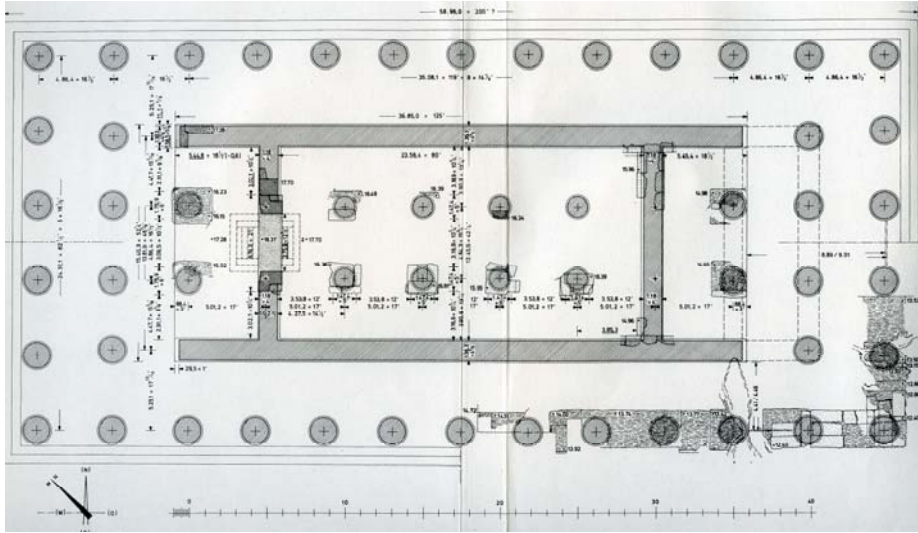


Fig. 69 Plan of the temple of Apollo on Palatia Hill, Naxos (Gruben 1972)



Fig. 70 Photograph of stone slab and deposit (Gruben 1982)

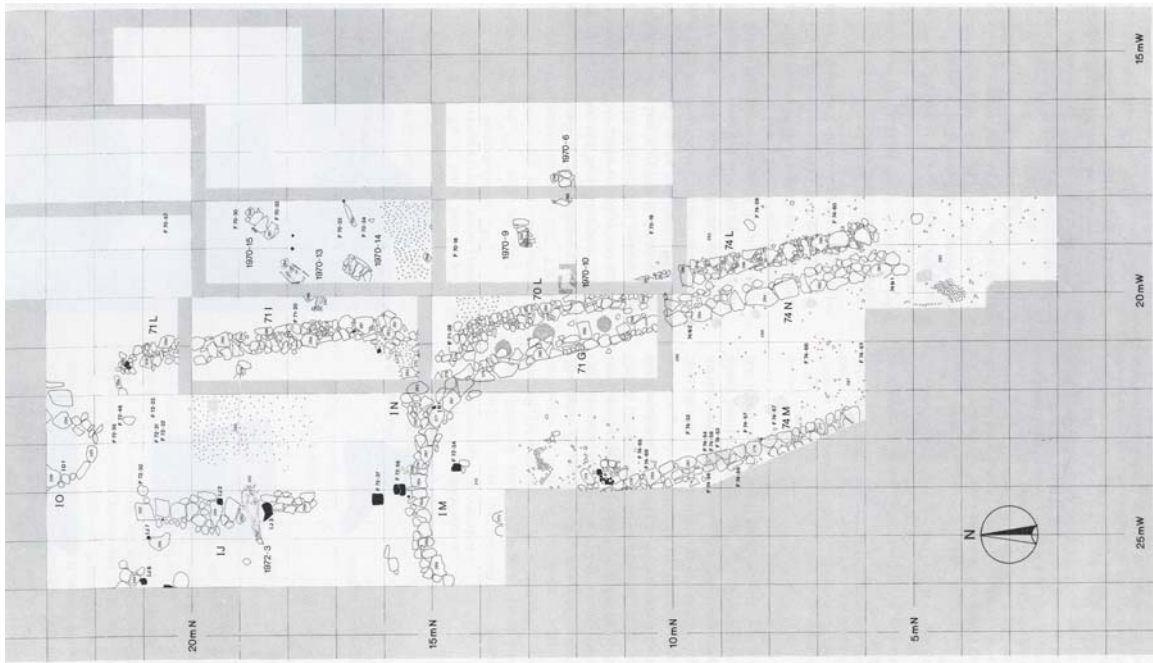


Fig. 71 Plan of Building C at Asine (Wells 1983)

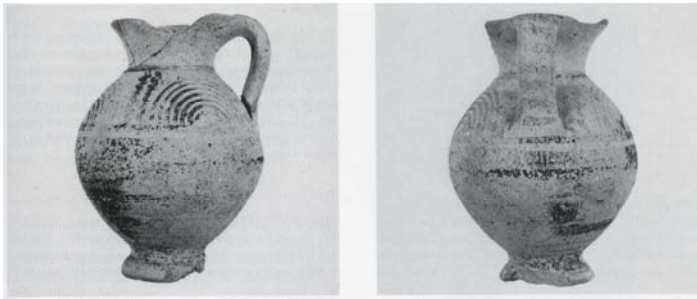


Fig. 72 Miniature jug from deposit (Wells 1983)

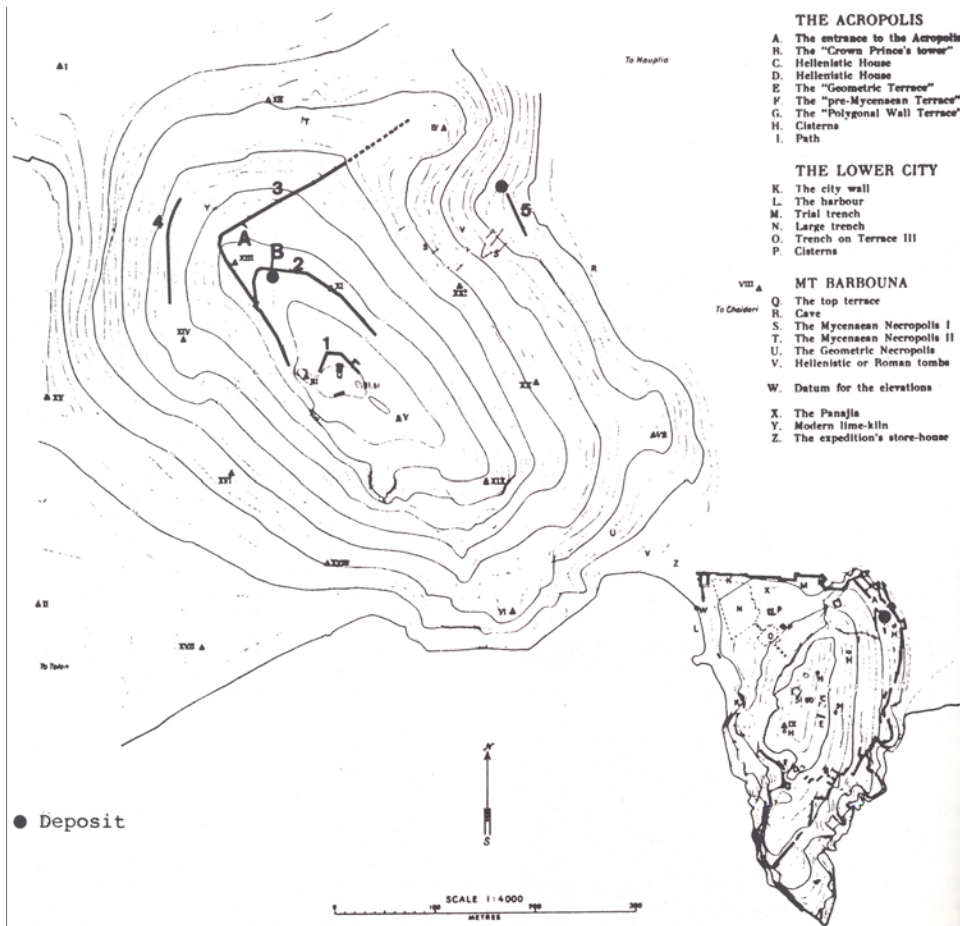


Fig. 73 Map of Asine (Wells 1985)



Fig. 74 Vessels deliberately halved horizontally and vertically (Wells 1985)

