

EARLY HELLADIC DECORATED CERAMIC HEARTHES

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## **ABSTRACT**

ERIN E. GALLIGAN: Early Helladic Decorated Ceramic Hearths  
(Under the direction of Dr. Donald C. Haggis)

Early Helladic (EH) II ceramic hearths are often one criterion for identifying central place sites in the EH II landscape, which are otherwise characterized by some combination of monumental architecture, fortification walls, and evidence of incipient administrative systems. Often decorated with incised, impressed, or roller-impressed geometric designs, these hearths are a component of an elite assemblage, despite the fact that the ceramic type has not yet been studied comprehensively as an artifact.

This dissertation presents the results of a project that examines the decorated ceramic hearth with special emphasis on the Greek mainland. It compiles a catalog of published examples of complete and fragmentary ceramic hearths, examining patterns of form, typology, and depositional context. It finds that the circular shape is most common in mainland Greece, and that they were often but not always used and displayed in elite architectural contexts that served as the backdrop for formal feasting and/or drinking activities.

The dissertation also examines the iconography of the decorated hearth rims in comparison to other glyptic evidence of the period, namely sealings and roller-impressed pithoi, and finds that the hearths have their own unique iconography, similar to but with significant differences from the pithoi, with which they are often compared. Elites at

these emerging centers of economic control created a new iconographic repertoire to distinguish themselves, which is then reduplicated across the landscape in public contexts of consumption.

To my father.

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## CHAPTER 1

### INTRODUCTION

#### **The Question**

This study of Early Helladic decorated hearths stems from two influences: the first, an interest in the stamp-seals and stamped decoration of the Early Bronze Age Aegean, and the second, from a perceived lack of understanding as to what exactly constitutes a hearth. It is difficult, browsing the literature of the Early Bronze Age Aegean, to point to a general typology or function for these artifacts, despite their apparent prominence. Hearths were central objects – often, but not always, placed in the physical center of the built environment. They could therefore serve as focal points for household or community rituals, and were centers around which social ties could be negotiated and displayed in household or wider community settings. Finally, these hearths enjoy a certain centrality in our scholarship on the Early Bronze Age. When they take a large (up to 1m diameter) ceramic form with decorative elaboration, these hearths are considered particularly elite examples, and so when discovered intact, as for example at Lerna, Eutresis, and Kolonna, they are considered indicative of the burgeoning social complexity of the Early Bronze (EB) II period. While somewhat intuitive, the link between elaborate terracotta hearths and social complexity and status must be explored: is

the connection ritual or political, communal or private? This crucial link between the hearths as objects and their role in society needs clarification, as these hearths have received very different interpretations.

This diversity of interpretations results from the multifunctionality of the hearth: as receptacles for fire they were sources of light and warmth, an instrument for cooking, and as we know from later periods, they could serve as a ritual focus in both the household and the broader community. In some cases in archaeological contexts hearths are easy to identify. In the best case scenario, the hearth is built, with burnt debris and possibly food remains. In other cases, the construction of the hearth or its preservation might make it difficult to identify in excavation, and the multifunctionality of the hearth and its various forms may make it difficult to define in literature.

This dissertation attempts to define more precisely the Early Helladic ceramic hearth in terms of typology, distribution, functional aspects, and their relationship to non-ceramic hearths. Secondly, the dissertation aims to survey the decorative elaboration of the hearths and its significance. Three interrelated problems are addressed. The first issue is terminology: What qualifies as a hearth? How are hearths to be identified in the archaeological record and understood in excavation reports which use varied terminology? These questions can really only be answered by a consideration of the second and third issues: typology and function. For example, how varied is the construction, decoration, and placement of the hearth? And do differences in these variables indicate a difference in practical function or conceptual significance of the object?

## **Brief Survey of Scholarship on Greek Hearths in Antiquity**

These three issues appear in scholarship on hearths in all periods, and a brief consideration of hearths in earlier and later periods of Greece will shed some light on the interrelationships between terminology, typology, and function. This discussion relies largely on interpretations of material remains in published sources, which range from a typologically narrow artifact to any sort of installation that may have contained fire.

Hearths make their earliest appearance in the archaeological record in the Upper Paleolithic strata of Northwestern Greece. Their morphology varies, from open areas, stone-lined areas, or piles of rock and charcoal.<sup>1</sup> The hearths are nonetheless one of the most recognizable remains of the seasonally occupied sites. There is even some evidence, as at Klithi, that their location may have been an organizing principle for the rest of the site, as well as loci for activities such as stone knapping, food consumption, and sewing.<sup>2</sup> Hearths were, from this early period, central features of the site conceptually if not always spatially.

The typological and locational variability of the hearth continues into the Neolithic period, as, for example, at Dimini: “Hearths are of various forms and types: clay; clay and stone; stone; pebble-lined and plastered; oval or square. . . . the hearth may be found at the back of the interior, at the front and almost next to the entrance, in the middle, in a corner, or even outside.”<sup>3</sup> The shape as well is variable, as seen from the evident variability at Achilleion: they may be circular, sloping, basin-shaped, or shallow

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1 Galanidou 1997

2 Galanidou 1997

3 Souvatzi 2007, 23.

pits.<sup>4</sup>

Achilleion presents an early possibility for the functional variability of hearths, with multiple hearths in proximity to each other. Herein lies the methodological problem: how do we identify the function or functions of each hearth? The excavators use two approaches: contextually related finds and morphology. Small hearth pits, for example, may have been used for heating with small fires based on their size, or the hearth in the so-called shrine may have been largely for heating because no food preparation equipment was found nearby.<sup>5</sup> These approaches are more sound than those of some earlier excavations, as for example at Nea Nikomedia, where the terms oven and hearth seem to have been used interchangeably.<sup>6</sup>

At Neolithic Dimini, on the other hand, the distribution of hearths is less dense, and rather than multiple hearths per architectural unit, it appears that several households would have a shared hearth. This spatial patterning, although quite different from that at Achilleion, combined with the morphological variability of the hearths, also warns against applying a uniform meaning to these installations, as Souvatzi notes.<sup>7</sup> Rather than focusing on the function of each individual example, she instead visualizes a three-tiered social structure from the hearths' distribution: at the lowest level is the individual household, and the highest is the entire settlement. The middle tier, based on the apparent cooperative use of the hearths, is comprised of several household groups.<sup>8</sup> While not

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4 Gimbutas, Winn & Shimabuku 1989.

5 Gimbutas, Winn & Shimabuku 1989, 58-59.

6 Pyke et al. 1996, 50-52.

7 Souvatzi 2007.

8 Souvatzi 2007.



excluding any particular function for any of the hearths, she instead focuses on the communal importance of the hearths, a significance which is not lost at Achilleion despite the relative abundance of the hearths. There the so-called fire platforms are centrally located in an exterior area and provide multiple fire pits joined together by a large surface.

The study of Neolithic hearths has been guided by two different methodologies. The first, an analysis of morphology and related artifacts, may help to explain both the practical use of the hearths (presence of cooking implements) and the inference of symbolic or ritual significance, as attested by nearby figurines and child burials. The second strand of inquiry analyzes the distribution of the hearths within the settlement to interpret patterns of use and settlement structure.

When it appeared in EH I - EH II, the ceramic hearth was a completely new materialization and manifestation of the fireplace. While the function of hearths in Early Helladic contexts remains largely unexplored, the significance of hearth decoration in settings of elite display may survive in the importance of the elaborately painted hearths in Late Mycenaean palaces. While it may be difficult to argue that the decorated hearths of EH II are the direct precursors to the hearths of the Mycenaean throne rooms, their central placement and decorative elaboration might argue for an analogous function. Even with the proliferation of work on feasting in Mycenaean societies, the hearths themselves have received little attention in those contexts, in large part because they are considered an architectural feature rather than an artifact.

Turning to Crete, the production of the ceramic hearth does not appear to extend to Early Minoan (EM) settlements. Fixed hearths in general are less common than

portable cooking implements, a trend which extends into the Middle Minoan (MM) period,<sup>9</sup> suggesting that our lack of fixed hearths from EM Crete is not simply because of a shortage of excavated settlements. The two fixed installations identified as hearths by Warren at Myrtos-Fournou Korifi both could be said to have had a special function. The first example, a raised stone structure with ashy debris, incorporated the body of a pithos and a cover slab, possibly forming an oven.<sup>10</sup> This structure gives Room 20 at Myrtos its nickname, the Room of the Raised Hearth, despite all further references to this feature as an oven.

The second feature identified as a hearth, from Room 89, consists of ashy remains enclosed by the wall on the east side, a row of stone slabs on the west side, and the ends of the benches on the north and south sides.<sup>11</sup> This room is interpreted by the excavator as part of a shrine complex, based not only on the hearth and benches but related finds: an impressive cache of vases and a fragmentary human skull. Although some would not assign a ritual role to the room, the presence of the nearby skull and in a neighboring room, the anthropomorphic "Goddess of Myrtos vase," at least recall a funerary context, as Driessen notes.<sup>12</sup>

Despite the continued rarity of fixed hearths in MM contexts, Muhly argues against assuming a cultic function for those which do exist, for example, at Mallia.<sup>13</sup> While this treatment of the hearths focuses on their function, MM Crete also presents a

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9 Muhly 1984

10 Warren 1972, 34-36.

11 Warren 1972, 81-83.

12 Whitelaw 1983; Whitelaw 2007, 73; Driessen 2010, 107.

13 Muhly 1984; for the Mallia hearths: Demargne 1932, 76-88.

typological question: what of the braziers and related rectangular clay receptacles embedded in the floor at Phaistos?<sup>14</sup> These, as Muhly points out, were found with signs of charring, and the braziers, from the top, resemble other circular fixed hearths.

It is not until LMIB – LM II that fixed hearths became more common in Minoan Crete.<sup>15</sup> Shaw regards the proliferation of pi-shaped hearths at LM IB Kommos as a sign of economic decline: rather than having food cooked communally or by servants with portable vessels, instead the cooking of food was moved into private domestic contexts.<sup>16</sup> While the connection between the change in hearth use and socio-economic status is debatable, certainly the seemingly abrupt switch to central fixed hearths may indicate some change in the way the needs of cooking, light, and warmth were met. When Minoan hearths are discussed, the same two issues are at heart: the definition of the hearth, and the function, here dichotomized as ritual or domestic.

Discussion of hearths in the Early Iron Age is tied to debates over social and ritual continuity from the Late Mycenaean period and the articulation of differentiated spaces in domestic contexts. Several clay examples are found in Early Iron Age contexts which may suggest an interesting formal continuity. At Corinth, a fragmentary clay hearth of circular shape was found west of the museum building in the 1938-1939 campaign.<sup>17</sup> There is no mention of decoration on the raised rim, but the morphological similarities to EH hearths are worth remarking: like the EH examples, this hearth is unevenly fired, and the diameter and rim height, at 70 cm and 7.0 cm respectively, are reminiscent of EH

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14 Muhly 1984

15 M. Shaw 1990, 231.

16 M. Shaw 1990.

17 Weinberg 1939, 596-599.

hearth sizes. Another possible analogy comes from Phase I of Assiros, ca 750 BCE, where a keyhole shaped hearth of clay and mudbrick was found in an apsidal house.<sup>18</sup>

Discussion of Iron Age hearths is also tied to discussion of the emergence of social structure and religion, although the main point of contention is the function of the hearth. Here again, the danger of circular logic looms: the identification of a temple based on a hearth/altar, and to in turn identify a hearth/altar based on the building's label as a temple.<sup>19</sup> The presence of a hearth (or even multiple hearths) is one criterion for identifying “special function” buildings, such as the Cretan hearth temples or other buildings which serve a ritual or communal purpose.<sup>20</sup> It is still a lively debate as to whether these are rulers' dwellings that serve a cultic purpose,<sup>21</sup> or purely cultic buildings that link the earlier Bronze Age megaron hearths to Classical hearths,<sup>22</sup> or cultic buildings that can serve as the focus of ritual meals. The best way to deal with the hearths' functional ambiguity, aside from noting that these distinctions may be largely modern concepts, is to analyze associated deposits. Another approach is to look at the position of the hearth, as does Parisinou, when she suggests that those hearths that served primarily a cooking function were placed against the wall of the house, and hearths for other purposes (warmth, light, or ritual) were centrally positioned.<sup>23</sup>

Mazarakis Ainian's identification of temples and ruler's dwellings in the Iron Age

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18 Wardle 1987, 317.

19 Mazarakis Ainian 1997, 279.

20 Prent 2005, 2007.

21 Mazarakis Ainian 1997.

22 Nilsson 1972.

23 Parisinou 2007, 220.

are based not only on architectural grandeur, but also the related finds, including the hearths. He is careful to distinguish between hearths, altars, and eschara, at least in definition. The hearth encompasses many different forms, whereas an altar is characterized as “a stone structure on which the animals were sacrificed ... yet one may dub 'altar,' a free-standing structure located in the open air which did not serve for burnt sacrifice, but for the placing of unburnt offerings (material or edible) or for the pouring of libations.”<sup>24</sup> To differentiate an altar and a hearth based on both construction and function causes some confusion, though, as in the class of altars inside buildings, that could be used for burnt offerings, as for example, in the first Kabeiron at Lemnos.<sup>25</sup> In the end, he admits the possibility that hearths also served as altars, and that altars may have served domestic functions, ritual functions, and even political/communal functions, as they came to in the prytaneia.<sup>26</sup>

For the Archaic and Classical periods, literary testimony attests all these various roles for the hearth, as well as its personification as the goddess Hestia.<sup>27</sup> The evidence for lighting devices and their relationship to Greek religion, including hearths, has been recently surveyed by Parisinou, so here a few brief points will suffice to make clear the questions on these later hearths.<sup>28</sup>

The questions have not changed: what is the role of the fixed hearth and that of portable fire receptacles? How is a hearth identifiable as domestic, communal, or ritual?

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24 Mazarkis Ainian 1997, 279.

25 Beschi 1994, 36.

26 Mazarakis Ainian 1997, 290.

27 Vernant 1983, Kajava 2004, 1-2.

28 Parisinou 2000.

Despite literary accounts that hearths served as ritual foci, only one of the houses excavated from the Athenian agora had a fixed hearth, possibly denoting a special function for this type of installation.<sup>29</sup> This inconsistency between the archaeological record and literary testimonia highlights our own assumptions, particularly concerning the term 'kitchen', as pointed out by Foxhall, who sees fixed hearths as more communal cooking or gathering areas.<sup>30</sup> But claims of ritual importance have also been made for some of the portable sources of cooking and heat, referred to as braziers. Typologically very different from the stone-lined hearth, they sometimes became quite large and sported elaborate decoration by the Hellenistic period.<sup>31</sup> The multifunctionality of hearths in this period is most obvious in testimony about the prytaneia: not only did the hearth of the prytaneion hold the fire that symbolized the city, but it also served as a source of light and warmth for those enjoying dinner at the expense of the state, and served as the setting for political and judicial business.<sup>32</sup>

The methodologies for analyzing the function of these hearths, like the questions raised, remain largely unchanged. Following Mazarakis Ainian's reasoning, Foxhall suggests that the presence of animal bones in conjunction with hearths, even those in buildings identified as houses, may suggest a special ritual significance.<sup>33</sup> The position of the hearth within a house may provide some clue as to its function(s) as well. For example, the hearths placed in courtyards may not be intended primarily for warmth

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29 Tsakirgis 2007

30 Foxhall 2007, following Sparkes 1962 and 1965.

31 Tsakirgis 2007, 228.

32 Miller 1978, 1-24.

33 Foxhall 2007, 240.

based on the lack of a roof to retain the heat.<sup>34</sup> The literary testimonia provide both additional evidence and more questions, but the essential framework for analysis remain largely the same from that of earlier periods.

To summarize, the presence of hearths is crucial to understanding spatial and social organization at the site level or the household level. Interpretations, however, suffer from circular logic: the presence of a hearth may be used to propose activity (sacrifice, cooking, etc.) for a spatially distinct location, a theory which is then used to inform the function of the hearth. The safest methodologies, as suggested by the scholarship of all periods, examine a large sample of hearths, and, looking at related finds as well as the positioning and typology of the hearths, follow a contextual approach.

## **Methodology and Organization of the Dissertation**

Despite the acknowledged importance of hearths in the EH period, there is no comprehensive study devoted to the EH hearth. A study of decorated hearths from diverse contexts across the Aegean, taking into account their contexts and connections between their decorative motifs and those on other media, may add to our understanding of the significance of these hearths and their contexts. This study attempts first to understand the decorated hearth as an artifact of the Early Bronze Age and its architectural context and significance. Second, it aims to place the decoration on the hearths in a broader context of symbolic display and material articulation of social or political status, relationships, and power, by examining how the motifs are related to similar symbols or

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<sup>34</sup> Tsakirgis 2007, 226-227.

methods of decorative elaboration on storage vessels and administrative sealings.

Chapter 2 is devoted to a general survey of the EH II period, including social organization, the beginnings of monumental architecture, interpretations of ceramic hearths, and, in the few cases where it has been attempted, the connection between all three, to provide the appropriate background to place the hearths into both an architectural and social context.

The third chapter, after a brief discussion of the definition and identification of the hearth in the archaeological record, will treat EH non-ceramic hearths, by which I mean generally built structures of rock, clay, and sherds with evidence of burning that suggests the presence of fire. This section is an attempt to understand how EH peoples were normally dealing with the everyday needs of light, warmth, and fire. This sample provides, in a sense, a baseline against which to compare more elaborate hearths, whether decorated or non-decorated, to determine whether a more careful construction or decoration indicates an interest in display or contexts of commensality, though it would be biasing the study to assume a serious functional or semantic difference between the two types from the outset. This chapter will also treat definitions and descriptions of the ceramic hearths, and previous research devoted to the subject. The only typological distinctions based on size thus far have come from Wiencke's study of the Lerna material.<sup>35</sup> A consideration of size may help sort out the differences between hearths and baking pans: these pans are circular, and occasionally decorated, so that the functional and decorative similarity may cause them to be interpreted as hearths. The size may be the deciding factor as to whether these vessels were meant to contain fire, or be placed in

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<sup>35</sup> Wiencke 2000, 556-557.



fire.

Beginning in Chapter 4, the bulk of the study is devoted to the catalog and discussion of decorated ceramic hearths, which are generally acknowledged as somehow prestigious, though opinion runs a broad spectrum. Hearths of the EH mainland will be listed in Chapter 4, and the Cycladic evidence in Chapter 5. The catalog allows a detailed discussion of typology, production methods, and in some cases, context, and these conclusions are presented in Chapter 6.

The next section, Chapter 7, is a treatment of the decorative aspects of the hearths, considering the range of motifs and patterns that might suggest the reasoning behind their choice. This chapter will compare the impressed decoration on the hearths with other glyptic evidence, including the roller-impressed pithoi, with which a connection has already been noted.<sup>36</sup> At issue are characteristics of EH social and political relationships, and how these might be expressed symbolically through various inscribed media.

Amassing quantities of agricultural products and their display in storage vessels, with beautiful raised banded decoration, is one possible statement of economic power. If the iconographic similarities between the pithoi and hearths are borne out, it might suggest a symbolic repertoire used for expression of such power in certain contexts of public display of consumption. While storage is only one means by which authority may have been expressed through glyptic decoration, the designs of stamp seals and sealings is also worth examination. If the same symbols are used on vessels for food storage and installations used for food preparation in feasting contexts, the idea of power communicated by these motifs may have involved food mobilization, storage, and consumption, as well as control of resources and people participating in these activities.

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<sup>36</sup> Wiencke 1970.

The final Chapter 8 summarizes conclusions about ceramic hearths, and how they may shed light on the social arenas in which they function.

## **CHAPTER 2**

### **EARLY BRONZE AGE SOCIETY**

The decorated hearths included in this study are mostly chronologically confined to EH II, though a few examples come from late EH I contexts. Geographically they are concentrated in the Argolid and Corinthia, though some examples come from Elis, Messenia, and the Cyclades. No decorated ceramic hearth is known from an EM context. The definitions of the hearth itself and methods of decoration will be discussed with the catalog.

This chapter covers the general background of the EH II period, in order to contextualize the hearths in terms of current discourse on architecture and social organization. To begin, a consideration of the later Mycenaean hearths is important. These may be the closest parallels we have for the EH II hearths, so it is beneficial to clarify their use within a period where both textual and archaeological evidence show a clear hierarchical social organization maintained through bureaucracy and elite display.

## **Mycenaean Hearths**

The presence of the Mycenaean hearth is one criterion for the definition of the megaron, or Mycenaean throne room, beginning with Baldwin Smith's study.<sup>37</sup> Well-known, decorated hearths are the central features of the throne rooms at Mycenae, Pylos, and Tiryns.

At Mycenae, the central hearth has a restored diameter of 3.70 m, and consists of multiple levels of plaster with painted decoration. The earliest level of plaster was outlined from the floor by a red circle, and subsequent layers had varying motifs, with wave and star and notched plume decoration common, which Lamb likens to decoration on movable offering tables.<sup>38</sup> Nearby was found another chunk of plaster, interpreted by Lamb as an interior section of the hearth, though this interpretation is debatable and unclear from the illustration.<sup>39</sup> At Tiryns, the central hearth in the megaron is 3.30 m in diameter, constructed of plaster over clay.<sup>40</sup> At Pylos, the central hearth is slightly bigger, with a diameter of 4.02m, and was re-plastered five times, with the latest decoration including a wave or flame pattern around the rim.<sup>41</sup>

There has been little recent discussion as to the purposes of the Mycenaean hearths, and the older scholarship, unsurprisingly, tends to emphasize the Homeric evidence. Some have seen the royal hearths as primarily intended for lighting or for

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37 Baldwin Smith 1942, 101 for definition of the Mycenaean megaron.

38 Lamb 1923, 240-1.

39 Lamb 1923, 242 n. 3 and Pl. XXVb, no. 8.

40 Müller 1930, 144-5.

41 Blegen and Rawson 1966, 85-6.

heating, though in truth these are inseparable, and the central position of the hearths ensures a fairly equal distribution of both light and heat about the room.<sup>42</sup>

The multifunctionality of the hearths is again crucial to an understanding of their significance, as the discussions of the cultic possibilities of these hearths reveal. Certainly the hearths were a source of light and heat, but opinion spans a broad spectrum on their cultic roles. Some, such as Mylonas, see them as purely practical, with the cultic functions fulfilled only by movable offering tables. Such a table was found at Pylos, and he interprets the plaster fragment cited by Lamb as a section of the central hearth as an offering table instead.<sup>43</sup> On the other hand, some see the hearth as purely cultic, and others partially functional and partly cultic.<sup>44</sup> For example, the hearth may have served as an offering space for royal cult,<sup>45</sup> domestic cult,<sup>46</sup> or a cult to Hestia.<sup>47</sup>

The theory that these hearths were also used for cooking stems originally from Homer.<sup>48</sup> Should the hearths have served a culinary purpose, they would have had the capacity to prepare food for a large number of people, and their capacity to roast an entire ox has been noted.<sup>49</sup> Although cookware was not found adjacent to any of the hearths, it would have been cleared away.<sup>50</sup> It is in this capacity that the hearths may have played a

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42 Hopkins 1968, 47.

43 Mylonas 1957, 57.

44 Lorimer 1950, 429-30.

45 Demargne 1932, 80.

46 de Pierpont 1990, 259.

47 Jones 1972.

48 Graham 1967, 354.

49 Blegen and Rawson 1966, 78.

50 de Pierpont 1990, 258.

central role in feasting, one of the fundamental Mycenaean social practices associated with the megaron suite.

Feasting, or the commensal consumption of food and/or drink, is a complicated process that may be institutionalized for a variety of reasons, including demonstration and amplification of status of the banquet patron, redistribution of goods, mobilization of labor, and creation of social circles through inclusion or exclusion of participants from or within the banquet.<sup>51</sup> Linear B evidence shows that the consumables and feasting equipment were the concern of the palace administration, so the palace setting of such feasts served to reinforce the hierarchy of which the king was head.<sup>52</sup> A similar process certainly operated at other levels of society though, on an analogy with the royal banquets.<sup>53</sup>

On these occasions the throne room hearths could have served a variety of functions: a source of light and heat, a gathering place, an area for food preparation and for royal or domestic cult or sacrifices. The hearths are generally open on all sides to those who may have had access to the throne rooms, though the proximity of the king's throne may have created a special visual or conceptual tie between the royal office and hearth.

How likely is a connection between the EBA hearths and the Mycenaean hearths? A direct evolution is unlikely, as the tradition of decorated hearths appears to mostly die out in MH, and a cultural break is seen in most of the Argolid between EH II and III. The form and function of the EH II Corridor House may be quite different from the

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51 Hayden 2001, Wright 2004b.

52 Palaima 2004.

53 Dabney, Halstead and Thomas 2004.

Mycenaean throne room.<sup>54</sup> This is not the place to discuss the transformation of domestic and political spatial organization from EH to Mycenaean in detail, but suffice it to say that caution is urged in comparing Mycenaean and EBA hearths for several reasons: the lack of textual evidence indicating an EBA social hierarchy, the likelihood of a new ethnic influence, and the general difference between EBA and Mycenaean pictorial expression. While the Mycenaean have a wide figural iconographic repertoire on a variety of media emphasizing hunting and warrior imagery in general, the opposite is true for EBA, where figural imagery is rare and reserved almost exclusively for seals.<sup>55</sup> The hearths of both periods, however, are decorated exclusively with abstract designs.

In both societies, feasting appears to be an important mechanism for displaying and negotiating social structure, though in the EBA the organization of this structure eludes us. Pullen suggests that Mycenaean feasting and EH feasting are fundamentally different, in terms of scale and concerns, arguing that EBA redistribution involves control of small amounts of prestige goods.<sup>56</sup> This observation is based mostly on the evidence from Lerna IIID, summarized below, and other evidence may suggest control of bulk commodities, more like the redistributive concerns of the later palaces.<sup>57</sup> Despite recent advances, more work needs to be done on the nature of EBA feasts before a full comparison can be made.<sup>58</sup>

Despite these caveats, the importance of the hearth in both periods suggests the

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54 Hiller 1986.

55 Laffineur 1992 on Mycenaean imagery, Cosmopoulos 1992 on EBA imagery.

56 Pullen 2011a.

57 Bendall 2003, Shelmerdine 1997.

58 Peperaki 2004 and 2010; Pullen 2011c, Wiencke 2011.

brief comparison here is worthwhile, as these Mycenaean hearths may be the closest comparanda. The architectural contexts of hearths in both periods suggest that they belong to special function buildings that are otherwise distinguished by their monumentality and public or semi-public role as the setting for banquets.

### **Early Helladic Society: Classes of Evidence and Theories**

EH chronology was established by Caskey, following Blegen's work at Korakou, and based largely on the stratigraphy at Lerna.<sup>59</sup> The transition from Final Neolithic (FN) to EH I is culturally continuous, though EH I is not really attested at Lerna. EH I transitions smoothly into EH II, the period of Lerna III, which was a “flourishing settlement.”<sup>60</sup> The transition to EH III is by contrast considered something of an upheaval, marked by a phase of abandonment and new ceramic and architectural forms in EH III, which Caskey attributes at least in part to a new cultural population element.<sup>61</sup> In terms of absolute chronology, these periods correspond approximately 3000 to 2650 BCE (EH I), 2650 BCE – 2150 BCE (EH II) and 2150 – 2000 BCE (EH III).

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59 J. Caskey 1960, Blegen 1921.

60 Caskey 1960, 288.

61 Excavators at Tiryns have challenged Caskey's chronology by identifying a transitional phase between EH II and EH III at Tiryns (i.e. Kilian 1981), suggesting that the idea of a “collapse” at the end of EB II is an overstatement. Forsén (1992) suggests instead a series of destructions spread over EH II and III. Additional deposits with both EH II and III ceramic forms from Berbati and Asine are cited in support of this transitional phase, but Pullen (1991) disqualifies this evidence on the grounds that it comes from likely contaminated contexts. Further, the 'transitional' material from Tiryns is not a distinct ceramic phase, but a mix of EH II and Lefkandi I forms (Rutter 1993), leading Pullen (1991) to term the phase not a 'hybridization' of EH II and III but a 'coexistence' of ceramic traditions. Nonetheless, such a survival of EH II wares in EH III must at least advise caution in seeing a complete cultural break at all sites, even within the Argolid.



The primary period of decorated hearths is EH II, which stands out from preceding and succeeding periods as a peak of material cultural development.<sup>62</sup> In EH I, the intensification of agriculture and external trade contacts and an increase in population continue into the earlier stages of EH II and set the stage for the developments which largely characterize the second half of the period: increased social stratification and complexity, craft specialization, monumental architecture, and signs of ownership and economic control.<sup>63</sup> Presented very briefly below are summaries of such indications in EH II.

## **Burials**

Extensive evidence for EH burials is unfortunately lacking, especially for the Argolid, the primary area of concern. In the EH mainland overall, few cemeteries, here defined as mortuary areas for multiple graves, are to be found at Zygouries, Lithares, Paralimni-Botsikoula, Tsepi, Ay. Kosmas, and Manika.<sup>64</sup> The largest cemeteries are those from the eastern portion, with 39 graves from Ay, Kosmas, about 50 from Lithares, and 189 from Manika.<sup>65</sup> From the Argolid, the burial area at Zygouries contained 4 inhumations, and from the area of the Apollo Maleatas sanctuary at Epidauros, 3 graves

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62 Marcus 1998.

63 Wiencke 1989.

64 Weiberg 2007, and see Weiberg 2011 for a recent summary of EB burial evidence.

65 Spyropoulos 1969.

with multiple burials.<sup>66</sup> From neighboring Corinthia, a well at Cheliotomylos was found to contain more than 12 burials.<sup>67</sup>

Burial as a general rule is extramural, though instances of intramural burial do occur. These are isolated events and often children.<sup>68</sup> Burials are almost exclusively inhumations, with indisputable evidence for cremation found only in cemetery R at Lefkas.<sup>69</sup> In order to achieve the typical contracted position, some skeletons show signs of cutting on the thigh bones, probably through tendons stiffened with rigor mortis.<sup>70</sup>

Tomb type may vary even within a cemetery. Pit graves, cist graves, chamber tombs, and even tumuli are found, though the cists are more common in the region of Attica and Euboia, probably because of Cycladic influence.<sup>71</sup> Grave goods are common and include pottery, stone vases, figurines, items of personal adornment, and sometimes daggers.

Why are there so few cemeteries, especially in the Argolid, where extensive excavation and survey have taken place? Problems of recognition may be at fault: ceramic grave assemblages in the Argolid tend to be similar to domestic assemblages, and so the chance find may not be recognized as coming from a mortuary context.<sup>72</sup> Tomb construction may also work against preservation, as simple pit graves may be much more

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66 Blegen 1928, 43-55; Theodorou-Mavromatidi 2004.

67 Waage 1949.

68 See Cavanagh and Mee 1998, 15 for a list of EB intramural burials.

69 Cavanagh and Mee 1998, 15-22.

70 Fountolakis 1987.

71 Cultraro 2007, 84.

72 Weiberg 2011, 787-8.

difficult to recognize than cist graves or other built types. Also, burials, while they tend to be extramural, are connected with settlements, and there is good reason to believe that EH settlements were short-lived in any given location, with populations moving across the landscape and thus leaving less obtrusive burial remains.

Dating individual burials within a cemetery is another challenge to understanding burial practices. Cavanagh and Mee see a lack of EH I graves, suggesting that inheritance is not at issue in this period, and that more conspicuous burial in EH II reflects increasing interest in hereditary rights.<sup>73</sup> Some work has been done to redate many of the graves, however, and Weiberg sees the cemeteries as emerging in EH I. These burials are connected with the beginnings of the social organization, or the “*emerging* (her emphasis) economic growth and societal diversification,”<sup>74</sup> that culminates in EH II. She even goes so far as to suggest that the monumental buildings of the EH II settlements (discussed below) and conspicuous burial are mutually exclusive strategies, with the former being chosen in the Argolid and the latter further east. Rutter also notes that it is not until EH III that monumental tumuli appear, so that monumentality may shift from settlements to burials, and Müller's dating of the tumuli largely confirms this impression.<sup>75</sup> The exception, of course, is Boeotia, with both an EH II “proto-urban center” and the cemetery of Manika.<sup>76</sup>

How does the mortuary evidence reflect on social organization? Despite the rather small sample size, some conclusions may be hazarded. First, the EH period sees

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73 Cavanagh and Mee 1998, 20.

74 Weiberg 2011, 788.

75 Rutter 1993, 761; Müller 1989.

76 Sampson 1987, 19.

increasing concern for treatment of the dead and most likely with ancestry. The connection of cemeteries with settlements may mean that this concern is a strategy to manipulate hereditary rights invoked with respect to land usage.

In the larger cemeteries, some considerations of social differentiation are possible, and it seems that the mortuary sphere is considered appropriate for the reflection and negotiation of incipient social hierarchy. Cultraro, in his analysis of the evidence from Steno, notes that although grave goods are common in most EH graves, some have significantly more deposits, and these may indicate elite individuals, or chiefs.<sup>77</sup> In grave R24 at Steno, for example, the grouping of less wealthy burials around this lavish burial may indicate a chief surrounded by his followers, whether they are kin-based or not.<sup>78</sup> Tomb architecture may also distinguish individual burials, with the tumulus being the rarest and therefore reserved for the most elite; these marks of differentiation allow him to suggest that “the social group buried at Steno was a ranked warrior elite based on kinship ties and probably on inheritable power.”<sup>79</sup> Hierarchy may also be acted out in the funerary sphere through feasting, the clearest evidence of which (ceramic and faunal) accompanies the richer graves.<sup>80</sup> These theories may be only tentatively read from the evidence which has unfortunately not been augmented by the survey data.<sup>81</sup>

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77 Cultraro 2007. Cosmopoulos (1995) also sees distinction in burials in certain graves across the EB II Aegean, and lists in particular Cycladic “wealthy” graves. Although he sees wealthy burials as more of a Cycladic than mainland phenomenon, this may be a result of the much larger sample size of Cycladic burials.

78 Cultraro 2007, 88; Branigan 1975.

79 Cultraro 2007, 89.

80 Cultraro 2007, 91-2.

81 Weiberg 2007, 232-3.

## Settlement Patterns

Turning to the settlement record, intensive surveys over the past 30 years provide a good idea of the changing landscape use from prehistoric to modern times, of which the changes from FN to EH to MH are of concern here. Presented is a very rough sketch of settlement trends in the Peloponnese; I highlight similarities rather than the differences in population, environmental variability, and site sizes, that certainly exist between regions and even within regions. What emerges, generally, is a trend towards increasing settlement hierarchy and dispersed settlement patterns in EH II, though the rate of appearance of the larger centers at the head of these hierarchies may vary drastically from region to region, being much more sudden in Laconia and the Nemea Valley than in the Argolid.<sup>82</sup>

FN settlements are typically situated in proximity to arable soil for agriculture or in upland areas for pastoralism which corresponds to the advent of the Secondary Products Revolution in Greece.<sup>83</sup> Many of these small sites continue into EH I, though already in EH I the sites are more diverse environmentally. Beginning in EH I, many regions show evidence of a general period of expansion in both settlement and population, for example in the Argolid and Laconia,<sup>84</sup> and the authors of the Boeotia survey warn that the prehistoric landscape was more densely inhabited than survey data suggest because of the low visibility of prehistoric sites.<sup>85</sup>

In EH II, several related trends appear: the first is a general hierarchical settlement pattern. Here smaller sites are dispersed around larger sites, which are distinguished by size

<sup>82</sup> Mee and Cavanagh 1999, 141-2; Cherry et al 1988, 175.

<sup>83</sup> Pullen 2003, 27.

<sup>84</sup> Pullen 1995, 39-42.; Mee 2001.

<sup>85</sup> Bintliff et al 1999, Bintliff et al 2002.

and function. Some regions such as Berbati-Limnes suggest a two-tier hierarchy as early as EH I, but generally the EH II period is cited as the earliest clear period of sites differentiated by size and importance.<sup>86</sup> Usually a 3-tiered hierarchy is posited, as in the South Argolid, Methana peninsula, and Boeotia, though a four tier hierarchy has been suggested.<sup>87</sup> A similar picture emerges in Laconia, though the first-tier sites, as at Pavlopetri, are obscured by later occupation.<sup>88</sup> The larger sites, often coastal sites, serve as important regional organizational centers of the mid-level villages or hamlets. The smallest sites are special-function sites such as individual farmsteads or areas for storage or animal keeping, suggesting that the FN emphasis on sites located for agriculture and pastoralism has not disappeared.<sup>89</sup> The EH II period is then followed by a distinct period of fewer sites, nucleation, or depopulation in EH III-MH, corresponding to the cultural break at the end of the EH II period.<sup>90</sup>

The picture is not static across Greece: while site size and finds increase from FN to EH II and then decrease towards EH III in the Asea Valley, the overall picture is one of more continuous settlement and less dispersion, as in Messenia.<sup>91</sup>

While these patterns may ultimately be economically driven by the increasing metallurgical industry and Aegean trade,<sup>92</sup> which goes far to explain the increased importance of coastal sites in EH II, how do changes in settlement patterns reflect on social changes in the EBA?