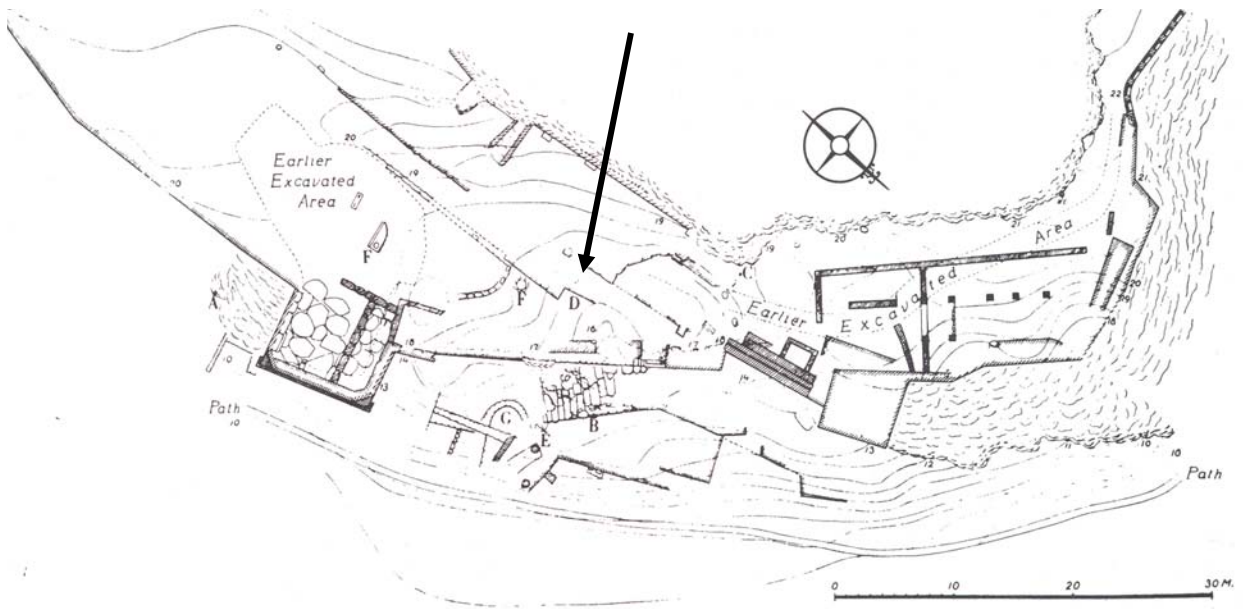


Fig. 75 Map of the acropolis at Asine (Wells 1985)

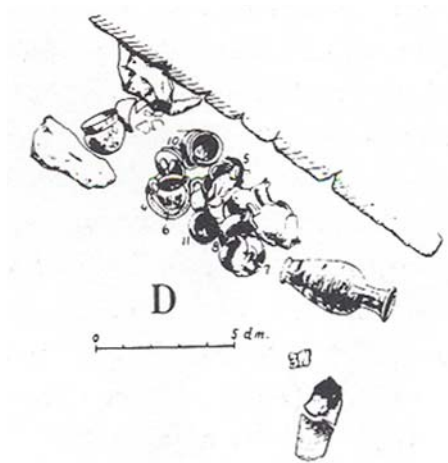


Fig. 76 Drawing of deposit D *in situ* (Wells 1985)



Fig. 77 Photographs of ceramic assemblage from deposit D (Wells 1985)



Fig. 78 Plan of the heröon at Nemea (Miller 1981)



Fig. 79 Aerial photograph of the heröon at Nemea (Miller 2002)



Fig. 80 Photograph of section of Archaic tumulus (Miller 2002)

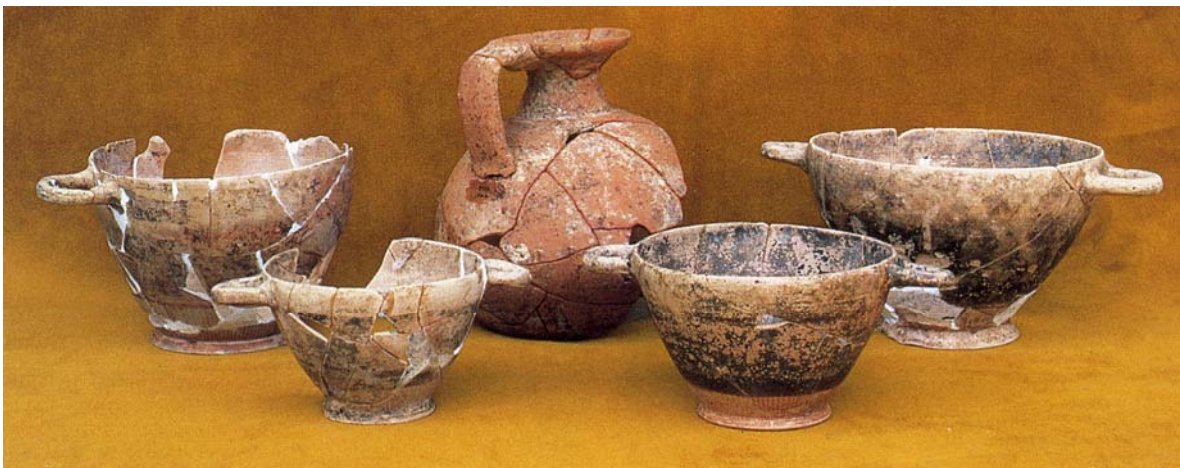


Fig. 81 Ceramics from an Archaic deposit (Miller 2002)

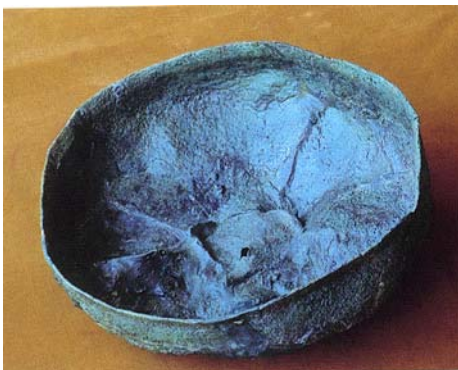


Fig. 82 Bronze phiale from an Archaic deposit (Miller 2002)



Fig. 83 Photograph and detail of centaur from an Archaic deposit (Miller 2002)

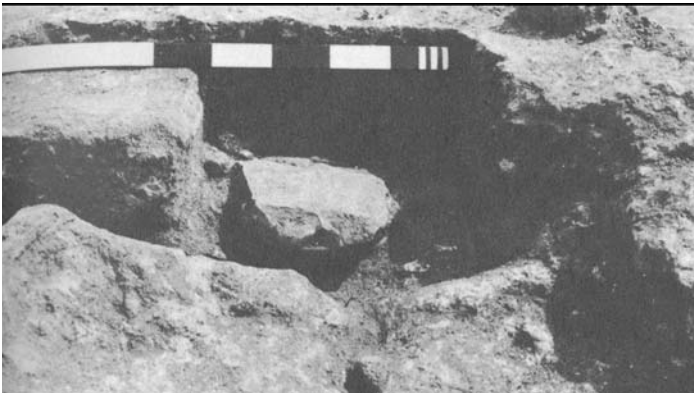


Fig. 84 Hellenistic deposit *in situ* (Miller 1981)



Fig. 85 Bell krater from the Hellenistic deposit (Miller 1981)

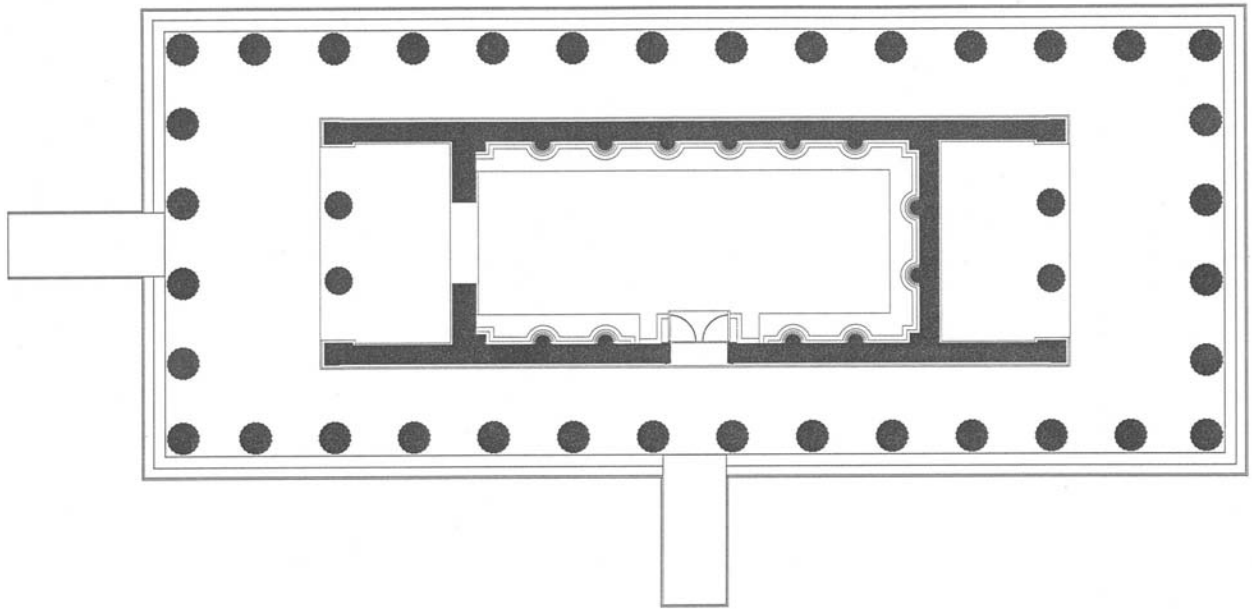


Fig. 86 Plan of the temple of Athena Alea at Tegea

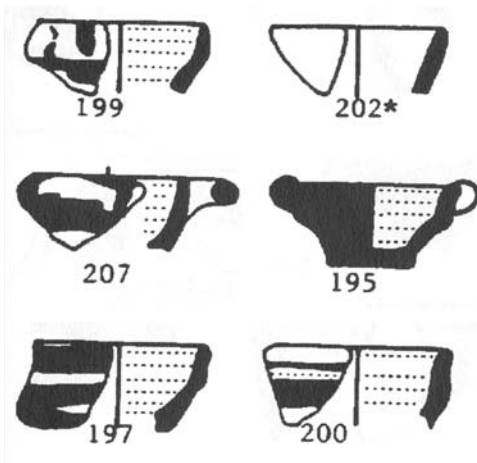


Fig. 87 Selection of miniature kotylai from deposit (Hammond 1998)



Fig. 88 Plan of the temple of Aphrodite at Argos (after Daux 1969)



Fig. 89 Figurines from deposit (Daux 1969)



Fig. 90 Figurines from deposit (Daux 1969)

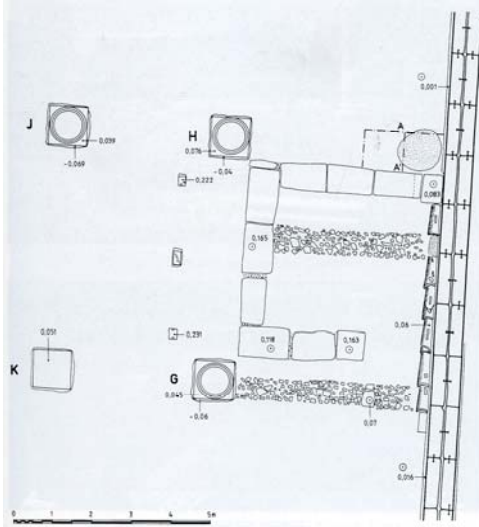


Fig. 91 Plan of eastern end of the stoa of Philip at Megalopolis (Lauter 1997)



Fig. 92 Photograph of eastern end of the stoa of Philip (Lauter 1997)

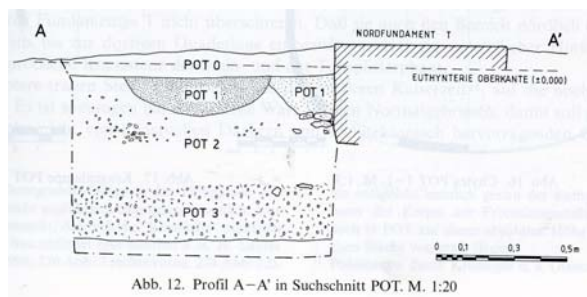


Fig. 93 Photograph of pit (Lauter 1997)

Fig. 94 Section of pit (Lauter 1997)



Fig. 95 Chrytra from deposit POT 1 (Lauter 1997)



Fig. 96 Lamp from deposit POT 1 (Lauter 1997)

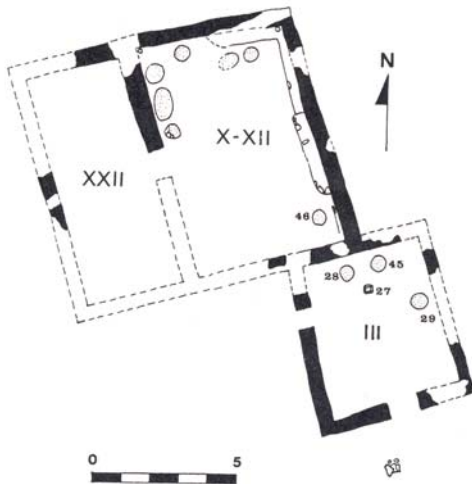


Fig. 97 Plan of Building III/XXXIV at Thorikos (Ainian 1997)

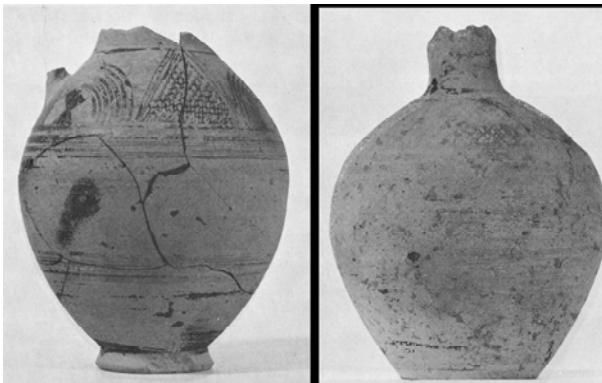


Fig. 98 Jugs from deposit (Bingen 1967 a&b)

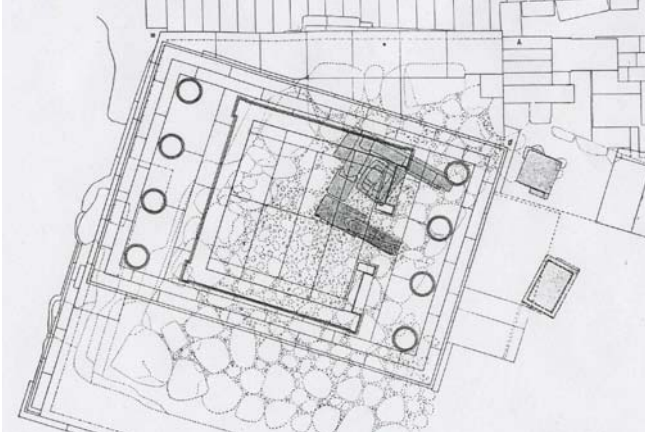


Fig. 99 State plan of temple and naiskos (shaded) of Athena Nike in Athens (Giraud 1994)

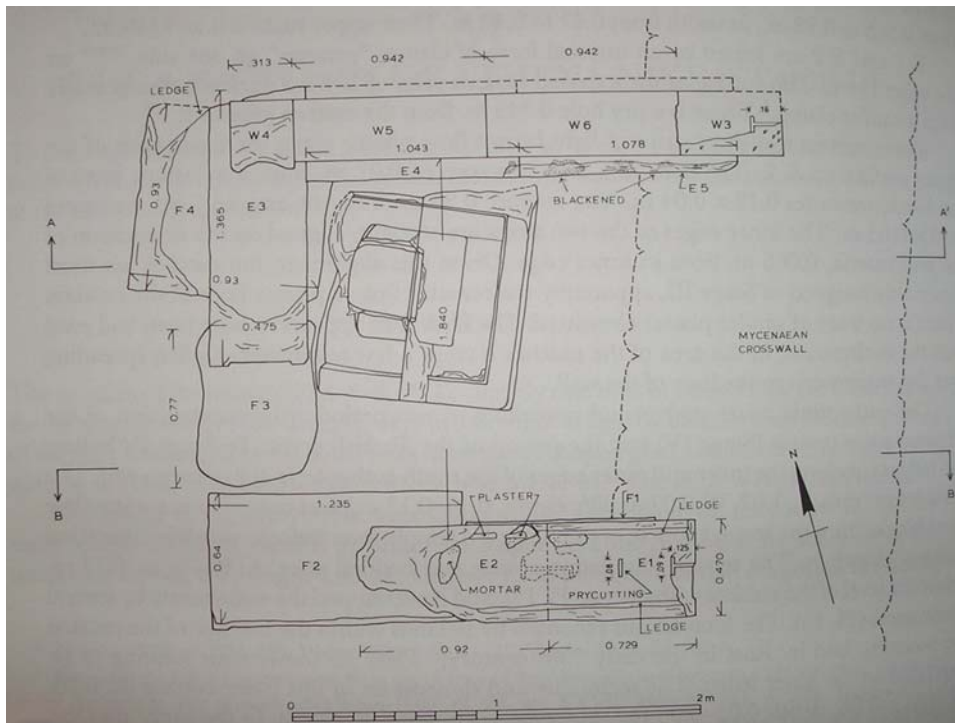


Fig. 100 State plan of naiskos foundations and statue base (Mark 1993)



Fig. 101 Earlier statue base of Athena Nike (photo: author)

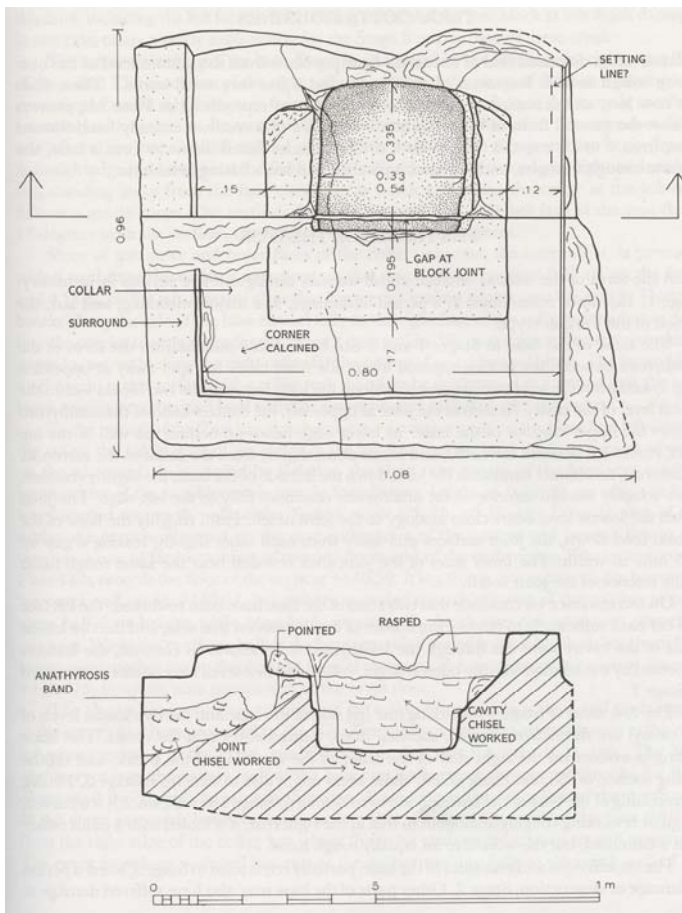


Fig. 102 Plan and section of the statue base (Mark 1993)