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86 Forsén 1996, 119.

87 South Argolid: Jameson et al 1994, 353-4, 358-9; Methana peninsula: Mee and Taylor 1997, 50; Boeotia: Bintliff et al 2007, 129-31; Kilian 1984, 63.

88 Cavanagh et al 2002, 125-7.

89 Jameson et al 1994, 349.

90 Whitelaw 2000; Bintliff 2010.

91 Forsén and Forsén 2003, 196; Davis et al 1997.

92 Runnels and van Andel, 1987.

Inherent in the emergent settlement hierarchy, of course, is the idea that certain sites may be seen as elite centers, and that these centers may share material characteristics as they emulate each other through peer polity interaction.<sup>93</sup> Further, their emergence is notable in that the base tendency seems to be small settlements of approximately 150 inhabitants, in order to reduce social tensions, with regional ties maintained through exogamy and feasting.<sup>94</sup> It is to this pattern that many regions return in MH. But in EBA, those sites which grow larger achieve political and economic pre-eminence; but these sites must be held together by some social organization, whether horizontal or vertical. To Bintliff, the hamlets around EH Fournoi suggest a clan-based, horizontal structure, while the corridor houses suggest a more hierarchical structure.<sup>95</sup>

Again, it is important to note that the social organization behind emergent EH II centers may vary between regions. In the dynamic EH II, the Argolid plays an important role. This region shows more continuity of population from EH – MH than other regions, such as Corinthia, and ceramic evidence suggests that it is central to other regions such as the Nemea Valley and Berbati.<sup>96</sup> It is not a coincidence that most of the EH II decorative ceramic hearth fragments come from the Argolid. Fragments of roof tiles, associated with the corridor houses, and hearth fragments are two indicators of site hierarchy. While they are found at several sites of medium size as well, the highest concentrations tend to be associated with the highest level sites, such as Fournoi, and the mid-level sites have fewer tiles or hearth fragments.<sup>97</sup> An understanding of the corridor houses, then, is crucial to understanding the

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93 Whitelaw 2000.

94 Bintliff 2010.

95 Bintliff 2010, 760.

96 Tartaron et al 2006; Wright 2004c.

97 Jameson et al 1994, 353-4, 358-9; Pullen 1995, 141-2; Pullen 2011b, 23.

role of the more central sites in the Peloponnese.

### **Monumental Architecture: Corridor Houses**

The emergence of monumental architectural forms sets off later EH II from EH I/early EH II. These corridor houses, with their similarities of plan, provide a striking contrast to the irregularities of forms of non-monumental, more domestic buildings.<sup>98</sup> Examples are found in the Argolid (Lerna, Buildings BG and House of the Tiles), Corinthia, on Aegina (Haus am Felsrand and Weißes Haus), and in Boeotia (Thebes), Messenia (Akovitika A and B), and Achaia (Helike).<sup>99</sup>

These buildings consist of three or four central rooms, surrounded by smaller corridors on the longer sides (see plans, Fig. 2.1). These corridors may include staircases to the second stories, which are reconstructed in a similar way to the ground floor, roughly divided into two halves with balconies on the exterior. The roofs are often covered with terracotta tiles, a distinctive roofing choice for the period, which gives the most famous example, the House of the Tiles at Lerna, its name. They range in size from 7.50 m x 15 m at the Haus am Felsrand to 15 m x 25 m at Akovitika A and Lerna,<sup>100</sup> and so are distinguished in their surroundings by their size.<sup>101</sup>

The origin of the architectural form is debated,<sup>102</sup> but a clear evolution can be

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98 Harrison 1995.

99 Argolid: Wiencke 2000; Corinthia: Pullen 1986; Aegina: Walter and Felten 1981, 12-22; Boeotia: Aravantinos 1986; Messenia: Themelis 1970; Papathanasopoulos 1972; Karagiorga 1974; Achaia: Katsonopoulou 2011.

100 Akovitika A may be longer than 25m, as Shaw 2007, 70 notes.

101 Konsola 1984.

102 Most see the corridor house form as mostly indigenous, appearing at the end of EH II (Vermeule 1972,



traced, beginning with House A at Tsoungiza, the Fortified Building at Thebes, Haus am Felsrand on Kolonna, and Megaron A at Berbati.<sup>103</sup> These are smaller structures, and consist of one large room preceded by a small room, possibly for a staircase, and a vestibule.

Intermediate examples include Buildings A and B at Akovitika, the Weißes Haus at Kolonna, and Building BG at Lerna, where additional corridors are added along the length of the building.<sup>104</sup> The most developed example of the form is the House of the Tiles at Lerna. The corridor house at Helike is not yet published and so its position in this trajectory is unknown.<sup>105</sup>

Other possible examples survive at Perachora as well as Eutresis, Ay. Gerasimos, Prosymna and Asea, but as Pullen notes, the remains are too scanty to say for certain.<sup>106</sup>

The Rundbau at Tiryns, while not properly a corridor house, should also be mentioned briefly. It is not the only round building from an EH II context, but it is unique in its monumentality and use of ceramic roof tiles.<sup>107</sup> Interpretations fall into two main

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31; Shaw 1987, 75-9; Shaw 1990, 188; and Wiencke 1989). Themelis 1985, 335-7 cites Greek Neolithic predecessors, but ultimately decides on Mesopotamian influence, p. 350.

103 Shaw 2007.

104 The relative dating of the two buildings at Akovitika is unclear. Themelis (1970) placed megaron A after megaron B, as A is at a slightly higher elevation and has greater dimensions. Karagiorga (1974) tentatively agreed. Shaw (2007) prefers to see megaron B as the later of the two, and contemporary with Lerna IIID, noting that B has a more 'mature' plan in its total incorporation of corridors into the overall floorplan; he further sees the lack of roof tiles in Megaron A and the projections which form the possibly hypaethral antechamber as signs of an earlier form of corridor house. Shaw (2007) 144-8 provides a summary.

105 Some information is available on the project website, [www.helikeproject.gr](http://www.helikeproject.gr).

106 Perachora: Fossey 1969; Fossey 1977; Pullen 1985, 211-13; Ay. Gerasimos: Protonotariou-Deilaki 1971; Asea: Felten 1986, 25; Pullen 2011d, 289.

107 Cosmopoulos 1991b, 23-24.

categories: a “princely residence” or a granary.<sup>108</sup> If it is indeed a granary, it is curious that they should choose to monumentalize a building whose primary function is storage.

The development of the architectural form has been thoroughly discussed in recent literature, so here a few notes will suffice as to the most common features of the Corridor Houses.

First, the corridors, doorways, upper stories and balconies suggest a distinction between more private and more public areas of the buildings.<sup>109</sup> The opening or closure of doors to control access in the house gives the “potential to achieve *multiple* levels of differentiation,”<sup>110</sup> which suggests a concern for both exclusivity (those who have access vs. those who do not) and inclusivity (the admission of a large group of people). A large group of people could also be accommodated in the exterior areas of the building, as at Akovitika, where a hypaethral antechamber is restored,<sup>111</sup> or at Lerna, where both corridor houses look to the same open paved courtyard. The paved area at Lerna in fact predated House BG,<sup>112</sup> and so the site was likely a gathering place even before the addition of the corridor houses.

How central were these buildings to the settlements? While most scholars place them near the outskirts of their sites, Weiberg notes that Building BG is directly on top of the settlement mound, and all of these buildings would have been highly visible due to

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108 Overbeck (1963) notes that no traces of grain were found in the building, and so interprets it as a “princely residence” (1969, 4). Haider (1980), who has thoroughly reconstructed the building, similarly sees the seat of a “divine prince” on analogy with Mesopotamian examples. The main proponents of the granary theory are Marinatos (1946) and Kilian (1986).

109 Pullen 1985, 264.

110 Peperaki 2004, 220.

111 Themelis 1984, 146.

112 Shaw 2007, 146-7.

their height.<sup>113</sup> They would have been further accentuated in the landscape when accompanied by fortification walls, as at Lerna, Thebes, and possibly Kolonna, which may have served the express purpose of protecting the corridor houses rather than the settlements.<sup>114</sup> All signs point to a 'special' purpose for the corridor houses, which combine aspects of both public and domestic buildings.

Despite the excavator's original suggestion that there may have been a throne in Room XII of the House of the Tiles, most agree that the corridor houses served as centers of public gathering and the redistribution of goods.<sup>115</sup> The redistributive theory was originally suggested by Renfrew, and despite recent reexamination of the term, it seems clear from the evidence for sealing and storing goods at some of the houses (discussed below) and for feasting that some sort of exchange took place in the public sphere.<sup>116</sup>

The discussion revolves instead around the nature of the authority in the corridor houses. Some see the monumentality of the architecture and the fortification walls, in addition to the emerging administrative concerns with tracking goods, as indicative of a chiefdom society.<sup>117</sup> The inclusion of private space in the corridor houses would have lent a more exclusive feel to the banquets, given by the chief, to stress his or his family's prestige in a burgeoning hierarchical society. The monumentality of the building reflected the owner's power, and a shift in power may even have led to the deliberate destruction of

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113 Felten 1986; Weiberg 2007, 42.

114 Maran 1998, 195f.

115 Overbeck 1963, 35 n. 39; contra: Felten 1986.

116 Renfrew 1972; See collection of articles presented in Galaty, Nakassis and Parkinson, eds., 2011, for discussion of the term 'redistribution' in Aegean contexts in particular.

117 Pullen 1985; Pullen 1994; Wiencke 1989.

the House of the Tiles at Lerna.<sup>118</sup> A more conservative view, advanced by Felten, would see the corridor houses as family residences, without serving as redistributive centers or as proto-urban centers.<sup>119</sup>

The other school sees the corridor houses as communal sites for inter-settlement meeting and trade.<sup>120</sup> If so, feasting at the corridor houses was largely inclusive and meant to build ties of equality among members of differing communities. In favor of this interpretation are the seal impressions at sites such as Lerna, which suggest that it is members of the larger region around the House of the Tiles that sealed the commodities stored and exchanged there.<sup>121</sup>

In order to understand the corridor houses and their relationship to economic authority, it is necessary to survey the evidence for seals and sealings in EH II. Only then can the connection of the corridor houses to economic authority and feasting be understood.

## **Sealing Systems**

The final class of evidence, seals and sealings, is often cited as proof of an incipient system of economic control, or "administration," a term not without problems. Here, I take administration to mean the marking and tracking of goods for accounting purposes at a level above an individual household inventory. It may be that sealings were

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118 O'Neill 2008, 220.

119 Felten 1986.

120 Themelis 1984; Nilsson 2004; Peperaki 2004; Weiberg 2007.

121 Weingarten 2000b.

impressed upon collections of goods mostly to track access or to guarantee the safety or quality of the contents, and the use of sealings on pithoi is one example.<sup>122</sup> This would hardly qualify as administration according to the definition above, should the sealings have served no further purpose, and sealings did not actually physically keep an individual from removing contents from a package or entering a room. As these sealings were retained en masse, however, as we shall see below, some individual or group must have been concerned with economic control of commodities as well as, possibly, access to storerooms or other private areas of a building.

The tradition of Aegean clay seals belongs to a wider phenomenon throughout the Mediterranean and probably began in the Neolithic.<sup>123</sup> Although no sealings or other indications that the seals were used to mark property survive to prove an administrative or economic use in the Neolithic period, the potential to reproduce standard images may have been significant. As Skeates says of these stamps and their designs:

"these powerful cultural symbols could have repeatedly highlighted social and cultural relationships between various categories of object and people, in the variety of mundane situations and more overtly ritual performances where they were displayed to audiences, and over time. More specifically, they could have been used to attach, reveal, reinforce and reproduce a range of culturally and personally significant concepts: of classification, identity, status, genealogy, production, ownership, order, authority, protection, fertility, potency, quality, authenticity, morality and value. The act of stamping may also have been equally significant."<sup>124</sup>

Aegean seals fit into this category and continued this koine into the EBA period.<sup>125</sup>

Evidence for distribution and iconography of seals and sealings will be dealt with in

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122 Weingarten 2000b.

123 Makkay 1984; Skeates 2007.

124 Skeates 2007, 195.

125 Younger 1991; Younger 2009.

Chapter 7, but the extant EBA seals and sealings hint at their use in some sort of management or administrative system, though what that system was remains unclear. This class of evidence is particularly important in examining social structure not only because it hints at incipient economic management and control, but also because the largest cache of sealings, found at Lerna, is associated with the House of the Tiles, suggesting, unsurprisingly, some correlation between economic power, communal interaction, and monumental architecture.

### **Social Organization in EB II**

The above classes of evidence all point to increasing social complexity in EH II, and especially later in the period, but it remains to specify what form this complexity took. Signs seem to point to a chiefdom, or a ranked social structure with one elite individual at the head. The population would have been organized into factions, groups that are not exclusively bound by tribe or kinship, and held together by a leader, who maintained social ties with his followers through kinship, marriage, or other forms of alliance.<sup>126</sup> The creation of multiple factions led to competition for prestige and power, which in turn led to a more highly stratified society.

Power was maintained and “constructed through the exercise of ideology and display of symbolic resources.”<sup>127</sup> These resources may have been surplus goods, which were then redistributed to the general population. The emphasis on storage vessels in

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<sup>126</sup> Wright 2004a.

<sup>127</sup> Wright 2004a, 271.

earlier EH IIB contexts and the securing of these vessels suggest that maintaining and redistributing surplus of basic commodities may have been of concern to the emerging elite. The fact that the later EH IIB sealings from the House of the Tiles were most likely impressed on prestige goods may suggest a shift in importance from basic commodities to prestige goods. Such prestige goods and exotic connections were also potentially important for maintaining an elite status and identity.<sup>128</sup>

Not only resources, but services and ties of reciprocity bound the chief and his followers.<sup>129</sup> It is in the realm of reciprocity that Wright's "exercise of ideology" is required, acted out by feasting and other rituals in two contexts that are particularly salient for EH. The first is the mortuary sphere, in which elite display began in EH I but trailed off during the period of the corridor houses, only to pick up again in EH III. During these periods, wealthy or monumental burials may have highlighted the importance of deceased individuals, and feasting in the mortuary sphere may have created or reinforced hereditary ties between deceased elite individuals and those still living who were looking to reinforce power.

The other clear context for creating ties of reciprocity is the settlement. In the intervening period, EH II, efforts towards monumentality were focused on settlements, where the instances of feasting at corridor houses could have served to create ties of obligation and reciprocity between the leader and the community. This mechanism may of course have functioned at lower levels of the hierarchy as well, and need not have been restricted to the corridor houses. Those who see the corridor houses as primarily

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<sup>128</sup> Cosmopoulos 1991a.

<sup>129</sup> Voutsaki 1995, 7.

communal centers, I think, miss the point. The houses certainly served as gathering places, and feasting may have promoted horizontal ties within the community as well as vertical obligations to the leader. But the indications of some position of management and control are undeniable. The archived Lerna sealings from Room XI suggest a formal position that oversaw contributions, whether for one feast or as a form of general taxation. The ties had become so formally established, perhaps, with exchange so common, that a rudimentary accounting system was required, or if not required, then nevertheless enforced by an elite to further perpetuate his claims of economic control. Once these ties were created and maintained, the chief could have mobilized his followers as a labor force, such as for construction of fortification walls or corridor houses, agricultural projects, trade ventures, military campaigns, etc.

Within the wider EH II landscape, social hierarchy is reflected in settlement hierarchy, with central places (corridor houses) as residences of chiefs, though this does not prohibit other functions for the corridor houses as well; the chiefs drew their support from the villages which in turn relied on the smaller farmsteads. The replication of this pattern throughout the landscape, especially in the Argolid, suggests multiple factions, possibly geographically arranged, which may have then created ties with one another through marriage and trade, and emulated one another through peer-polity interaction. Here, the ceramic decorated hearths factored in as one aspect of a shared culture that seems especially tied to these central places, and therefore to settings of elite display.



## CHAPTER 3

### EARLY HELLADIC HEARTHES:

#### PREVIOUS RESEARCH AND AIMS OF THE STUDY

##### **Previous Research**

Early Helladic decorated hearths have often been cited as evidence in favor of a building's special function, but opinion spans a broad spectrum.<sup>130</sup> For one example, Wilson identifies terracotta hearths as typical domestic installations.<sup>131</sup> On the other hand, Goldman identifies a terracotta circular disk with a raised decorated rim at Eutresis as an altar, based on the presence of a simple and undecorated hearth nearby.<sup>132</sup> There is no clear consensus on the significance of a decorated hearth for the function of a building.

As noted above, hearths are generally connected with corridor houses, and corridor houses with hearths. Of these buildings, even the earliest show evidence of a central hearth. A "portable hearth" was found in the large room of the Fortified Building at Thebes, and a roller-seal impressed terracotta hearth, described by the excavator as

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130 Säflund 1965, 99.

131 Wilson 1999, 49.

132 Goldman 1931, 18-19.

“sacrificial,” was found in Megaron A at Berbati.<sup>133</sup> Pullen would further restore a central hearth to House A, a reconstruction supported by an earlier phase of the building.<sup>134</sup> In the layer beneath House A, a non-ceramic hearth, filled with ashes, was found cut into the bedrock.<sup>135</sup>

Of the more developed corridor houses, the Weißes Haus on Aigina preserves a central ceramic hearth with incised decoration in the largest eastern room.<sup>136</sup> House BG at Lerna is only partially preserved, but one of the most spectacular hearths was found in a corridor of the building, where it must not have originally belonged based on the large size of the hearth, which was not easily accommodated by the narrow width of the hallway.<sup>137</sup> No hearth was recovered from the center of Room XII of the House of the Tiles, but a circular depression in the floor suggests one ought to be restored.<sup>138</sup> Fragments of an undecorated hearth were found near the south wall of Room XII and in Room VII.<sup>139</sup> In addition, a nearly intact hearth was found upside-down in situ in Corridor IV.<sup>140</sup>

However, not all corridor houses are found with hearths, and not all hearths are found at sites with corridor houses. Other large buildings, for example, have central

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133 For the hearth from Thebes, see Aravantinos 1986. There is no mention of decoration, but it is likened to the hearth from the Weißes Haus on Aigina, which has incised decoration. On Berbati: Säflund 1965, 99-100.

134 Pullen 2011d, 275.

135 Pullen 2011d, 276.

136 Walter and Felten 1981, 15-22.

137 Wiencke 1986b.

138 Caskey 1957, 153; Pullen 1985, 172.

139 Wiencke 2000, 229, 241.

140 Wiencke 2000, 221-2.

terracotta hearths, as at Eutresis and Askitario.<sup>141</sup> M. Caskey notes that hearth function may be independent of building form and function, and it seems safest to associate them with larger buildings, including but not limited to monumental architecture at EH II sites.<sup>142</sup> Furthermore, the tradition of decorated hearths outlived the period of corridor houses in EH III-MH contexts, though only six examples come from Lefkandi, Lerna and Keos.<sup>143</sup>

The connection with larger buildings does suggest a prestige good status for the hearths, a status which is heightened by iconographic connections to storage vessels.<sup>144</sup> One major aim of the study is to see how these hearths compare, in find context and iconography, with other marks of elite status, such as monumental architecture, food storage, and sealing systems.

In terms of hearth function, very little work has been done. Any detailed treatment of EH hearths is usually relegated to excavation reports, where the hearth is treated as another ceramic form. Isolating the hearths within their sites has led to a broad spectrum of opinion and terms that connote, without defining precisely, different levels of ritual significance. In the case of Eutresis, for example, the proximity of the ceramic hearth to another, non-ceramic hearth led the excavator to term it a “clay round disk” with a sacrificial or religious function, and M. Caskey agrees to some ritual function.<sup>145</sup> Wiencke

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141 Eutresis: Goldman 1931, 18-20; Askitario: Theochaes 1953/4, Fig. 25.

142 M. Caskey 1990; Kilian, in his response to this paper, notes that all of the larger buildings in EH II Tiryns had a hearth with a stamped rim.

143 Younger 1991, 45-6.

144 Wiencke 1970.

145 M. Caskey 1990; Goldman 1931, 18-20 identifies the “clay disk” as sacrificial based on the presence of faunal remains and a nearby bull rhyton.

follows J.L. Caskey in terming the large hearth from BG “ceremonial,”<sup>146</sup> though this may not apply to the smaller hearths at the site. The hearth from megaron A at Berbati is termed a “sacrificial hearth,” though there is no mention of associated faunal remains.<sup>147</sup> Terminology must therefore be standardized before we can proceed to a further analysis on what constitutes a ceramic hearth, how it differs from non-ceramic examples, and how methods of decoration are to be distinguished.

Another aspect of the debate concerning the function of these hearths is their potential social significance and context. Some prefer to see them as essentially domestic, and in survey reports they are said to represent domestic settings, despite the fact that they are also one criterion for identifying higher and middle level sites in the settlement hierarchy.<sup>148</sup> Wilson sees the large fixed hearth at Ay. Irini as “a common and essential part of the domestic furnishings of a Period II household at Ay. Irini,” presumably because of the large number of fragments found as compared with the number of houses.<sup>149</sup>

Two articles challenge these perceptions of the hearth as purely domestic. M. Caskey's 1990 article suggests a ritual function for those hearths at Eutresis and Lerna Building BG. Peperaki has challenged the term "domestic" itself, a useful and necessary step to understanding the hearths in their architectural and social settings. By treating them in their architectural contexts, which she terms the "hearth room," she finds that hearths are foci for large gatherings in a formal setting, associated by related finds with

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146 Wiencke 2001, 194; J.L. Caskey 1958, 130.

147 Säflund 1965, 99.

148 Jameson et al 1994, 362; Pullen 1995, 142.

149 Wilson 1999, 49.

food storage and preparation, and commensal consumption.<sup>150</sup> While she views the hearth rooms as largely communal, she notes that “power [relies] on the ability to claim a privileged position in relation to this process—i.e. to present food-sharing (and the collectivity this sustained) as depending on specific participants or roles.”<sup>151</sup> Again, the differentiation between “communal” and “elite” settings are really two sides of the same EBA coin, where feasting is a community event that may create horizontal ties, at which the power of individuals may also be displayed and contested.

### **Aims and Methodology of the Present Study**

The understanding of the function of the hearth is crucial, along with their typology, to an understanding of the artifact and its use in context. A catalog of known and published hearths will include an analysis both of the find contexts and their related assemblages. This analysis should bridge the gap between the different classes of evidence cited above for social stratification:

1. Monumental architecture: the hearths were set in floors of corridor houses and other large buildings, and though they could have been portable, were in many cases planned for by a depression in the floor. An understanding of how the hearths relate to architectural types not only sheds light on the function of monumental architecture or other buildings in which such

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150 Peperaki 2010.

151 Peperaki 2010, 257.

hearths are found, but also, the differences between these buildings and others on the site. That is to say, ceramic hearths may be a reliable indicator for special-function buildings, whether houses of an elite or chief, or places for communal gatherings.

2. Feasting: Given the correlation of these hearths with hearth rooms, they served as a visual focus for social gatherings, though it must be noted that perhaps not all guests were allowed uncontrolled access to the hearth rooms. In terms of their distribution across the landscape, we might ask whether the larger examples are found at the highest level sites, and the smaller examples at mid-level sites. This may indicate that fewer banqueters needed to be accommodated at such lower level sites.
3. Elite iconographic display: A connection has already been noted between ceramic hearths and pithoi, where rolled and stamped impressions are sometimes identical.<sup>152</sup> Is this an example of a repertoire of symbols that applies to both areas of food preparation and storage? If so, does it extend to seal iconography as well? Does the repetition of identical designs at different sites indicate traveling craftsmen, or what is the mechanism of emulation by which the designs are so similar?

After a consideration of terminology and comparison with undecorated hearths, the first step is to review the evidence to consider whether current typological models are universal, as current typologies are based solely on shape (pan/circular hearth vs. keyhole

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<sup>152</sup> Wiencke 1970.

hearth) or, in the case of Lerna, where the sample size allows, rim size and height.<sup>153</sup> A consideration of the architectural context and related finds will attempt to answer the above questions. In the final part of the study, the hearths will be examined iconographically for visual similarities to storage vessels and other media which may further connect or disconnect the hearths with elite display or commensality.

I turn first to issues of terminology. First, I discuss the “non-ceramic” hearth, as these provide something of a control against which to compare the ceramic examples. While in a sense they share functionality, they are formally distinct, and in some cases, as at Eutresis, are found in close proximity, suggesting some difference in use or meaning.

## **Definitions**

### *non-ceramic Hearths*

As stated in the introduction, a lack of terminological rigor has obscured our understanding of hearths of all periods. I have thus far discussed “decorated” and “ceramic” hearths without specifically defining the term; the use of these terms implies categories of undecorated and non-ceramic hearths.

The non-ceramic hearth is, like the ceramic hearth, an area used to contain fire for cooking, heat, and light. Their identification in the archaeological record is helped by signs of burning and ash deposits either on top of the hearth or nearby, sometimes accompanied by faunal remains. The non-ceramic hearth is usually a built installation of some sort, deliberately chosen in terms of material and location. The built installation or

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<sup>153</sup> Wiencke 2000, 556-8.

feature may be an addition to the room, or raised in elevation above the floor, but it may also be sunk into the ground; sometimes this space may be further differentiated from its surroundings by a border of stones.

Construction of non-ceramic hearths from the EH I – EH III mainland varies considerably, from a flat area of baked clay to a raised area outlined by stones, to a burnt area otherwise undifferentiated from the rest of the room. Often the surface was made of a mix of clay, sherds, and stones. Most were roughly circular, some were apsidal. They may have been protected from wind by a vertical flagstone. The size of these hearths is not often published but when it is, it is often comparable to the decorated hearths. Many were close to 1m in diameter, and the apsidal example from Thebes was 1.2 by 1.85m.

Lithares, with its 7 non-ceramic hearths, provides the best opportunity to examine the variation in construction and placement within a site. Tzavella-Evjen and Bohner summarize:

"The hearths are piles of burned dirt or they are built in circular or semicircular designs formed by a ring of stones. They are located against walls (Room 2, House Z), by the corners (Room 38, House H), and toward the middle of the room but off center (Room 31, House P). There seems to be some concern to protect the fire from the draft, by locating the hearths at a sheltered place, or by building a small wall to form a corner niche (Room 35, House TH), or by placing between the entrance to the room and the hearth a vertical flagstone (Room 42, House TH)."<sup>154</sup>

There was no standard undecorated hearth form or placement even within a single site.

Another non-ceramic hearth type is more rare: the circular stone platform. On Samos, an Early Helladic circle of stones has been identified as a hearth.<sup>155</sup> At Olympia, from the EH or possibly MH levels, a circle of river stones, two to three layers deep, was

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<sup>154</sup> Tzavella-Evjen and Bohner 1990, 121.

<sup>155</sup> Miljocic 1961, 17.



set in a bed of gravel, with signs of burning on top; Yialouris suggests either a hearth or an altar.<sup>156</sup> Another example, partially excavated, comes from Lithares, where a stone platform of 2.75 m diameter was found, with a deposit of bone, ash, and pottery to the side.<sup>157</sup> In a later article, the feature is not identified as a hearth, because of the lack of burning or ash deposit on the stones, but the nearby ash deposit is suggestive.<sup>158</sup> Some hearths seem to have been cleaned regularly, such as the EH III examples from Houses T and H at Eutresis, which have nearby ash pits.<sup>159</sup>

As for the function of these non-ceramic hearths, it is clear that they were used for cooking, based on the nearby presence of serving and cooking vessels, and in Eutresis, House T, the provision of stones on which to place cooking vessels in the fire. They were also often located in proximity to storage vessels, suggesting that food storage and preparation was all accomplished in the same space. The presence of animal bones nearby, rather than directly on, the hearths suggests that they had been discarded after cooking rather than sacrificed on the hearths.

In terms of form, these hearths are quite different from the ceramic decorated hearths; their differences in function are less clear. In at least one case, House A at Tsoungiza, it seems that the non-ceramic hearth was later replaced by a ceramic hearth.<sup>160</sup>

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156 Yalouris 1964, 174-6.

157 Tzavella-Evjen 1985, 17.

158 Tzavella-Evjen and Bohner 1990, 121.

159 Goldman 1931, 23 and 26.

160 Pullen 2011d, 275.

## *Decorated Hearths*

Decorated hearths are those that preserved some sort of extra visual elaboration. Hearths may also be "decorative," that is to say, meant to serve as a visual elaboration for the space in which they are placed, a function which will be discussed below.

Decorated hearths are by definition ceramic, sharing in some of the same types of decoration found on other EH vessels. Not all of the ceramic hearths were decorated, though the majority were. These will be listed in the catalog as well, as typologically they are similar, though most of them, like the decorated hearths, were not found in their original architectural context. One example, a round ceramic form from an Early Helladic apsidal house at Thebes, was placed in the center of the large central room.<sup>161</sup>

Formally, the easiest way to classify is by shape, and circular or pan hearths are the most common (Fig. 3.1 for hearth shapes), with keyhole shapes second most popular, also referred to as "horseshoe" shaped. Occasionally the figure-eight shape is also found. Some of the larger circular examples have axe-shaped central depressions, as at Eutresis, Berbati, and House BG at Lerna (Fig. 3.2). According to Pullen, EH II hearths typically have a low, raised, wide rim, of 5.5 to 8 cm based on the examples at Tsoungiza, and a pan depth of 3 to 6 cm.<sup>162</sup>

The only real criterion for further classification was offered by Wiencke in her consideration of the 25 hearth fragments from Lerna. She divides the hearths by rim height, with low rims (2.1 to 5 cm), medium rims, and high rims (8.6 to 14.6 cm), the last

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<sup>161</sup> Demakopoulou 1975.

<sup>162</sup> Pullen 2011d, 371.

being the most rare type. The low rims are further subdivided into low/broad (ca 10 cm rim width) and low/narrow (ca 4 to 5 cm).<sup>163</sup>

These decorated hearths almost all had some sort of impressed or incised decoration added before firing, and we shall see that those examples classified as undecorated ceramic hearths are often but not always more akin to the ubiquitous baking pans of EH II. While painted designs are common on EH II vessels, paint is only very rarely used to decorate the hearths, though they may have occasionally been slipped, in combination with other types of decoration. Decoration was usually confined to the rim of the hearth, though in some instances it was added to the pan as well (Fig. 3.3).

Decoration falls into two main categories:

1. Incised decoration: a thin stylus or other tool is sunk into the clay and dragged to create decoration. Usually this is linear decoration, such as chevrons (Fig. 3.4) or a simple line along the periphery of the hearth rim.
2. Impressed decoration: Here the decoration is created by the application of a stamp or other tool into the clay, with either a raised or a negative impression.
  - (a) Tool impressed: Here a tool such as a wedge is impressed into the clay at a ninety degree or a slight angle to the rim and then removed without dragging the tool through the clay. The most common motifs created by this process are triangles and kerbschnitt (Fig. 3.5). Unless otherwise specified, an “impressed” hearth will be of this type.
  - (b) Stamp seal impressed (or stamped): Here the motif is created by the

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<sup>163</sup> Wiencke 2000, 556-7.

application of the stamp seal to the hearth rim in a downwards motion, and then removed. This technique is most often used in the Cycladic examples,<sup>164</sup> and results in any number of different motifs, though usually the same stamp seal is used on any given hearth, as in Fig. 3.6.

(c) Roller seal impressed (or rolled): Here a cylinder seal is applied to the rim and rolled continuously, creating a continuous frieze. Common patterns include spirals, zig-zags (Fig. 3.7) and wavy line meanders.

All of these dimensions and characteristics will be taken into account in as much detail as possible in the following catalog.

### ***Hearths vs. Baking Pans***

As there are several examples of ceramic, undecorated hearths, another issue arises in the identification of a hearth vs. a baking pan. Because the typology of the hearth is as yet so loosely defined, some items are classified as hearths which more closely resemble these baking pans. The problem is again one of typology, and whether or not we define a 'baking pan' by its form or its function, both problematic options. If the term 'baking pan' specifies the function of the vessel, a good idea of its everyday use is conveyed, and ceramic typologies usually carry some concept of function. Pithoi are dedicated to storage, for example, amphorae to storage and transport, and plates for serving; the form of the vessel reflects the function for which it was intended. We must remember, however, that vessels can be multifunctional, and it is not always clear what

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<sup>164</sup> Krzyszkowska 2005, 52.

the function of a vessel is, as in the case of these baking pans.

To classify solely by form is possibly more accurate, but the term baking pan already carries modern-day connotations of function. Most identify baking pans based on the form: a circular, open vessel with a low rim. Sometimes spouts facilitate cleaning. Blegen suggests that almost every house at Zygouries has one, and they are common finds in EH II settlements.<sup>165</sup>

The pans share some formal elements with the hearths: the predominance of the round shape, for example, and the rough bottoms, flat or slightly convex, suggest firing on the ground.<sup>166</sup> The rims are spreading and often have an angle on the exterior, below which the finish is more rough. The pans of hearths tend to be thicker than baking pans. At Lerna, for example, pan thickness of baking pans ranges from 0.3 to 0.5 cm, with rim thicknesses, where recorded, only several millimeters thicker. The average pan thickness for Lerna hearths is just over 2 cm, about four times thicker than the baking pans. Heat transfer through the bottom of the baking pans may then be an important part of their function, while for the hearths, the thicker bottoms may be meant instead to insulate.

Baking pans differ from hearths in three important ways: ware, size, and profile, which are indicative of functional differences. While there may have been some overlap in the function of hearths and baking pans, generally, the formal differences make the baking pans unsuitable to function as hearths.

Baking pan profiles, at least for the later EH II period, are also distinctive. Whereas the hearths have more or less vertical rims that closely preserve the

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<sup>165</sup> Blegen 1928, 117.

<sup>166</sup> Wiencke 2000, 535; Pullen 2011d, 372.

circumference of the bottom, the baking pans usually have rims sloping outward so that the circumference of the rim is significantly greater than the circumference of the pan. Sometimes the slope of the rim is less dramatic, as in Tsoungiza 588, but sometimes it is quite pronounced, as in Tsoungiza 592. Also, the prevalence of holes in the baking pan rims is another clear differentiation: none of the hearths examined had holes in the rim.

Size is another major difference between hearths and baking pans. Vessels with baking pan profiles are typically much smaller in circumference, 50-60 cm at most, so that baking pans accommodate a much smaller volume.

Baking pans tend to be executed in a different ware class as well. At Lerna, both baking pans and hearths are cataloged as coarse, but Wienke notes that baking pans have a unique fabric that is gritty and prone to fracture.<sup>167</sup> At Tsoungiza, EH II Developed hearths are in class 40 (coarse, plain), and baking pans in fabric 30/31 (cooking ware, plain/burnished).<sup>168</sup> From the Argolid Exploration Project (AEP), one baking pan is semicoarse, an unusual but attested material for the hearths (Cat. No. 618), which are typically described as coarse.<sup>169</sup>

The line between hearth and baking pan is sometimes blurry, especially for the early examples. The similarities may stem from the divergence of the hearth and the baking pan from a single form in EH I, a split that is completely evident at Tsoungiza in EH II Developed.<sup>170</sup> Wiencke also notes that baking pans, unlike hearths, are common in all periods of Lerna III, suggesting this form predates the hearths which become more

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<sup>167</sup> Wiencke 2000, 535.

<sup>168</sup> Pullen 2011d, 162.

<sup>169</sup> Pullen 1995, Cat. No. 618.

<sup>170</sup> Pullen 2011d, 191, 372.

common in later EH II.<sup>171</sup>

The EH I – early EH II vessels, classified by Pullen as hearths, but which I remove on the grounds of their smaller size, are executed in Class 40 fabric, and also have fairly thick pans. Pullen suggests that the hearth and baking pan in later EH II diverge from this earlier hybrid hearth/pan shape. Some of these earlier examples might therefore be better classified as pan-hearths, as they are neither fully baking pans nor hearths. Another example is P514 from Lerna, which Wiencke classifies as a hearth based on the thickened and tool-impressed rim, while noting that the pan is thin like a baking pan.<sup>172</sup> The early examples from Corinth (MF 13393, MF 1977-110, and MF 13394) also fall into this hybrid category.

The hearth as a unique, developed form intended to contain fire seems not to have appeared before later EH II. This timing may be because of social circumstances, or the need for a large vessel to cook significant amounts of food for feasts, and to serve as a focal point for gatherings. It is no coincidence that it appears at a time when evidence for feasting spikes in the material record.