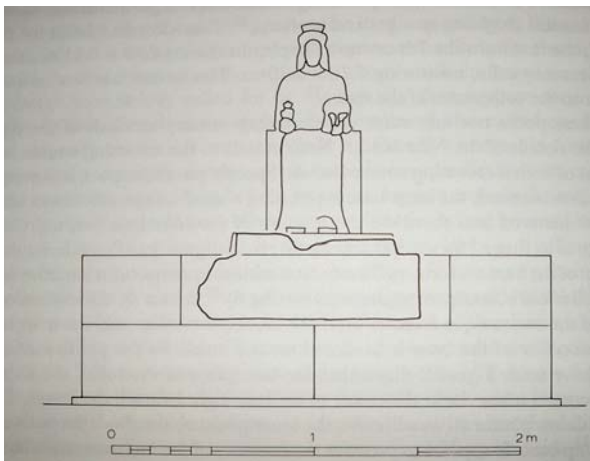


Fig. 103 Reconstruction of the statue base (Mark 1993)



Fig. 104 Statue base with figurines *in situ* (Mark 1993)

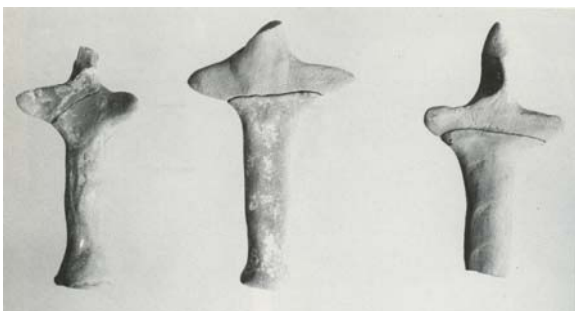


Fig. 105 Figurines from Kiapha Thiti (Küpper 1990)

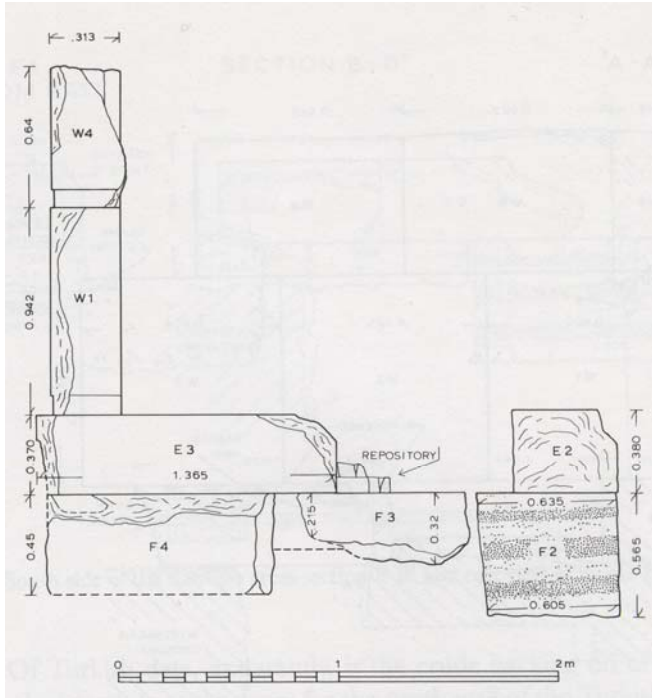


Fig. 106 Elevation of naiskos from west (Mark 1993)

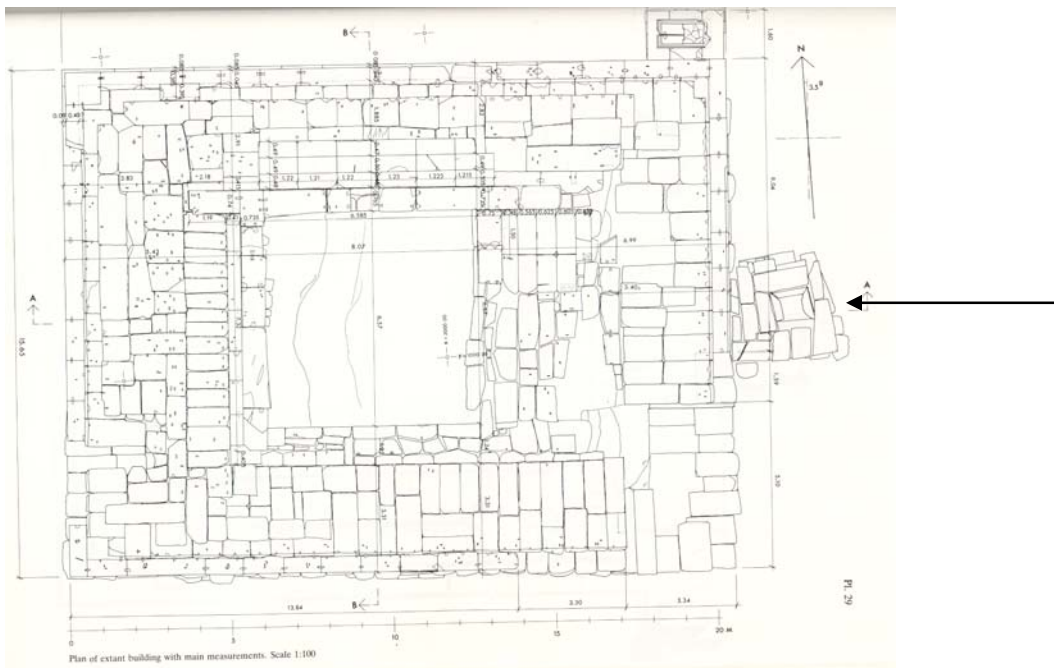


Fig. 107 Temple of Zeus at Labraunda, state plan (after Hellström 1982)

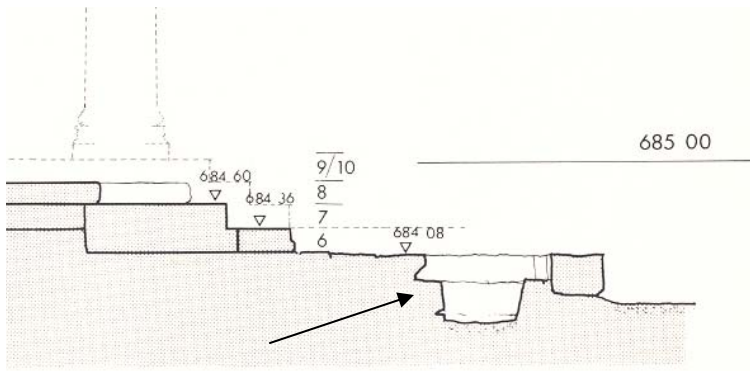


Fig. 108 Section (E-W) of western end of temple with arrow marking stone box (after Hellström 1982)

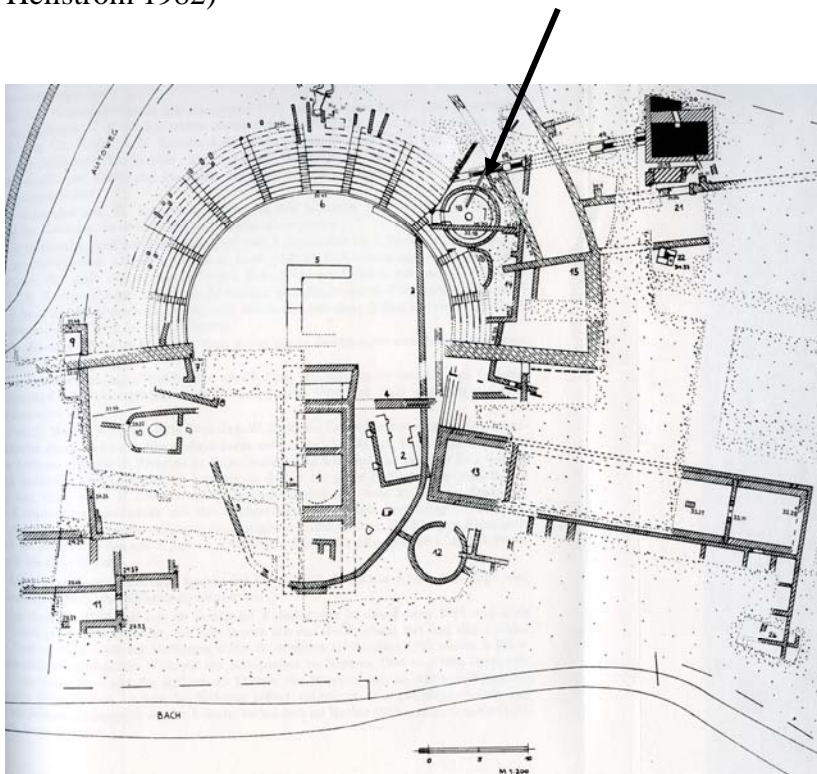


Fig. 109 Plan of the Kabirion at Thebes with arrow marking Mittlere Rundbau (after Bruns 1967)



Fig. 110 Kantharos and bowl from deposit (Bruns 1967)

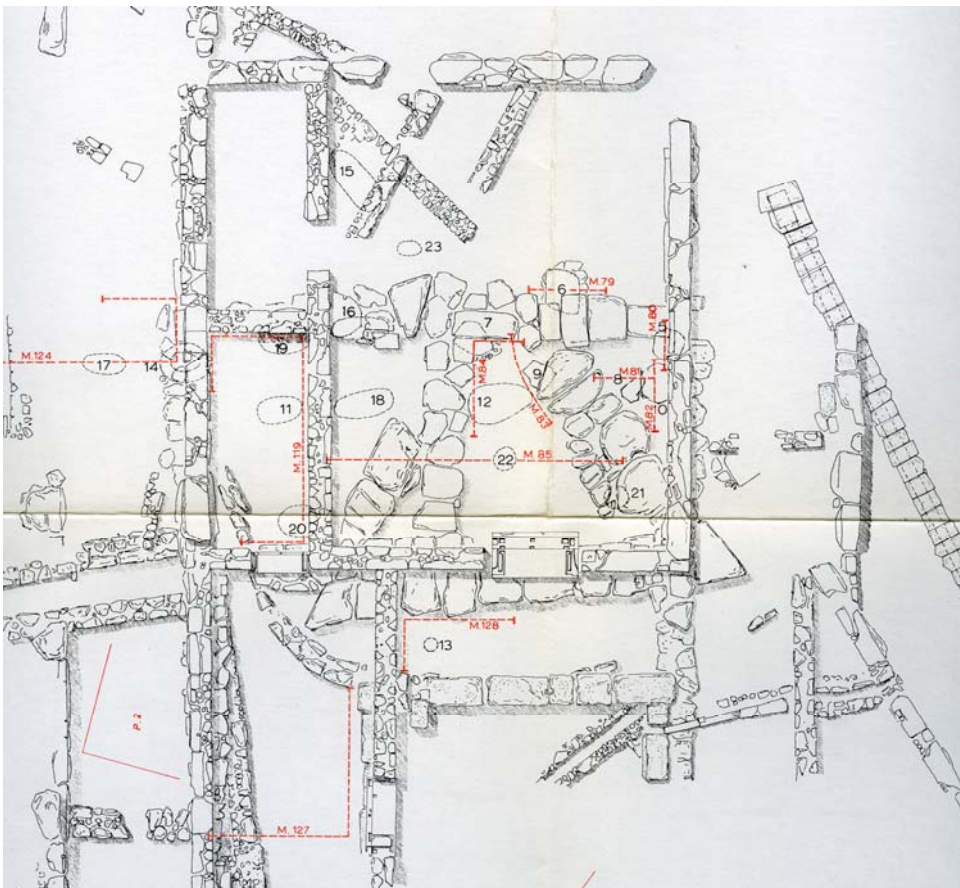


Fig. 111 State plan of heröon at Eretria (after Berard 1970)



Fig. 112 Geometric sherds from deposit (Berard 1970)

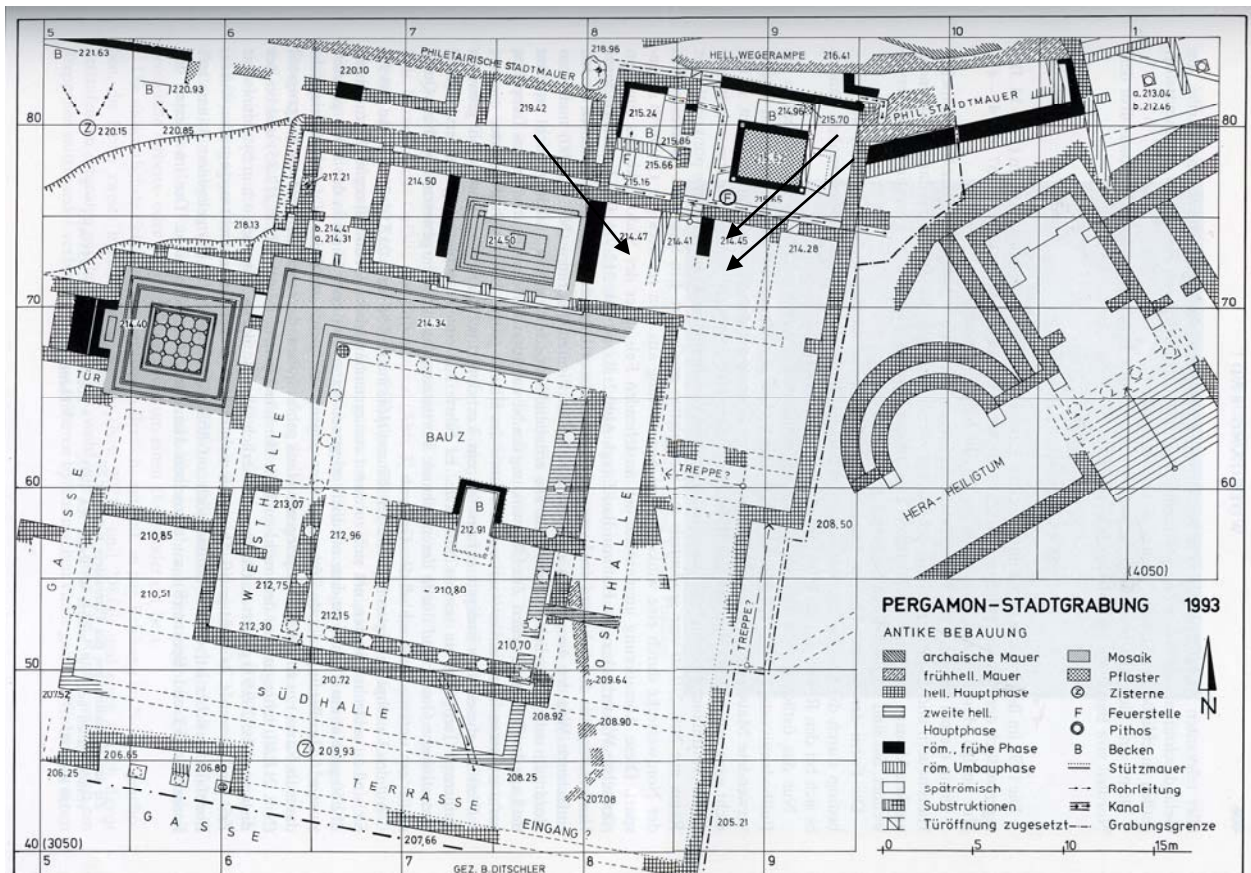


Fig. 113 Plan of Bau Z at Pergamon (after Radt 1994)



Fig. 114 Photographs of skyphos and knucklebones, *in situ* and restored (Radt 1994)

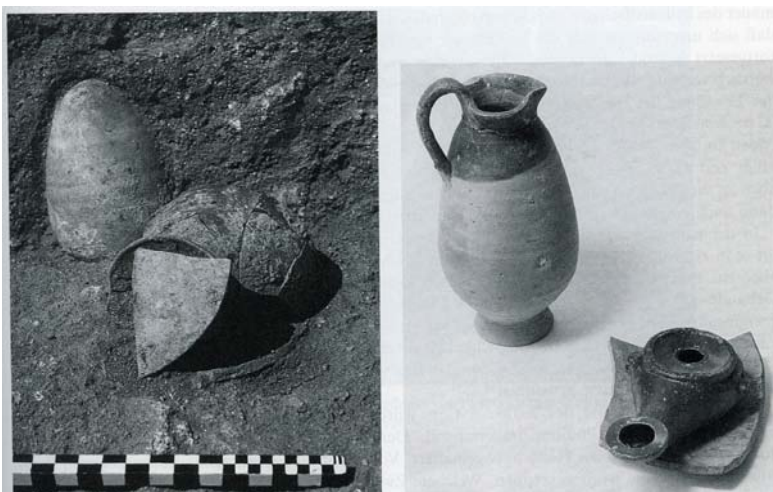


Fig. 115 Photographs of second deposit, *in situ* and restored (Radt 1994)