Formally, the baking pans have been rather well defined in the publications of the last few decades, but discussion as to the function continues. There are four main theories: the first, that the baking pans served as hearths, that is, to contain embers or fire.<sup>173</sup> They may have been fixed, with rounded bottoms sunk into the ground, or portable, with flat bottoms. The problem with this theory is that there is rarely burning

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171 Wiencke 2000, 535.

172 Wiencke 2000, 395.

173 MacGillivray 1980, 86. MacGillivray classifies as 'baking pans' vessels from Mt. Kythnos, Delos, that appear to have been fired and fixed in the ground. On the mainland, he notes, the baking pans may have been made on a flat surface and been portable.

preserved on the interior of the vessel at Lerna, where the pans are numerous.<sup>174</sup> Also, the very thin bottoms do not lend themselves well to insulation.

The second theory is that they may be used as ovens, when one is inverted on top of another. Small holes may be drilled for ventilation along the rim, and the ledges sometimes found on the interior of the rim may help two pans of different diameter to form a closed shape. Larger holes serve as openings for food.<sup>175</sup> Certainly this is a possible function, but not the only function, as these pans are not, where we have good contexts, found in pairs, and the addition of the smaller holes is really unnecessary.

Wiencke advances a third theory, that the pans may have been used in cheese making, with the holes for straining and spouts used to attach some sort of cloth.<sup>176</sup> Again, this is a possibility, but the burn marks on many examples still require explanation.

Finally, the baking pans may have been set in a fire or hearth, truly serving as a modern-day baking pan. The thin bottoms would facilitate heat transfer to quickly cook food, and the small holes might have been used with a long, detachable handle of some material to help move the pan in and out of the fire. Oddly enough, Wiencke notes that most of the burn marks at Lerna are on the rims of the pans, rather than the bottom, suggesting to her that the pans might be placed directly in or on the ground and embers raked around the vessel.

It cannot be ruled out completely that the baking pans served as hearths, though as a primary function this is doubtful. Some scholars, though, treat the forms together.<sup>177</sup>

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174 Wiencke 2000, 535.

175 Holmberg 1944, 56.

176 Wiencke 2000, 535-6.

177 For example, Renard 1991 does not seem to distinguish between the two forms.



Zachos, on the other hand, cites a contextual argument against their use as hearths at Ay. Dhimitrios: “Since there are fixed hearths made of clay or stones known from many EH sites, there is no need to interpret baking pans as hearths .... the discovery at Ay. Dhimitrios of 'baking pan' fragments in Room III of House A together with a fixed hearth indicates that 'baking pans' were not used as hearths.”<sup>178</sup> Here, the argument is functional rather than formal, as the hearth he refers to is not ceramic but rather flat stones surrounding soil and ash.<sup>179</sup>

I will use the criteria put forth by Pullen and Wiencke to identify baking pans: a thin bottom, usually of 1 cm or less, a spreading rim that is relatively thin and therefore not decorated, and a diameter of less than 60 cm.<sup>180</sup> I illustrate the variety of profiles of some of these baking pans in Figs. 3.8 and 3.9, and I will add to this category any items previously classified as hearths that fit better into this category. I suspect that the most common function of these baking pans was to serve as cooking ware in a fire, but this is not provable. Burn marks on the exterior or bottom of the vessel *suggest* a baking pan, but *eliminate* the function of a hearth, where the burn marks would be on the interior.

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178 Zachos 1987, 192-3.

179 Zachos 1987, 164.

180 Wiencke 2000, 535.

## CHAPTER 4

### CATALOG OF MAINLAND HEARTHES

This chapter consists of a catalog of all published hearth fragments from mainland Greece and a brief discussion of the examples by site. The Cycladic comparanda are discussed in the following chapter. I was unable to personally examine all of the hearths, which is noted where applicable, and all possible published information about the hearth is then quoted. I have included all ceramic vessels called hearths by the excavators, whether they are decorated or not. Some examples are closer typologically to baking pans.

The catalog is organized first by site. Lerna and Tiryns had the most EH II hearths, with good numbers from Corinth and Tsoungiza and several examples from other sites, including Ay. Dhimitrios, Berbati, and Eutresis. At Lerna and Tsoungiza on the mainland, and in the Cyclades on Keos I have organized the hearths chronologically. Table 4.1 shows a comparison of the chronological designations at Lerna, Tsoungiza, and Keos.

Each site is described in terms of architectural remains and other significant finds in EH II, and then the hearths are listed first by catalog or inventory number, with date

and figure numbers given. Next the shape and size are described, with measurements given in cm unless otherwise noted (see Fig. 4.1 for a visual representation of hearth dimensions). Notes on fabric and production are given, decoration is described according to method of impression and motif, and excavation context is noted. Finally, bibliographic citations are listed.

## **Lerna**

The coastal site of Lerna in the Argolid was excavated in a series of campaigns in the 1950s by the American School of Classical Studies at Athens. While Neolithic occupation is attested, a break in occupation in EH I is followed by EH II resettlement, including the House of the Tiles.

The EH II period, termed Lerna III, is divided into 4 subphases, A-D. Little remains of the earlier two phases, which seem to have been cleared for the large building projects of Lerna C-D. It is in Lerna IIIC that the fortification walls are erected, undergoing many changes and modifications over the subsequent subphases.<sup>181</sup> Within phase IIIC, Rooms CA and DM (Fig. 4.3) postdate the corridor Building BG of early III C (Fig. 4.2). BG is then replaced in Lerna IIID with the House of the Tiles (Fig. 4.4), surrounded by Houses 113, 117, and 119, which may have survived and been used into this period.<sup>182</sup>

For Lerna, the following bibliographical abbreviations are used:

*Lerna IV* = M.H. Wiencke. 2000. *Lerna. A Preclassical Site in the Argolid*.

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181 Wiencke 2000, 91-149.

182 Wiencke 2000, 213.

*Results of the Excavations conducted by the American School of Classical Studies at Athens. Volume IV. The Architecture, Stratification, and Pottery of Lerna III.* Princeton, NJ: American School of Classical Studies at Athens.

Banded Pithoi = M.H. Wiencke. 1970. "The Banded Pithoi of Lerna III." *Hesperia* 39(2), 94-110.

CMS V = Pini, I., ed. 1972. *Kleinere Griechische Sammlungen*. Mainz: Verlag Philipp von Zabern.

1. P210. Lerna III, late Phase A.

No personal examination. Preserved dimensions are published as preserved H. rim 3.1; preserved W. 9.6. Decoration is described as "impressed" but may be incised diagonal lines (see *Lerna IV*, Fig. II.12). From lot A47, Trench A, under MH House M, East of House of the Tiles, which contained a large quantity of baking pans. Formally similar to baking pan.

*Lerna IV*, 355 and Fig. II.12.

2. P514; Lerna III, Phase A/B General.

No personal examination. H. rim 2.5-3.5; reddish-brown paint noted on rim and pan, where it is burnished. Decoration is tool-impressed kerbschnitt. Formally, Wiencke notes "bottom of pan thin, as in a baking pan rather than a hearth, although thickness and decoration of rim are closer to those of a hearth."<sup>183</sup> See

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183 Wiencke 2000, 395.

rim profile in Fig. 4.21.

From lot J98, Trench J, area south of Room J in building EV, with mixed pottery from Neolithic, IIIA-B.

*Lerna IV*, 395, Fig. II.26 and Pl. 8.

3. P519; Phase A/B General

No personal examination. H. rim 8.3. Rim is incised with a line around the periphery and chevrons or other linear decoration in between. Wiencke notes that the bottom is rough, suggesting it was fired in situ.<sup>184</sup> Again, formally similar to baking pan.

From lot J442, east side of area JA, a predominantly Neolithic deposit.

*Lerna IV*, 395, Fig. II.26.

4. P520; Phase A/B General (Fig. 4.3)

Personal examination 2 Feb 2012. Rim and maybe pan fragment of a circular hearth, or possibly a plate, because even 7.0 cm after termination of the decoration, there is no slope to the pan. H. rim 2.3 cm; W. dec. 5.8; preserved W. 12.5. Bottom is rough; signs of burning along rim. Four rows of impressed kerbschnitt decoration, with incised line along periphery of interior of rim.

From lot B1525; north edge of trench AP below Bothros B-Bf.

*Lerna IV*, 395; *Banded Pithoi* 103, no. 271, Pl. 26.

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184 Wiencke 2000, 395.

5. P521, Phase A/B General (Fig. 4.6)

No personal examination. Rim of plate or hearth (pan not preserved). H. rim 3.4;

W. rim 6.1. Bottom rough. Decoration is incised hatched triangles.

From lot B1525, as was P520.

*Lerna IV*, 395; *Banded Pithoi* 103, no. 272, Pl. 26.

6. P522, Phase A/B General.

No personal examination. Two non-joining rim fragments, undecorated, of a circular hearth, which Wiencke describes as having a "well polished interior."<sup>185</sup>

H. rim 2.1.

From lot BE 568, in the northern trenches, probably the remains of earlier Lerna III layers cleared for later building.

*Lerna IV*, 395.

7. P541, Phase B/C General.

No personal examination. Rim and pan fragment. Wiencke suggests that it may be a "curved corner,"<sup>186</sup> so possibly from a keyhole hearth. Signs of burning. H. rim 9.0. Decoration is incised with irregular diagonal slashes in between a periphery line at both the exterior and interior edge of the rim. From lot HTS 74, a mixed lot of Phases B and C.

*Lerna IV*, 398 and Fig. II.28.

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185 Wiencke 2000, 395.

186 Wiencke 2000, 398.

8. P690; Early Phase C

No personal examination. Rim and bottom fragment of a circular hearth, H. rim

4.1. Decoration is incised hatched triangles. From lot BE 564.

*Lerna IV* 421, Fig. II.38; *Banded Pithoi* 103, no. 275.

9. P772 (L1556), mid Phase IIIC (Fig. 4.7)

Personal examination 2 Feb 2012. This is the large, well-known hearth from Building BG. Circular hearth restored from 56 fragments,<sup>187</sup> with large axe-shaped depression in the center of 13 cm depth, measured to top of rim. Diameter 1.15 m; H. rim ca 4.5; W. rim ca 9.0-11.0; D. pan ca 3.0. The shape of this hearth is unique among the examples from Lerna because the bottom is not flat but convex and meant to be inserted into a depression in the floor. The bottom could not be examined because of its setting in a gravel display in the Argos museum, but Wiencke calls it "roughened."<sup>188</sup> Signs of burning visible on pan interior and in the axe-shaped depression; signs of smoothing on the interior along the rim and in the axe-shaped depression. Rim is roller-impressed with eight or nine rows of zigzags and remnants of white fill. The axe-shaped depression is also outlined by a zigzag, created by the impression of a triangle shaped tool. From corridor in Building BG, where it must not have been intended originally, as it was too large for the space and part of wall W-61 was removed to accommodate it. It was found covered with a thick deposit of ash, and so was used in situ, although the eastern

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187 Wiencke 2000, 434.

188 Wiencke 2000, 194.

portion of the rim was missing, as was part of the northern rim, which was plugged instead with stones. Possibly the hearth was already fragmentary when installed in this corridor but was used nonetheless.

*Lerna IV*, 193-4, 434, Fig. II.84 and Pl. 13. *Banded Pithoi* 102-3, no. 270. *CMS* V.149. *Caskey* 1958, pl. 32C; *Caskey* 1959, pl. 42 a and b.

10. P894 (CA 140), late Phase C.

No personal examination. Rim fragments, H. rim 2.2; Wiencke reconstructs the diameter at 28.<sup>189</sup> In profile, these fragments resemble to me a baking pan, see profile in Fig. 4.21. No mention of burn marks. From lot G29, room CA.

*Lerna IV*, 458, Fig. II.57, Pl. 17.

11. P934 (L.406); Late Phase C

No personal examination. Rim, bottom, and handle fragment of a hearth, H. rim 14.6. Wiencke estimates the diameter at 60.<sup>190</sup> The top of the vessel is painted a dark grey and the rim is roller-impressed with a zig-zag pattern. The inclusion of a handle is curious and allows high portability, not generally a feature of hearths.

There are some examples of hearths with handles from Keos, cataloged in Chapter 5, but these are low, flat hearths. Given the combination of high rim, handle, and painted top, this is a unique hearth. From Lot G33, above Floor Deposit of Room P (one of the fortification casemates).

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189 Wiencke 2000, 458.

190 Wiencke 2000, 462.



*Lerna IV*, 462, Fig II.58, Pl. 17.

12. P935 (L. 1598), Late Phase C (Fig. 4.8)

Personal Examination 1 Feb 2012. Rim and pan fragment of circular hearth. H. rim 8.7, D. pan 6.5; W. rim 4.3. Around the exterior, near the bottom, a small incision is preserved, probably to guide the dimensions of the hearth (Fig. 4.24). Bottom is rough with impressions of fibers, matting, or other floor surface (Fig. 4.22). Rim is roller impressed with three parallel zigzags, width of design on seal appears wider than width of rim. From lot BE 563.

*Lerna IV*, 462, Fig. II.58. *Banded Pithoi* 102, 105, no. 269. *CMS* V.148.

13. P938, Phase C General (Fig. 4.9)

Personal examination 2 Feb 2012. Rim and pan fragment of an undecorated hearth. Wiencke suggests a rectangular form as there is little curve to the fragment;<sup>191</sup> possibly a keyhole shape. Top of rim is rounded. H. rim 6.2; W. rim 2.0; D. pan 4.0. Very coarse fabric; bottom rough. From lot G37 north of Room A.

*Lerna IV*, 462, Fig. II.58.

14. P939, Phase C General (Fig. 4.10)

Personal examination 1 Feb 2012. Rim and bottom fragment of an undecorated circular hearth. H. rim 6.5; W. rim 4.6; D. pan 4.6. Surface shows signs of smoothing; bottom rough. From lot G40, above the floor deposit of Room P (one

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191 Wiencke 2000, 462.

of the fortification casemates).

*Lerna IV*, 462, Fig. II.58.

15. P994, Phase C General (Fig. 4.11)

Personal examination 1 Feb 2012. Rim fragment, H. rim 3.7. Decoration is incised, six or seven chevrons, possibly hatched triangle decoration, probably with bordering line on exterior of rim, although the entire width of the rim is not preserved. From lot HTN 106, Outside House 115, east of wall W-117. In same deposit with a pithos.

*Lerna IV*, 469, Fig. II.58. *Banded Pithoi* 103, no. 274.

16. P1230 (L.1597), Phase C/D General. (Fig 4.12)

Personal examination 1 Feb 2012. Rim and bottom fragment from a circular hearth. H. rim 4.4; W. rim 4.0; D. pan 2.5. Smoothing lines visible on exterior of rim and interior of pan. Signs of burning. Bottom is rough. Near the bottom, on exterior of rim, a small incision where a string seems to have guided the dimensions (Fig. 4.24). Rim is roller impressed with herringbone decoration separated into panels by vertical lines. From lot A447.

*Lerna IV*, 501, Fig. II.70. *Banded Pithoi* 102, no. 268. *CMS* V.1.147.

17. P1232 Phase C/D General (Fig. 4.13)

Personal examination 1 Feb 2012. Rim fragment of two joined sherds, probably circular hearth. H. rim 3.9; full W. rim not preserved. Signs of burning, bottom is

rough. Incised decoration of seven surviving chevrons with incised border line along exterior of rim. From lot G 52.

*Lerna IV*, 501, Fig. II.70.

18. P1233 Phase C/D General (Fig. 4.14)

Personal examination 1 Feb 2012. Rim fragment of a probably a circular hearth. H. rim 3.3; W. rim ca. 7.5 but not fully preserved. Probable signs of burning on rim. Bottom rough. Decoration is very regularly incised chevrons; tool used for incision is relatively wide. Could possibly be roller impressed, but the final chevron does not have as regular a width. From surface level.

*Lerna IV*, 501. *Banded Pithoi* 103, no. 273.

19. P1235, Phase C/D general (Fig. 4.15)

Personal examination 1 Feb 2012. Two nonjoining sherds, of which I examined one. Rim and bottom fragment of a keyhole hearth. Rim undecorated. H. rim 7.5; D. pan 6.0; W. rim ca. 4.0. Bottom very rough. From lot GM 1, surface level.

*Lerna IV*, 502, Fig. II.70.

20. P1006 (L.1536), Phase D (Fig. 4.16)

Personal examination 2 Feb 2012. Rim and pan of five joined fragments of an undecorated keyhole hearth. H. rim 5.8; D. pan 2.7; W. rim varies from 4.8-6.2.

Rough bottom. From House of the Tiles Room IV, a corridor. It was found upside

down, in the debris just above floor level.

*Lerna IV*, 472, Fig. II.60, Pl. 20.

21. P1045, Phase D

No personal examination. Undecorated rim and pan fragment, probably belonging to the same hearth as P1148, the next catalog entry. Wiencke notes a smoothed interior surface and rough bottom. From the House of the Tiles, Room VII.

*Lerna IV*, 477, Fig. II.62.

22. P1148, Phase D (Fig. 4.17)

Personal examination 3 Feb 2012. This is an undecorated fragment of an oval or keyhole shaped hearth, joined from four rim sherds and two pan sherds. H. rim 4.5; D. pan 2.4; W. rim 5.0; Restored diameter 75.<sup>192</sup> Signs of paint on upper surface as well as burning, especially in the center of the pan. Signs of smoothing especially apparent along top and exterior of rim. Rough bottom. On the interior pan are some irregular bumps, which Wiencke classifies as added plastic pellets, but they do look very irregular. I would still classify this hearth as undecorated. From Room XII of the House of the Tiles, and probably from the same hearth as P1045.

*Lerna IV*, 490, Fig. II.67, Pl. 23.

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192 Wiencke 2000, 490.

23. P1229 (L. 1597), Phase C/D general, found in Phase IV context (Fig. 4.18)

Personal examination 1 Feb 2012. Rim fragment, bottom of pan not preserved, of a probably circular hearth. H. rim ca 4.7 but possibly not fully preserved; W. rim 4.4, W. dec. 2.5-3 cm. Smoothing on both exterior and interior of rim. Decoration is faint but roller impressed, a series of vertical panels with s-spirals and hook spirals in between. From a later, Phase IV context.

*Lerna IV*, 501, Fig. II.70; *Banded Pithoi* 102, no. 266; *CMS* V.1.146.

24. P1231, Phase C/D general, found in Phase IV context (Fig. 4.19)

Personal examination 1 Feb 2012. Rim fragment of a hearth, missing, it seems, the full height or width. Preserved H. rim 2.2; Preserved W. rim 5.0. Decoration is probably roller impressed, with 8 nested chevrons, possibly (but unlikely) part of a zigzag. From a Phase IV context, lot BC 237.

*Lerna IV*, 501, Fig. II.70.

25. P1234, Phase C/D general, found in post-Lerna III context (Fig. 4.20)

Personal examination 1 Feb 2012. Rim and pan fragment of a circular, undecorated hearth. H. rim 4.3; W. rim 3.8-4.2; D. pan 2.3. Signs of smoothing, especially on interior of rim as it slopes to the pan. The bottom preserves signs of grass or other matted surface (Fig. 4.22). From a later context, lot AA 14.

*Lerna IV*, 501, Fig. II.70.

The typology established by Wiencke and summarized in Table 4.2 holds well for

the Lerna examples. There are clear measurable distinctions between the low rims, less than 5.0 cm, the medium rims, and the high rims, greater than 8.0 cm. Further, the depth of the pan increases with increasing rim height, so the increased height is not simply due to a thicker pan. P772 is unique amongst the Lerna examples in that the bottom is clearly bowl-shaped, extending well below the depth of the exterior of the rim. So the pan depth near the rim is 3.0 cm, while in the axe shaped depression, the depth increases to 13. This hearth was meant to be inserted into a depression in the ground, such as that found in Room XII of the House of the Tiles, though the hearth predates the House of the Tiles.

Many of the earlier hearths are very similar to baking pans, a distinction which Pullen cautions is blurry before late IIIA.<sup>193</sup> I would classify P210, P514, and P894 as baking pans, and so I have omitted them from Table 4.2, as the object is to study the developed form in particular.

P520 may well be a plate, as there is no slope to a pan past the edge of the decoration, and one of the defining traits of the hearth form seems to be at least a low rim. I leave it in the chart, however, as I do P934. With its exceptionally high rim, the inclusion of paint, and the lug handles, it stands out from the other hearths. To me it resembles more a basin, and the only parallels for handles come from the circular pan hearths from Keos, cataloged in Ch. 5.<sup>194</sup>

As Wiencke has noted, based on her division into rim height, there is no real chronological significance to the types.<sup>195</sup> If any chronological distinction is to be made, based on Table 4.2, the medium rim type may come into existence only in IIIC-D,

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<sup>193</sup> Pullen 2011d, 191.

<sup>194</sup> Wilson 1999, 57.

<sup>195</sup> Wiencke 2000, 557.

whereas the other forms are present in all periods of Lerna III. Surprisingly, given the fact that hearths are usually considered later EH II developments, there are a good number of decorated hearths from IIIA/B as well.

As for the profiles of the rims, they are fairly vertical on the exterior or slightly concave, possibly everted towards the top. On the interior they are also fairly vertical, dropping straight into the surface of the pan (see examples of rim profiles in Fig. 4.21). Most of the hearths have flat rims, which may or may not be decorated. Those with more rounded rims include P519, P894 (baking pan?), P938, P1045, P1230, and P1235. There is no definite correlation between rim and decoration: Some with rounded rims may not be decorated, such as P938, P1045, and P1235, but some flat rims omit decoration, such as P522, P939, P1006, P1234, and P1148.

In terms of production, the Lerna examples and their very rough bottoms do seem to suggest that the hearths were fired on the ground, in situ, probably by the very fires which they were built to contain. Some examples preserve good impressions of fibers or vegetal material, especially P935 and P1234 (Fig. 4.22). These fires also left signs of burning on many of the rims and pans, especially P520, P541, P772, P1230, P1232, P1233, and P1148 (see Fig. 4.23).

Another interesting note on production is the small incised line around the exterior of the rim of P1230, about 1 cm above the base (Fig. 4.24). It appears that this incision goes all the way round and may be the result of a string used to guide the measurement of the hearth. A similar mark also appears on P935, both examples from Phase C or later. The incision also appears on several others from Corinth and Tiryns, but overall only on a small number of hearths, so it may not be a universal procedure.

As for the method of decoration, from Table 4.2, it is clear that roller-impressed decoration does not appear on the Phase III A/B examples, and appears to be a later EH II development. This method may be related to the importation of seals in general. As noted above, pintaderas are known from Neolithic contexts, but it is not until later EH II that sealing systems are in place, imported or inspired by Near Eastern examples. While not used on sealings, the cylinder seal may also be "imported" from abroad at this time, as part of a glyptic administrative package, and then applied to hearths and pithoi.

Iconographically, the decoration is almost exclusively linear and abstract for the EH II period, with linear designs and hatched triangles possibly more prominent in A/B, and zigzags and chevrons more so in C/D. The one example with roller impressed spirals, P1229, was found in a late (Lerna IV) context.

The three examples from Lerna IV contexts are interesting, as they were probably in use as heirlooms. Rutter, who has published the Lerna IV pottery, notes that the EH III incised and impressed decoration is not at all related to EH II decoration, and that impressions tend to be in geometric layouts, sometimes bordered by incisions, and filled in with impressed dots (examples, Fig. 4.25).<sup>196</sup> So these EH II hearths must have been reused from an earlier generation, as production of ceramic hearths seems to almost completely drop off in EH III. The unfired circular clay disk from Lerna IV, House DMH may be part of the continuation of this tradition, where this hearth did not have the chance to be fired.<sup>197</sup> Perhaps the tradition of ceramic hearth production survives the EH II/III cultural break which so greatly affects ceramic form and decoration, as it seems to

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<sup>196</sup> Rutter 1995, 631.

<sup>197</sup> Caskey 1957, 31.



survive on Keos, though in the case of both sites, the number of ceramic hearths drops off remarkably.

In terms of the find contexts of the hearths, those from Phases IIIA-B come from mixed deposits that probably resulted from the clearing of earlier Phase III levels for later building.<sup>198</sup> So little can be said for the first 6-8 hearths in Table 4.3, where the hearths are listed by phase.

As for P772, the large hearth from Building BG, it has already been noted that the space was not adequate for the hearth, and that part of wall W-61 had to be removed to accommodate it. Further, the deep pan of the hearth, reaching 10 cm below the base of the rim, indicates that the hearth was originally intended to be placed in a circular depression in the floor. Such a depression would have been difficult to accomplish in the area, which was approximately 80 cm wide.<sup>199</sup> Instead, the area around the rim was packed with red clay.<sup>200</sup> The fact that this hearth, one of the largest and therefore heaviest of the mainland hearths, was able to be moved attests to the portability of all hearths.

Wiencke's suggestion that Building BG was already demolished at the time when the hearth was moved, certainly in Phase C based on the saucer fragments in and on the floor, must be correct.<sup>201</sup> Why else place the hearth in the corridor, where chimneys or other mechanisms for smoke elimination are not usually present? If, however, the walls stood only slightly above the hearth, it might serve as a convenient wind barrier for the fire at a coastal site which might be subject to heavy winds.

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198 Wiencke 2000, 73.

199 Wiencke 2000, 193.

200 Wiencke 2000, 193.

201 Wiencke 2000, 193.

Certainly the hearth was of special importance, if it was moved and reused even after breaking. When the rim broke further, stones were inserted into the rim. The hearth must have been in use for at least several months, in order to form the thick deposit of ash above and to fire the floor below it. Within the ash deposit, two phase IIC sherds were found, along with eight Neolithic sherds.<sup>202</sup>

Hearth P1006 presents another hearth in a corridor, this time found upside-down. I suspect that this hearth may have fallen from the area above, which Shaw reconstructs as a balcony.<sup>203</sup> This would allow the hearth to be used without any accumulation of smoke in an enclosed space.

The real conundrum is the absence of a hearth in situ in Room XII, where based on the parallel of the Weißes Haus at Aegina, one might expect a decorated terracotta hearth. Caskey notes a central depression, in fact, which may have accommodated such a hearth, but its absence attests to the portability of the hearths.<sup>204</sup> The shape of the clay-lined depression is circular, although Wiencke identifies another stone-lined area that may have housed a hearth.<sup>205</sup> Based on the parallels at Aegina, Berbati and Eutresis a circular hearth might be expected. But the only hearth found in the room was towards the south wall, P1148, an undecorated oval or keyhole hearth. Another likely fragment of the same hearth was found in the neighboring Room VII.

Obviously, given the contexts of P772, P1006 and P1045/1148, these terracotta hearths could function outside of the main hearth-room. In terms of access, any central

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202 Wiencke 2000, 193.

203 Shaw 2007.

204 Caskey 1957, 153; Pullen 1985, 172.

205 Wiencke 2000, 241.

hearth in Room XII may have been of restricted access to guests to begin with, and those who were admitted to room XII would have been those privileged with the display of the hearth. If a hearth were on the top story, however, it may have been much less accessible and therefore much less of a display piece – hence the reason, perhaps, that P1006 is undecorated? Finally, hearth P772, if in use in an outdoor setting, would have been more accessible, and it is certainly the most elaborate in terms of size and decoration, made for display. Access to the hearths, it seems, was on a continuum from more private to more public, and it is quite likely that the more elaborately decorated hearths were intended to be more public.

## **Corinth**

The prehistoric remains at Corinth come only in small pockets, as they are obscured by and disturbed by later occupation levels. The most important areas, as summarized by Lavezzi, are the New Museum area, Temple Hill, the area south of Temple E, the East side of the Lechaion Road, and the area of the Sacred Spring.<sup>206</sup> The gymnasium area is also settled in the EH II period.<sup>207</sup> Other Early Helladic finds are found at the west side of the Roman forum, including scanty architectural remains, although the Neolithic remains far surpass the Helladic material here.<sup>208</sup> The Panayia area southwest of the Forum and a fill under the foundations of the Odeion also produced several EH sherds, and further afield, the areas of Cheliotomylos and the Asklepeion have produced EH finds.<sup>209</sup> None of the EH sherds

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206 Lavezzi 2003, 65.

207 Lavezzi 2003, 72.

208 Lavezzi 1978.

209 Lavezzi 2003, 74; Weinberg 1937, 488.

correspond to the Lerna IIID phase, suggesting that EH occupation at Corinth was limited to the earlier phases of EH II.<sup>210</sup>

The most important contexts for the ceramic hearths are Temple Hill, which produced seven hearth fragments, and the gymnasium, which produced at least 10 fragments, not yet published.<sup>211</sup> The EH strata from Temple Hill (Fig. 4.26) consist not of a gradual accumulation of material but rather of a fill placed there in EH II for some substantial building activity.<sup>212</sup> Nothing remains of this construction project, though possible EH walls are preserved in Trenches I and IV.<sup>213</sup> The area of the fill was once more substantial, but was cleared later for the stoai and Roman markets in the area.<sup>214</sup> I wonder if some of the stamped or incised decorated pieces from these earlier excavations might also be hearths (examples, Fig. 4.27).

The gymnasium area again preserves only glimpses of architecture, such as one low socle and a sunken area cut into the bedrock. The hearths await publication, but it is perhaps telling that over the course of excavation, fire spit stands were found in the area as well.<sup>215</sup>

Most of the EH hearths have been published by Lavezzi:

Lavezzi 1979 = J.C. Lavezzi. 1979. "Early Helladic Hearth Rims at Corinth." *AJA* 48.4, 342-347.

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210 Lavezzi 2003, 73.

211 Wiseman 1967a, Wiseman 1967b.

212 Robinson 1976, 211.

213 Weinberg 1937, 491.

214 Weinberg 1937, 489.

215 Wiseman 1967a, Fig. 10.

1. MF 13393, EH I (Fig. 4.28)

No personal examination. Rim and pan fragment of a circular hearth with "extensive" signs of burning and a concave curved and burnished pan. Lavezzi estimates the diameter at 38.5.<sup>216</sup> The carination of the rim (Fig. 4.28) suggests to me the form of a baking pan. From Trench I on Temple Hill.

Lavezzi 1979, No. 1, Fig. 1 and Pl. 87.

2. MF 1977-110, EH I

No personal examination. Rim and pan fragment of a circular hearth with signs of burnishing and smoothing on the exterior. Burn marks noted on interior of the pan. Lavezzi reconstructs the diameter at ca 45.<sup>217</sup> From Temple Hill, Center Road Trench VII. Again, because of its early date, it is similar to a baking pan.

Lavezzi 1979, No. 2 and Pl. 87.

3. MF 13394, EH I (Fig. 4.29)

Personal examination 28 Nov 2011. Fragment of a circular "hearth" with very shallow, slightly curved pan. Rim flares outward and is sharply carinated. Preserved H. rim 2.5; W. rim 1.0. Bottom is rough. Signs of burning on pan interior and by edge of rim. Lavezzi reconstructs a 35 cm diameter, which would be very small for a hearth. Incised linear decoration along rim to form "piecrust" motif.<sup>218</sup> From Temple Hill, Trench V (Fig. 4.27).

Lavezzi 1979, No. 3 and Pl. 87.

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216 Lavezzi 1979, 344.

217 Lavezzi 1979, 344.

218 Lavezzi 1979, 346.

4. MF 13146, EH II (Fig. 4.30-4.31)

Personal examination 28 Nov 2011. Rim and pan fragment of a circular hearth.

The slope to the interior is gradual and the pan appears to be slightly concave. H.

rim 4.0; W. dec. 5.9. Lavezzi reconstructs the diameter at ca 70.<sup>219</sup> Bottom of

hearth preserves impressions of matting or other fibers. On the bottom running the

periphery is a deeply incised line, probably again for string to guide the

dimensions of the hearth (Fig. 4.31). Upper surface has a light pink slip.

Decoration is incised and impressed: approx. 2.0 cm from the edge of the rim is

an incised line along the circumference of the hearth (Fig. 4.30) Inside of this, two

lines of irregularly impressed triangles, generally with bases running parallel to

the rim and pointing inwards. The outermost triangles at 8.0 mm are larger than

the innermost at 6.5 mm. Each triangle in the outermost row is made with the

same tool, with a separate tool producing each triangle in the inner row. From

New Museum pit 42a-south.

Lavezzi 1979, No. 4, Fig. 1 and Pl. 87.

5. MF 1974-71, EH II (Fig. 4.32-4.33)

Personal examination 29 Nov 2011. Rim and pan fragment possibly of a circular

hearth. The exterior of the rim is not preserved, and the extension of the rim past

the band of decoration is more reminiscent of a banded pithos. Also more like a

pithos is the very low raising of the decoration, only 0.2-0.3. Preserved H. rim

2.9; W. rim 6.0. The rim appears more narrow than the length of the cylinder

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<sup>219</sup> Lavezzi 1979, 346.

stamp used for impression. Bottom is rough, with two or three finger impressions (Fig. 4.33). Decoration is roller impressed, at least 10 zigzags. From Forum West, Grid 73-D.

Lavezzi 1979, No. 5 and Pl. 87.

6. MF 13160, EH II (Fig. 4.34-4.35)

Personal examination 29 Nov 2011. Rim fragment of possibly a keyhole shaped hearth. Exterior of the rim is not preserved. Dimensions are given in Fig. 4.34.

Lavezzi estimates the diameter, if round, at ca 1.0 m.<sup>220</sup> Impressions of matting on the bottom. Decoration is roller impressed chevrons. From Museum West, area I.

Lavezzi 1979, No. 6, Fig. 1 and Pl. 87.

7. MF 13395 (CMS V.508), EH II (Fig. 4.36)

Personal examination 28 – 29 Nov 2011. Rim fragment of a possibly circular hearth. H. rim 5.4; W. rim preserved to 4.7-4.8 but may be broken away at edge.

Bottom is rough. Reddish slip on surface. Flat rim has roller impressed four-banded wavy meander pattern. Mistakenly attributed in the CMS to Zygouries.<sup>221</sup>

From Temple Hill Trench I.

Lavezzi 1979, No. 7 and Pl. 88.

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<sup>220</sup> Lavezzi 1979, 346.

<sup>221</sup> Lavezzi 1979, 342.

8. MF 13397, EH II (Fig. 4.37-4.38)

Personal examination 29 Nov 2011. Rim fragment of a hearth, probably not circular, possibly keyhole shaped based on curvature of interior of rim. H. rim 4.0; W. wavy decoration preserved to 6.2; width zigzag decoration 4.2. Traces of burning, especially on top of rim. Bottom rough. Decoration on the rim is roller impressed, six-banded wavy meander pattern, and again it appears that the cylinder seal exceeds the width of the rim. On interior of pan is either a stamp or roller impressed design of one thick zig-zag, followed by additional zigzag patterns (detail, Fig. 4.38). Lavezzi suggests that this interior stamp is meant to represent a pan hearth.<sup>222</sup>

Lavezzi 1979, No. 8 and Pl. 88.

9. MF 13396 (CMS V.509), EH II (Fig. 4.39)

Personal examination 28 Nov 2011. Rim fragment of hearth, possibly circular although Lavezzi suggests an asymmetrical shape. H. Rim 4.7; Depth pan 1.3; W. Rim 6.5. Bottom rough; signs of burning across the surface. Decoration is roller impressed, six-banded wave pattern. The width of the rim is smaller than the length of the seal used to impress the design, and yet the design still is not flush against the exterior of the rim. Mistakenly attributed to Zygouries in the CMS.<sup>223</sup>

From Temple Hill Trench V.

Lavezzi 1979, No. 9 and Pl. 88.

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<sup>222</sup> Lavezzi 1979, 347.

<sup>223</sup> Lavezzi 1979, 342.



10. MF 1976-66, EH II (Figs. 4.40-4.41)

Personal examination 28 Nov 2011. Rim and pan fragment, mended from two sherds, of probably a keyhole hearth. H. rim 4.14; D. pan 1.16; W. rim 7.1; W. dec. 6.0. Bottom rough and uneven. Along the exterior of the rim near the bottom is a slight indentation, probably formed by string to guide the dimensions of the hearth. Decoration on the rim is roller impressed, a six-banded wave pattern that is nearly identical (but reversed) to MF 13396. Again, the width of the rim is not wide enough to accommodate the entire design, but the pattern is still not flush against the edge of the rim. On the pan interior, a stamped design, only partially preserved, square or rectangular, with a border of zigzag and inside an endless spiral rapport motif. Lavezzi suggests that the motif on the pan, like that on MF13397, may represent a hearth.<sup>224</sup> From Forum Southwest, grid 71-D. Lavezzi 1979, No. 10, Fig. 1 and Pl. 88.

11. Unknown Inventory Number, CMS V S1A.403 (Fig. 4.42)

No personal examination. Rim fragment from Corinth. The decoration is roller impressed, a six-banded wavy pattern similar or possibly identical to MF 13397. Above this wavy pattern, at the exterior of the rim, is an impressed or roller impressed zig-zag.

CMS V S1A.403

Typologically, the Corinth hearths are less diverse, perhaps, than those from

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224 Lavezzi 1979, 347.

Lerna, due in part to the smaller sample size, and in part to their earlier date. The later hearths whose dimensions are available are summarized in Table 4.4. The finger indentations on the underside of fragment MF 1974-71 may be the result of the pressing of the banded decoration against the seam in the pithos for strength. MF 13146, as it has no discernible rim, may instead be a plate, but it is left in the table, with the rim width calculated on the width of the decoration.

Of the three EH I examples, all three are small ( $d < 50$  cm), and the rim of MF 13393 is certainly reminiscent of the baking pans, and MF 13394 has a very shallow pan. But the burn marks on interior of MF 1977-110 and MF 13394 do suggest that they held fire. Probably again these are the early form of the baking pan/hearth, where both form and function combine until they diverge in EH II.

Most of the hearths would fit into Wiencke's low/broad rim category, with only two "medium" examples. At Lerna these medium examples did not appear until Phase C, so it is interesting that they appear here, and they would most likely date to the later part of EH II occupation at Corinth. At Lerna, the distinction between narrow rims and broad rims was not debatable, between 4.0 to 5.0 cm and 10 cm. Some of the Corinth rim widths are more intermediate. In terms of profile, the low hearths are all very similar, and the only real oddity is MF 13160.

All of the hearths seem to have been fired in situ, with rough bottoms and occasional mat impressions. Two examples suggest the use of string to establish the dimensions: MF 1976-66, where the indentation is on the exterior of the rim, near the bottom, similar to the examples from Lerna. MF 13146, by contrast, has a deep incision on the bottom of the hearth, running around the periphery (Fig. 4.31). The line is so deep

that it may not come from a string but something more substantial.

Iconographically, the multi-stripe wave pattern is largely unique to Corinth. The only parallel comes from a pithos from Tiryns, CMS V.571 (Fig. 4.43), where a ten-stripe wave decoration is bordered by an irregular zig-zag pattern. The combination of wave and zigzag appears in Corinth MF 13397, and in MF 1976-66, the wave pattern on the rim is complemented by a stamped decoration on the pan which is outlined by a zigzag decoration. The "piecrust" decoration of MF 13394 is also unique, but again this example is of a very early date and shape. The zigzags, chevrons, and impressed triangles of the remaining examples are much more on par with other mainland decorated hearths.

The addition of stamp impressed decoration to the pans is also unique to Corinth. Even in the Cyclades, where stamping hearths was common, it was always the rim and never the pan that was stamped. The preserved pan area of MF 13397 is so small that it is difficult to tell whether or not the pan was stamped more than once. On MF 1976-66, it is clearer that the entire pan was not covered by stamped decoration, although it is of course possible in both cases that multiple stamps could have been used. Lavezzi's idea that the two examples here are abstract representations of hearths is interesting: The zig-zag/chevron decoration would have represented the rim, often decorated with these motifs, and the spirals (MF 13397) or additional zig-zags (MF 1976-66 ) would have represented the pan. The idea that the hearth may have been reduced to two abstract decorative motifs on a stamped design does suggest that the hearths are somehow defined by their decoration.

Although there could have been additional stamps further on the interior of these pans, the preserved stamps are near the exterior, which may have aided their visibility if

the rest of the pan is obscured. Certainly the stamps are unlike any other stamp known from the mainland. Based on the sealings from Lerna, Geraki, and Petri, stamps tend to be circular, unlike the examples here, although they do often follow the basic scheme of a central motif within a peripheral motif. Possibly these are signs of ownership.

In terms of the original contexts of these hearths, little can be concluded since many come from Temple Hill, where the EH layers constitute a fill. The presence of fire spit holders in conjunction with the gymnasium examples may indicate a cooking function. Certainly the burn marks on the interiors and rims of many of these examples suggest that they were used to contain fire.

### **Tsougiza**

The site of Tsougiza, in the Nemea Valley, is occupied from the Neolithic to EH II, with a gap in occupation in late EH II, and resettlement in EH III. As shown by the chronology chart (Table 4.1), the period of abandonment corresponds to Lerna IIID, the most developed phase of EH II, which sees the peak of the corridor houses. Tsougiza instead presents us with architectural evidence for the early part of EH II, a phase mostly obscured architecturally at Lerna by later building. For this reason, the excavators have chosen to divide the site chronologically into EH I, EH II Initial, EH II Developed, and EH III.<sup>225</sup>

The EH remains generally are concentrated at the crest of the hill in area EU 5 (map, Fig. 4.44). EH I is attested in a series of pits here, concentrated around a well or

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225 Pullen 2011d, 14-16.

cistern, as well as a little further downhill in EU 11. The transition to EH II Initial is characterized by a quick change in ceramic shapes, and sees the first architectural remains, most importantly 1982 House A.<sup>226</sup> This small, two-room building is 150 m southeast of the hilltop, isolated from the rest of the settlement, and may have served as a storage building.<sup>227</sup> The three hearth fragments from this building probably belonged to the same hearth.

Returning to the summit of the hill, EH II Developed Phase 1 sees the construction of House A (Fig. 4.45), a monumental precursor to the corridor houses, hence its identification as a "specialized building connected with the processing and consumption of foodstuffs on a large scale."<sup>228</sup> House A continues in use into the first of three phases of EH II Dev, where it is associated with nearby structures from the Central and Southeast Sectors, including remains underneath the Burnt Room (Fig. 4.46). This Burnt Room, so called because of clear evidence of destruction by fire, characterizes Phase 2.<sup>229</sup> Finally, House B (Fig. 4.47) is constructed in Phase 3, partially overlapping House A. Larger than House A, the two-roomed House B contained in its back (or north) room five pithoi and a non-ceramic hearth partially built into the wall.<sup>230</sup>

The hearths are listed by catalog number, with inventory number in parentheses. They are cataloged and discussed by Pullen in:

*Tsougiza* = Pullen, D.J. 2011. *Nemea Valley Archaeological Project Vol. 1. The*

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226 Pullen 2011d, 144.

227 Pullen 2011d, 149-158.

228 Pullen 2011d, 160.

229 Pullen 2011d, 310-324.

230 Pullen 2011d, 324-333.

*Early Bronze Age Village on Tsoungiza Hill*. Princeton: American School of Classical Studies at Athens.

Pullen 1994 = Pullen, D.J. 1994. "A Lead Seal from Tsoungiza, Ancient Nemea, and Early Bronze Age Aegean Sealing Systems." *AJA* 98.1, 35-52.

1. 166 (1955-2-15), EH I – EH II Initial

No personal examination. Rim and pan fragment of a circular hearth or baking pan, the diameter of which Pullen reconstructs at 35cm.<sup>231</sup> He notes that the interior is smoothed, but no mention of signs of burning. As noted above, the EH I "hearth" is identical in form to a baking pan at Tsoungiza.

From "EU 5 Surface 1."

*Tsoungiza* 130, Fig. 3.35.

2. 167 (2201-2-2), EH I

No personal examination. Rim and pan fragment of a circular hearth or baking pan, of preserved H. 3.5. No signs of burning mentioned but bottom has more inclusions visible than rest of vessel, possibly a result of the manufacturing surface. Interior is burnished.

From EU 11 plow zone.

*Tsoungiza* 130, Fig. 3.35.

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231 Pullen 2011d, 130.

3. 168 (2204-2-2), EH I

No personal examination. Rim and pan fragment of a circular hearth or baking pan, of restored D. 36.<sup>232</sup> Interior is reported burnished, with "horn" projecting from rim. Burnished interior, possibly part of same vessel as 169. No decoration on rim aside from horn.

From EU 11 Pit 2.

*Tsougiza* 130, Fig. 3.35

4. 169 (226-2-1), EH I

No personal examination. Rim and pan fragment of a circular hearth rim or baking pan, possibly from the same hearth as 168, restored D. 38;<sup>233</sup> H. rim 4.6.

Burnished interior. Undecorated.

From EU 11 Pit 2.

*Tsougiza* 130, Fig. 3.35.

5. 229 (2172-2-1), EH II Initial (Fig. 4.48)

Personal examination 19 Sept 2011. Rim and pan fragment of a round hearth or baking pan, possibly the same vessel as 287 and 310. H. rim 3.4, W. rim 1.2, D. estimated at 34.<sup>234</sup> Rounded rim, undecorated. Bottom rough.

From below the floor of 1982 House A.

*Tsougiza* 207, Fig. 4.27.

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232 Pullen 2011d, 130.

233 Pullen 2011d, 130.

234 Pullen 2011d, 207.

6. 287 (2174-2-1) EH II Initial (Fig. 4.49)

Personal examination 19 Sept 2011. Rim and pan fragment of a circular hearth or baking pan, possibly belonging to same vessel as 229 and 310. H. rim 3.3, D. estimated at 40-41.<sup>235</sup> Bottom rough, with burn marks towards rim. Rounded rim, undecorated.

From excavation of 1982 House A to floor levels.

*Tsougiza* 220, Fig. 4.35.

7. 310 (2153-2-1) EH II Initial (Fig. 4.50)

Personal examination 19 Sept 2011. Rim and pan fragment of a circular hearth mended from 2 sherds, possibly the same vessel as 229 and 287. H. rim 3.9. D. estimated at 37-38.<sup>236</sup> Bottom rough. Rim rounded and undecorated. Two finger impressions on exterior of rim and one on bottom.

From above 1982 House A.

*Tsougiza* 226, Fig. 4.40.

8. 623 (896-2-1) EH II Developed (Fig. 4.51)

Personal examination 19 Sept 2011. Rim fragment of circular hearth. H. rim 3.5, W. rim 5.2. Bottom rough. Flat rim. Decoration is roller-impressed, 5 zigzags of slight irregularities suggesting that the impressions either started and ended at this fragment, or that the seal was removed and reapplied.

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235 Pullen 2011d, 220.

236 Pullen 2011d, 226.



From EU 5 Fill 8? South of Wall 38, a curving wall of an unpreserved building in the southeastern section of EU5. Fill 8 is mostly dated to EH II Init, so this EH II Developed piece is probably from disturbances from later building.<sup>237</sup>

*Tsougiza* 433, Fig. 5.117.

9. 624 (748-2-1) EH II Developed Phase 2 (Fig 4.52)

Personal examination 19 Sept 2011. Rim fragment of a circular hearth. H. rim varies, 5.4-5.9. Bottom rough. Flat rim. Decoration is roller-impressed, eight or more zigzags. Pullen notes possible burn marks.

From EU 5 Burnt Room.

*Tsougiza* 433, Fig. 5.117.

10. 625 (770-2-1) EH II Developed Phase 3 (Fig. 4.53)

Personal examination 19 Sept 2011. Rim fragment of a circular hearth mended from three sherds. H. rim 4.7, though bottom not preserved at exterior of hearth. Flat rim. Decoration is roller-impressed zigzags of which three are preserved, with line around interior of hearth.

From EU 5 Fill 17.

*Tsougiza* 433, Fig. 5.117.

11. 626 (745-2-1) EH II Developed Phase 2 (Fig. 4.54, 4.55)

Personal examination 19 Sept 2011. Rim fragment of circular hearth. H. Rim

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<sup>237</sup> Pullen 2011d, 148.

increases from exterior to interior, from ca 4.0 to 5.0 cm. W. rim = W. dec. 7.5.

Bottom is rough, with irregular groove running the circumference near the exterior of the rim (Fig. 4.55). Probable burn mark on rim, interior side.

Decoration is roller-impressed, six to seven zigzags flanked on either side by a line.

From EU 5 Fill 24.

*Tsougiza* 433, Fig. 5.117.

12. 627 (750-2-3) EH II Developed Phase 1 (Fig. 4.56)

Personal examination 19 Sept 2011. Rim fragment with part of slope to pan preserved of a hearth. Based on the curvature of the rim, it may be a keyhole or Figure-Eight shaped hearth. H. rim seems to rise from 3.6 to 4.3 from exterior to interior. W. rim 7.0. Burnt spot on rim. Decoration is tool impressed triangles, of which two are preserved, one slightly larger than the other.

From EU 5, Surface 2, an EH II Developed Phase 1 surface in the southeast and central sectors of EU 5.

*Tsougiza* 433, Fig. 5.117.

13. 628 (1904-2-1) EH II Developed Phase 1 (Fig. 4.57)

Personal examination 19 Sept 2011. Rim fragment of circular hearth. H. rim 4.4, preserved W. rim 9.5. Bottom rough. Decoration is incised, hatched triangles.

Lines are irregular so probably drawn individually rather than with a comb.

From EU 5 Surface 2, an EH II Developed Phase 1 surface in the southeast and

central sectors of EU 5.

*Tsougiza* 433, Fig. 5.117.

14. 629 (777-2-1) EH II Developed Phase 2 (Fig. 4.58)

Personal examination 19 Sept 2011. Rim fragment of a circular (?) hearth.

Preserved H. rim 2.9, preserved W. rim 6.9. Preserved bottom is very uneven and may be fragmented. Decoration is tool-impressed, diagonal slash lines approx 0.5 cm deep. Five full slashes are preserved and at least two more were present, irregularly arranged but likely two rows of chevrons.

From EU 5 Fill 21.

*Tsougiza* 433, Fig. 5.118.

15. 630 (398-2-1) EH II Developed (Fig. 4.59)

Rim and pan fragment of a circular hearth. H. rim 5.7, W. rim 6.5. Rim flat, bottom rough. Decoration is roller-impressed but poorly preserved, six to seven lines of zig-zag with groove along interior and probably along exterior as well.

From EU 2, MH Fill.

*Tsougiza* 433, Fig. 5.118.

16. 631 (1250-2-1) EH II Developed (Fig. 4.60)

No personal examination. Possible hearth rim of 8.0 by 7.0 cm. Decoration is stamp-seal impressed. Two circular impressions, one partially preserved, of a square lattice pattern, and also chevron decoration on top of a nested triangle,

which may be impressed or possibly incised.

From EU 7 Pit 10.

Pullen 1994, 40-1 and Figs. 4-5; *Tsougiza* 433, Fig. 5.118.

As Pullen has classified them, the EH I – EH II Initial hearths (166-169, 229, 287, 310) are formally similar to baking pans. All have diameters of only 35-40 cm, and all have rounded, undecorated rims. If anything, the change from EH I to EH II Initial involves a more rounded rim exterior (Fig. 4.64). Three of the four EH I hearths were burnished on the interior. The projecting horn on 168 is unique, possibly intended as a prop for cooking utensils? These early examples are formally distinct from the EH II Developed hearths, though they may have served similar functions.

The EH II Developed hearths, listed in Table 4.5, would mostly fit into Wiencke's low/broad rim category. Even the two medium examples are on the low end of medium, at less than 6.0 cm high. All of the examples, even the medium rims, have very standard profiles with flat rims and a rounded slope to a shallow pan.

Continuous zigzag is the most common motif, on five of nine decorated hearths of EH II Developed. The impressed triangles and hatched triangles have parallels elsewhere, and only 629, with the chevron pattern formed by wide impressed slashes, is unique.

Cat. No. 631 is also different, with its stamped rim. Though there are a few examples of a stamp impression in the pan from Corinth, this would be the first mainland example with a stamp impressed rim. Pullen questions whether or not this is a hearth rim, and at preserved dimensions of 8.0 by 7.0 cm, with no slope to the pan visible, it would have to be a rather wide rim.

As for the contexts of the hearths, the three EH II Initial hearth fragments most likely come from one or possibly two hearths from the interior of 1982 House A. The house is very small, and Pullen doubts that domestic fires would be appropriate, so perhaps the hearth was stored there along with the many other vessels found.<sup>238</sup>

Pullen does not associate the other fragments with any particular EH II structure. Two of the fragments, 627 and 628, are associated with Surface 2, an exterior surface contemporary with House A. The possible hearth rim 631 comes from EU 7, where Early Helladic walls were found in snippets underneath later buildings. The hearth itself comes from Pit 10, of predominantly EH III material, and is difficult to interpret chronologically.<sup>239</sup>

## **Tiryns**

The EH levels at Tiryns are divided into 13 Fundhorizonte, of which the second is a large-scale reorganization and terracing of the Unterburg in EH II, during which the earlier occupation levels were removed, resulting in very few Neolithic and EH I finds.<sup>240</sup> The EH houses are rebuilt with a good deal of spatial continuity after a series of fires until Fundhorizont 9,<sup>241</sup> which is the controversial transitional EH II-III level, after which the Unterburg is spatially reconfigured and domestic buildings switch from rectilinear to

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238 Pullen 2011d, 157.

239 Pullen 2011d, 470-471.

240 Kilian 1983.

241 Weiberg 2007, 121-127.

apsidal.<sup>242</sup>

The hearths where possible are cataloged by CMS number, and are otherwise published in:

*Tiryns IV* = Müller, K. 1938. *Tiryns. Die Ergebnisse der Ausgrabungen des Instituts, Band IV*. Reprinted 1976. Mainz/Rhein: Verlag Philipp von Zabern.

*Reliefpithoi und Herdplatten* = Weißhaar, H.-J. 1989. "Reliefpithoi und Herdplatten aus Tiryns." In F. Matz, ed., *CMS Beiheft 3: Fragen und Probleme der Bronzezeitlichen Ägäischen Glyptik. Beiträge zum 3. Internationalen Marburger Siegel-Symposium, 5.-7. September 1989*. Berlin: Gebr. Mann, Verlag, 315-322.

1. CMS V 529 b (Fig. 4.61)

No personal examination. Rim fragment of a hearth. The decoration is roller-impressed spirals, with two stylized quadrupeds in between, possibly a hunt scene. This is the same seal used to stamp a pithos at Tiryns, a pithos at Lerna, and a pithos at Zygouries.

For the hearth: *Tiryns IV*, 44-45 and Pl. 18.6.

For the pithos from Tiryns: *Tiryns IV*, 44 and Pl. 19.1-2. (Fig. 4.62).

For the pithos from Lerna: Wiencke, *Banded Pithoi* Nos. 201-203 and Pl. 27; Caskey 1959, 206 and Pl. 42d.

For the pithos from Zygouries: *Zygouries* 121-122, No. 6 and Fig. 114.6.

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242 Kilian 1983.

2. CMS V.530 (Fig. 4.63)

Personal examination 21 Nov 2011. Rim fragment of a hearth, H. rim 2.9.

Exterior edge of the rim is not preserved. Bottom is relatively smooth. Decoration is roller-impressed, three rows of interlocking spirals.

*Tiryns IV*, 43 and Pl. 17.4.

3. CMS V.534 (Fig. 4.64)

No personal examination. Rim fragment of a flat pan or hearth. Decoration is roller-impressed, vertical S-spirals with filler ornament.

*Tiryns IV*, p. 43 and Pl. 18.2.

4. CMS V.535/ Inv. No. 1835

No personal examination. Possible rim fragment of a vessel (pan or hearth).

Decoration is roller-impressed, with uncertain arrangement of s-spiral decorations and filler ornament, including a lozenge or four-pointed star. Same seal as used on CMS VS.1B 382.

*Tiryns IV*, p. 41 and Pl. 15.4.

5. CMS V.536/ Inv. No. 1497

No personal examination. Rim and pan fragment of a flat pan or hearth.

Decoration is poorly preserved roller-impressed spiral decoration; restored as a running band of quadruple spiral motifs formed by interlocking c-spirals.

*Tiryns IV*, p. 43 and Pl. 18.8.

6. CMS V.538 (Fig. 4.65)

Personal examination 21 Nov 2011. Fragment of a possibly circular hearth. H. rim 4.0; Depth pan ca 1.8. Neither the interior nor the exterior edge is preserved along the top of the rim. Bottom is rough, with a small circular indentation, probably a finger impression, about the size of a pinky print. Decoration is roller-impressed, an irregular pattern of hook spirals.

*Tiryns IV*, Pl. 18.3.

7. CMS V.557 (Fig. 4.66)

Personal examination 21 Nov 2011. Rim fragment of a circular hearth. H. rim 3.7; Depth pan 2.1. Bottom rough, signs of smoothing on interior of rim. Exterior of rim profile is highly convex, symmetrical. Decoration is roller-impressed zigzag decoration. On the flat part of the rim, four to five lines of zigzag. Seal has then been applied to the curving edge of the rim, creating an additional two or three lines of zigzag that are offset.

*Tiryns IV*, 42 and Pl. 16.5.

8. CMS V.558 (Fig. 4.67)

Personal examination 21 Nov 2011. This fragment could be either a fragmented rim of a hearth or part of a raised band of a pithos. Top of the fragment, on which decoration is impressed, is slightly rounded, perhaps more characteristic of a hearth rim. The bottom of the fragment is not preserved. H. rim 2.4; W. rim 8.4, which would not be out of character with a banded pithos. Decoration is roller-



impressed, an irregular pattern of wavy lines and some almond shaped filler elements. Underneath the impression, signs of smoothing are still visible.

*Tiryns IV*, p. 42 and Pl. 18.1.

9. CMS V.559/ Inv. No. 82 (Fig. 4.68-4.69)

Personal examination 21 Nov 2011. Rim fragment of a circular hearth. H. rim 4.0; Depth pan 1.9. Profile of rim exterior is convex, sloping into the bottom. Bottom rough. Decoration is roller-impressed, seven lines of zigzag inside a line on both interior and exterior, possibly incised. Possibly remnants of white plaster or other filler in between the zigzags (Fig. 4.69).

*Tiryns VI*, 12, No. 82 and Pl. 3.

10. *Tiryns VI*, No. 89

Rim fragment of a pan or hearth with very poorly preserved roller-impressed concentric circle or spiral decoration.

*Tiryns VI*, 12, Nr. 89, Pl. 4.

11. CMS V 562a (Fig. 4.70)

Personal examination 21 Nov 2011. Three rim fragments, two of which join, of a circular hearth. H. rim 4.0; D. pan 2.5; W. rim 5.2. Bottom is rough, possible signs of burning on rim. Decoration is roller-impressed, three parallel wavy lines, almost zig-zags, enclosed inside a raised line on the interior and exterior of the rim. On the interior, diagonal striated lines – possibly part of a chevron motif that

is visible on a pithos sherd, CMS V.562b, Fig. 4.71. On the hearth, the rim is not wide enough to display the entire chevron.

*Tiryns IV*, p. 42 and pithos with same seal illustrated in Pl. 16.2.

12. CMS V.563a / Inv. No. 1277 (Fig. 4.72)

Personal examination 22 Nov 2011. Rim fragment likely belongs to the same hearth on display in Nafplio. H. rim 5.0; D. pan 2.4; W. rim 5.4. Bottom rough. Smoothing on exterior of rim. Decoration is roller-impressed, double-outlined c- or hook-spirals, which on the seal may have been connected, but these connections are not preserved on the rim, whose width does not accommodate the entire seal.

For the fragments on display in Nafplio: Müller, *Tiryns IV*, p. 41 and 43 and Pl. 18.7.

13. CMS V.2.563b

No personal examination. The decoration is roller-impressed, from the same seal as used for CMS V 563 (a) and (c). In this instance, unlike the other two hearths, the seal has been turned the other way around, so that the hook spirals, rather than growing out of the interior edge of the rim, grow out of the exterior instead.

CMS V 563b

14. CMS V.2.563c (Fig. 4.73)

Personal examination 22 Nov 2011. Rim and pan fragment of a Figure-8 hearth or

possibly a keyhole hearth, based on the curve of the rim. In the CMS this is attributed to the lip of a pithos, but I think it more likely a hearth fragment. H. rim 4.3; D. pan 3.2; W. rim 3.2. Exterior rim profile is slightly convex at top, sloping into slight concavity before a small ridge near the bottom. Decoration is roller-impressed, double-outlined c- or hook-spirals, which on the seal may have been connected, but these connections are not preserved on the rim, whose width does not accommodate the entire seal. On this fragment the width is even smaller than that of CMS V.563 (a), on which the same seal was used, so that the motif appears to be more like tongue-shaped elements than spirals.

*Tiryns IV*, 41, 43 and Pl. 18.5.

15. CMS V.564 (Fig. 4.74-4.75)

Personal examination 22 Nov 2011. Seven joining rim and pan fragments of a circular hearth, more of which are on display in the Nafplio museum. Fragments of the lip of a plate or possibly a hearth from Tiryns. H. rim 4.0; Depth pan 2.3; W. rim varies, 3.3-3.5. Smoothing lines on interior and exterior of the rim. Decoration is roller-impressed, irregular nested chevrons on either side of a middle line; the exterior chevrons are pointed counter-clockwise and the interior chevrons clockwise.

It is these seven fragments pictured in *Tiryns IV*, 42 and Pl. 18.10.

16. CMS V.566/ Inv. No. 5185

No personal examination. Rim fragment of a possibly circular hearth or pan.

Decoration is roller-impressed herringbone.

Müller, *Tiryns IV*, p. 42 and Pl. 16.8.

17. CMS VS.1B 381 (a)

No personal examination. Rim fragment of a circular hearth. W. dec. 6.0.

Decoration is roller-impressed, three rows of interlocking spirals with nested filler ornament. The cylinder was longer than the width of the rim, so the design is cut off at the bottom of the rim.

18. CMS VS.1B 381b (Fig. 4.76)

No personal examination. Rim fragment of a circular hearth. Decoration is roller-impressed, three rows of interlocking spirals with nested filler ornament. The cylinder was longer than the width of the rim, so the design is cut off at the bottom of the rim.

19. CMS VS.1B 382

No personal examination. Rim fragment of a possibly circular hearth. Decoration is roller-impressed, interlocking S-spirals with filler ornament including a star or lozenge. Identical impression to CMS V.535.

20. CMS VS.1B 384 (Fig. 4.77)

No personal examination. Rim fragment of a hearth. W. decoration 8.6.

Decoration is roller impressed, a four-spiral motif.

Kilian 1983, 316, Fig. 41.b1; *Reliefpithoi und Herdplatten* 318, Fig. 6a.

21. CMS VS.1B 392 (Fig. 4.78)

No personal examination. Rim fragment of a hearth, W. decoration 6.5.

Decoration is roller-impressed, sets of two concentric circles.

22. CMS VS.1B 409

No personal examination. Rim fragment of a hearth. W. dec. 3.5. Decoration is roller-impressed herringbone.

23. CMS VS.1B 410 (Fig. 4.79)

No personal examination. Rim fragment of a hearth, W. dec. 2.6. Decoration is roller-impressed, nested chevrons.

24. CMS VS.1B 411

No personal examination. Rim fragment of a hearth. W. dec. 3.5. Decoration is about six bands of roller-impressed zigzag. Again, the width of the rim is too low for the entire design on the cylinder.

25. CMS VS.1B 413

No personal examination. Rim fragment of a hearth; W. dec. 4.0. Decoration is roller-impressed, about three lines of zigzags.

26. CMS VS.1B 414

No personal examination. Rim fragment of a hearth; W. dec. 4.0. Decoration is roller-impressed zigzags, about three lines.

27. CMS VS.1B 415a

No personal examination. Two non-joining rim fragments of a possibly circular hearth. Decoration is roller-impressed, three lines of zigzag, with same seal used on CMS VS.1B 415b.

28. CMS VS.1B 415b (Fig. 4.80)

No personal examination. Rim fragment. Decoration is roller-impressed, four lines of zigzag from same seal as used on CMS VS.1B 415a.

29. CMS VS.1B 417

No personal examination. Rim and pan fragment of a possibly circular hearth. W. dec. 3.5 Decoration is roller-impressed zigzags, rather irregular.

30. CMS VS.1B 418

No personal examination. Rim fragment of a hearth. W. dec. 6.2. Decoration is roller-impressed, irregular zigzag, punctuated by circles.

31. CMS VS.1B 421a (Fig. 4.81)

No personal examination. Rim fragment of a hearth. Decoration is roller-

impressed, outlined c- or hook spirals. Above the spirals are lozenges with central dots. Similar but not identical to impression of CMS V.563.

32. CMS VS.1B 421b

No personal examination. Rim fragment of a hearth. Decoration is roller-impressed, outlined c- or hook spirals. Similar but not identical to impression of CMS V.563.

*Reliefpithoi und Herdplatten* 318, Fig. 6; Kilian 1983, 316, Fig. 41.2.

33. CMS VS.1B 424 (Fig. 4.82)

No personal examination. Multiple fragments of an oval or possibly keyhole hearth. Decoration is roller-impressed, nested chevrons alternating with hook spirals and dots.

*Reliefpithoi und Herdplatten* 318, Fig. 5.

34. CMS VS.1B 425 (Fig. 4.83)

No personal examination. Two rim fragments of most likely the same hearth. W. dec. 6.6. Decoration is roller impressed and figural. Possibly a running quadruped, with another quadruped with a smaller animal underneath it. Net or lattice filler ornament.

*Reliefpithoi und Herdplatten* 321, Fig. 11a,b.

35. *Tiryas IV* Plate XV.3 –

No personal examination. Large circular hearth of multiple fragments. Müller notes the diameter as over 1.0m, with a rim width of 4.0 cm. Decoration is tool-impressed raised zig-zag.

*Tiryys IV* 40, 42 and Pl. XV.3.

36. *Tiryys IV* Plate XVI.13 –

No personal examination. Fragment of a hearth rim with tool impressed raised zigzag motif.

*Tiryys IV* p. 42 and Pl. XVI.13

37. *Reliefpithoi und Herdplatten*, Fig. 7a

No personal examination. Rim fragment of uncertain shape, with tool-impressed kerbschnitt.

*Reliefpithoi und Herdplatten*, 319 and Fig. 7a.

38. *Reliefpithoi und Herdplatten*, 319 and Fig. 7b

No personal examination. Rim fragment of uncertain shape, with tool-impressed kerbschnitt.

*Reliefpithoi und Herdplatten*, 319 and Fig. 7b.

39. *Reliefpithoi und Herdplatten*, Fig. 8.

No personal examination. Rim fragment of uncertain shape, with tool-impressed quadruple sawtooth pattern.



Reliefpithoi und Herdplatten, 319 and Fig. 8.

40. *Tiryns XI*, Pl. 19.1.

No personal examination. Rim fragment of a possibly circular hearth from Talioti near Panagia. Decoration is roller-impressed concentric semi-circles, applied only to the exterior of the rim lip, leaving the interior blank.

HJ Weisshaar 1990, *Tiryns XI, Die Keramik von Talioti*, p. 12 and Pls. 19.1, 34.1.

The Tiryns hearths present us with mostly circular examples, with one fragment from the curve of a Figure 8 hearth, CMS V 563a. Of the hearths measured, most fall into Wiencke's low category, with rim heights hovering around 3.0-4.0 cm. Where the profile can be reconstructed, they are fairly standard, and seen in Müller's Fig. 37 (Fig. 4.84). Rims are relatively flat (or slightly curved, as in CMS V 557), bulging on the exterior into a convex curve which then slopes back in towards the bottom, where there is a slight curve back out or a ridge. The curves of the profile may be more pronounced (CMS V 564) or less pronounced (CMS V 562a).

The classification of CMS V 558 is difficult: there is little curve around the exterior of the decorated area as expected from a hearth, but neither is there curvature along the length of the piece that would suggest it was wrapped around a pithos as a raised band. The rounding of the surface of the decoration would classify it as a hearth rim, where only the top layer of the rim is preserved. Müller and the CMS term the fragment a “Wannerand.”<sup>243</sup>

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<sup>243</sup> *Tiryns IV*, 42.

Unlike at the other mainland sites, decoration is rarely freehand. The two examples of tool-impressed zigzag fit well with other examples, such as Zygouries Fig. 114.3. Otherwise, zigzags, chevrons, and herringbone are all represented at Tiryns, as expected.

Spiral elements, unexpectedly, are much more popular at Tiryns. Counting from Table 4.6, Tiryns has six hearths with hook spiral motifs, four with quadruple spirals, and six with s-spirals. The only other spiral from the mainland, excluding the stamped motifs in the pans of the Corinth hearths, is P1229 from Lerna, which is dated to Lerna III C/D. There are of course stamped spiral designs from Keos, but no true running spiral motifs. Running spirals are used on banded pithoi at other mainland sites, but their use on hearths at Tiryns alone may be a local iconographic quirk. Weißhaar suggests that the spiral may be a later motif than the zigzag,<sup>244</sup> which is possible, as at Lerna most of the zigzag motifs date to Phase III C. CMS VS.1B 392 is also noteworthy, an interesting take on the concentric circle motif so popular in the Cyclades.

As at the other sites, the hearths are rough on the bottom and so fired in situ, with care taken to smooth the tops and sides of the rims. The rims, as at other sites, are often too narrow for the decoration on the cylinder seal, with the result that only part of the seal's motif is transferred.. Still, the seal appears to be carefully positioned to capture particular parts of the impressions, as in CMS V 562a, where the chevrons, attested on a pithos sherd stamped by the same seal, are cut off and appear as diagonal lines (comparison, Fig. 4.85). A similar concern for the relationship between the edge of the hearth and the impressed decoration is expressed in CMS V 557, where the cylinder seal

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244 Weißhaar 1989, 317.

has clearly been applied twice to the rim: once straight on to the flat rim, and once at an angle to the slightly curving exterior of the rim.

Also unlike any site other than Ay. Irini, Tiryns has multiple hearths impressed by the same seal. The examples include:

CMS V 529 a / CMS V 529 b (pithos and a hearth)

CMS V 535 / CMS VS.1B 382 (hearths)

CMS V 562a / CMS V 562b (hearth and a pithos)

CMS V 563a / CMS V 563b / CMS V 563c (hearths)

CMS VS.1B 381 a / CMS VS.1B 381b (hearths)

CMS VS.1B 415a / CMS VS.1B 415b (hearths)

CMS VS.1B 421a / CMS VS.1B 421b (hearths)

The example constantly cited for evidence of itinerant craftsmen, CMS V 529, with running spirals and possibly quadrupeds, stamped both a hearth rim and a pithos at Tiryns, as well as a pithos at Zygouries and a pithos at Lerna. Other evidence for the use of the same seal on vessels at multiple sites will be reviewed below, but the many instances of identical seal designs on hearths at Tiryns might suggest that if these itinerant craftsmen are attached to any one particular center more than others, it is Tiryns.

### **Argolid Exploration Project**

The Southern Argolid, a region of 225 km<sup>2</sup>, was surveyed in campaigns in 1972 and 1979-1983.<sup>245</sup> About 35 EH II habitation sites were identified, the largest of which is

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<sup>245</sup> Jameson, Runnels and van Andel 1994, 217-218.

F32 in the Fournoi Valley, where the majority of the 17 hearths were found, all dating to EH II.<sup>246</sup> The ceramic finds are cataloged in:

*Artifact* = Pullen, D.J. 1995. "The Pottery of the Neolithic, Early Helladic I, and Early Helladic II Periods." In *Artifact and Assemblage: The Finds from a Regional Survey of the Southern Argolid, Greece, Volume I*, edited by C. Runnels, D.J. Pullen and S. Langdon. Stanford, CA: Stanford University Press.

1. Cat. No. 649 / Inv. No. F32-N-273 (Fig. 4.86)

No personal examination. Rim and pan fragment of a circular hearth. L. 9.0. Rim lip is flat before exterior profile bevels out and curving back in to the base. Pullen notes uneven firing, suggesting it was fired in situ. Decoration is possibly roller-impressed irregular zigzag or herringbone.

*Artifact*, 38-9, 186, Fig. 36.

2. Cat. No. 650 / Inv. No. F32-N-271 (Fig. 4.87)

No personal examination. Rim fragment of a circular hearth. L. 7.0. Flat rim lip, exterior profile curves down to base, not preserved. Decoration is possibly roller-impressed concentric circle motifs, or possibly spirals.

*Artifact*, 38-9, 186, Figs. 36, 123.

3. Cat. No. 651 / Inv. No. F32-S-207 (Fig. 4.88)

No personal examination. Rim fragment of a circular hearth, L. 6.0. Flat rim.

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<sup>246</sup> Jameson, Runnels and van Andel 1994, Table 4.6 and Fig. 4.12.

Pullen notes uneven firing. Decoration is roller-impressed diamonds or lozenge pattern.

*Artifact*, 38-9, 186, and Figs. 36, 123.

4. Cat. No. 652 / Inv. No. F32-N-275 (Fig. 4.89)

No personal examination. Rim fragment of a circular hearth, L. 6.0. Flat rim lip, from which exterior profile slants in towards bottom, not preserved. Decoration is roller-impressed zigzag or nested chevrons.

*Artifact* 38-9, 186, Fig. 36.

5. Cat. No. 653 / Inv. No. F32-S-206 (Fig. 4.90)

No personal examination. Rim fragment of a circular hearth, L. 7.0. Pullen notes uneven firing. Decoration is roller impressed zig-zag and lozenge decoration. Rim lip flattish. Slight convexity to exterior profile.

*Artifact*, 38-9, 186, and Figs. 36, 123.