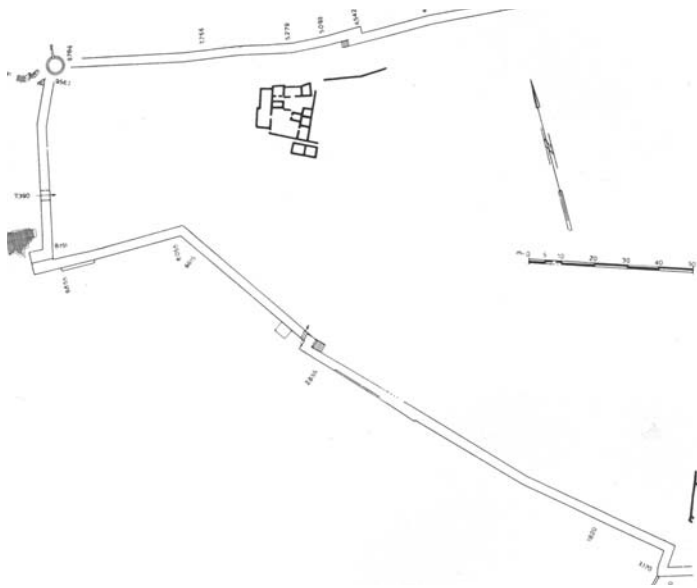


Fig. 116 Plan of circuit walls at Capo Soprano, Gela

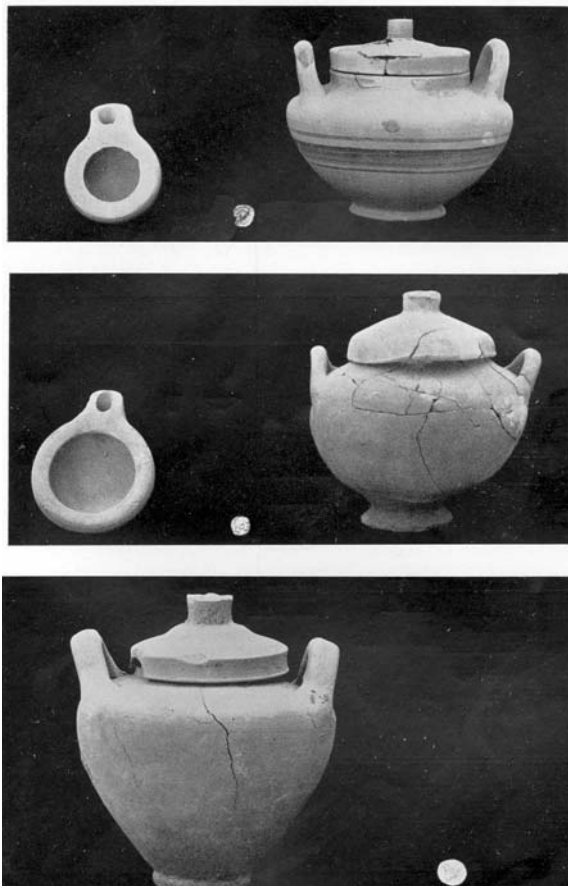


Fig. 117 Contents of deposits (Orlandini 1957)

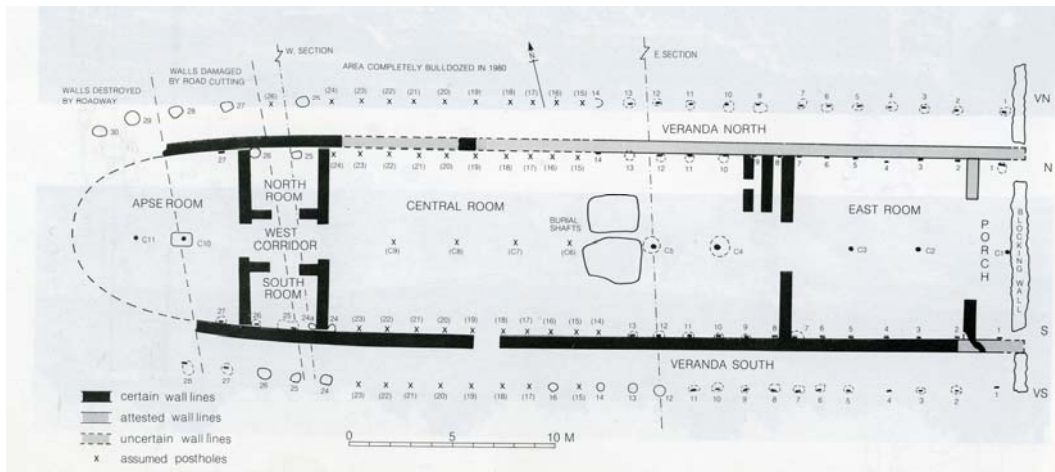


Fig. 118 Plan of heroon at Lefkandi (Popham et al. 1993)

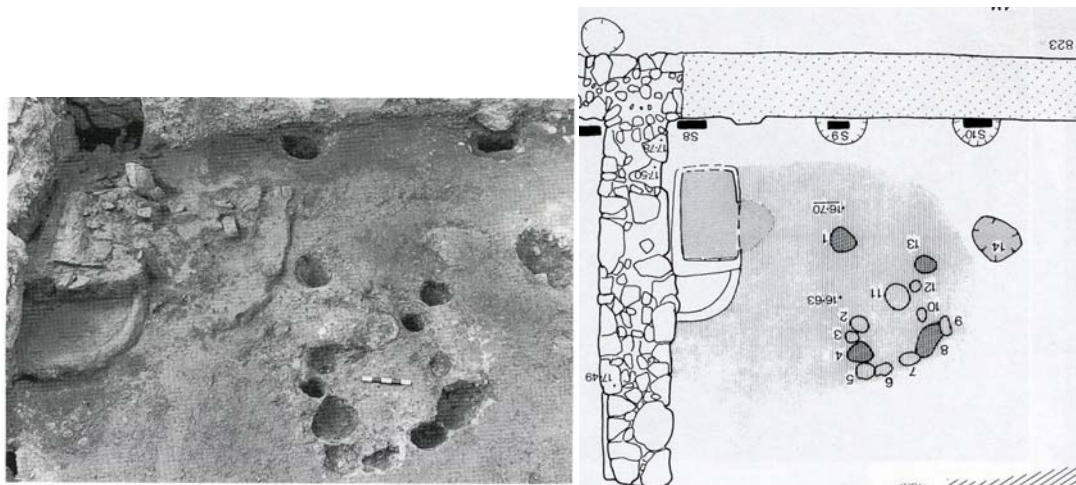


Fig. 119 Photograph and plan of pits (after Popham et al. 1993)

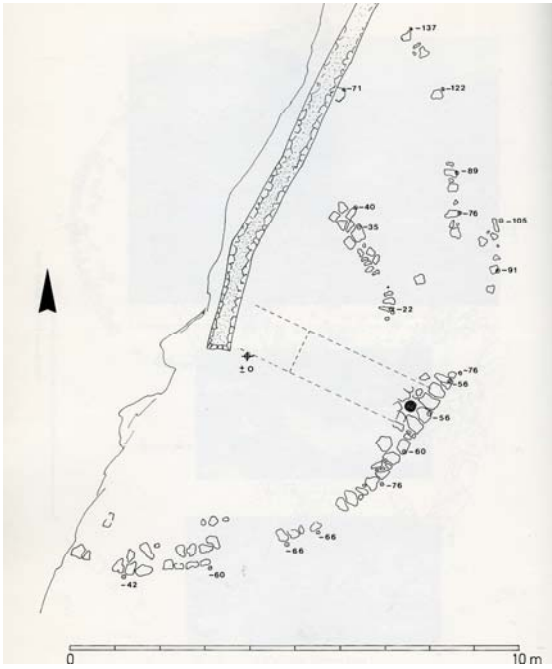


Fig. 120 Plan of stone wall on southern peak of Tourkovounia (Lauter 1985)



Fig. 121 Photograph of "Dragon House" of Mt. Oche (Carpenter and Boyd 1977)

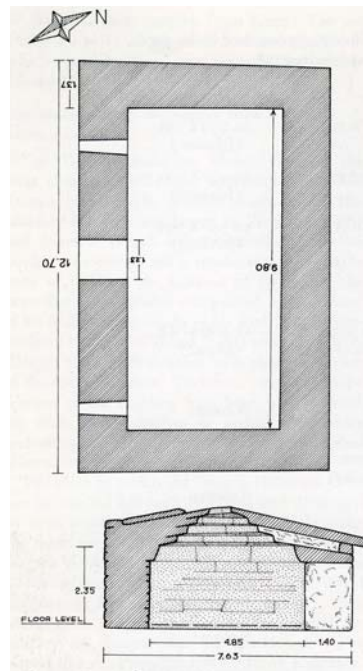


Fig. 122 Plan and section of "Dragon House" (Carpenter and Boyd 1977)

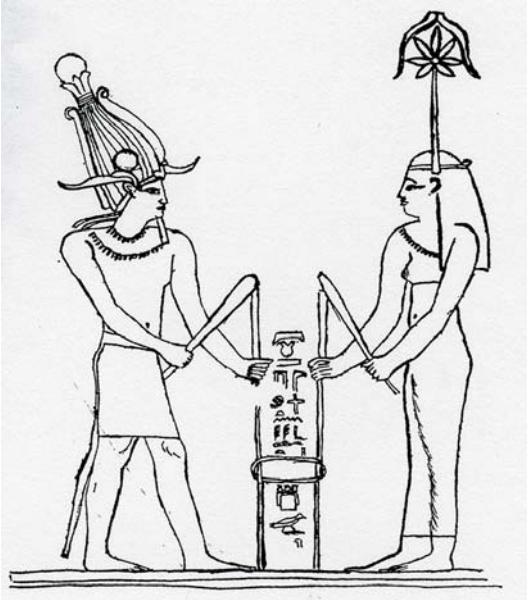


Fig. 123 Stretching of the Cord relief at Edfu (Montet 1964)



Fig. 124 Hoeing the earth (Montet 1964)