6. Cat. No. 654 / Inv. No. F32-D8-17 (Fig. 4.91)

No personal examination. Rim fragment of a circular hearth, L. 6.5, H. rim 7.0. Pullen notes uneven firing. Rim lip is flat, mostly straight exterior profile and straight slope on interior to pan. Decoration is tool-impressed zigzag or triangle decoration.

*Artifact* 38-9, 186, and Fig. 36.

7. Cat. No. 655; Inv. No. F32-N-274 (Fig. 4.92)

No personal examination. Rim fragment of a circular hearth, L. 7.0. Low, flat rim. Pullen notes uneven firing and a red painted, burnished interior. Decoration is incised zigzags or chevrons, with the nested points pointed around the rim rather than towards the exterior.

*Artifact* 38-9, 186, and Figs. 36, 123.

8. Cat. No. 656 / Inv. No. F32-N-272 (Fig. 4.93)

No personal examination. Rim and pan fragment of a circular hearth, L. 12. Rim lip is slightly curved with exterior profile curving in; interior profile is straight drop to pan. Pullen notes uneven firing. Decoration is not illustrated but described as traces of large impressed triangles.<sup>247</sup>

*Artifact* 38-9, 187, and Fig. 36.

9. Cat. No. 657 / Inv. No. F32-68 (Fig. 4.94)

No personal examination. Rim and fragment of a circular hearth, L. 11. Pullen notes uneven firing. Decoration is incised hatched triangles.

*Artifact* 38-9, 187, and Figs. 36, 123.

10. Cat. No. 658 / Inv. No. F32-N-276 (Fig. 4.95)

No personal examination. Rim fragment of a circular hearth, L. 7.5. Flat rim lip.

Pullen notes uneven firing. Decoration is incised hatched triangles.

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<sup>247</sup> Pullen 1996, 187.

*Artifact 38-9, 187, and Fig. 36.*

11. Cat. No. 659 / Inv. No. F32-69 (Fig. 4.96)

No personal examination. Rim fragment of a circular hearth, L. 18.5. Flat rim lip.

Pullen notes uneven firing. Decoration is incised hatched triangles.

*Artifact 38-9, 187, and Figs. 36, 123.*

12. Cat. No. 660 / Inv. No. F32-X (Fig. 4.97)

No personal examination. Rim and pan fragment of a circular hearth, L. 12.5. Flat lip, very shallow pan. Pullen notes uneven firing. Decoration is incised hatched triangles.

*Artifact 38-9, 187, and Fig. 36.*

13. Cat. No. 661 / Inv. No. F32-S-209 (Fig. 4.98)

No personal examination. Rim fragment of a hearth, L. 7.0. Rim is flat but is much wider than wall of vessel. Decoration is incised, probably hatched triangles.

*Artifact 38-9, 187, and Fig. 36.*

14. Cat. No. 662 / Inv. No. F32-B10-4 (Fig. 4.99)

No personal examination. Two joining fragments of a round hearth rim, L. 23.

Rim has two steps, upper of which is not decorated. Lower lip has tool-impressed triangles, kerbschnitt. Pullen notes uneven firing.

*Artifact 38-9, 187 and Figs. 37, 124.*

15. Cat. No. 663 / Inv. No. B39-66 (Fig. 4.100)

No personal examination. Corner rim fragment of a keyhole hearth, H. rim 6.5, W. 6.0, L. 6.0. Flat rim but wall of vessel tapers, decoration is probably incised hatched triangles.

*Artifact* 38-9, 187, and Fig. 37.

16. Cat. No. 664 / Inv. No. F32-S-208 (Fig. 4.101)

No personal examination. Rim fragment of probably a Figure Eight hearth, L. 11. Rim is flat but vessel wall tapers. Pullen notes traces of slip on interior. Decoration is either incised, or as Pullen suggests, stamped, chevrons, zigzags, or triangles.

*Artifact* 38-9, 187, and Figs. 37, 124.

17. Cat. No. 665 / Inv. No. F20-26 (Fig. 4.102)

No personal examination. Possibly rim fragment of a hearth, H. 10. Pullen notes possible traces of slip on the pan. Rim undecorated.

*Artifact* 38-9, 187, and Fig. 37.

The hearths from the AEP exhibit a greater amount of typological diversity. Fragments which may be more akin to bowls than hearths include 661, 663, and 664. These fragments have a much thicker rim than the wall of the vessel, which is unusual for the hearths, and tends to characterize bowls, such as Cat. No. 445, in Fig. 4.103.

Pullen describes the rims as “generally wide and low, with a shallow basin,” a



description which seems to fit the remaining hearths, though this publication predates Wiencke's quantitative typology.<sup>248</sup> Those hearths that fit best into the low/broad rim tradition, as established especially at Lerna, Tsoungiza, and Tiryns, are 653, 655, 657, and 660.

The two-stepped rim of 662 is worth noting, with the lower, interior most rim impressed with kerbschnitt designs. It seems that the vessel pan must have extended below the bottom of the rim, so possibly this is one of the hearths meant to be set in a low depression in the ground.

The designs on the Southern Argolid hearths are consistent with other designs from the Argolid, especially the earlier designs at Lerna III A-B, with the popularity of the hatched triangles. The nested chevrons or zigzags of 655, with the angles pointed along the rim, are different, but do have parallels in other EH II sherds of the same survey, such as the bowl, No. 445, pictured in Fig. 4.103.

The diamond and lozenge patterns, which recur twice at site F32, are less common at other sites, but thick-lined lozenges with central dots are roller-impressed on CMS VS.1B 421a from Tiryns. On both examples here, 651 and 653, the lozenges are thin-lined, and seem to be natural extensions of the zigzag decoration.

All the hearths have rough bottoms, and the signs of uneven firing on many of the examples might be the result of the gradual firing of the hearths in situ.

Almost all of the hearths were found at one site. The keyhole shaped hearth, No. 663, was found at site B39, and the “possible hearth” was found at F20. All of the others were found at the largest EH II site of the survey, F32, and the strong concentration again

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248 Pullen 1995, 38.

suggests that these hearths are items concentrated at elite centers. In the Southern Argolid, however, the roof tiles are found at different sites, mostly at A6. So, while in some cases roof tiles and hearths are clearly associated (Lerna, Tiryns), in other cases, it may be that a monumental building exists without these hearths, such as at Akovitika, or hearths without a monumental building.

### **Ayios Dhimitrios**

Habitation at EH II Ayios Dhimitrios is divided into Phases IIa and IIb, with scanty architectural remains associated with both phases (plan, Fig. 4.104). Phase IIa is roughly the transitional period between late EH I and early EH II. Belonging to this earlier phase is House B, attested by an only partially preserved 7.0 m long wall with herringbone masonry. The lengths of parallel walls attest to a multi-room dwelling, which had a tiled roof.<sup>249</sup>

No tiles are found associated with House A of Phase IIb, but Zachos suspects a similar construction. The estimated 11.60 m is divided into three rooms, the third of which contained one decorated hearth fragment and an undecorated hearth, in addition to copious amounts of pottery and faunal remains.<sup>250</sup> This phase, probably contemporary with the House of the Tiles, seems to end in a sudden destruction.

The fragments, now in the Olympia Museum, were originally published in:

Zachos 1987 = C. Zachos, 1987, "Ayios Dhimitrios, A Prehistoric Settlement in

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<sup>249</sup> Zachos 1987, 159-160.

<sup>250</sup> Zachos 1987, 161-166.

the Southwestern Peloponnesos: The Neolithic and Early Helladic Periods” (diss. Boston University, University Microfilms 87.04824).

1. Cat No 21/83, Phase IIa (Fig. 4.105b)

No personal examination. Rim fragment of a "horseshoe" or possibly keyhole shaped hearth. Rim decorated with tool-impressed kerbschnitt and chevrons or zigzag pattern. Probably from the same hearth as Π3779.

From House B.

Zachos 1987, 206 and Fig. 63.

2. Π3779, Phase IIa

No personal examination. Rim fragment of a "horseshoe" or possibly keyhole hearth, with tool- impressed kerbschnitt decoration. Probably from the same hearth as 21/83.

From T N85/E45.

Zachos 1987, 206.

3. 8/83, Phase IIa (Fig. 4.105c)

No personal examination. Rim fragment of a possibly circular hearth. Decoration is irregularly incised chevrons.

From House B.

Zachos 1987, 206 and Fig. 63.

4. 22/83, Phase IIb (Fig. 4.105a)

No personal examination. Rim and pan fragment of a possibly circular hearth.

Decoration is incised hatched triangles.

From House A, Room III.

Zachos 1987, 206 and Fig. 63.

Zachos' suggestion that hearth rims 21/83 and Π3779 are a "horseshoe" or keyhole hearth seems reasonable, as the curve of the rim of the illustrated example, 21/83, is certainly not circular.

The profile of 21/83 can not be reconstructed, but the other two rims appear to be of the low rim category. 8/83, with its slight projection of the lip above the interior pan, is akin to P1006 from Lerna (profile, Fig. 4.21), an undecorated hearth from Phase IIID, though this has a straighter exterior. Also similar is P1045, another undecorated hearth from Phase IIID, where both the overhanging lip and the curve of the exterior are more pronounced than on 8/83. The profile of 22/83, where the exterior actually slopes slightly inwards from the base to the top of the rim, is unusual.

None of the rims is roller impressed, in keeping with the early date of three of the four examples. Kerbschnitt appears to be an early motif, as it does at Lerna. Hatched triangles appear on the latest hearth here, 22/83, although at Lerna hatched triangles seem to be more popular in earlier EH II. The chevrons of 8/83 are unique in their irregular layout.

22/83 was found in House A, Room III, in close proximity to the one sealing from the site. It is not certain whether or not the hearth was originally embedded in the floor of

this house, or whether, like much of the other pottery in the room, it may have been stored. If in use, though, it would be the second hearth in the room, nearby to the undecorated hearth, in which were found a charred collared-neck jar and a baking pan. As at Eutresis House L, an undecorated, functional hearth is placed in close proximity to a decorated clay hearth, attesting, perhaps, a special function for the decorated example.

## **Eutresis**

House L (Fig. 4.106), the only building assignable to EH II, was first excavated by Goldman in 1924-1927, where one of the best preserved ceramic decorated hearths was found. Caskey and Caskey later revisited the site, adding one more ceramic hearth that predated the decorated example.

### 1. Fig. 4.107

Nearly complete circular hearth. D. 1.2 m. Low, broad rim, with shallow pan.

Decoration is described as “incised” zigzags,<sup>251</sup> but more likely roller-impressed.

Set into the floor of House L, Room III.

H. Goldman 1931, *Excavations at Eutresis in Boeotia*, p. 18-19, Fig. 16.

M. Caskey 1990, “Thoughts on Early Bronze Age Hearths,” in *Celebrations of Death and Divinity in the Bronze Age Argolid*, ed. By R. Hägg and G.C.

Nordquist, p. 17-18.

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251 Goldman 1931, 18.

2. Rim of an undecorated circular hearth. This was found in later excavations at Eutresis by Caskey and Caskey in a bothros in Room III of House L. This bothros is earlier than the large hearth and associated bothros above, however, and so the hearth belongs to an earlier phase of EH II.

Caskey, J.L. and Caskey, E. 1960, "The Earliest Settlements at Eutresis. Supplementary Excavations, 1958." *Hesperia* 29, 155, Pl. 48 – VIII.31.

3. Fig. 4.108

Bowl or possibly a circular hearth from Eutresis. Diameter reconstructed at 46 cm. Red and black glazed rim fragment. Decoration is tool-impressed, raised sawtooth decoration on upper surface of the rim. While the decoration is reminiscent of a hearth rim, the size, glaze, and profile suggest that it is a bowl.

H. Goldman, 1931, *Excavations at Eutresis in Boeotia*, p. 109 and Fig. 141.1

Goldman originally referred to this first hearth as a "clay disk" to distinguish it in form and function from the other two hearths in the house, but was referred to by Caskey and Caskey as a pan hearth.<sup>252</sup> It was found in Room III of the three-roomed House L, (Fig. 4.106). Two other hearths areas were found in the building, one in Room II and the other in Room III, neither articulated architecturally but identified based on the "blackened condition of the floor and the presence of ashes."<sup>253</sup> So there are two additional hearths in the building, one in the same room as the clay hearth.

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<sup>252</sup> Caskey and Caskey 1960, 155.

<sup>253</sup> Goldman 1930, 18.

Room I is identified as a vestibule, and Room II as the living quarters. Room III, on the other hand, is assigned a religious function by Goldman. The clay hearth is one part of her reasoning, with its signs of burning, ashes, and animal bones, possibly a place of sacrifice. In the other hearth of the same room was found a perforated vase, and nearby a stack of small bowls, really saucers. The bothros near the hearth was filled with sherds, again mostly of broken saucers. The bull rhyton nearby, on analogy with later Cretan examples, also suggested to Goldman a ritual aspect.

Certainly Room III may have had a ritual significance, and probably served as a setting for feasting, based on the many saucers, and the faunal remains. As at Lerna, the large hearth would be a focal point for gatherings, and it is generally in the center of Room III. The bench nearby would provide seating for guests.

While Goldman identified only two levels of occupation, later excavation identified three levels.<sup>254</sup> The second hearth listed, the undecorated rim fragment, comes from the first level of occupation, from a bothros in Room III. From the first level of Room II comes another non-ceramic hearth, an area of charred matter encircled by stones. So both the duplication of hearth and clay hearth, and the distinction of Room III, seem to stem from this earlier EH II level of occupation. As Wilson has suggested for Keos, the placement of the hearth in later levels may be based on spatial continuity with earlier hearths.<sup>255</sup>

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254 Caskey and Caskey 1960.

255 Wilson 1999, 49.

## Asine

The several fragments, possibly from hearth rims from Asine, were dated in the original publication to EH III, but in all probability date to EH II.<sup>256</sup> They were found on the Pre-Mycenaean terrace, one of two areas with important EH finds. The hearth fragments were found amongst the remains of EH houses, cisterns, and bothroi. In one of these bothroi was found the square seal/pendant (CMS V.526), though most of the glyptic evidence from Asine comes from the Polygonal Wall Terrace.<sup>257</sup>

1. Fig. 4.109

Rim fragment of a vessel, probably a round hearth. Decoration is roll-impressed, three bands of running spiral decoration.

From the Pre-Mycenaean terrace.

Frödin & Persson 1938, *Asine: Results of the Swedish Excavations, 1922-1930*, p. 231 and Fig. 169.3.

2. Rim fragment of a vessel, probably a hearth. Based on the observed angle of the edge, it may belong to a figure-eight hearth or keyhole hearth. Decoration is roller-impressed, concentric circle motif.

From the Pre-Mycenaean terrace.

Frödin & Persson 1938, *Asine: Results of the Swedish Excavations, 1922-1930*, p.

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<sup>256</sup> Frödin and Persson 1938, 231.

<sup>257</sup> Weiberg 2010, Table 1.



231 and Fig. 169.4.

Identified as a possibly hearth rim by J.C. Lavezzi, 1979, "Early Helladic Hearth Rims at Corinth," *Hesperia* 48, pg. 344.

3. Frödin & Persson 1938, Fig. 169.2.

I suspect that the fragment in Frödin and Persson's Fig. 169.2 (a) also belongs to a circular hearth, based on the curve of the rim and the apparent shallow slope to a pan. The decoration is incised hatched triangles.

From the Pre-Mycenaean terrace.

Frödin & Persson 1938, *Asine: Results of the Swedish Excavations, 1922-1930*, p. 231 and Fig. 169.2.

## **Berbati**

The 1937 excavation of the EH II settlement at Berbati revealed a narrow strip of buildings along a terrace. Three rectangular rooms were found (Fig. 4.110): free-standing Megaron A, and then separated by an alley, rooms B and R, probably part of the same house, although as with the Megaron, only the southern parts of the rooms are preserved.<sup>258</sup>

1. Hearth from Berbati, Megaron A (Figs. 4.111 – 4.113)

Complete circular hearth, D. 93 cm, with central depression 49 cm long, varying

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<sup>258</sup> Säflund 1965, 93-96.

from 22 to 29 cm wide. Th. Pan 5.0 cm. Säflund notes uneven firing, with the bottom of the hearth poorly fired, and signs of burning on the pan. Decoration is roller-impressed. Säflund describes the decoration as zigzag, but it is more of an irregular striped pattern (detail, Fig. 4.113).

Hearth was found in Megaron A (Fig. 4.111), where a 10 cm deep depression had been cut into the rock to accommodate it, which was then filled with mud. Nearby was a bothros.

G. Säflund 1965, *Excavations at Berbati 1936-1937*, pp. 99-100 and Figs. 80-83.

2. Fig. 83a

No personal examination. Rim fragment of a circular hearth. Top is glazed, rim is roller-impressed with zigzag decoration. Found in Room B.

G. Säflund 1965, *Excavations at Berbati 1936-1937*, 111 and Fig. 83a.

3. Fig. 83b

No personal examination, rim fragment of a circular hearth found wedged in the western wall of Room B, where it had been reused as building material; Säflund notes that it predates Room B and has signs of burning.<sup>259</sup> Decoration is roller-impressed, zigzags.

G. Säflund 1965, *Excavations at Berbati 1936-1937*, 110 and Fig. 83b.

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<sup>259</sup> Säflund 1965, 110.

The large, nearly complete hearth from Berbati is one of the best preserved examples, along with the hearth from Eutresis and from Building BG at Lerna. The megaron, the best candidate for a special function building, also included a bench and a bothros near the hearth, though the date of the bothros relative to the hearth is not specified, and only 23 sherds were found within the bothros. There were also 27 sherds, all small, in the mud filling in which the hearth rested. Also in the room were several bowls and pithos fragments.

### **The Berbati-Limnes Survey**

1. Berbati Limnes survey, Cat. 53 / Inv. No. 943/ 5-7, 11, 13, 19-20 (Fig. 4.114)

Seven total rim and pan fragments, five joining and two joining, of an undecorated keyhole hearth. L. 28, W. 12.7, H. 12.7, D. pan ca 11. Forsén suggests it could possibly be a Figure-8 hearth instead, but a keyhole shape seems more likely.

From FS 414.

Forsén, J. 1996. "The Early Helladic Period," in *The Berbati-Limnes*

*Archaeological Survey, 1988-1990*, p. 89 and Figs. 14-15.

2. Berbati Limnes survey, Cat. 54 / Inv. Nos. 943/ 8, 10, 12, 17, 21 (Fig. 4.115)

Five joining fragments of a keyhole hearth. L. 22.8, W. 16, H. 5.5, D. pan ca 3.5-4.5. Traces of slip on pan interior, and Forsén notes uneven firing. Rim splays outward, flat lip decorated with tool-impressed diagonals spanning the width of

the rim.

From FS 414.

Forsén, J. 1996. "The Early Helladic Period," in *The Berbati-Limnes Archaeological Survey, 1988-1990*, p. 89 and Figs. 14-15.

3. Berbati-Limnes Survey Cat. No. 132, Inv. No. 57/1 (Fig. 4.116)

Corner fragment of a keyhole hearth. Preserved dimensions 7.8 x 7.0, H. 6.8, thickness of pan varies. On flat rim lip, three possibly roller-impressed rows of zig-zags.

From Findspot 12.

Forsén, J. 1996. "The Early Helladic Period," in *The Berbati-Limnes Archaeological Survey, 1988-1990*, p. 105 and Fig. 23.

The hearths from the Berbati-Limnes survey are all keyhole shaped, and only one (No. 132) is roller-impressed, therefore Forsén assigns it a late EH II date. The impressed diagonal lines across the rim of Cat. No. 54 are unique, though there are other instances of wide, tool impressed lines, such as Tsoungiza 629 (Fig. 4.58). Two of the three hearths are from the same findspot (FS414), and the third is from FS 12. Neither of these areas is very large: FS 414 is 20 x 55m, and Findspot 12 is ca 1.0 ha.<sup>260</sup> Although only three hearths were found in the survey, there may be an issue of visibility, as FS 414 had recently been plowed, and FS 12 recently bulldozed. Still, the occurrence of these hearths at smaller sites does bear out the theory that these artifacts could appear in smaller

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<sup>260</sup> Forsén 1996, 85, 103.

numbers at secondary sites.

### **Kolonna, Aegina**

The Weißes Haus belongs to Stadt III, where it is described as the “most important” building of three structures of that level.<sup>261</sup>

1. Fig. 4.117

Circular hearth, D. 65. Slightly rounded rim lip, with concave slope to base. Slope to interior pan is nearly vertical. Rim is incised with diagonal slashes.

Found set in the floor in the Herdraum of the Weißes Haus.

Walter and Felten 1981, 20 and Fig. 16.

This hearth bears out the theory that the main rooms of the corridor houses should commonly have central hearths. At a diameter of 65 cm, it is smaller than the other well-preserved examples associated with large buildings, at Berbati, Eutresis, and Lerna. The simple incision is maybe surprising; one might expect roller-impressed decoration given that the Weißes Haus is relatively late in EH II, contemporary with Lerna IIIC-D, where roller-impressed decoration is common.<sup>262</sup> Perhaps a hearth with incised decoration in such a prominent place is deliberately archaizing?

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261 Walter and Felten 1981, 14.

262 Shaw 2007, 148.

## Zygouries

From Zygouries, three hearth fragments are preserved, now in the Corinth museum, and originally published in Blegen's excavation report (here abbreviated as *Zygouries*). It is not clear where on the site the hearths were found, but they must have come from the settlement area, which preserves an irregular complex of at least ten houses. Amongst these are the adjoining Houses of the Pithoi and of the Snailshells, which Pullen has convincingly identified as a later phase of an earlier Corridor House.<sup>263</sup> The association of monumental architecture and hearth fragments is of course not proved at Zygouries, as the hearths may have come from other houses, but is certainly possible. In addition, Blegen notes that in the center of the large room in the House of the Pithoi, which would correspond to one of the larger rooms of the earlier Corridor House, a central circular area of about 1 m diameter was hardened by fire. Blegen identifies this as the hearth, noting that it had a “slightly depressed” center.<sup>264</sup> Blegen thus interprets the area as a non-ceramic hearth, but it could conceivably have served originally as a depression for a ceramic hearth.

1. *Zygouries* Fig. 114.4 (Fig. 4.118)

Personal examination 29 November 2011. Rim and pan fragment of a probably circular hearth. Rim is slightly rounded. On exterior profile, a small ridge about 2.0 cm above the base, below which the hearth is more rough, suggests it may

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<sup>263</sup> Pullen 1986.

<sup>264</sup> Blegen 1928, 13.

have been set into a low depression in the ground when it was formed. Bottom rough. H. rim 5.4; D. pan 2.5, W. rim 4.4. Decoration is roller-impressed zig-zag, at least ten bands. The seal was applied twice, once to the top of the rim, and then again to the exterior edge of the lip rim, as it slopes such that the seal could not impress the entire rim width at once.

Published in Blegen 1928, 121 and Fig. 114.4; CMS V 506.

2. *Zygouries* Fig. 114.1 (Fig. 4.119-120)

Personal examination 29 November 2011. Rim and pan fragment of a hearth that is possibly keyhole-shaped, as the fragment is very straight. As in the above hearth from *Zygouries*, there is a slight ridge about 1.0 cm from the bottom of the hearth on the exterior, probably resulting from whatever guide was used to outline the shape of the hearth. Pan surface shows signs of smoothing (detail, Fig. 4.120). H. rim 4.6; D. pan 2.2; W. rim 3.9-4.0. Decoration is tool-impressed raised zig-zag.

Published in Blegen 1928, 121-122 and Fig. 114.1.

3. *Zygouries* Fig. 114.3 (Fig. 4.121)

Personal examination 29 November 2011. Rim fragment of hearth, possibly keyhole-shaped, as the fragment is very straight. A ridge, similar to those on the other two fragments from *Zygouries*, is visible at one end of the fragment on the exterior profile, again suggestive of some means of guiding the construction process. Bottom rough. H. rim 4.7; W. rim 1.7. Decoration is tool-impressed

raised zig-zag.

Published in Blegen 1928, 121-122 and Fig. 114.3.

## **Rough**

Five or six hearth fragments come from the site of Rough, in Attica. Of these, only two appear to have the standard flattish rim profile common on the mainland, the second of which is undecorated.<sup>265</sup> Three are described as decorated, and the photograph (Plate 46) makes it clear that two of these are tool-impressed, one forming a possibly doubled zigzag and the other a double-sawtooth pattern, both of which appear on the mainland, but also at Ay. Irini. Possibly the third example is impressed by a cylinder seal, which Petrikaki mentions as the method of decoration.<sup>266</sup> These are omitted from the typological and iconographic analyses because of lack of examination.

## **Dokos**

The shipwreck off the island of Dokos (south of the Argolid) dates to the end of EH II.<sup>267</sup> In the publications thus far, several hearth fragments are mentioned, though an exact number is not specified. Papathanasopoulos et al note that at least three examples have roller-impressed decoration of zigzags or wavy lines.<sup>268</sup> Two of these hearths are

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<sup>265</sup> Petrikaki 1986, Figs. 41 and 42.

<sup>266</sup> Petrikaki 1986, 167.

<sup>267</sup> Vichos et al 1991, 149.

<sup>268</sup> Papathanassopoulos et al 1992, 13-15.



illustrated, and these are listed below; the third is not listed.

1. A 319

No personal examination. Fragment of a baking tray or hearth, circular.

Decoration is roller-impressed zigzags.

Papathanasopoulos et al 1995, 24, Pl. IVd.

2. A 151/3

No personal examination. Fragment of a hearth baking tray, possibly Figure-8 shaped. H. rim 9.6 cm, with either zig-zag or wavy line decoration on the rim.

Papathanasopoulos et al. 1992, 13-15, Fig. 26.

The hearths are described as both hearths and baking trays, but the height of A151/3, well over 9.0 cm, along with the decoration, suggests that at least some of these may be true hearths. The bottoms, like in all the other examples, are rough.<sup>269</sup> A151/3, based on the curve visible in the photograph, is likely a Figure-Eight hearth.

The shipwreck contained a wide spectrum of EH II ceramic shapes, including large storage and transport vessels, like pithoi and amphorae. The shipwreck proves that these hearths and pithoi, though often found fixed in floors, could be portable, even over long distances. Much of the pottery is identified as Cycladic- influenced or imported, but this influence is not so apparent on the hearths, based on the profile of the rims and the roller-impressed decoration (see next chapter for comparison).

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<sup>269</sup> Papathanassopoulos et al 1995, 24.

## Poros

From the Kavos Vassili promontory on Poros, a complex of five EH buildings was found. Ktirio Γ is a megaroid building with paved porch and two interior rooms. In the first, and largest room, a fully preserved circular clay hearth of ca. 90 cm diameter was found in situ, a bit off center towards the entrance.

1. No personal examination. Complete circular hearth, rim stamped with concentric circles.

Konsolaki-Gianopoulou 264 and Fig. 6.

2. No personal examination. Also from the island of Poros, a hearth rim fragment is mentioned from a hill near the Variarnia bay. The settlement, including a circuit wall and multiple buildings, could not be excavated, but the hearth rim is described as roller-impressed with zig-zag.<sup>270</sup>

Konsolaki-Gianopoulou 259-260 and Fig. 5.

As Konsolaki-Giannopoulou points out, the circular hearth merges the mainland shape with Cycladic decoration, with rim stamp seal-impressed with concentric circles.<sup>271</sup>

The island's location in the Saronic gulf may explain the stamp-seal impressed rim, although the circular hearth from Aegina, also in the Saronic gulf, was incised.

Inside of the hearth were traces of burning, a layer of ash, and bones from the

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<sup>270</sup> Konsolaki- Giannopoulou 2011, 259-260.

<sup>271</sup> Konsolaki- Giannopoulou 2011, 264.

head of a pig.<sup>272</sup> While no other finds are mentioned in the preliminary report from the hearth room, the back room contained a good deal of pottery, including two pithoi, a sauceboat, and six bowls.<sup>273</sup> Evidence for storage, food preparation, and feasting and drinking is found within the same building here, although with only six small bowls the scale of the feasting may have been smaller than occurred at the corridor houses of the mainland.

## **Thebes**

1. No personal examination. From the East Room of the Fortified Building, Aravantinos reports a "portable clay hearth with an outcurving rim," which he likens to the example from the hearth room of the Weißes Haus on Aegina.<sup>274</sup> He also notes that ashes were found.

Aravantinos 1986, 59.

2. No personal examination. From an EH II apsidal building, a complete circular undecorated hearth. D. 62, H. rim 24, W. rim 10. At 24 cm high, a very tall example. It was found full of ashes and bones of unspecified animals.

Demakopoulou 1975, 196-7 and Fig. 2.

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272 Konsolaki- Giannopoulou 2011, 264.

273 Konsolaki- Giannopoulou 2011, 264.

274 Aravantinos 1986, 59.

## **Askitario**

1. No personal examination. Complete keyhole hearth, dimensions not given.

Decoration is tool-impressed kerbschnitt to form a single raised zigzag. From House E at Askitario.

Theocharis 1953/54, p. 73 and Fig. 25.

## **Makrovouni - Kefalari**

From this group of small EH settlements near Nafplio, two hearth fragments were found, both dated to EH II:

1. Makrovouni-Kefalari 135

No personal examination. From the Makrovouni settlement. Profile suggests a high hearth rim. Rim lip is rolled with nested chevrons, pointing around the rim.

Dousougli-Zachos 1987, No. 135, Fig. 24.

2. Makrovouni-Kefalari 156

No personal examination. From the Kefalari-Magoula settlement. Again, profile suggests a medium or high hearth rim, with lip tool impressed with kerbschnitt to form a raised zigzag pattern.

Dousougli-Zachos 1987, No. 156, Fig. 26.

## Lefkandi

1. No personal examination. Possibly a rim fragment of a hearth, tentatively suggested by Younger, but uncertain, so it is omitted from the complete list of hearths.<sup>275</sup> Decoration is stamp-impressed, one impression of a central cross motif within a circle, with filler ornament.

CMS V 423

This possible hearth fragment, though from an EH III – MH I context,<sup>276</sup> is probably from EH II.<sup>277</sup> The rim preserves some curve, so it could be circular or keyhole, but not enough survives, without a personal examination, to classify it as a hearth. Mainland pottery is sometimes stamp seal impressed, so this one impression does not require the fragment to belong to a hearth rim. If it is a hearth, however, it would be the only example from the mainland that is stamped on the rim, so it may have been imported from the Cyclades; if not, it shows heavy Cycladic influence, as does the next example, from Kythera.

## Kythera

1. Chora Mus. 166

Corner fragment of a baking tray or hearth, probably keyhole shaped. H. rim 12.5

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<sup>275</sup> Younger 1991, 38.

<sup>276</sup>

<sup>277</sup> Pini ed. 1975, 323; Younger 1991, 38.

cm, W. rim 8.0-9.0, preserved L. 20. Decoration is impressed kerbschnitt on the rim lip, with chevrons below the raised inner ridge and inside, impressed circles.

From Deposit  $\alpha$ , a rubbish fill from Kastraki.

J.N. Coldstream and G.L. Huxley, eds, 1973, *Kythera*, p. 83 (No. 98) and Pl. 17.1

Huxley and Coldstream suggest that the settlement on Kastraki has ties to the mainland in EH II, though any architectural remains are either lost or hidden by the Byzantine building.<sup>278</sup> Coldstream classifies the hearth as Imported E.H., but Imported E.C. may be more reasonable. In height, and thickness of the wall (3.4 cm), and the very wide, flaring rim, this hearth is more akin to the Cycladic examples, to which we now turn.

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<sup>278</sup> Coldstream and Huxley 1972, 69.

## CHAPTER 5

### HEARTHES OF AYIA IRINI, KEOS, AND THE CYCLADES

#### **Introduction**

After the Final Neolithic, termed Period I at Ay. Irini, there was a break in occupation until EB II. EB II is broken down into two periods, Period II (mid-late EH II), and Period III (latest EH II). Period II is further divided into three architectural phases, based on remains concentrated in the Western sector of the site: from the first, no walls are preserved, only “fills, pavements, and drains.”<sup>279</sup> The second architectural phase is a house, obscured somewhat under House E of the third phase. House E (Fig. 5.1) is a four-room house, in which two beautifully preserved keyhole hearths are found in successive phases of Room IV. House E is bordered by the Western Road, also constructed in the last phase of Period II. In Period III, the Western Roadway and House ED are constructed in the first phase, and in the second phase, House D replaces House ED.

The ceramic transitions are not fine enough to permit such a three-phased division within Period II.<sup>280</sup> The hearths, however, come mainly from two deposits: DepAC, the

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279 Wilson 1999, 168.

280 Wilson 1999, 168.

earlier, and DepBL, the later. DepAC is the fill beneath the lower Western Road, earlier in Period II. This fill contained a total of 42 hearths (39 cataloged), including two examples executed in talc ware rather than in red-brown coarse ware (see below). In the same deposit, almost exclusively Period II pieces, were a large number of jars, open jars, saucers and sauceboats and bowls, as well as pans, which are defined below.

DepBL, on the other hand, is from Room ED.3, a schist fill, with 37 hearths (29 cataloged).<sup>281</sup> As in DepAC, the hearths are mainly keyhole hearths, with a few pan hearths. Unfortunately, both of these deposits are fill, so the majority of the hearths were removed from their use contexts. Some of the deposits have much smaller numbers of hearths in meaningful contexts, and these will be discussed below when hearth function is discussed.

There are also nine hearths from Period III contexts.

Rather than simply list all of the hearths published from Keos, which are thoroughly described by Wilson in *Keos IX*, I append them in a chart (Table 5.1), as I was unable to examine any of them personally. It becomes quickly apparent that the Kean hearths are very different from the mainland hearths. The predominant shape is keyhole, with a higher average rim height, although circular hearths are known as well. Decoration is usually stamp-seal impressed, never rolled. These hearths may, therefore, have been used very differently from their mainland counterparts. There are a total of 117 cataloged examples, since II-379 and II-380 are probably from the same hearth, and 190 fragments total. Period II is the heyday for the hearths, with only two cataloged examples from Period I and nine cataloged examples from Period III.

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281 Wilson 1999, 194.



## Typology

Little can be said for the shapes of the Period I hearths, both questionably hearths. I-188 may or may not be circular, as the rim fragment is very straight. In profile, it looks very much like a baking pan with a ringed base. Oddly, the bottom has a lot of holes, some of which extend through the pan. Wilson suggests this may be a result of its production on a bed of twigs, some upright.<sup>282</sup> The upper surface is burnished. I-189 consists of two pan sherds, the underside full of schist inclusions, like some of the later examples. In his discussion of their find contexts, Wilson also notes that I-109 to I-112 may be pan/hearths.<sup>283</sup> As Pullen suggests for the mainland, the typological split between hearths and pans occurs only later, in EB II. Only the profile of I-109 is complete (Fig. 5.2), but it is enough to note that it is quite different from baking pans, and actually more like a mainland hearth type, in that it is circular, with a flat bottom and rounded rim.

Wilson's hearth typology for Period II is based on shape rather than rim size, with three distinctive shapes: fixed keyhole hearths, portable pan hearths, and flat circular hearths, all categories which carry on into Period III. Unlike the keyhole hearths and pan hearths, the flat circular hearths are not stamped (though occasionally they may be incised).

In Period II, the keyhole hearth is the most popular, at 80 of 119 cataloged examples. The two well-preserved examples, II-351 and II-414 (Fig. 5.3), are both ca 1.40 m in length, longer than the diameter of the largest circular hearths from the

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<sup>282</sup> Wilson 1999, 17.

<sup>283</sup> Wilson 1999, 168, 174.

mainland. II-351 has an odd cutout in the rectangular end of the rim, which Wilson suggests is for cleaning ashes.<sup>284</sup> The rim of II-414, on the other hand, starts at 7.5 cm, but tapers off to nothing at the rectangular end. Again, possibly this was to facilitate cleaning, but Wilson notes that this end was placed flush against the wall of House E, Room 4.<sup>285</sup> Most of the hearth bottoms are flat, but II-354 has a convex bottom for setting into the floor. The keyhole shape is much less common in Period III, with only two examples, although the number of hearths in general drops off drastically.

Wilson records rim height as varying between 7.0 and 10 cm, typically higher than mainland examples. Kean hearth rim widths average between 3.0 and 6.0 cm, all very flat, comparable to the mainland examples. Wilson suggests that within Period II, the more flaring rims are earlier, and the more vertical rims are later, based on a comparison of the hearths of DepAC and DepBL.<sup>286</sup> As illustrated in Figs. 5.4 and 5.5, where the rims are broken down by deposit, it appears that both flaring and vertical rims appear in both deposits. On the flaring rims, the slope of the exterior may be slight or drastic, resulting in a very wide rim. The top of the rim may be thickened so that it hangs over the the pan. Any combination of these features is possible: an exterior flared rim with vertical interior slope (II-399), a slope on both interior and exterior (II-394), and even a more vertical exterior with sloped interior (II-382). II-385 makes it clear that the corners of the keyhole hearths may be thickened beyond the rims on the sides.