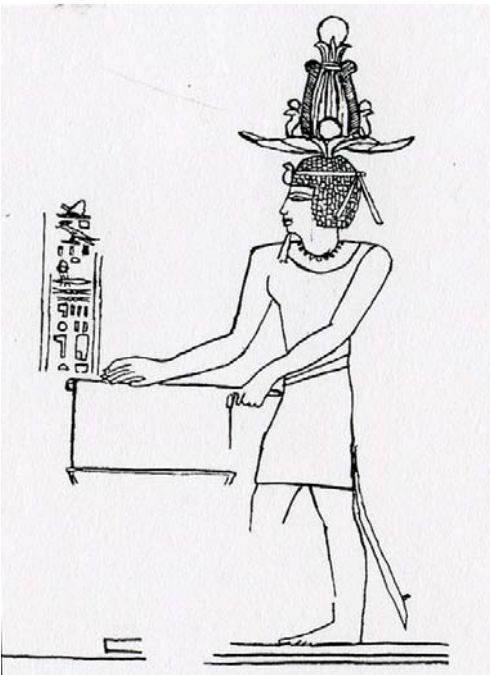


Fig. 125 Molding the brick (Montet 1964)



Fig. 126 Pouring of the sand (Montet 1964)



Fig. 127 Placing the plaques of gold and costly stones at the four corners of the temple (Montet 1964)



Fig. 128 Moving the first block into place (Montet 1964)



Fig. 129 Relief at Abusir depicting a foundation deposit (Wilkinson 2000)



Fig. 130 Foundation deposit of Nectanebo at Tell el-Balamun (Wilkinson 2000)

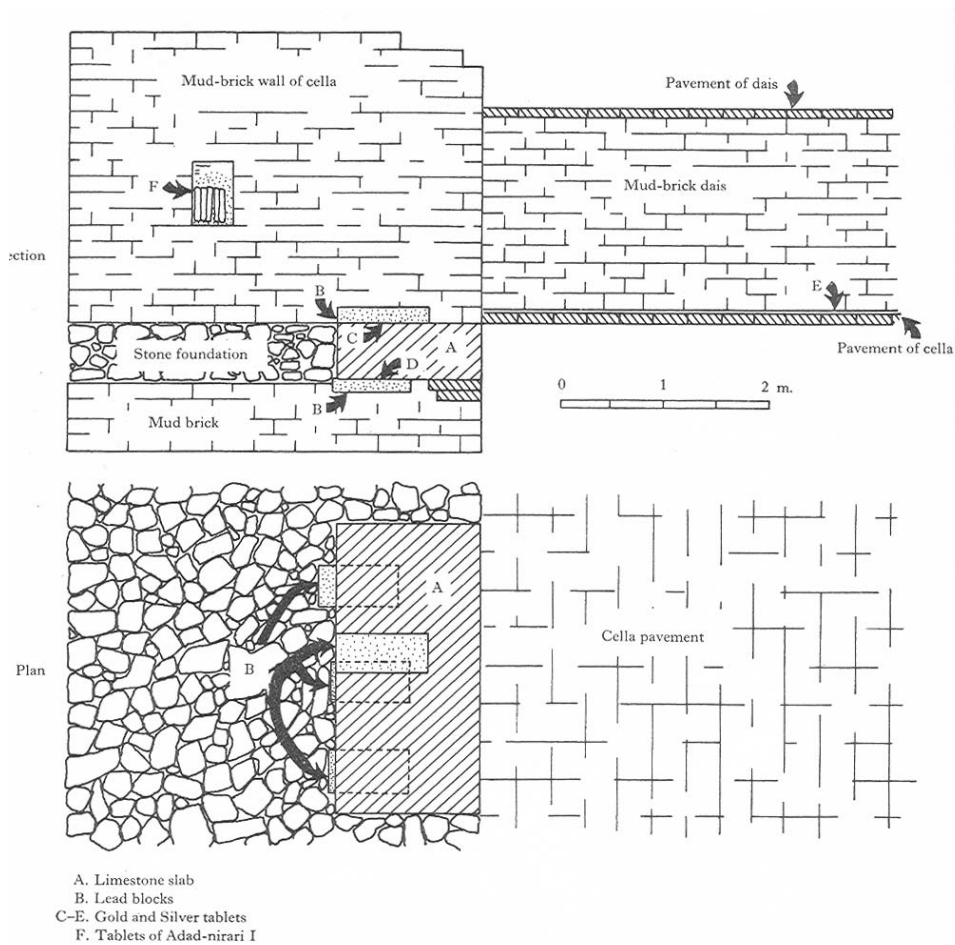


Fig. 131 Section and plan of deposits in the temple of Istar Aššuritū at Assur (Ellis 1968)

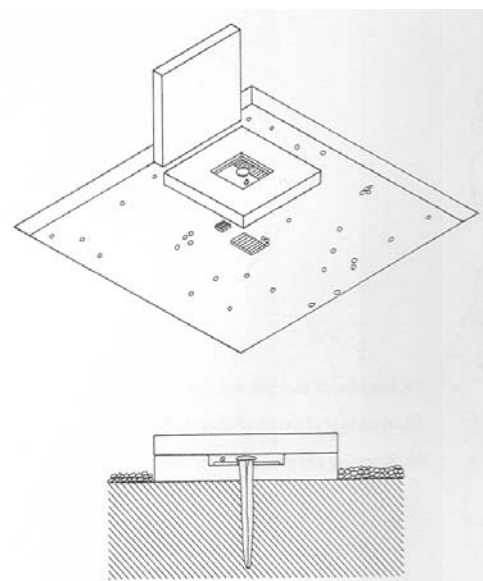


Fig. 132 Isometric view and section of
peg deposit of Išṭup-Illum at Mari (Ellis
1968)

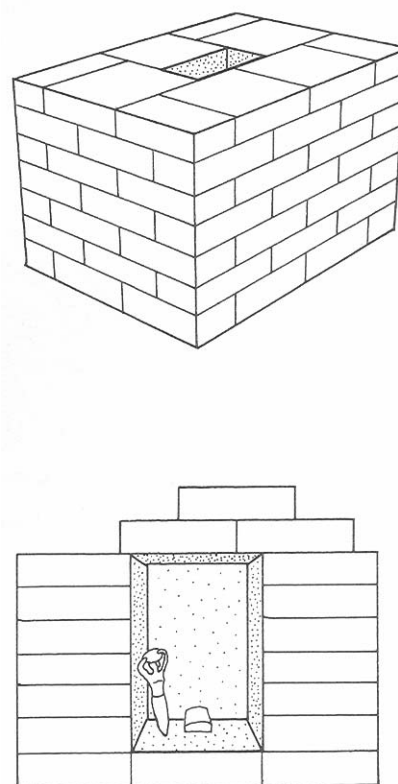


Fig. 133 Isometric view and section
of typical brick box containing an Ur
III peg deposit (Ellis 1968)

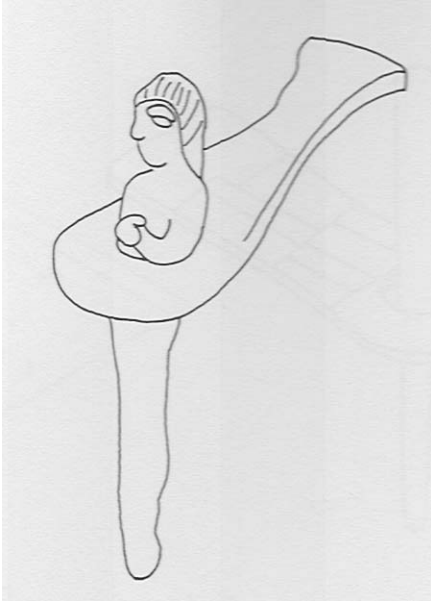


Fig. 134 Peg figurine of Ur-Nanše of Lagash (Ellis 1968)

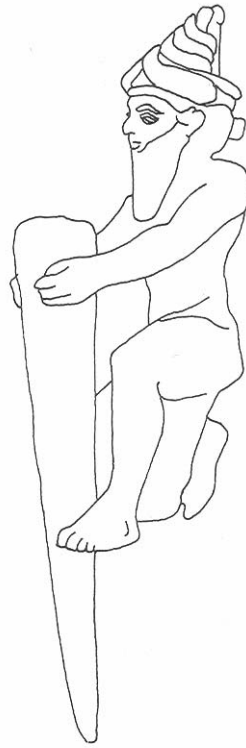


Fig. 135 Peg figurine of Ur-Bau of Lagash (Ellis 1968)

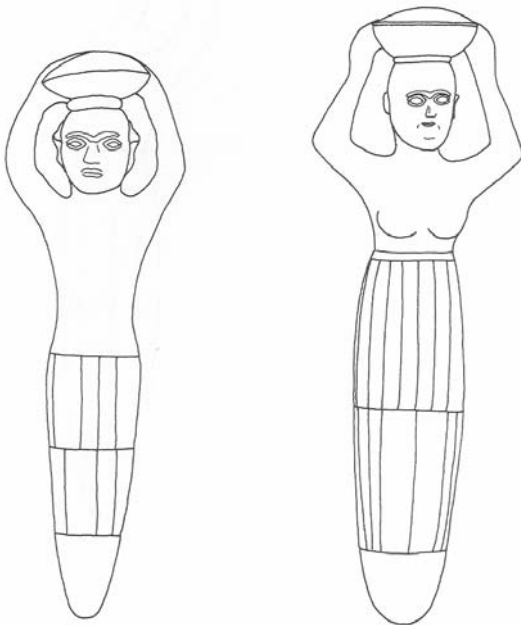


Fig. 136 Canephoros peg figurines of Šulgi of Ur (right) and Rim-Sin of Larsa (left) (Ellis 1968)



Fig. 137 Stele of Assurbanipal from Babylon (Ellis 1968)



Fig. 138 Papsukkal figurine (Ellis 1967)



Fig. 139 Relief of Ur-Nanshe from Telloh (Frankfort 1978)



Fig. 140 Photograph of deposit from Amathonte *in situ* (Petit 1989)



Fig. 141 Objects from deposit at Kition (Karageorghis and Demas 1985)

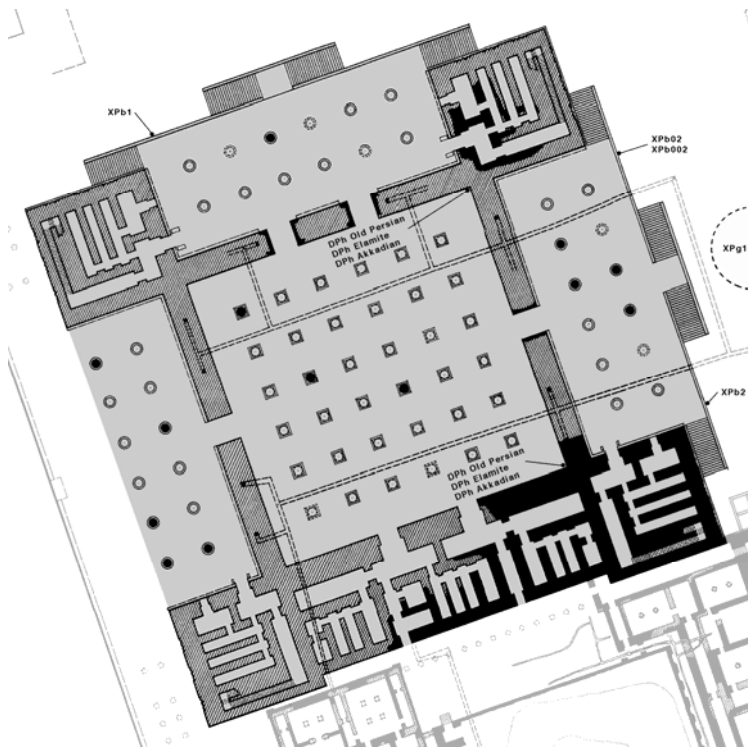


Fig. 142 Plan of Apadana at Persepolis (Achaemenid Royal Inscriptions Project)



Fig. 143 Photograph of Apadana deposit *in situ* (Oriental Institute)

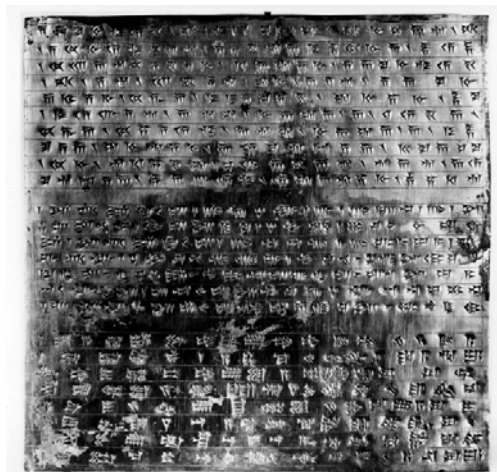


Fig. 144 Gold tablet from Apadana deposit (Oriental Institute)

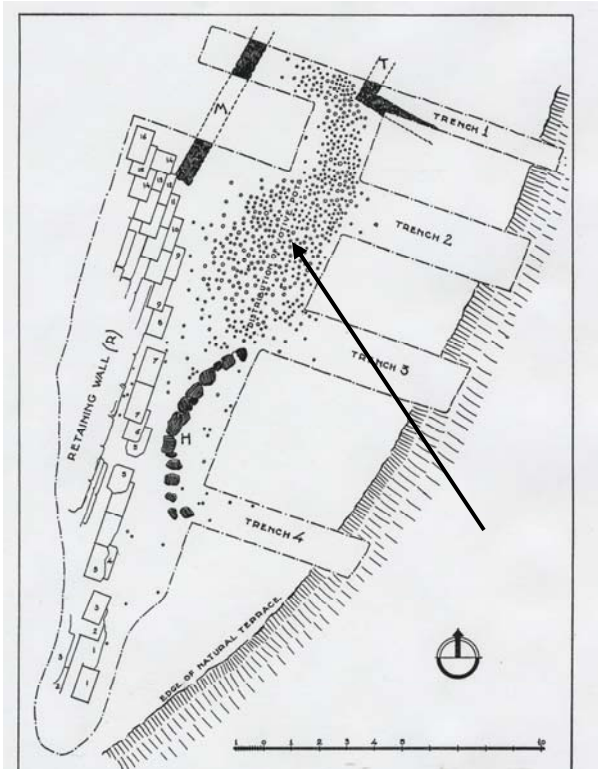


Fig. 145 Plan of area of deposit (marked with arrow) in the Argive Heraion (Caskey and Amandry 1952)

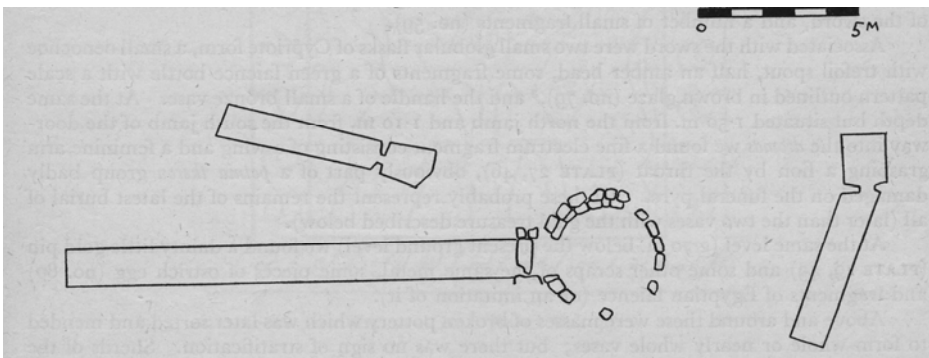


Fig. 146 Plan of Tekke tombs (Boardman and Hutchinson 1954)



Fig. 147 Ceramics from Tekke tholos deposits (Boardman 1967)

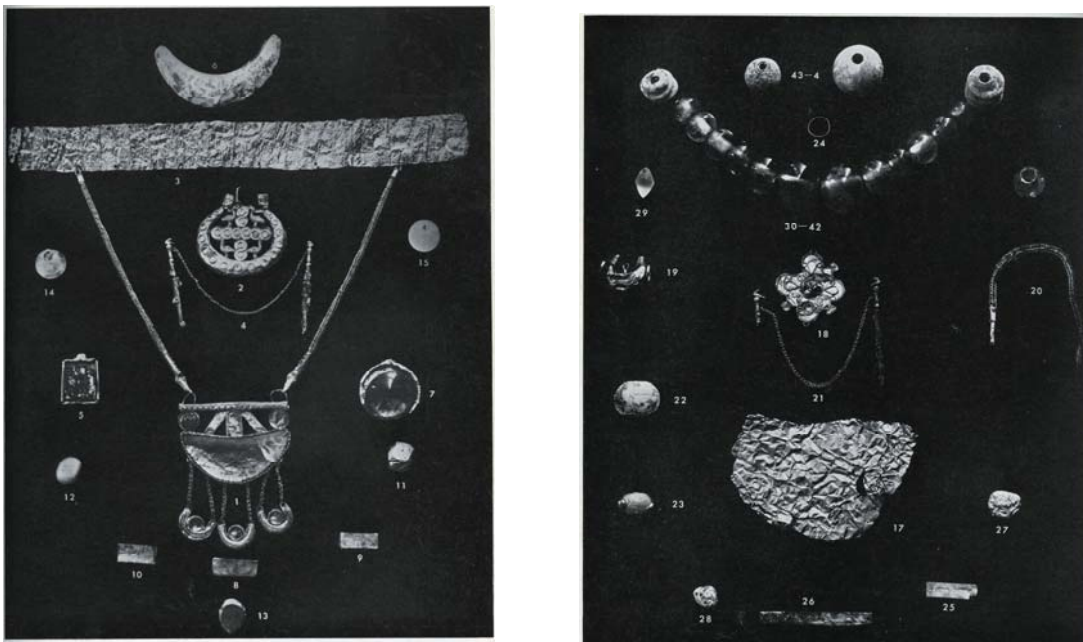


Fig. 148 Jewelry from the Tekke deposits (Boardman 1967)



Fig. 149 Architectural model from the Tekke tholos (Boardman 1967)

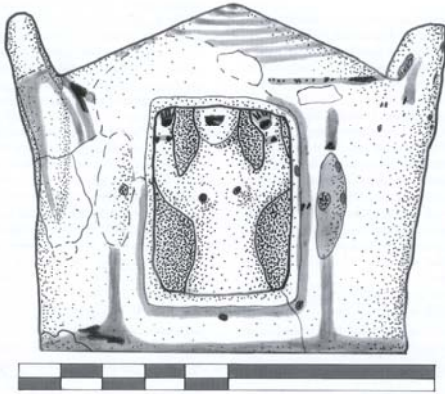


Fig. 150 Architectural model from Knossos (Mersereau 1993)



Fig. 151 Architectural model from Archanes (Boardman 1967)