The other two hearth types from Period II, pan-hearths and flat circular hearths, are represented by much lower numbers. The pan-hearths have smaller rim widths, and

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284 Wilson 1999, 49.

285 Wilson 1999, 49.

286 Wilson 1999, 54.

are found in DepBL or later contexts with the exception of one (II-434), suggesting they appear later in Period II. These hearths were much smaller, with diameters, when determinable, all under 50 cm. Wilson would restore handles to all of these examples, with a complete handle preserved from II-431, and evidence for a handle on II-437. This small size and the handles differentiate them from typical circular hearths of the mainland. Only P934 from Lerna, questionably a hearth, seems to have had a handle. Nonetheless, they do not resemble typical mainland baking pans in profile, and so may be a particular Cycladic version of the hearth. The three illustrated rims (bottom examples, Fig. 5.5) show generally narrower rims, with II-431 and II-434 slightly thickened at the top. There is a concave slope to the bottom, and the slope to the interior varies, from nearly straight (II-431) to a straight angle (II-437) to a decided concavity (II-434).

The flat circular hearths have very low, rounded rims, and flat bottoms. Interiors may be burnished, all have signs of burning, and none have impressed decoration. All 13 cataloged examples come from DepAC, so this may be the earlier counterpart to the pan hearth. Wilson likens these examples to Lavezzi's Hearth 1, (Corinth MF 13393), which is more similar to the mainland baking pans. Certainly II-438 and II-440 (in Fig. 5.4) are similar in profile to the baking pans. The largest estimable diameter is 60 cm (II-438). One example, II-445, has a smoothed bottom, unique for a hearth or baking pan. The majority of these shapes come from either DepAC, or DepBI, another schist fill of Period II.

Wilson also catalogs four circular hearths with decorative edge, in other words, diagonal incised slashes around the rim (II-447 – II-450). It is interesting that the incised decoration is limited to these circular hearths, since it is more common on the mainland.

The incision on II-447 may actually represent incised hatched triangles rather than simple diagonal lines.

Wilson also lists six “miscellaneous” hearths, including some that cannot be classified by shape because they are pan sherds. II-456 has a “notch” cut out of the edge, but this is small, so is probably not for cleaning ashes. II-451 is a hearth table that would have been set on a stand, with a burnished interior. It is small in diameter, 40 cm, and does have signs of burning, but does not otherwise fit in well with the cataloged hearths.

Turning to Period III, the same basic shapes continue, but are much reduced in quantity. The two keyhole hearths have a vertical profile. Of the two portable pan hearths, III-229 may really belong to Period II, and Wilson notes a roughened exterior.<sup>287</sup> Of the five circular hearths, two (II-234, II-235) have a rounded bottom with a more vertical rim, and were probably set in a depression in the ground.

Once again, there is some overlap between hearths and pans, already recognizable in the terminology chosen. Wilson also includes another form termed pans, a red-brown coarseware shape that starts in Period I and continues through to Period III.<sup>288</sup> The pans, generally, have perforations on the rim and cut-outs in the rim, and flat bottoms. Some examples also show a pushed in area of the rim wall, possibly to aid in picking up the vessel (profiles, Fig 5.6). Wilson sees these as 'pans' rather than 'baking pans' because he considers signs of burning rare and therefore accidental, a functional rather than formal argument. The question here is not whether or not these pans are hearths, but whether or not they are baking pans, and so will be discussed further in the section on differentiating

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<sup>287</sup> Wilson 1999, 118.

<sup>288</sup> Wilson 1999, 13-14 for Period I pans and large pans (I-94 to I-112); p. 45-46 for Period II pans (II-300 to II-318), and p. 114 for Period II pans and deep-handled pans (III-183 to III-188).

hearths and baking pans.

## **Production**

The Kean keyhole hearths, as the mainland examples, seem to have been made in situ, with mostly rough bottoms, though in several cases care has been taken to flatten or smooth the bottom (II-435, II-445, II-450).<sup>289</sup> The well-preserved II-414 had a “strip of hard-baked clay found beneath II-414 and overlapping onto the lower clay of House E, Rm 4,” suggesting the hearth was hardened in situ.<sup>290</sup> Signs of smoothing are visible on the top and interior of many examples, such as II-395, II-435, II-439, and II-440.

The fabric of almost all of the hearths is red-brown coarse ware, with white stone and schist temper.<sup>291</sup> The flat circular hearths have more schist inclusions on the bottom than in the rest of the vessel, suggesting to Wilson that the hearths may have been produced on a schist bed.<sup>292</sup> These hearths are easily portable, as opposed to the more fixed keyhole hearths, so could have been produced and even fired at a different site. But II-403, a keyhole hearth, is also noted as having schist inclusions on the bottom.

Several examples also have mat impressions on the bottom, though most are classified as questionable hearths: II-452, II-453, and II-454. II-446, a circular hearth, also has mat impressions.

Several examples occur in talc ware, which has a soapy feel, with inclusions

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289 Wilson 1999, 49.

290 Wilson 1999, 49.

291 Wilson 1999, 44.

292 Wilson 1999, 57.

including talc.<sup>293</sup> Hearths in this ware are relatively quite rare, with only two cataloged examples, both probably circular (II-606 and II-607). Both of these hearths come from DepAC, and two others come from DepAL, also Period II, Fill beneath the clay floor of Room E.2. There are an additional five uncataloged examples from Period III contexts.

Some of the flat circular hearths are painted: II-442 has a red painted rim and interior, with a darker band at the edge, and II-441, and II-444 have dark brown/black paint. Some of the examples are also burnished (II-356, 372, 383, 433, 451, 455), and II-418 is slipped and burnished. While painted and burnished examples are a bit more common than on the mainland, they are not wildly more popular.

### **Decoration and Iconography**

Decoration, usually stamped, appears on keyhole and pan hearths, but rarely on the flat circular hearths, and then it is incised. Keyhole and pan hearths are furthermore almost always decorated, with only two examples of undecorated keyhole hearths, II-351 and II-430. Designs are almost exclusively stamped, and never roller-impressed.

Concentric circles (examples, Fig. 5.7) are the most common motif in Period II, with forty-one examples on keyhole hearths (II-352 through II- 392) and 2 pan hearths (II-431 and II-432) coming from both DepAC and DepBL contexts. One Period III hearth, III-229, also incorporates in its motif concentric circles, but also includes c-spirals. The concentric circles come in different numbers, from two to six, and sometimes include central disks. The overall effect of the different number of circles is still very

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293 Wilson 1999, 69.

similar.

Single or interlocking spirals appear on nine examples (II-393 to II-399, II-431 and II-432). These come mostly from DepBL, so the popularity of the spiral motif may come only later in Period II.

Wilson categorizes the remainder of the stamp-impressed decoration as mainland type motifs. There are 23 total examples, 19 of Period II (II-414-429, 434-436) and 4 of period III (III-227-230). Of these, only five are on pan hearths, and 18 on keyhole hearths. The chevron cross is popular (Fig. 5.8), with three examples (II-414-416). II-416 is an interesting variation, with a “floral” motif in one corner. From the excavations of Kastri on Syros comes one round hearth fragment, with one stamped chevron cross.<sup>294</sup> Certainly the chevron cross has good mainland parallels in EB II, although Younger notes that this motif goes back to the Neolithic in Greece, and is in fact a common motif with a broader chronological and geographical appeal.<sup>295</sup>

Geometric designs are popular with this stamped category of impression, as on the mainland, with only three (possibly) figural examples (Fig. 5.9). The first is II-419 (CMS V 463), which may have a bird surrounded by interlocking spirals. The layout is similar to those few figural seals from Lerna, with a central animal surrounded by geometric elements. The second possible figural example is II-434 (CMS V 464), a central insect with a border of interlocking spirals, again close to CMS V 115 from Lerna. The final example, II-422 (CMS V 478), is divided by a tree-like motif, with anchor-shaped motifs, a duck, and a sauceboat. The additional motifs do not appear figural, but they could be.

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<sup>294</sup> Bossert 1967, 73, Fig. 5.

<sup>295</sup> For a list of chevron cross parallels: Pullen 1994, footnotes 11-17; Younger 1989.

This impression is really quite different in layout from the symmetrical seals of Lerna, and unusual in the multiple figural elements.

Not all of the decorations are stamp-impressed. 15 examples have tool-impressed triangle decoration/ kerbschnitt. These are mostly from DepAC contexts, so probably an earlier decoration style. These are all on keyhole hearths, except for one instance on a pan hearth (II-433). The resulting decoration is raised single (II-400-402) or double zig-zags (II-403-404) or double sawtooth (II-405-412), with only one example of multiple kerbschnitt (II-413).

Finally, three flat circular hearths have incised decoration (II-447 – II-449), but their shape is such that there is not a well-defined, raised flat rim, so the decoration is on the exterior edge and less visible when looking down on the hearth. All three have groups of diagonal lines in alternating directions, but the full width of the rims of II-448 and II-449 are not preserved, so these could have been incised hatched triangles; both motifs have mainland parallels. As at Lerna, the incised method of decoration appears to be in the earlier part of EB II, with these three hearths coming from DepAC.

On the mainland, the re-use of seals on different vessels is uncommon. MF 13396 and MF 1976-66 from Corinth both have the same hexastripe pattern. From Tiryns, five sets of hearths have the same stamped decoration.<sup>296</sup> At Ay. Irini, it is difficult to tell in some cases whether the same seal has been reused, because the impressions with concentric circles are all very similar. Nonetheless, stamp re-use seems to be a bit more common than at Tiryns.

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<sup>296</sup> The hearths from Tiryns with identical rolled decoration are: CMS V 535 and CMS VS 1B 382, CMS V 563 a-c, CMS VS IB 381 a-b, CMS VSIB 415a-b, and CMS VS 1B 421 a-b. There are also instances where the same stamp is used on both pithoi and hearths: CMS V 529 (hearth at Tiryns, pithoi at Lerna and Zygouries), and CMS V 562 a-b (pithos and hearth from Tiryns).



II-353 is stamped with a motif of three concentric circles, possibly the same stamp used to put only one impression on II-356, a hearth which is otherwise stamped with a motif of four concentric circles.<sup>297</sup> All of the cataloged examples with six concentric circles, II-385 to II-389, may be decorated with the same stamp, though again it is difficult to tell when six circles are cramped into an impression with a diameter of only 1.8 cm.<sup>298</sup> The seal used to stamp II-423, one of Wilson's mainland types with c-spirals and calyx elements, may also have been used to decorate II-424, which is badly worn.<sup>299</sup> Finally, the one incomplete stamp on II-428 is worn, but may be the same used on III-229.<sup>300</sup> Though this is cataloged in Period III, Wilson notes that it is probably intrusive from Period II.<sup>301</sup> The design is again of mainland type, this time an oval impression, with concentric circles and c-spirals.<sup>302</sup>

The probable increase in instances of seal re-use at Ay. Irini as opposed to mainland sites could result simply from the greater sample size, I think it more likely the consequence of differences in decoration practices. Possibly the hearth manufacturers at Ay. Irini considered it more appropriate to re-use stamps, or there was less interest in having each hearth rim be unique within the site. If, as has been suggested, each household has a hearth and if the same stamp can be reused, there are interesting consequences for the possible symbolic significance of these motifs, and for seal

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297 Wilson 1999, 51.

298 Wilson 1999, 53.

299 Wilson 1999, 56.

300 Wilson 1999, 56, 118.

301 Wilson 1999, 118.

302 Wilson 1999, 118.

ownership.

The use of multiple seals to decorate the same hearth, as on the mainland, is relatively rare. II-356 (Fig. 5.10) has one odd seal impression of three concentric circles (probably the same seal as used to stamp II-353), on a rim otherwise stamped with a four concentric circle motif. II-379 preserves five impressions of five concentric circles with a central disk, and two impressions of a smaller seal with four concentric circles.<sup>303</sup> It may be significant that both of these instances involve only motifs of concentric circles.

On the mainland, by contrast, the use of multiple stamps involves two different methods of decoration. At Corinth, a cylinder seal is used to roll the rim, and a stamp seal to impress the pan, in two cases (MF 13397 and MF 1976-66). Multiple seal use in this context therefore refers to two different types of seals, which may be conceptually very different. A similar effect is garnered at Lerna, where the rim of P772 is roller-impressed and the central depression is outlined around the periphery by tool-impression, though tool impression does not involve, properly speaking, a seal. The appearance of two different motifs on a Kean hearth may therefore be very different from those on a mainland hearth. At Keos, only one hearth has two different methods of decoration: III-227 (Fig. 5.11), with its row of spiral seal impressions joined by incised lines, an odd attempt, perhaps, at a running spiral motif, possibly inspired by the continuous bands of decoration on mainland hearths.

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303 Wilson 1999, 52.

## Contexts

Excluding the two cataloged Period I possible hearths, and the four hearth-pans, there are 117 cataloged Period II – III hearths, representing, most likely, 116 different vessels, as II-379 and II-380 are probably from the same hearth. In addition, there are an additional 73 uncataloged hearths noted in Wilson's Ch. 5 (see Table 5.2 for breakdown of these hearths by context). A total of 190 hearth fragments belong to Ay. Irini's Periods II – III.

The majority are not from good architectural contexts, and with the volume on architecture forthcoming, we will have to wait to draw firm conclusions. Many fragments are found in fills around the Western Road, including the 43 of DepAC. The other two major deposits for hearths, DepBL and DepBI, are both schist fills associated with House ED. The 32 hearths of BI are from the fill of Room ED.2, and III-229, found in DepBG, the courtyard area of ED.1, also probably belongs here. The one hearth of DepBJ is from Room ED.3, near the bin, and the 37 fragments of DepBL are from the fill associated with room ED.3. One (uncataloged) hearth comes from DepBQ, the stairway area, and two from the packing behind the stairway in DepBR. This totals 74 of the 190 fragments found in the fill of this one building, a significantly high number.

As on the mainland, there is some evidence for the recurring placement of a hearth through multiple architectural phases. II-351, found in the fill of the bedrock beneath Room E.4, is replaced later by II-414, above the clay floor of Period II.<sup>304</sup> These are also the two best preserved keyhole hearths from the site. DepAG is securely of

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304 Wilson 1999, 49.

Period II, and DepAR is the only transitional Period II-III deposit. The hearths were placed in the innermost room of the house, as was the example from Eutresis.

Three fragments are associated with House D of Period III: III-233 from the northeastern paved area, III-232 above the pavement of the corridor, and III-231, found when the pavement was removed. These two hearths may have been in the corridor as debris, but from Lerna we do have two good examples of hearths found in corridors. If they were placed there intentionally, we have yet another instance of the placement of a hearth in the same spot in successive phases of a house. None of these were decorated, and all three were of the flat-circular shape.

Eight hearths are associated with House A in the southeastern sector of the site. One is found above a paved terrace (DepCY) of Period III, but the rest are associated with Period II architecture, including a floor and a “hearth” which must be non-ceramic. Four hearths, including II-367, 387, and 455, are found nearby. II-455 is the undecorated portable hearth, but II-367 and II-387 are both keyhole hearths, with decorations of five and six concentric circles, respectively. II-361, from a levelling fill in A.12, is also decorated with (four) concentric circles. II-397, found in the same deposit, has an interlocking spiral motif.

It appears there may be some clustering of motifs in House A, but given the high number of concentric circle motifs amongst all of the Ay. Irini examples, this may be coincidence. Still, all three fragments associated with House D are undecorated and of the same shape. Both hearths from House E are keyhole shaped, but one is undecorated. The majority of the hearths from DepBI and DepBL, the fill of House ED, are keyhole hearths, but again, other shapes are represented, and keyhole hearths are simply the most

popular shape. We cannot conclusively identify a correlation between one architectural unit and one hearth shape or motif, but the data are suggestive.

Wilson suggests that each household may have had one clay hearth: “These large fixed hearths were obviously a common and essential part of the domestic furnishings of a Period II household at Ay. Irini. The evidence of House E in Period II might suggest that a self-contained household had only one such hearth (the other rooms being served by more modest circular stone-built hearths like the one in Room 3 of the same building).”<sup>305</sup> A similar situation is possible on the mainland, as at Eutresis, where the ceramic hearth is found in the innermost room, with additional hearths nearer the front of the house. Kilian has also posited the formula one household to one hearth for Tiryns.<sup>306</sup>

As for their function within each house, the many burning and charring signs suggest the obvious, that these hearths were used to hold fire. Some of them have signs of burning on the bottom as well, though it seems unlikely that the keyhole examples are well-suited to be placed as cookware within a fire. The proximity of these hearths to non-ceramic hearths does suggest a special function. The hollow circular depression of II-445 may be akin to the depressions in the large circular hearths of Eutresis or Lerna.

There is some suggestion of a secondary use for II-391, where the rounded edge suggests to Wilson that it may have been a rubbing tool.<sup>307</sup> Possibly the fragment, a long, straight edge, may have been convenient for gripping.

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305 Wilson 1999, 49.

306 Kilian in response to M. Caskey 1990.

307 Wilson 1999, 53.

## **Other Cycladic Hearths**

From Kastri on Syros, a circular hearth fragment preserves the stamped impressions of a chevron cross.<sup>308</sup>

## **Baking Pans from Mt. Kythnos, Delos**

MacGillivray notes 12 baking pans, 8 of which are cataloged, from the prehistoric settlement at Mt. Kythnos, which he classifies as “a type of low hearth.”<sup>309</sup> These are all in coarse fabric with rounded bottoms, produced in situ. Burnishing is common on interior and exterior lip up to the point where it was set in the ground, as are burn marks. Where determinable, the diameters are 43 to 60 cm, which place the pans squarely within the “baking pans” category defined in Chapter 3. Several preserve spouts, probably to facilitate cleaning.

These are divided into three types; the first is a low pan similar to an example from Ay. Irini (Nos. 259-261), but generally uncommon. The second (Nos. 386-388) is more similar to mainland examples, except that these have rounded bottoms. These are similar in profile to Tsoungiza 621, which Pullen classifies as the “standard” type.<sup>310</sup> Finally, Nos. 258 and 389 are similar in profile to the second group, but more slender.

None of these examples are stamped or incised, and the only sign of decoration is slipping/burnishing. Certainly the burn marks suggest a hearth-like function, but formally

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308 Bossert 1967, Fig. 5.

309 MacGillivray 1980, 36.

310 Pullen 2011d, 372.

these are more similar to baking pans.

### **Naxian “hat-like” vases**

These coarseware vessels, shaped like inverted hats, are found in greatest numbers in the cemetery of Ay. Anargyroi on Naxos, though they are found elsewhere in the Aegean as well. They are worth mentioning here because of their stamped rims and possible similarity in function to the decorated ceramic hearths.

These vases, discussed by Doulas, have deep, often rounded-bottom bases, typically between 8.0 to 14 cm high.<sup>311</sup> Often the bases preserve mat impressions. The overall diameter is much smaller than that of most hearths, about 25 cm, and fairly wide rims at about 5.0 cm. The rims are stamped or tool-impressed with typical Cycladic designs, including concentric circles, spirals, and triangle impressions to create zigzag, chevron, and lozenge motifs.

From the Ay. Anargyroi cemetery, Doulas catalogs 28 unique hat-like vases, aside from additional sherds. None of these was found in a grave: they are strongly associated with the burial ground, but are not considered a burial good. Additional examples are found from settlement contexts at Kastraki on Naxos and at Pyrgos and Phourion on Paros.<sup>312</sup> The heavy weighting of numbers towards the cemetery context suggests to Doulas that these may have served as “ritual” incense burners or braziers,

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311 Doulas 1977, 63, 103, 114-117 and Pls. XXXVIII – XLIII.

312 Kastraki, Naxos: Doulas 1977, 103 notes that this vase is not included in Stephanos' 1904 publication, but is cataloged in Athens as NAM 6257.

Pyrgos, Paros: Tsountas 1898, Pl. 9, 10.

Phourion, Paros: Rubensohn 1917, 44 and Fig. 46. Rubensohn notes that portions of these two rim fragments are blackened.

which could have been carried or set on stands.<sup>313</sup> I would like to suggest that they could have been placed in the ground as well, and if they were initially placed there unfired, they would have been imperfectly fired, a characteristic that Doumas notes on all of his examples.

While the hat-like vases are formally distinct from the hearths, there may be some conceptual link between stamped rims and vessels meant to hold fire or coals.

### **The Cycladic Evidence: Conclusion**

The bulk of the evidence comes from Ay. Irini and the later part of EB II. Several examples from Period I at this site, the Late Neolithic, are classified as pan/hearths, but as on the mainland, these are more similar to pans, and the hearth shape truly emerges in Period II.

Unlike on the mainland, the keyhole shape is by far the most popular, and has a thicker profile. The flat circular hearths from Keos, more like the mainland circular hearths, are much less common and are rarely decorated. Those that are decorated are incised, typically an earlier EB II form of decoration, so this form may be borrowed from the mainland earlier in the period. But this typological difference is so strong that we must consider that all hearths were viewed and used differently in the Cyclades, a point further explored in the following chapter.

There are a few examples of tool impressed or incised decorated rims, but when decoration is made with a seal, it is always stamped, with not even one example of roller-

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313 Doumas 1977, 103.



impressed decoration. The distinction is almost complete: mainland rims, when decorated with a seal, are always roller impressed, with the only two stamped decorations on pans at Corinth. It is very possible that although we lump stamps and cylinder seals together under glyptic studies, these were conceptually two very different tools in EBA. This point is also explored further in the following chapter.

## CHAPTER 6

### FORMAL AND STYLISTIC TYPOLOGIES

#### **Typology & Distribution**

The aim of this chapter is to create a formal typology for ceramic hearths that applies more or less to all examples, based on the catalog above. A second point is to discuss the differences in shape and size, and determine as far as is possible what relevance these variations have to the hearth's intended or actual use. This chapter considers a functional typology, not in the sense that the hearths are to be classified solely by function, but in the sense that form and function are related. A stylistic typology is considered in the following chapter.

Although I have considered above anything called a "hearth" in the relevant literature to date, then assuming a common function, the purpose here is to examine more closely a set of objects that are at a glance similar enough to be classified together, and then to discuss in more detail what these formal similarities are and how they contribute to our understanding of the objects' functions. The result is that I have excluded some vessels that were termed hearths, that are formally divergent from the bulk of this corpus

and more similar to other vessel types, usually baking pans or low plates.

The hearths are found concentrated on the mainland within the Argolid and Corinthia (Fig. 6.1). A quick glance at Table 6.1, which lists the distribution of hearths by site, shows that Tiryns, Lerna, Corinth, and Tsoungiza preserve the largest number of hearths, with smaller numbers found on the periphery of these regions. The obvious exception is the site of Ay. Irini on Keos, which nearly doubles the corpus of hearth fragments.

A broad definition for this form is a low vessel, typically less than 10 cm high and often less than 5 cm, with a flat, broad shape that renders the vessel very stable. The bottom is usually flat but may be sunken or rounded, as hearths were meant to be placed on or in the ground. The central pan is typically flat, sometimes with a central depression. Rims are low, of varying profiles, but more or less straight rather than sloping, in that they tend to preserve closely the circumference of the bottom of the pan. The rims of the baking pans, discussed further below, tend to flare outward so that the circumference of the rim is significantly greater than that of the bottom of the vessel.

These hearths are almost exclusively coarse ware. At Lerna they are all categorized as coarse, as are the examples I was able to examine from Tiryns.<sup>314</sup> The hearths from Tsoungiza all fall into Pullen's Class 40, "coarse ware, plain," which overlaps with Lerna's "coarse."<sup>315</sup> From the Argolid Exploration Project, all hearths are coarseware except for Cat. Nos. 651 and 663.<sup>316</sup> 651 preserves only the very top of a vessel rim, and 663 is not a typical hearth profile as described below. From Ay. Irini, 181

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314 Wiencke 2000.

315 Pullen 2011d, Table 4.6.

316 Pullen 1996, 38.

of 190 (cataloged and uncataloged) hearths are of Red-Brown Coarse ware, with only 9 in talcware.<sup>317</sup> So while there may be some little variation in fabric, the hearths are largely executed in local coarseware.

Presence or lack of decoration is another trait that does not fall within consideration of a functional typology. While added motifs on the rim may indicate that some hearths are meant to be more elaborate than others, possibly as display pieces, omission of decoration does not affect the practical functionality of the hearths.

These ceramic hearths can have further variations in shape, size (diameter and rim height), and rim profile.

## **Shape**

The shape of the hearth is the first criterion for classification. Wilson categorizes the Kean hearths first by shape, and then by decorative motif, combining functional and stylistic typologies. Within his catalog, there is a clear relationship between shape and the presence or lack of decoration, but this correlation does not hold true for the mainland hearths.

The shape refers to the outline that is seen from above as the viewer looks down on the hearth. Hearths are found most often in circular or keyhole shape, but may also be oval, or figure-eight shaped.

Circular hearths are by far the most common on the mainland, and are listed in Table 6.2, with the geographical distribution illustrated in Fig. 6.2. The majority of them

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<sup>317</sup> Numbers calculated based on Wilson 1999, Chapter 5.

appear to have flat pans, although several notable examples (Lerna P 772 and the hearth from Berbati's megaron A) have recessed bottoms and depressions in the center of the pans, a characteristic which appears exclusive to the circular shape. Wiencke notes that CMS V 535 from Tiryns may have a similar central depression, however, this piece is only a fragment, and it would be very unusual for the depression to extend into the decorated rim itself, as it would appear based on Fig. 6.3. Based on the large number of fragments of circular shape, and the fact that our largest and best preserved examples are circular, this seems to be the shape of choice on the mainland.

A related shape is the oval shape, of which I count only one possible example, Tiryns CMS VS.1B 424 (Table 6.3, Fig. 6.2). This hearth (Fig. 4.82) preserves a straight side and rounded end with an irregular pattern of nested chevrons. It could be a keyhole hearth, though none of the preserved keyhole examples show such a straight edge. Wiencke also notes that two hearths from Lerna may be oval: P1006 (Fig. 6.4) and P1045-1148 (Fig. 4.17).<sup>318</sup> I think it clear from the curve of the rim indicated in Fig. 6.4 that P1006 is a keyhole shape. The curved pan of P1148 is clearly not circular, but again, the curve is similar enough to that of P1006 that I consider it more likely a keyhole shape. The one possible example of an oval hearth from Tiryns is not sufficient to prove the existence of the sub-type.

Figure-Eight shaped hearths are also rare (Table 6.4, Fig. 6.2), and unfortunately, no examples are fully preserved. The two examples I suggest, Tiryns CMS V563c (Fig. 4.73) and Dokos A 151/3 (Fig. 4.120) are identified based on the extreme curvature of the rim. It is likely that the shape is less common, but the ability to identify the shape is also

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318 Wiencke 2000, 557.

more difficult. This curve, a relatively small part of the hearth's circumference, is crucial to the identification of the shape, and the rounded edges of the pan may be mistaken for circular hearths. It is quite possible that the number of round hearths is inflated, and that some examples of these rounded rims should belong to keyhole or figure-eight hearths.

The majority of keyhole hearths (Table 6.5, Fig. 6.2) is heavily concentrated at Ay. Irini, where 82 of the 94 examples were found. These hearths are identified by the curve of the rim from the more rounded pan to the straighter or slightly angled bottom half of the pan, a curve that is typically gentler than that of the Figure-Eight hearth. They may also be identified by the rectangular corner on the square end. It seems that the shape is then imported onto the mainland, where the rim is modified to have a mainland profile (see below). II-414 from Ay. Irini has a rim of normal profile at the rectangular end, that slopes down and disappears towards the rounded end, but this disappearing rim seems unusual. The rim is preserved fully around II-351 from the same site, albeit with a small hole in the rectangular end, and the mainland hearths show no signs of a tapering rim. Again, the shape may be mistaken for circular when the curve of the rim is not preserved. Furthermore, if there were more examples of the shape with rims that disappear towards the rounded end of the pan, it may be that these pan fragments are not identifiable as hearths.

The flat circular and pan hearths from Keos, while overall of circular shape, are considered separately here because of their differences in profile. Pan hearths (Table 6.6) and flat circular hearths (Table 6.7) are found to date only on Keos. The pan hearths are circular, with rim profiles similar to Kean keyhole hearths, and Wilson would see handles on all examples.<sup>319</sup> The handles also differentiate these otherwise circular hearths from

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<sup>319</sup> Wilson 1999, 57.

mainland examples, where handles are rare. The flat circular hearths have very low, somewhat rounded rims that slope gently to the pan, suggesting that they may be more difficult to move and therefore less portable. Their profile is reminiscent of MF 13393, an EH I hearth not included here because of its early date, and MF 13394 from Corinth; it is possible that the pan hearth form is descended from this earlier baking pan/hearth hybrid form.

The question then arises: what, if any, functional differences result from a difference in shape, or is the shape purely an aesthetic choice? The round hearths, especially the large ones, when centrally positioned, may have promoted a sense of equality among those gathered around it, as for example in the hearth room at Kolonna. The circular hearth P772 at Lerna, however, was placed in a corridor (or the remains of a corridor), either blocking off most sides of the hearth from access, or more likely, placing the hearth in a more or less rectangular enclosure to protect it from the wind, negating any circular outline. If indeed these hearths are typically placed in the hearth rooms of the corridor houses, as suggested by the examples at Kolonna, Thebes, and the hole in the floor in Room XII at Lerna, the round shape would be ideal for gathering and would preserve the overall symmetry of the room.

The segmentation of keyhole hearths and Figure-Eight hearths into two fireplaces may also reflect a functional difference from circular hearths. In these examples, two separate areas may have contained different burning intensities for different temperatures for cooking, or one side could be used for fire while the other could be open for coals or for vessels to warm next to the fire. The space of the circular hearths could conceivably be divided as well, especially in those examples with a deep depression in the center,

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where the embers and fuel could be contained, letting the remainder of the pan free. But in the keyhole and figure-eight shapes, this segmentation of the hearth is formally articulated, whereas with the corpus of circular hearths, we only have a few examples with this central depression preserved.

The shape of the hearth is not only the most obvious visual differentiator, but also may relate to the function of the hearth. Generally there is a clear geographical split, between more circular hearths on the mainland, and keyhole hearths on Keos. The use of the keyhole shape on the mainland may be a way of claiming or expressing economic or other social ties to the island, especially at the coastal site of Lerna, where the hearth found in Room XII (P1045-1148) is quite possibly of keyhole shape.

## **Size**

The diameter of the hearths is difficult to reconstruct for most fragments. Nonetheless, it seems that some sort of minimum diameter is necessary, as to qualify as a 'hearth' the object must be big enough to contain another vessel and a fire large enough to cook or warm. The cut-off is probably about 50 cm, but of course this number may be somewhat flexible.

Where we have most of the hearth preserved or can reconstruct the diameter, 1 m is not unusual. The hearth from megaron A at Berbati, for example, is 93 cm, the large hearth from Eutresis is 120 cm in diameter, the hearth from Building Γ on Poros is about 90 cm, and P772 from Lerna is 115 cm. Corinth MF 13160 is 100 cm, and Tiryns IV Pl. XV.3 is recorded as over 1 m.<sup>320</sup> The examples from Berbati, Poros, and Lerna, as they

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<sup>320</sup> Corinth MF 13160: Lavezzi 1979, 346; Tiryns: Müller 1938, 40.



were found in two megarons and a corridor house respectively, may suggest that these architectural contexts require larger hearths, which are therefore most likely special-function. The hearth from the corridor house at Kolonna, however, is only 65 cm. Still, some correlation between size and ceremonial function seems probable, as a larger hearth can simply accommodate a larger number of guests.

The Kean examples are a bit longer, with two hearths fully preserved at 1.40 m. The increase in length may be to compensate for the surface area of the pan that is lost by the keyhole shape as compared to the circular shape. The flat circular hearths from Keos, on the other hand, have diameters ranging from 40 to 60 cm, with an average of 50.8 cm. The circular pan hearths (with handles) have a smaller preserved range, from 41 to 48 cm, with an average of 44.8 cm. This difference in size between the keyhole and circular pan and flat circular hearths suggests a significant difference in the function and placement of these hearths.

In sum, the diameter or length of the hearth must be large enough to create enough surface area to accommodate both a fire and cooking vessels or other food. The size of the fire should also be large enough to heat the area in which the hearth is placed. The size of the hearth, then, is the main difference between hearths and baking pans that indicates a difference in function.

The height and width of the hearth rims may also indicate small differences in function, but the main difference is geographical: mainland hearths tend to be lower than Kean hearths. The height of the rim is measured from the exterior of the hearth, where the rim meets the floor. For flat-bottomed hearths, this comprises the entire height of the hearth, but for those with rounded bottoms, such as Lerna P772, the overall height of the

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hearth may be higher. A higher rim height almost always indicates a deeper pan, rather than a thicker pan, so *if* there are significant differences in rim height, a functional difference might result.

Wiencke classifies the Lerna hearths by rim height, with low rims less than 5 cm, medium rims 5-8 cm, and high rims over 8 cm. All examples of the higher hearths are Lerna III A-C, so these rims if anything are an earlier trait. The majority of the mainland examples with rims that I was able to measure or have been published, however, are low rims at less than 5 cm. Similarly, the pan hearths from Keos tend to have rims less than 5 cm, and the flat circular hearths do not have rims to easily measure.

The keyhole hearths from Keos, though, tend to have higher rims, with an average of 6.4 cm. II-414 proves, however, that the hearth rim may not always completely surround the vessel. I do not have measurements for the thickness of the pans, but it is clear from the drawings that the increased rim height results in an increased pan depth. This might suggest the need to prop taller things against the rim wall on the interior of the hearth, such as rounded bottom vessels, which would not be stable against a lower rim.

The difference in height of rims between the mainland and Keos corresponds to a difference in rim profile, discussed in the next section. Aside from this geographical distinction, however, mainland rims tend to be of Wiencke's low height.

Wiencke also differentiates between wide and narrow rims on the hearths with low rims at Lerna. The cutoff again is about at 5 cm. At Lerna the distinction is clear, with only two rims of fully preserved width between 5 and 10 cm. From the rest of the mainland, however, rim width is on more of a continuum, with multiple rims from Corinth and Tsoungiza falling in the 5-10 cm range. The narrow/wide distinction holds

well for Lerna, so it may be a local characteristic.

As Wiencke points out, one expects more of the wider rims to be decorated for "obvious reasons."<sup>321</sup> Of the 15 examples on the chart with widths less than 5 cm, 11 are decorated; of the 19 examples with rim widths greater than 5 cm, 17 are decorated. Although the sample is small, it does seem that a higher proportion of wider rims are decorated than narrow rims.

One might also expect the decorated narrow rims to have more incision or impression than rolled decoration, as incision or impression can be more easily adapted to a smaller width. This is not the case, however. Of the 11 narrow decorated rims, 1 is incised, 3 are impressed, and 7 are rolled. Of the 17 wide decorated rims, 1 is incised, 4 are impressed, 1 is both incised and impressed, and 11 are rolled.

Our best preserved mainland examples, from Lerna and Berbati, have wide, roller-impressed rims. The width of the Berbati hearth rim is 9 cm, and that of Lerna P772 is 10 cm, though the width of the rim at Eutresis is only 5 cm.

### **Rim and Pan Profile**

In profile, the main distinction is again between mainland hearths and Kean hearths, with smaller variations within each category.

On both mainland and Kean hearths, most rims are flat on top. The most variety is probably found at Lerna, where some have curved rims: Lerna P938, P1045, P1230 and P1235. P519 and P541 from Lerna might be described as semi-curved. Curved rims are

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<sup>321</sup> Wiencke 2000, 557.

less likely to have decoration, with only P1230 from Lerna roller-impressed with herringbone. P541 and P519, both slightly curved, have incised rather than rolled decoration, probably because they are both earlier hearths, and the curve of the rim does not lend itself as well to rolled impression. One example is CMS V 557 from Tiryns (Fig. 4.66), where the cylinder is re-applied to the curved edge of the rim after the flatter surface has been impressed.

There would not appear to be any functional difference between a curved or flat rim. Instead the choice seems to be aesthetic, possibly to easily accommodate impressed or rolled decoration. The width of the rim does not appear to be determined by the length of the cylinder used. We have many examples where the decoration of the cylinder clearly extends past what is rolled onto the rim, as for example MF 13396 from Corinth or CMS V 563c from Tiryns (examples, Fig. 6.5). Based on the careful alignment of the registers of decoration from the same seal on CMS V 562 a (Fig. 6.6), also from Tiryns, it is apparent that even when the seal is longer than the rim, some care may be taken with the placement of the seal.

The exterior of the rim may be vertical, slightly convexly curved, or an s-curve. An additional option, a flaring rim, is most popular on Keos, but is seen to a lesser extent on the mainland, as in Lerna P930. The interior of the rim, as it slopes to the pan, is usually vertical or gently sloping, but sometimes may cut inward and underneath the rim, as for example Lerna P1230 or Ayios Dhimitrios 8/83.

Hearths may have rounded or flat bottoms, but none of them are smoothed, suggesting they are all formed on a rough surface and not moved before firing. Most likely this surface is the place in which the hearth is originally set for use. Most of the

hearths examined have flat bottoms, although this may stem from the fact that most hearths are identifiable as rim fragments, which do not necessarily have much of the pan preserved. Even those with several centimeters of apparently flat pan could still have had a sunken or rounded bottom: as evidenced by the profile of Lerna P772 (Fig. 6.7), there may be a flat pan that extends beyond the rim before the pan drops.

Only round hearths preserve any indication of sunken or rounded bottoms. III-234 and III-235 (profile, Fig. 6.8) from Keos are different than the mainland examples, in that they are smaller and have no flat edge preceding the sunken portion of the pan. These are likely more portable than the larger mainland hearths, but still meant to be set in a depression in the ground for use.

From the mainland, Lerna P772 is the best preserved example of a hearth with a sunken pan. The hearth from Berbati's Megaron A is similar: both have central trapezoidal depressions in the pan, which would be impossible had the pans been purely flat. The function of this depression is uncertain, although at Lerna it was found filled with ash, but it is possible that this depression indicates a special function for the hearth.<sup>322</sup>

The rounded bottoms are highly likely to suggest that these hearths are meant to be more or less permanently installed in one place for a long period of time. The same may be true for flat-bottomed hearths, but as there is no need to set these in a hole in the ground, these are conceivably more portable. Lerna P772, although most likely moved from its original location, was set between and on top of walls, and then packed to the rim with clay.<sup>323</sup> The hearth at Berbati was set in a 10 cm hole dug into the rock, and

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<sup>322</sup> Wiencke 2000, 193.

<sup>323</sup> Wiencke 2000, 193.

because the diameter of this hole exceeded the diameter of the hearth, it was then filled with mud.<sup>324</sup> The correlation of the central depressions and the fact that these two hearths were more permanently installed in their surroundings may indicate a different function than hearths with flat bottoms.

To sum up: the most typical mainland hearth is low (usually less than 5 cm) with a flat rim, slightly curved exterior rim and gentle slope or straight vertical to the shallow pan. Even the keyhole hearths found on the mainland have mainland rims, suggesting that this hearth shape is copied, not imported, onto the mainland. Kean hearths tend to have fewer curves, with higher rims that thicken towards the top, and fewer curves on the exterior of the rim, which tend to slope inwards towards the base. The interior rim profile may have a slight inward curve, but are generally fairly vertical. Most hearths from all sites have flat bottoms, and the sunken pan seems to be an unusual feature, possibly indicative of an unusual function.

### **Context and Function of the Hearths**

The hearths tend to cluster at larger settlement sites that are more central in their surroundings.<sup>325</sup> This trend is not simply an accident of excavated sites, as even in survey, they tend to cluster at particular sites, as for example the twelve of thirteen examples from the Argolid Exploration project which come from the Fournoi valley site. The sites' centrality results not simply from size or architectural elaboration, but from their role as

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324 Säflund 1965, 100.

325 By central sites, I mean first or second tier settlements, which seem to have served as gathering points for smaller, nearby sites across the landscape. See Pullen 2011b.

places where individuals from neighboring sites could gather.

This section considers the hearths for which we have good architectural contexts, which provide evidence for the use of this form in supra-household commensal rituals that promote and maintain ties across the EH II landscape. Their architectural contexts are sometimes monumental, sometimes not—but hearths were sometimes deliberately and relatively permanently placed within what Peperaki terms the hearth room. Based on related finds, these rooms were intimately connected with feasting and drinking rituals, and must have retained this special purpose connotation even between feasting events, in part because of the permanence of the hearths. Access to the hearths may have been restricted at large gatherings, placed inside inner rooms or within rooms with multiple doorways, at sites where large numbers could be accommodated in courtyards and on benches.

Nowhere do these separate strands –monumental architecture with paved courts and benches for gatherings, evidence for feasting, and ceramic hearths –come together as well as at the House of the Tiles and the earlier corridor House BG. It is also Lerna that suggests that ceramic hearths could function outside of large, central hearth rooms. Four hearth fragments, probably from three hearths, are found associated with architectural contexts. From the House of the Tiles, none of these fragments of two separate hearths, both undecorated, are found in situ.

About one quarter of keyhole hearth P1006 was found above the floor, near the center of the Corridor IV; Wiencke suggests that it may have fallen from the story above.<sup>326</sup> As noted above, if Shaw's reconstruction of this second story area as a balcony

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326 Wiencke 2000, 221.

is correct, the hearth may have been used on this narrow second-story porch, where smoke evacuation would not have been an issue.<sup>327</sup> This balcony must have been one of the less accessible places of the corridor house, and so most visitors may not have had access. This hearth may not have been considered a display piece, possibly a reason for its lack of rim decoration. The long, narrow space of the balcony may also explain the keyhole shape, a longer rather than a symmetrical shape. If the balcony above Corridor IV had similar dimensions, it is only about 1.15 m wide, so that there would have been no room for people to gather on the sides of the hearth. Other finds in the area were very few: a stone bead, two bone awls, a stone grinder, and several animal bones.<sup>328</sup>

P1045 and P1148 may belong to a similar undecorated keyhole hearth. P1045 was found in Room VII, essentially in a large pile of debris that included roof tiles and cooking ware. Wiencke suggests that the room may have been used as a light well, or for food preparation, or both.<sup>329</sup> If this pile of debris was not simply placed here when the building was destroyed, the placement of the hearth in a light well would have aided smoke evacuation. This room is central, smaller, and probably less accessible than the neighboring Room XII, where a possibly associated fragment was found.

P1148 may belong to the same hearth, or may be a different vessel, as perhaps suggested by the different rim profiles (Fig. 4.21). Fragments were found scattered "in various locations near the south wall."<sup>330</sup> Wiencke gives three possibilities for the hearth's original location: that it fell from the story above, or that it was set within one of two

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327 Shaw 2007.

328 Wiencke 2000, 222.

329 Wiencke 2000, 228-229.

330 Wiencke 2000, 241.



depressions in Room XII. The scattering of the fragments around the south wall (when one might expect a hearth to be located near the center) might support the theory that P1148 fell from above, and we actually have no definite evidence for any hearths found on the ground floor of the House of the Tiles!

The second theory would restore a hearth in a clay-lined depression in the floor of Room XII, 80 cm in diameter and 10 cm deep. Wiencke cites the depression as "south of the center of the room," but notes that there are no signs of burning.<sup>331</sup> A circular hole, however, might not well fit this non-circular hearth, even if the diameter at 80 cm nearly matches Wiencke's reconstructed dimensions of 75 cm.

The third theory is that the hearth may have lain on a base of stones just Southeast of the center of Room XII. These stones were "embedded in the yellow clay of the floor," and seem to have possibly formed a rectangular base, which has not been fully recovered.<sup>332</sup> The rectangular base might suit a non-circular hearth. Wiencke cites the preserved dimensions at 0.9 m by 0.8 m, apparently large enough for P1148. Finally, there is a build-up of ash "above and to the west of the stones."<sup>333</sup> The use of a stone platform would be unparalleled, however, as the other hearths have been found set in depressions in the ground and packed with clay or mud.

It is certainly reasonable to restore Room XII as a hearth room even without the hearth, as numerous scholars have done. It may even be that both of these depressions, the circular and the stone-lined rectangle, served as platforms for hearths, although curiously, neither is completely central. The House of the Tiles may have had at least one

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331 Wiencke 2000, 241.

332 Wiencke 2000, 241.

333 Wiencke 2000, 241.

additional hearth functioning outside of Room XII, and it may be that additional equipment is required for food preparation for a larger feast. This may explain the need for multiple ceramic hearths that seem to be contemporary within the same site, and even within the same building, not all of which are necessarily displayed in the hearth room.

From the earlier phase at Lerna, IIC, it is not unreasonable to restore a hearth in the South Room of Corridor House BG, where the floor was not preserved because of later building activity.<sup>334</sup> The hearth in the corridor of BG, P 772, was also found packed in clay. Wiencke suggests that the hearth must have been moved to this space after Building BG was destroyed, as its placement required the removal of several stones of the wall W-61.<sup>335</sup> The hearth would then be an outdoor hearth, with wall W-62 serving as a windbreak from the winds coming from the coast. The build-up of ash, which Wiencke suggests may have resulted from several months of use, means that the hearth was in use for a significant period of time in this location.<sup>336</sup> We need, therefore, to rethink our concept of the hearth room, especially with the hearth fragments from the House of the Tiles found where they were.

The circular hearth with incised rim from Kolonna is our only example of a hearth found in a corridor house exactly where one would expect it – in a hearth room – in a building that was not as disturbed as the House of the Tiles. In the Herdraum a pithos was found, and the Weißes Haus stored numerous vessels for drinking, including sauceboats, and other cooking ware. The importance of the hearth is also apparent in the earlier Herdhaus, of which very little is preserved, aside from the hearth, which is made of

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334 Wiencke 2000, 192.

335 Wiencke 2000, 186-7.

336 Wiencke 2000, 96.

limestone slabs, and still preserved the build-up of ash along with two stones that Walter and Felten identified as supports for anything placed in the hearth.<sup>337</sup> The association of hearth with Corridor House seems to extend back to the earliest prototypes, as Pullen suggests.<sup>338</sup>

At Berbati, the hearth was found in the largest building of the site, Megaron A. Little pottery was found in the building, including several fragments of pithoi and bowls. Possibly the best clue to the function of the hearth lies in the nearby bothros, which was filled with "vegetable mould" – perhaps ash – and fragmentary bowls, a sauceboat, and part of a "dipper or coal-shovel," all of which could be connected to one or more feasts.<sup>339</sup> This particular ceramic assemblage is reminiscent of what Pullen identifies as the EH II drinking set, which may contain cooking jars, basins, ladles, and bowls.<sup>340</sup> If Säflund's vegetable mould is indeed an ashy build-up, then it seems we have the deliberate retention (albeit buried) of soot, which also was allowed to build up on top of Lerna hearth P772.

The disposal of ash in a bothros is also attested at Eutresis in the period predating the clay disk. Along with the undecorated hearth fragment (here, Eutresis #2) were found ashes and animal bones,<sup>341</sup> and the corresponding ceramic assemblage might also fulfill the definition of a drinking set, with seven or more saucers, at least one sauceboat, and a

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337 Walter and Felten 1981, 11.

338 Pullen 2011d,

339 Säflund 1965, 100.

340 Pullen (2011c, 219) identifies this "set" based on the contents of Pit 56 at Tsoungiza, although the make-up of the set may be flexible. For example, Pit 56 dates to Tsoungiza's EH II Dev. Phase 1, before the sauceboat becomes popular. The most basic components seem to be a larger jar for liquid storage, a ladle or sauceboats for distribution, and individual small bowls.

341 Caskey and Caskey 1960, 152.

jug.<sup>342</sup> A bothros is also associated with Goldman's clay disk at Eutresis, though Goldman makes no mention of ashes. She does note, however, the presence of fragmentary bowls in the bothros, which she interprets as ritually broken libation vessels.<sup>343</sup> In conjunction with the animal bones found on top of the hearth, the bowls might be better interpreted as remnants of a feast, though this does not exclude a ritual interpretation for the room. Instead, the presence of the bench (or altar?), the non-ceramic hearth, and the bull/cow rhyton argue for a ritual aspect of whatever commensal activities took place in the room.

The keyhole hearth from House E at Askitaro is found along with a non-ceramic hearth, described by Theochares as a depression outlined by a single row of stones, so again the keyhole hearth may have had a more specialized function.<sup>344</sup> Nearby the non-ceramic hearth were several bothroi, with feasting remains including animal bones, fragmentary vessels, and, yet again, ashes.<sup>345</sup>

Evidence for food storage and preparation and drinking and feasting rituals is tied together neatly in Ktirio Γ of the Kavos Vasili promontory on Poros. The smaller back room contained two pithoi and also stored a sauceboat, and six bowls, probably again part of a drinking set. The more public and larger hearth room would serve as the backdrop for these gatherings, at which food would also be served, such as pig, the remains of which were found in the layer of ash on top of the hearth.<sup>346</sup> The paved vestibule might also accommodate guests. A similar paved porch is found at the entrance of Building B,

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342 Caskey and Caskey 1960, 155.

343 Goldman 1931, 20.

344 Theochares 1953/54, 63.

345 Theochares 1953/54, 63.

346 Konsolaki-Giannoupoulou 2011, 264.

which preserves the other ceramic hearth from the site.<sup>347</sup> Finds accompanying this keyhole hearth are not listed, but given the megaroid shape of the building and the porch, it is not unreasonable to suppose that it served as the setting for similar feasts.

Three of the four fragments from Ay. Dhimitrios come from House B, a long, narrow building that likely continued further to the east, as a pithos was found sunk into the ground in this area, although pithoi can evidently be stored outside.<sup>348</sup> Seven fragments of roof tiles were also found in Room B – perhaps a re-purposed corridor from a corridor house. The final hearth fragment from the site, 22/83, was found in Room III of House A, a megaroid building. As only one fragment was found in a room where a lot of the vases could be fully reconstructed, it may be that the complete hearth did not serve the room. At the center of the room was a circular, non-ceramic hearth "of flat stones on the top of which red soil and carbonized material was resting."<sup>349</sup> This hearth contained a collar neck jar and a fragment of a baking pan, and a bellows-nozzle plugged into the side, so it was clearly functional, and likely served to prepare the food from which the many animal bones, mostly ovicaprids, were then strewn about the floor.

From Tsoungiza, fragment 624 (Fig. 4.52) was found within the Burnt Room, which dates to EH II Developed Phase 2. The fragment, with zigzag decoration, was found amidst an assemblage of 16 small bowls and jugs, leading Pullen to suggest that the room served as the backdrop for drinking rituals, where individuals of different household groups would meet.<sup>350</sup> These feasts were probably scaled-down versions of the

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347 Konsolaki-Giannoupoulou 2011, 263.

348 Zachos 2008, 50.

349 Zachos 2008, 64.

350 Pullen 2011d, 377-8.

same kind of ceremony as at Lerna, where non-residents come together on the occasion of the feast. Pullen also notes the absence of storage and cooking vessels, at odds, perhaps, with the stone blades and botanical remains.<sup>351</sup> The presence of one fragmentary hearth rim is insufficient to prove that food preparation did take place in the room, although if the room was originally home to the entire ceramic hearth, it may still have served any gatherings as a source of light and heat.

The hearths for which we have contexts were used and displayed in elite architectural settings that served as the backdrop for feasting and/or drinking rituals. Based on the evidence at Lerna, Kolonna, Poros (Building Γ), Tsoungiza (House A) and the Fortified Building at Thebes, the importance of the hearth room to the Corridor House is obvious enough. But ceramic hearths could function outside of the Corridor House, as the examples from Eutresis, Berbati, and P772 from the demolished corridor of House BG show. And multiple ceramic hearths may have served the same site, or even the same building. It is possible that the numbers of hearths at Lerna or Tiryns may reflect the necessity of preparing food on a larger scale, to accommodate a much greater number of guests than would be present at smaller sites.

The fact that so few hearths are found in situ in corridor houses must also be a significant clue to their use and disposal. As these hearths are often removed from their hearth rooms, and sometimes even found deposited in fragmentary condition in bothroi, it may be that despite their size, they are meant to be installed temporarily, and periodically replaced. Perhaps they are built for one or several occasions and then deliberately destroyed. A new hearth might then replace the old, whether at each feast, or with each

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351 Pullen 2011d, 323.

(generational?) change in individual or group in charge of hosting feasting events. The production of the hearth and its subsequent baking over the course of its life becomes a significant display of wealth, as the hearths were clearly costly. The removal and destruction of the hearth may also be a very public ritual killing involving the transfer of status, similar to but on a smaller scale than the destruction of the House of the Tiles.

Turning to the islands, the situation seems quite different at Ay. Irini, where the number of fragments from one site matches the number of fragments known from the entire mainland. The corpus is so large that Wilson has suggested that every house may have had a ceramic hearth, which might deny them a special function outside of a domestic context.<sup>352</sup> As already noted, these hearths were found mostly in fills, but 74 of the 190 fragments came from the fills of House ED, which was constructed early in Period III. To have such a concentration of hearths, mostly from two fills, associated with Rooms 2 and 3, may suggest some spatial concentration of the hearths at part of the site before they were disposed. It may also be significant that these deposits also had large numbers of jars, bowls, sauceboats, and saucers, forms which in large quantities may suggest commensal consumption.

The possible use of these hearths in feasting contexts is one similarity with the mainland; the recurring placement of the hearths II-351 and II-414 below and within House E, Room 4 is another. Based on the sheer quantity of hearth fragments, however, the dominance of the keyhole as opposed to the circular shape, and their difference in decorative methods and motifs, these hearths must have been produced, owned, and considered differently as artifacts.

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352 Wilson 1999, 49.

## CHAPTER 7

### ICONOGRAPHY, DISPLAY AND USAGE

#### **Stylistic Typology**

Having established a formal typology for the hearths, this section considers their surface treatment, decoration, and stylistic elaboration. As noted in the last chapter, the selection of the ceramic hearth over a non-ceramic hearth form is a deliberate choice and conscious investment in upgrading the material and embellishment of the form, and had consequences for the function of the hearth in EH II contexts.

The decorative elaboration is a purely non-functional choice. There is no clear correlation between decorative motif and site, corporate group, or individual, as has been posited for the contemporary stamp seals.<sup>353</sup> In the context of display of elite objects, however, the repetition of similar designs on hearths across the landscape suggests a significant connection between motif and artifact. The repetition of similar motifs across media, specifically hearths and pithoi, also links these two vessel shapes, the latter used for storage, and the former for food preparation. The result is a symbolic repertoire that is

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353 Krzyszkowska 2005; Wiencke 2011a.



somewhat shared only by these two ceramic forms, which often cluster at the same sites.

This is not the case for the seals, which are never found in large numbers at any EH II settlement site. The three major caches of sealings from Lerna, Geraki and Petri, all detailed below, seem to be produced by non-resident seal owners who gather at these sites. The rolled cylinder impressions which decorate hearths and pithoi are deliberately differentiated from the sealing impressions, with the result that a link is created between the motif and the activity of food mobilization and procurement - the power to provide food, through storage and preparation of surplus, in a commensal context.

### **Methods of Decoration**

Hearths are typically decorated on their rims with only one method of decoration: incision, impression, stamp, or roller impression; otherwise, they may be undecorated. The breakdown of hearths by method of decoration and site is listed in Table 7.1, and illustrated geographically in Fig. 7.2. For those few hearth fragments that have more than one method of decoration, discussed below, I pick the most visually prominent type of decoration.

Setting aside the island examples, the norm is for the mainland hearths to be decorated, with only 11 undecorated fragments. The most popular method of decoration by far is roller-impression, followed by incision, and tool-impression. Some chronological bias, however, may affect these numbers. At Lerna, where the stratigraphy allowed a finer chronological resolution, it is clear that incision was the earlier method of decoration, which became less popular in Lerna III C-D, when roller-impression was

more commonly used. It is about this point when both cylinder seals and stamp seals make their way into the material record, as attested by the III C sealings from Lerna. With the hearths' popularity spiking in later EH II, the bias towards roller-impression makes sense.

It is also clear that no one method of decoration is exclusive to any one site. Most sites do not heavily favor any one type of decoration to the exclusion of others, except for Tiryns, where 35 of the 40 fragments are roller-impressed.

Seven examples have more than one method of decoration. The first, MF 13146 from Corinth (Fig. 4.30), is an early example, where an incised line around the periphery is used to highlight the impressed kerbschnitt design. The one example from Kythera (Chora Mus. 166) has impressed kerbschnitt along the rim, with stamped chevrons and concentric circles below. Unfortunately these are not visible in the published photograph (Fig. 4.121), and I was unable to examine the fragment. Overall, the stamping and keyhole shape suggest a heavy Cycladic influence on the piece, but no Kean keyhole hearths have kerbschnitt-impressed rims. The only hearth from Keos with multiple decorative methods is III-227, where the incised tangential lines connecting the concentric circle stamp impressions give the crude impression of a running spiral motif (Fig. 5.11).

P 772 from Lerna has both rolled zig-zag along the rim and an impressed zigzag outlining the central depression in the pan (Fig. 4.7). This secondary decoration may not have always been visible when the hearth was in use, especially since, as Wiencke notes, the pan was found covered in ash; the zigzag outline does seem to appear faintly in the excavation photo (Fig. 7.1).

Two hearths from Corinth, MF 1976-66 and CMS VS 1A 403, have both rolled hexastripe decoration and, on the periphery of the rim, what is most likely tool-impressed raised zigzag. MF 1976-66 (Fig. 4.40) is one of two hearths from Corinth that also preserve decoration in the pan, along with MF 13397 (Fig. 4.39). Both hearths have rims rolled with a wavy hexastripe pattern, though in a mirror image from each other. MF 1976-66 has a partially preserved stamp in the pan (Fig. 4.41), with a zig-zag border and spiral rapport motif inside. Although the general arrangement of border and central motif echoes other mainland stamp seals, the rectangular shape is somewhat unusual. MF 13397, on the pan immediately adjacent to the rim, has a motif with multiple widths of zigzags running along the periphery. Lavezzi considers it may have been stamped or rolled;<sup>354</sup> it may also have been rolled all the way along the interior of the pan. Technically this hearth would then have only one method of decoration used, but the use of two different cylinders would be very unusual.

These last three examples from Lerna and Corinth seem to suggest that zigzag was the favored decoration on the interior of these pans. Zigzag was also heavily favored on hearth rims, as well, as the following discussion will show. Perhaps the zig-zag points were somehow symbolic of fire. They are certainly reminiscent of the rays painted on the edge of the hearth of the throne room at Pylos.

Although chronological resolution is sometimes lacking, it seems that there is a greater variety of motifs used in later EH II, probably because of the advent of cylinder seals. To determine whether this increase in motifs is purely decorative, or whether the motifs might perhaps be geographically linked to particular sites, and therefore to

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<sup>354</sup> Lavezzi 1979, 347.

particular groups, it is necessary to look at the distribution of motifs.

## **Motifs**

Figure 7.3 illustrates the distribution of certain common motifs by site for the EH II mainland. The motifs are broken down by site in Table 7.2, and by individual fragment in Table 7.3. In terms of numerical frequency, rolled zigzag was the most popular motif, with 28 of the 118 examples, followed by chevrons with 11 examples, which may be rolled or incised. It should be noted, though, that P 1231-1233, here cataloged as chevrons, *could* have been zigzag, as not enough of these rims remain to say for certain, although the incisions on these motifs are thin, resulting in a relatively thicker raised area, unlike most zigzag patterns. MF 13160 (Fig. 4.35) from Corinth may also be zigzag, as it is very faint. The hearths from Ay. Dhimitrios and Makrovouni do appear to be true chevrons, and CMS VS 1B 410 (Fig. 4.79) from Tiryns is definitely a chevron pattern, which point around the circumference, though, rather than towards the exterior of the rim, as the Lerna examples do. The undecorated hearths make up 11 of the 118 mainland fragments. Kerbschnitt and hatched triangles are next popular, with 10 of the examples each.

No one site appears to have a monopoly on any of the more popular motifs. Rolled zigzag, for example, is fairly evenly distributed. While these hearths were all decorated with cylinder seals, there is no definite evidence for the reuse of the same cylinder seal, except for on two examples of zigzag hearths at Tiryns. Hatched triangles and kerbschnitt do not require any unique tools to create, and so these are also fairly

evenly distributed.

Lerna has a good number of the undecorated hearths, partially because the site preserves some earlier EH II examples. Probably more surprising, however, are the two or three undecorated hearths found in the House of the Tiles, given that most EH II hearths from other sites have roller-impressed rims.

Other rolled motifs do concentrate at certain sites, as for example the hexastripe wave patterns at Corinth, or the hook spirals at Tiryns, suggesting that these motifs may be products of these sites with local significance. Even so the question remains as to whether the same cylinder was used on hearths at other sites as well, which simply do not survive. The use of a similar cylinder at Corinth, on MF 13395 (Fig. 4.36), with eight lines instead of six, might indicate that the pattern has some significance at Corinth. Overall, it does not seem that most motifs are geographically linked to any particular place, but that they instead proliferate across the landscape.

### **Evidence for use of the same seal**

The hexastripe wave, found only at Corinth, and the outlined hook spirals at Tiryns bear further examination. We have evidence at both of these sites for the reuse of the same seal on multiple hearths, and on a hearth and a pithos. For one seal, CMS V 529, we have evidence for its use at multiple sites, including Lerna, Tiryns, and Zygouries. The Cycladic evidence is omitted here, although it is almost certain that the same seal was used on multiple hearths. As Wilson points out, it is very difficult to tell, with five or six concentric circles, whether these hearths were impressed by the same or similar

seals.<sup>355</sup> This evidence for recurrent use of the same seal is summarized in Table 7.4.

Reuse of a seal within the same site seemingly leads to a clustering of particular rolled motifs, although future finds could change this impression. The hook/c- spiral motifs from Tiryns (Fig. 4.72, 73, 81) are particularly interesting, as the decorated rims of the three hearths of CMS V 563 are very similar to the two of CMS VS 1B 421, where the lozenges are added. The alteration of the motif by the addition of a peripheral motif is reminiscent of the pattern of stamp seal iconography for the EH II mainland, where seals tend to be very similar, but slight variations make them unique. But the repetition of nearly the same motif on multiple hearths may suggest that it has some connection with the site of Tiryns.

It looks as though MF 1976-66 and MF 13396 from Corinth should be from the same seal, but one hearth rim is the mirror image of the other, impossible to create with the same seal face. Both hearths have nearly identical (if mirrored) decoration, an impressed zigzag on the periphery of the rim, and stamping in the pan. The impressions are so similar, however, that I wonder if the decoration could have been mirrored on two ends of the same cylinder seal. If so, the entire pattern on the seal would be something like that of Fig. 7.4. There must have been other seals with similar patterns, as the motif appears in variations on MF 13395, MF 13397, and CMS VS 1A 403, so that the pattern appears five times at the site of Corinth.

Decoration on hearth rims is not required to be of a unique design. This is perhaps not a surprising conclusion, given the multitude of examples with zigzag or hatched triangles. Despite the popularity of the rolled zigzag, no examples were obviously

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355 Wilson 1999, 53.

impressed by the same seal, aside from two hearth rims from Tiryns (CMS VS 1B 415 a and b). This motif is concentrated geographically in the Argolid and Corinthia, where it is reduplicated across the landscape. The other most common motifs are similarly widespread, resulting in fairly homogenous designs within each of the motif classes.

There is some localization of motifs from the reuse of the same seal, as for example the c-spirals at Tiryns. The hexastripe wave pattern, while possibly produced from different cylinders, is nonetheless localized to Corinth. But in both of these instances, the motif appears multiple times, so that again the designs are not unique to any particular hearth. While these designs have not yet been found reduplicated across the landscape, their reappearance within the same site leads again to a more homogenous and less individualizing character for the hearth rims.

It remains to consider the one instance where one seal is used across multiple sites. This is the running-spiral/quadruped motif of CMS V 529, which has been taken to indicate the existence of itinerant craftsmen who worked on both hearths and pithoi. Another example is the probable reuse of a cylinder seal for decoration on pithoi at Tiryns (CMS VS 1B 403, 405) and Petri.<sup>356</sup> One other indication *might* be the small indentations found at the bases of hearths at Zygouries (114.1, 114.3, 114.4), Corinth (MF 1976-66) and Lerna (P935, P1230) (Fig 4.24). These ridges most likely indicate the same procedure for guiding the size of the hearths, but they do not guarantee that the same individual, or group of individuals, produced them.

If itinerant craftsmen were responsible for the production of a significant number of these hearths, they probably operated mostly within the Argolid, as the rolled hearths

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356 Kostoula 2000, 137.

are concentrated in this region (Fig. 7.2). But who would own the cylinder seals, and who would decide which motif to use? It seems very likely that contemporary stamp seals were owned by individuals, but this may not be so for the cylinders, which do not appear to have been used for administrative purposes. Only one cylinder seal survives from the EH II mainland, a fragment of a hollow clay roller with a pattern of concentric circles (Fig. 7.5).<sup>357</sup> Other examples may well have been wooden, as has been suggested because of the lack of “crispness” on some rolled motifs. So, even if in some cases it was itinerant craftsmen who owned and carried the rollers, it may still have been the patrons who decided on the motifs for their hearths: clay or wooden seals would have been relatively easy to produce on the spot (as opposed to metal seals) for craftsmen who already worked in ceramics. It is not necessary, with either itinerant or local craftsmen, to admit that the production process determined the stylistic outcome. It may even be that the many different variations of zigzags resulted from the production of a new seal for each hearth.

The repetition of a running spiral and quadruped motif at Tiryns, Lerna, and Zygouries is certainly suggestive of itinerant craftsmen, although it is possible that the pithoi or hearths could have been moved post-production. But the reuse of the same seal on both hearths and pithoi, also seen on the hearth/pithos pair from CMS V 562, does suggest that the same craftsmen may have been responsible for both forms, and that the cylinder seals used to impress the hearths were considered appropriate to decorate the raised bands on these pithoi.

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<sup>357</sup> Dousougli-Zachos 1989.



## Seals

The extant seals from EH II contexts have been well published elsewhere, so brief descriptions suffice here. Oddly, perhaps, given the nature of the materials, we have much better evidence for sealings than for seals. Surviving seals in lead, soft stone, and clay are almost exclusively stamp-seals, and this is the type of seal whose use is evidenced by the sealings. The seal-impressed designs on hearths and pithoi are typically rolled by cylinders, although stamping is common on Cycladic hearths. One fragment of a clay cylinder seal has been published, but this is certainly sufficient to suggest that more could easily have existed.<sup>358</sup> The difference between the stamped sealings and the designs on rolled hearths and pithoi is certainly significant in terms of ceramic production and display, and will be dealt with further below.

The relative dearth of seals has led to speculation as to the most common material for seal production. Some prefer metal seals, based on the crispness of designs in the Lerna sealings; these seals could conceivably have been melted down for reuse.<sup>359</sup> Others consider wooden seals or bone seals to have been more likely,<sup>360</sup> but either way, the bulk of the evidence comes from the sealings. Seals may have in many cases belonged to different people than those people or groups who owned the hearths and pithoi. The metal examples prove that seals, while also display items, are much more ephemerally so, as they can easily be put away or hidden under clothing. So while seal ownership may indicate some sort of authority to secure or guarantee goods, seals are both less showy

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<sup>358</sup> From the Nauplio museum, see Dousougli-Zachos 1989.

<sup>359</sup> Krzyszkowska 2005, 40.

<sup>360</sup> Wiencke 1970, 418 n. 34; Weingarten 1997, 155.

and conceptually more tied to the individual who wears the seal on his/her body.

## Sealings

These small lumps of clay, pressed against jars, containers, or doors and then stamped for reasons of security or identification, even if they were retained temporarily for record-keeping purposes, are usually preserved only accidentally by fire.<sup>361</sup> For the EBA Aegean we have only direct object sealings, meaning that they are pressed directly against a closure, be it a door or a vessel, to secure the opening.<sup>362</sup> A review of the evidence for sealing systems is followed here by a summary of the implications for administrative practices and social organization.

It is best to begin with Lerna, where the discovery in 1954 of a stash of sealings in Room XI had a revolutionary effect on our understanding of EH II administration.<sup>363</sup> Here, in a small room opening only onto the exterior of the house, 143 fragments were found preserving 124 impressions of 70 seals.<sup>364</sup> The motifs represented are largely geometric, highly symmetrical, and tend to orient secondary designs around central motifs.<sup>365</sup> Favored designs include trefoils and other leaf designs, swastikas, c-spirals and hook-spirals, with the occasional insect or jug.<sup>366</sup> Some sealings were stamped multiple

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361 Ferioli and Fiandra 1989, 47-8.

362 Krzyszkowska 2005, 46.

363 Caskey 1955, 41.

364 Heath 1958.

365 Wiencke 1986a, 76.

366 Heath 1958.

times, either by the same seal or in several cases by different seals. It is in this co-stamping that Aruz sees the clearest indications of bureaucracy, where two seal owners were required to secure particular goods.<sup>367</sup> Weingarten has analyzed the instances of different seal impressions, however, and has noted that the pattern of seal use is non-intensive, that is to say, it does not seem that those in charge of stamping resided at the House of the Tiles, and that the organizational duties extend into the regions surrounding Lerna, a theory put forth also by Pullen.<sup>368</sup> Furthermore, she identifies the most common impression (CMS V.109), three trefoil motifs and three jugs (Fig. 7.6), the seal that stamped the most sealings, as belonging on door-peg closures, suggesting a resident administrator. She also notes the prominence of the swastika motif on those sealings which are co-stamped. Overall, the seals are thought to be locally produced, though possibly inspired by foreign contacts, and Wiencke tentatively suggests that the lump of lead found in Room XII of the House of the Tiles may be evidence for lead-casting.<sup>369</sup>

The sealings found from the earlier EH II level at Lerna, Lerna IIIC, were found not in corridor house BG but in a complex nearby, consisting of rooms CA and DM. Only one sealing was found in CA, along with an impressed loomweight, but 51 sealing fragments were found in room DM.<sup>370</sup> These came mostly from within the two pithoi set in the ground, and the most common motifs were rosettes and tripartite spirals.<sup>371</sup> These sealings differ from the IIID sealings in that most were impressed on pithoi and other

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367 Aruz 1994, 225.

368 Pullen 1994.

369 Wiencke 2000, 241-2.

370 Wiencke 1969, 508.

371 Wiencke 1969, 502.

vessels, and clearly functioned in a storage context.

The next largest number of sealings comes from Geraki in Laconia, contemporary with Lerna IIC (the sealings from room DM). Although sealings were found in small numbers spread about the site, the bulk of the sealings come from two caches.<sup>372</sup> An EH II house (square 17/11i) revealed 48 stamped sealings, some of which were stamped multiple times, presumably with the same seal.<sup>373</sup> The context appears domestic and not entirely devoted to storage, though a pithos was found in the room. The motifs fit well within the iconographic scheme established by the Lerna sealings, and the swastika motif again appears privileged.<sup>374</sup> Here is one example, at any rate, of a motif that may represent a sign of authority in both the Argolid and Laconia, suggesting that not only was the iconographic repertoire shared between regions, but the signs themselves may have had similar values at multiple sites.

The second cache of sealings was found in a casemate of the fortification wall, an area designated exclusively for storage based on the space taken up by pithoi and other storage vessels.<sup>375</sup> Again, there are no surprises iconographically, with high instances of the concentric circle motif. The most surprising find here is that on one double-stamped sealing, an incised line *supra sigillum*, unique in the Aegean, may indicate a further administrative notation.

The next group of sealings comes from a rescue excavation that has yet to be fully published, but the preliminary presentation of the material from Petri, Corinthia indicates

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372 See Fig. 3 in Weingarten et al 2011 for spatial distribution of seals at Geraki.

373 Weingarten et al 1997, Weingarten 2000a.

374 Weingarten et al 1999, 369.

375 Weingarten et al 2011, 139.

a large number of sealings from House A, a room designated by the excavator for storage based on the number of pithoi found.<sup>376</sup> Two of the pithoi were stamped with the same patterns as two pithoi from Tiryns (CMS V, Supl. 1B, 403 and CMS V, Supl. 1B, 405).<sup>377</sup> Fragments representing at least 100 sealings were found mostly concentrated in two areas of the room.<sup>378</sup> The exact number of seals represented is difficult to reconstruct, but 75% of the material suggests 26 different seals, and certainly this number should increase with the final publication.<sup>379</sup> With the exception of one impression, Kostoula's S21, a remarkably multi-figural scene of a doe suckling a fawn by a tree, the impressions echo the motifs and styles noted for Lerna and Geraki above. At Petri, the most commonly used seals, S1 and S2, impressed on 54 and 38 Fragments respectively, may represent a more intensive sealing pattern than the Lerna sealings.<sup>380</sup>

From prehistoric Asine, five sealings are known. Two were found amongst an accumulation of EH sherds on the Polygonal wall terrace (CMS V.2.519 and CMS V.2.521), one from Room 1 of House R (CMS V.2.520), and two from what appear to be mixed EH – MH habitation deposits.<sup>381</sup> The one sealing with a scorpion motif (Weiberg's Sealing 1) appears MH in date. The sample size from Asine is small and the contexts are somewhat obscured by MH remains. Corinth and Akovitika each preserve one sealing from EH levels. The Corinthian example comes from a well (CMS V Supl 1A 398),<sup>382</sup>

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376 Kostoula 2000.

377 Kostoula 2000, 137.

378 Kostoula 2000, 144-5.

379 Kostoula 2000, 140.

380 Kostoula 2000, 141.

381 Frödin and Persson 1938, 172 (5-7); Weiberg 2010.

382 Waage 1949, 421 and Pl. 63.

and the example from Akovitika comes from Wall Λ in building Γ, rather than from corridor houses A or B (CMS V Supl. 1A 381). At Tiryns, four sealings are preserved from the Unterburg, all cataloged in *CMS V Supplement 1B*. CMS VS 1B 371 preserves three identical spider motifs with no border or secondary motif, which is a little unusual.<sup>383</sup> Finally, a clay nodule with one circular impression comes from Ay. Dhimitrios.<sup>384</sup>

Almost all would agree that the sealings at Lerna, Geraki and Petri represent regional administrative systems.<sup>385</sup> It is not entirely certain how the sealings functioned to mark goods, that is to say, to identify ownership, signal who had access to goods, identify individuals who had deposited or removed goods, or protect the commodities in some way. But that the goods were being marked and secured in some way at a level above the household is certain.

The origin of the system is also uncertain. While clay "pintaderas" are known from the Neolithic period, this more decorative tradition continued through the EH II period to the EH III and MH, and unlike the seals used on sealings, may be a separate tradition.<sup>386</sup> It may be to this tradition that hearth and pithos impressions belong. Some would see the appearance of a sealing system in EH II as due to Anatolian/Assyrian influence, and Weingarten prefers to see Lerna as an Anatolian trading colony, though this interpretation has met some resistance.<sup>387</sup> The sealing system is probably mostly a

383 Kilian 1982, 424.

384 Zachos 1987, 216-17, Fig. 68, and Pl. 53.

385 *Contra*: Renard 2001.

386 Younger 1991.

387 Weingarten 1997.

local tradition, or at least a foreign system that was adapted for local purposes.

Iconographically, aside from the Anatolian style jug on the most popular seal from Lerna (CMS V.109), the seals have perhaps their closest parallels in the Cyclades and Crete.<sup>388</sup>

What was being sealed, by whom, and to what purpose? And where did the act of sealing take place? To take the last question first, it is impossible to know where the act of sealing occurred, but we can analyze the spatial distribution of sealings across the sites of Lerna, Geraki and Petri. While each of these sites had their specific caches of sealings, additional seals were found in smaller numbers elsewhere. Contemporary with the Lerna IIC sealings from room DM, for example, are the sealing found in the adjacent room CA and the sealing fragments from a bothros in Room B of the fortification wall. This latter cache consisted of at least 21 fragments, seven of which were impressed by the same seal.<sup>389</sup> To accompany the sealings in Room XI at Lerna IID, a type B sealing, suggesting it may have sealed a door, was found in corridor III of the House of the Tiles.<sup>390</sup>

Sealings could be spatially dispersed throughout a settlement, as at Geraki, and even at the rescue excavations at Petri, Kostoula mentions a single sealing found in a context that could not be excavated because of a lack of time.<sup>391</sup> Sealings could be found at many places throughout a site, so it appears that a collection of sealings that are then stored together is a significant procedural step in the administrative process.

As for the contexts and what commodities were being secured, most of the examples seem to suggest storage of bulk agricultural commodities, such as at Lerna

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388 Weingarten 2000b.

389 Wiencke 1969, 501-2.

390 Weincke 1969, 501.

391 Weingarten et al 2011; Kostoula 2000, 137.

House DM, Geraki, and Petri. An exception is the cache of sealings from the EH II house at Petri, though the presence of a pithos certainly indicates some concern for storage. Examination of the backs of the sealings further suggests that in these contexts, they were applied to storage containers such as pithoi. This is not to rule out an archival function, however, since the storage of commodities and the collection of used sealings may have simply taken place within the same room.

Room XI of the House of the Tiles presents a different picture. No large-scale storage could have taken place in such a small area, and further, the sealings seem to have been impressed on a wider variety of containers, suggesting that they secured small amounts of rarer commodities rather than bulk staples. It is also quite likely that the sealings had already been broken and were placed together as a group in Room XI as an archive, rather than still actively sealing goods stored in the closet.<sup>392</sup>

Three possibilities may explain the differences in the sealing deposits of Room XI and those found in Rooms DM and at Geraki and Petri. First, it is possible that between Lerna IIIC and IIID, the concerns of the administrative process changed, so that sealings were impressed more on prestige goods than bulk commodities. Second, the storage of the sealings in Room XI may represent a simple spatial differentiation in two steps of the administrative process—whereas before, commodities and broken sealings were kept in the same place, perhaps at Lerna they were removed for safety or archival storage. Finally, and most likely, the Lerna IIID sealings attest to what Weiberg terms the "multifunctionality" of the sealing system.<sup>393</sup> Seals and sealings need not have secured

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392 Rénard 1995, 295.

393 Weiberg 2010, 192.



the same types of goods in one established process at any given point.

Although the exact mechanisms of the sealing systems remain unknown to us, the evidence points to a growing concern with the storage, procurement, securing, ownership, exchange, and tracking of both bulk commodities and prestige goods, which goes a long way towards supporting the establishment of social organization based on wealth posited for EH II.

### **EH II Glyptic: Sealings and Banded Pithoi**

Stamp seal imagery and cylinder seal imagery have little overlap, but the media are worth comparing nonetheless. Comparison between roller-impressed necked pithoi and hearth rims has been made on stylistic grounds since a good number of both were excavated at Lerna. The connection is strengthened by the fact that some hearths and pithoi are impressed by the same seals, and that they may therefore be produced by the same craftsmen. Certainly both would have been expensive and relatively stationary vessels.

Discussion and catalog publication of the material has led to a bifurcated treatment of the glyptic evidence. Because seals and sealings are considered administrative, their designs are granted a symbolic significance as markers of individual seal users. But hearths and pithoi are considered in terms of ceramic production, and therefore their designs are considered merely decorative, because there is no obvious link between their motifs and individual or group identity. This distinction, however, is the result of modern categorization, and there is in truth some overlapping of the categories,

as for example the occurrence of stamped vessels and loomweights. If pithoi and hearths are symbolic of storage and food preparation in social contexts, as they seem to be, then it is possible that their decoration is symbolic as well.

The Cycladic examples are the best evidence of the blending of these categories, with their repeatedly stamped rims. Many of these examples have seal impressions that Wilson categorizes as Mainland types, which, based on current understanding of Mainland seals, might suggest individual ownership. Against these comparanda, the decision to roll or incise mainland hearths is incredibly significant, and possibly a deliberate distancing of the hearths from the administrative system.

Finally, these three classes of evidence are connected by their contexts of use. Figure 7.7 maps the occurrences of sealings, roller-impressed pithoi, hearths, and monumental architecture. There is significant overlap at sites that seem to have been centers of their surrounding areas. Hearths and rolled pithoi are found in greatest numbers at the same two sites, Lerna and Tiryns, and this cannot simply be the result of craftsmen concentrating at these centers, but the wealth that must have supported them. The same wealth at both of these sites supported the construction of monumental building projects - Corridor Houses BG and the House of the Tiles at Lerna, and the Rundbau at Tiryns.

Although many hearths are found at sites that do not have exposed monumental architecture, this term is clearly problematic. When we do have good architectural contexts for hearths, they are found in large, usually megaroid buildings within their sites, as at Poros, Berbati, and Eutresis. The term "hearth room" is descriptive of certain rooms in these buildings, but there are instances in which ceramic hearths could function outside of the traditional hearth room, as it seems to have done in the ruined corridor of House

BG at Lerna. The appearance of multiple hearths at these sites does not negate the importance of the hearth room. Hearths may have been replaced over time, as in Room III of House L at Eutresis, or they may have been required to supplement the hearth in the hearth room, as the multiple hearths from the House of the Tiles might suggest. Finally, there may have been more than one important building deserving of a hearth room at a site, as Ktiria B and Γ on the Kavos Vasilis promontory on Poros, or as the multitude of hearth fragments from Ayia Irini must have required.

At three sites, hearths, pithoi, and sealings are found together - Lerna (both phases III C and III D), Corinth, and Tiryns; Tiryns and both phases of Lerna have monumental buildings preserved as well. The only two sites with corridor houses that do not have glyptic activity - either in the form of sealings or rolled hearths or pithoi - are Kolonna and Thebes, and both of these corridor houses had ceramic hearths. While all strands of evidence, corridor houses, pithoi, hearths, and sealings, come together most clearly at Lerna, sealings are found in small numbers at other sites with monumental architecture or hearths (Akovitika, Ayios Dhimitrios, Tiryns, Asine). The other two sites where sizable caches of sealings have been found, Geraki and Petri, are not yet fully published. At least ten roller-impressed pithos fragments have been noted from Petri.<sup>394</sup> While no rolled pithoi have been reported from Geraki, there are a number of pithoi executed in Gerakiware, a sort of striated decoration accomplished by the fingertips,<sup>395</sup> and the sealings at this site clearly accompanied storage in decorated pithoi.<sup>396</sup>

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394 Kostoula 2000, 137.

395 Weingarten et al 2011.

396 Rénard 1995, 295.

## Roller-impressed hearth and pithos motifs

The motifs on rolled pithoi from Lerna, Tiryns, and Zygouries are listed in Table 7.5. Only rolled motifs are included here, although they can certainly also have added plastic decoration, fairly common, or even incised decoration.<sup>397</sup> Examples from Tsoungiza and Corinth, which are decorated with raised taenia, are therefore omitted.<sup>398</sup> A quick glance through the list reveals that, while popular hearth motifs like zigzag do recur on pithoi, pithos motifs are much more varied and include many more instances of and variations on spiral and circle motifs.

In addition to the examples where the same stamp was used on both hearths and pithoi, some pithoi were rolled by the same cylinder as well, and certain designs repeated in combination. Concentric circles with different additions, including herringbone (Fig. 7.8), or other filler ornament (Fig. 7.9) were popular repeat motifs. All of the certain instances of recurrent seal use are within the same site, either Lerna or Tiryns, so no further evidence is added to the itinerant craftsmen theory.

Some of the pithos motifs, while not produced from identical stamps, are nonetheless very similar to the hearths. Zigzag, for example, occurs on four examples at Lerna, four at Tiryns and one at Zygouries. Two hearths from Tiryns were impressed with herringbone (CMS VS 1B 409, and *Tiryns IV*, Fig. 16.8), and the running spirals on CMS V 531 from Tiryns are nearly identical to those of hearth CMS V 530 (Fig. 4.63), or CMS

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<sup>397</sup> Incision is found rarely, as at Tiryns on Weißhaar 1989, Abb. 4.

<sup>398</sup> For Corinth: Lavezzi 1978, 423.

For Tsoungiza: Pullen 2011d, 367, notes that no roller-impressed neck pithoi have been found at Tsoungiza, but catalogs three EH II Developed pithoi with added taenia bands: Cat. Nos. 461, 548, and 586.

VS 1B 381 (Fig. 4.76).

Many of the motifs, however, are not found on hearth rims. The popularity of spiral motifs on banded pithoi is simply not paralleled on the hearths. Concentric circles, with or without herringbone, are rare on mainland hearths. Some methods of hearth decoration, on the other hand, are rare on pithoi, especially incision and kerbschnitt impressions.

While pithos and hearth decoration are not quite so similar on closer examination, there is nonetheless a connection between the two forms. They may have been produced by the same craftsmen, and they appear at many of the same sites. As with the hearths, the greatest numbers seem to center in the Argolid, at Lerna and Tiryns, but this is not simply an accident of production.

Sealings may also have been concentrated at these centers because individuals who owned the seals brought them in and stamped sealings during the course of these commensal events. Whether the sealed goods were contributions from the seal owners or allotments to them is debatable. The pattern of sealing at Lerna's House of the Tiles is non-intensive, with too many different seals recurring in relatively equal frequencies to allow all of their owners to have been resident. A similar but scaled down pattern is traceable in the earlier sealing deposits of Lerna IIIC, Geraki and Petri. There must have been many more sealings from sites like Tiryns and Corinth that simply are not preserved.

Seals must have in some cases belonged to different people than those people or groups who resided at the corridor houses and owned the hearths and pithoi. The seals were also, of course, produced by different artisans; surviving examples include metal

and clay stamps, and wooden stamps have been hypothesized as well. So while seal ownership may have indicated some sort of authority to secure or guarantee goods, seals are both less showy and conceptually more tied to the individual who wore the seal on his/her body.

Seal motifs are also very different from those on hearth rims and the raised bands of rolled pithoi. Stamp seal iconography of EH II is highly symmetrical and mostly abstract. The general scheme tends to be a circular impression with central motif surrounded by a border. From the House of the Tiles, common motifs include tripartite or quadripartite ellipses, other abstract loop designs, swastikas, and central crosses, with an occasional spider or vase for a figural motif. Quadruple spirals and trefoils also appear (Fig. 7.10). The sealings from Room DM in Lerna phase III C (Fig. 7.11), though fewer in number, are simpler versions of the later Lerna motifs.

Sealings from Petri and Geraki, though fewer can be reconstructed, are highly similar to the Lerna III D sealings which are only a bit later. G-1 from Geraki, for instance, is a cross with central swastika and crossed squares, very similar to Lerna S58 (CMS V 112, Fig. 7.12). G-14 from Geraki is similar to S-63 from Lerna, with a radiating design with circles on the ends of the spokes (Fig. 7.12). G-16 from Geraki is slightly reminiscent of Lerna S-28 (Fig. 7.12). S13 from Petri is like S7 and S3 from Lerna, a central triangle connected to a tripartite circle with a clover in the center (Fig. 7.12).

From the sites with hearths but only a few number of sealings preserved, these impressions also fit well within the described corpus. Sealing 54/83 from Ay. Dhimitrios preserves a chevron motif, possibly with a central cross. From Tiryns, the spider,

triskelion, and tripartite loop designs, which are so prevalent at Lerna, are each found once.

Figural imagery on sealings is not quite as rare as it is on hearths and pithoi, but still not common. Insects, especially spiders, appear multiple times, and the most popular sealing from Lerna, CMS V 109 (Fig. 7.6), has both trefoils and jugs on it. This is the seal that Weingarten suggests belonged to a resident of the House of the Tiles, if any do,<sup>399</sup> and so it is no coincidence that this is one of the rare figural examples, and it features prominently jugs that would have been instrumental in any drinking rituals that occurred on the site. As Peperaki has noted, any authority or power projected at these feasts involved an individual's role in the performative sense.<sup>400</sup> Stamping this sort of design in a procedure witnessed by all of the feast participants may have promoted the seal owner as both an authority of the sealed goods and patron of the feast.

The designs of mainland seals and sealings have little in common with rolled decoration on banded pithoi and hearth rims. In a sense, these differences are the result of compositional necessity: the continuous versus non-continuous motif. But there are some compositional similarities: the repetition of spiral and circle designs, and an overall emphasis on symmetry.<sup>401</sup> Hearths could have been decorated by stamp seals as the many examples from the islands attest, so the decision not to use stamp seals in this way was a deliberate choice to restrict the use of stamp seals from this ceramic form, and to create a different decorative repertoire that was shared by the hearths, and to some extent, the pithoi.

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399 Weingarten 2000b.

400 Peperaki 2004.

401 Wiencke 1989.

It is in the context of feasting - which involves food storage, preparation, and consumption - where these different motifs would most thoroughly have played off against each other. It is clear from Lerna III C, Geraki, and Petri that visitors to the site were sealing pithoi, which might bring these motifs into direct visual comparison. Lerna Phases III C and D are interesting test cases for the spatial interaction of visitors with pithoi and hearths, and the performative action of sealing.

Within Lerna IIIC, gatherings could be accommodated in the open courtyard outside of Building BG, and in the large hall of BG as well, where it is not unreasonable to restore a central hearth, possibly even P772, which would have been moved to the corridor after the destruction of the building. The stamping must have taken place in Room DM, where two banded pithoi, one with zigzags (P842) and one with chevrons (P841) were both sealed. Pullen interprets this evidence as "limited centralized control of some staple goods being mobilized for use in feasting," and certainly the fewer number of sealings applied more frequently suggests that this area was restricted to those with authority to make contributions or withdrawals.<sup>402</sup> Within the confines of Room DM, this action would be relatively private compared to the rest of the feast. Within an area for storage and food preparation, the stamping might have been conducted behind-the-scenes, and the pithoi less conspicuous to viewers. There is no hearth in Room DM, however, and so this aspect of food preparation may very well have been more public.

Lerna III D shows a spatial differentiation of these activities. Pithoi were no longer the recipients of sealings, but Wiencke identifies a group of as many as ten of them that may have been on display outside of the House of the Tiles. Fragmentary

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402 Pullen 2011c, 221.



impressed pithoi were found to the south, southeast, west, northwest, and north of the House, so it may be that visitors could associate the House with storage from any angle.

To the south and southeast of the corridor house, in easy view of the court where the most number of guests could be accommodated, were found at least four pithos fragments.<sup>403</sup> These pithoi were decorated with concentric circles, concentric circles and herringbone, irregular chevrons and dots, and zigzags. (Fig. 7.13). By all interpretations, these pithoi were placed in one of the most accessible areas of the site for guests, and to have had these pithoi there is a conspicuous statement of storage potential, and therefore, probably, accessibility. The general accessibility of these pithoi (which may not have been sealed), may place their contents more in the belonging of the gatherers than any resident in the House of the Tiles. More likely, as the pithoi are too few to have been intended for large scale commodity storage, the placement of the pithoi in the courtyard was a symbolic statement of the wealth of the Corridor House.<sup>404</sup>

The sealed goods, on the other hand, represented allotments or possibly contributions from individuals who were each identified by their unique seals; similar designs may have indicated some sort of kinship connection, but each seal in the Lerna corpus is nonetheless unique. As Wiencke notes:

"The presence of a group of people of some status from the surrounding areas, with their personal seals (motifs with possibly clan or family significance?), all taking - or being given - something from a few guarded containers, indicates that the occasion required a certain familiar choreography, a known procedure. Perhaps each person received something related to the ceremony, while the host supplied the meat and drink, though some formal donation by the guests may also have been expected and supplied."<sup>405</sup>

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403 Wiencke's P 1167, P1223c, P936 and P 1242.

404 Pullen 2011c, 222.

405 Wiencke 2011a, 352.

In other words, while it is unclear exactly where and when the act of sealing occurred during the ceremony, or even if it may have been done at different times on an individual basis, it is likely that the act of stamping itself was a conspicuous and formalized practice. It is quite possible that it was the performance of stamping, where individual, stamp, and sealing acted together in the presence of many, that established ties between individuals and property, rather than only the sealings which are left behind.<sup>406</sup> This process took place against a backdrop of feasting, where pithoi and hearths were likely prominently displayed, and resources appeared plentiful.

It may be that the contents of Room XI sealed during the ceremony were taken out into the courtyard at some point during the feast, and then later replaced, as the drinking vessels must have been, or it may be that the participants lined up along the benches along the south side of the House of the Tiles. Either way, the entrance to room XI, which opens only onto the southern exterior, could have made the removal and storage of contents a public part of the ceremony as well. The containers being sealed must not have had bulk staple commodities, a change from the sealed pithoi of Lerna III C, and sealing images are no longer stamped directly onto banded pithoi, even if the pithoi may have been in view at the time of stamping.

It is uncertain where the area of food preparation for the House of the Tiles was. It may have been in the courtyard. The hearth in the hearth room was certainly one arena of food preparation, although it may not have been easily accessible to all gathered at the House of the Tiles. The ability to control access to the hearth room in different ways - possibly to admit more, or fewer, people - was one of the ways that visitors might have

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406 Relaki 2009.

been preferentially differentiated.<sup>407</sup> Not everyone may have seen the fire blazing on the hearth at the occasion of the feast, although at other times the room may have been more open, and as Peperaki has noted, the permanence and centrality of the hearth to this room made its commensal function immediately obvious.<sup>408</sup>

Other hearths could have been outdoors and more visible (as P772 must have been for a time); or indoors and less visible (P1006). Food preparation, even the cooking itself, was in all likelihood spread about the site, so those hearths that were more accessible were probably designed to be natural gathering points, emanating light, warmth, and delicious smells of food to come. As such they were display items, a role which corresponds well with the fact that those so far found in hearth rooms or in more open areas (the ruined corridor of House BG) tend to be some of the larger and more elaborately decorated examples.

Hearths and pithoi are spatially differentiated in both Lerna III C and III D, and to some extent at other sites as well. At Poros, for example, the two pithoi are found in the back room, but at the Weißes Haus on Aegina a pithos is in the Herdraum as well as one in the room beyond.<sup>409</sup> One reason for this separation may have been a deliberate direction of visitors to or away from the hearths or pithoi. Another reason may have been more practical: hearths were for meat preparation, and pithoi were for agricultural commodity storage, so there was a difference in both function and food product, possibly one reason that both their iconography and display within a site may have differed. In any case, each aspect related to food consumption - storage, preparation, and commodity

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407 Peperaki 2004.

408 Peperaki 2010.

409 Poros: Konsolaki-Giannopoulou 2011, 264; Aegina: Walter and Felten 1981, 18.

control - appears to have had its own iconographic repertoire.

The intentional differentiation of sealing motifs, hearth motifs and pithos motifs, combined with attempts to direct, if not restrict, traffic around these areas suggests an attempt by a resident or residents at the House of the Tiles to distance themselves from the guests. Whatever authority relating to commodity control that may have been displayed in the wearing and usage of a stamp seal may also have been shared by the House of the Tiles - maybe the owner of CMS V 109 - but the emphasis on the visibility of food storage and food preparation granted the residents of the House of the Tiles additional wealth and power. Individuals were not otherwise differentiated in feasting contexts via ceramics, as the drinking vessels found in sets tend to have been generally equal in quality in design.<sup>410</sup>

If these hearths and pithoi were indeed produced by special craftsmen, then their ownership may have been even further restricted. And their value was further emphasized by a difference in decoration, as cylinder seals were not used on the mainland (or, it seems, anywhere in the EBA Aegean) for administrative purposes. On Crete, for example, the several cylinder seals buried in the tholoi of the Mesara are exotica, and probably connoted economic connections through Near Eastern trade.

The designs that decorated pithoi and hearths became distinctive of these vessel shapes, and were reduplicated across the landscape, so that the semiotic connection was reinforced, even at sites where feasting must have occurred on a smaller scale than at Lerna and Tiryns.

The nature of the authority possessed by the owner or owners of the hearths, aside

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410 Pullen 2011c, 224.

from a symbolic emphasis on their role (if not ownership) of storage food surplus and its subsequent redistribution at communal events, must remain uncertain. Whether this translates into any sort of political power (e.g. a chiefdom) or religious power is indeterminable, but certain patterns of ceramic hearth usage might suggest a ritualized bent to these commensal activities: the retention of ash, animal bones, and sometimes intentionally broken vessels from the feasts, and the occurrence of the ceramic form when a perfectly functional non-ceramic hearth already served the building.

## **Conclusion**

Decorative elaboration was, in almost all instances, a feature of these ceramic hearths, which began with incision and impression in the earliest examples, and with roller impressed designs most common in later EH II. The designs were almost exclusively geometric and linear, with relatively few examples of spirals or concentric circles, and with zigzag by far most popular.

Cycladic influence was seen in kerbschnitt hearths, occasionally with impressed triangles but also with raised zigzag or sawtooth that echoed the roller-impressed zigzag designs. These kerbschnitt impressions are found on both keyhole and circular shapes of the mainland, whereas on Keos they are found on circular shapes. The typical keyhole hearth from Ay. Irini with stamp seal-impressed rim is found only near the mainland on Poros, where concentric circle impressions are found on a circular hearth, again blending mainland and Island tradition.

The rolled impressions further emphasized the display potential of the hearths,

and their look of costliness as well, as cylinder seals seem to only have been applied to hearths and pithoi in EH II. In choosing not to stamp pithos and hearth rims with stamp seals, as they did with other vessel types of the period, a new iconographic repertoire was created for vessels whose function and display was also an economic statement: food storage and preparation. The differences between these iconographic groups would have been highlighted especially during feasting events, at which most stamp seal owners would have been active participants, but not hosts. The elites resident at these emerging centers were therefore employing a new iconographic repertoire to distinguish themselves as permanent holders and distributors of food surplus, both vegetal and animal, that was then reduplicated across the landscape at central places, which could serve as places of gathering and commensality.

## **CHAPTER 8**

### **CONCLUSIONS**

Low hearths with decorated rims are a hallmark of EH II material culture, especially at sites in the Argolid and Corinthia. The most common shape was circular, with 87 of the 118 mainland examples, although keyhole hearths made their way to the mainland in later EH II, where the shape was produced and adapted to mainland hearth specifications in terms of rim profile and decoration. The keyhole hearth may have had a certain exotic connotation that led to its popularity in the House of the Tiles. No fully preserved examples of Figure-eight or oval hearths have yet been found, but certain fragments suggest the existence of these types.

Rims tend to be low, around 5 cm or less, but may be higher; the hearth is identifiable by a pan thickness of 1-2 cm. They were fired in situ by the same fires which they were produced to contain, often leading to uneven firing, and the baking of the sometimes clay-lined depressions in which they were placed.

Undecorated hearths make up only about 9% of the mainland sample, and in almost all cases decoration was confined to the hearth rim, although the pans are not usually fully preserved. Rim decoration tended to be abstract and linear, and the

chronological resolution from Lerna shows that incision and impression were common methods throughout EH II, with rolled rims introduced in Lerna Phase III C. Mainland hearth examples are almost never stamped, with the exceptions being the two stamped pans from Corinth, and the hearth from Ktirio Γ, whose repeated concentric circles on a circular rim are another way in which Cycladic influence was incorporated onto mainland hearths; where typically mainland decoration was applied to an Island shape, here Island decoration was applied to a mainland shape. Roller-impressed decoration was the most popular on the mainland, with 68 of the 118 examples, and of these examples, zigzag was the most popular motif.

More hearths are sure to be added to the above corpus with additional surveys, excavations, and publications. It is certainly right to consider them, along with roof tiles, as elite artifacts. In both cases, the manufacture in terracotta is controlled, labor intensive, and time consuming, and the outcome is a more elaborate version of non-ceramic hearths and roofs. Like roof tiles, they concentrate at the largest sites in the landscape, such as Lerna and Tiryns, with smaller numbers found at outlying sites. They are associated with monumental architecture and are found in corridor houses such as Lerna, Tiryns, and the Weißes Haus, but also with other large, possibly special function buildings within sites such as Poros, Berbati, Eutresis, and Askitarío. The hearth room is thus an important architectural unit within which the hearths were central, or nearly central features.

The hearths were also large enough to be one of the most significant visual features of the room, with measurable diameters ranging from 90 to 120 cm. While portable, the hearths must have been mostly stationary, with alterations to the room such as central depressions that suggest a permanent location; there is also some evidence that



across multiple phases, the location of the hearth remained the same. The hearths therefore served to mark the space as devoted to commensality even in the absence of a large gathering.

In the event of a feast, the hearth itself may have been more or less accessible. In the large hearth rooms of the Corridor House, it makes sense that a group would be accommodated, but detailed architectural analysis has made it clear that access could be strictly controlled. These hearths were in the room just off the antechamber, and in the more public half of the building. Similarly, at Poros, both hearths were in large rooms immediately off of the antechamber, but at Eutresis the hearth was in the innermost room. Visibility of the hearth may have been part of a strategy to both impress guests and make them feel privileged or welcome, with heat and light.

Hearth size was also large enough that a large animal could be cooked on it, and the actual roasting of meat might have been another crucial visual part of the gathering, as provision of the meat was another statement of wealth. In the case of Poros Ktirio Γ it is clear that a pig was prepared, and the animal bones on the hearth of House L at Eutresis show that the hearths did function this way. Bones are also sometimes found preserved in nearby bothroi, and the burial of bones, ash, and drinking vessels near the hearths may suggest a ritual aspect to the feasting activities.

Hearths could also function outside of the traditional hearth room setting, such as Lerna P 772, which seems to have been used outdoors. Multiple hearths can even be found in conjunction with the same building, such as in Lerna at the House of the Tiles, where it may be that they needed additional cooking facilities to accommodate guests, even if the hearths weren't always visible. These hearths may have been more accessible,

such as P772, or less accessible such as P1006, which must have fallen from the second story balcony. The hearth was a central part of important buildings, but may not have been constrained to one per site, and some neighboring buildings were found with hearths, as on Poros. Feasting activities were clearly spatially distributed throughout a site.

Drinking, for example, seems to clearly have accompanied the feasting in areas of the site built to accommodate large numbers of guests, including, but not limited to the hearth room. Pullen's drinking sets - cooking jars, basins, ladles, sauceboats, and bowls - are found at many of the same sites as the hearths, often in close proximity, as at Lerna Room XI, Eutresis, Berbati, and Tsoungiza. Based on the overall homogeneity of these drinking sets, guests at these feasts were largely undifferentiated by their ceramic utensils, but status could have been indicated by order of serving, admittance to more private areas of the corridor houses, including the hearth rooms, and by priority in other performative aspects, including the stamping of goods, which seems clearly to have accompanied the feasting at Lerna.

The procedure of stamping put a material emphasis on the individual hosting the feast in a setting that otherwise seems to privilege the solidarity of the community, and provided an opportunity for those in charge to show their authority both through performative action and glyptic symbols. Evidence from Petri and Lerna suggests that for at least part of EH II, sealings were applied directly to pithoi, which may have been roller-impressed, so that rolled and stamped motifs were in direct visual comparison. There seems to have been a deliberate preference for more homogenous motifs on the more permanent hearths and pithoi as opposed to the more individual marks on the fragile

sealings that were never meant to be preserved, so that the seals were more individualizing and the hearths and pithoi are more institutionalized.

Cylinder seals and stamp seals, which appear in the material record of the mainland in EH II, seem to have been used very differently. The result is that iconography in the realm of administration of goods – or if administration is too strong a word, at least securing – is different from the iconography of vessels for commodity storage. The decoration of hearths, however, is much more similar to that of pithoi. So while stamp seals, which appear to have belonged to individuals, may have implied some sort of economic responsibility, other stages of commodity control – storage and food preparation – had a different symbolic repertoire. The elites at these emerging centers were employing a new iconographic repertoire to distinguish themselves, that was then reduplicated across the landscape at these central places, which could serve as places of gathering and commensality.

The picture is different for the Islands, or at least for Ay. Irini, where the large number of ceramic hearth fragments suggests that they may have been a more common household item. Like mainland hearth rims, Island rims still maintained a certain homogeneity of rim motifs, with stamped concentric circles having been the most popular, and visually very similar. Stamping, in the context of hearth production, may have had a different meaning at a site where sealings have yet to be found, but the repetitive application of the same stamp across the rim resulted in continuous decoration, unlike the mainland practice of the singular application of a stamp to pottery before firing. The overwhelming popularity of the keyhole shape at the site is distinctive, and seems to have spread to the mainland from here.

In EH III, the decorated ceramic hearth disappeared, with no examples dating certainly to that period, emphasizing the social significance of the hearth as an artifact in EH II. From MH Lerna, an unfired circular clay disk was found in House D with a bothros nearby;<sup>411</sup> although it had no signs of burning, it may belong to the same tradition as the EH II hearths. This absence corresponds to a shift in practices of commensality that accompanied a more general change in architectural and ceramic material culture.<sup>412</sup> Although glyptic evidence does not entirely disappear, instances of stamp seal impression drop off significantly.<sup>413</sup> Nonetheless, the concept of the hearth room reappears in the Mycenaean period, where again it is tied to political and economic authority, this time institutionalized in the palace complexes.

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411 Caskey 1955, 31.

412 Peperaki 2010.

413 Younger 1991.

## TABLES

Tsougiza	Lerna	Keos
EH II Init.	IIIA (early)	
EH II Dev. Phase 1	IIIA (late) – IIIB (early)	
EH II Dev. Phase 2	IIIB (late)	
EH II Dev. Phase 3	IIIB (late) – IIIC (early)	
abandoned	IIIC – IIID	Period II
		Period III

Table 4.1 Comparison of EB II Phases at Tsougiza, Lerna and Keos<sup>414</sup>

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414 Pullen 2011d, 15; Wiencke 2000; Wilson 1999, 1.

<b>Classification (Rim. H/W)</b>	<b>Cat. No.</b>	<b>Method of Decoration</b>	<b>Motif</b>	<b>Phase</b>	<b>H. Rim</b>	<b>W. Rim</b>
Low/Broad	P520	impressed	kerbschnitt	III A/B	2.3	5.8
Low/Broad	P521	incised	hatched triangles	III A/B	3.4	>6.1
Low/Broad	P522	none	none	III A/B	2.1	
Low/Broad	P690	incised	hatched triangles	early III C	4.1	
Low/Broad	P772	rolled, impressed	zigzag	mid III C	4.5	10
Low/Broad	P994	incised	chevrons or hatched triangles	III C	3.7	>9.3
Low/Broad	P1231	rolled	chevrons	III C/D	2.2	>6.6
Low/Broad	P1232	incised	chevrons	III C/D	3.9	>8.0
Low/Broad	P1233	incised or rolled (?)	chevrons	III C/D	3.3	>7.5
Low/Narrow	P1045	none	none	III D		
Low/Narrow	P1148	none	none	III D	2.5	5.0
Low/Narrow	P1230	rolled	herringbone	III C/D	4.4	4.0
Low/Narrow	P1234	none	none	III C/D	4.3	4.0
Medium	P938	none	none	III C	6.2	2.0
Medium	P939	none	none	III C	6.5	4.6
Medium	P1006	none	none	III D	5.8	5.5
Medium	P1229	rolled	hook and s-spirals	III C/D	4.7	4.4
Medium	P1235	none	none	III C/D	7.5	4.0
High	P519	incised	linear	III A/B	8.3	
High	P541	incised	linear	III B/C	9.0	
High	P934	rolled, painted	zigzag	late III C	14.6	
High	P935	rolled	zigzag	late III C	8.7	4.3

Table 4.2: Table of Wiencke's classification of hearth rims by height/width (where height or width is not given, I was unable to measure)

<b>PHASE</b>	<b>HEARTHES</b>
Late Phase A	P210
Phase A/B General	P514, P519, P520, P521, P522
Phase B/C General	P541
Early Phase C	P690
Mid Phase C	P772
Late Phase C	P894, P934, P935
Phase C General	P938, P939, P994
Phase C/D General	P1230, P1232, P1233, P1235 P1229, P1231, P1234
Phase D	P1006, P1045, P1148

Table 4.3 Lerna hearths by phase

<b>Cat. No.</b>	<b>Method</b>	<b>Motif</b>	<b>Date</b>	<b>H. rim</b>	<b>W. rim</b>
MF 13394	incised	piecrust	EH I	2.5	1.0
MF 13146	incised, impressed	triangles	EH II	4.0	5.9
MF 13397	rolled, stamped	hexastripe wave	EH II	4.0	3.0
MF 13396	rolled	hexastripe wave	EH II	4.7	6.5
MF 1976-66	rolled, stamped	hexastripe wave	EH II	4.1	7.1
MF 13395	rolled	4-banded wave	EH II	5.4	0.0
MF 13160	rolled	chevrons	EH II	6.1	4.0
CMS VS 1A 403	rolled	hexastripe wave	EH II		

Table 4.4 Dimensions of Hearths from Corinth

<b>Catalog No.</b>	<b>Date</b>	<b>Method</b>	<b>Motif</b>	<b>H. rim</b>	<b>W. rim</b>
623	EH II Dev.	rolled	zigzag	3.5	5.2
624	EH II Dev. Ph. 2	rolled	zigzag	5.4-5.9	7.5
625	EH II Dev. Ph. 3	rolled	zigzag	4.7	
626	EH II Dev. Ph. 2	rolled	zigzag	4.0-5.0	7.5
627	EH II Dev. Ph. 1	impressed	triangles	3.6-4.3	7
628	EH II Dev. Ph. 1	incised	hatched triangles	4.4	9.5
629	EH II Dev. Ph. 2	impressed	herringbone	2.9	6.9
630	EH II Dev.	rolled	zigzag	5.7	6.5

Table 4.5 EH II Dev. Hearths from Tsoungiza (Cat. No. 631 omitted)



<b>Bibliography</b>	<b>Shape</b>	<b>Method</b>	<b>Motif</b>	<b>H. rim</b>	<b>W. Rim</b>
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Tiryns IV, Fig. 18.6	circular?	rolled	running spirals & quadrupeds		
Tiryns IV, Fig. 17.4	circular?	rolled	interlocking spirals	2.9	
Tiryns IV, Fig. 18.2	circular?	rolled	vertical s-spirals		
Tiryns IV, Fig. 15.4	circular?	rolled	S-spirals		
Tiryns IV, Fig. 18.8	circular?	rolled	running quadruple spirals		
Tiryns IV, Fig. 18.3	circular	rolled	hook spirals	4.0	
Tiryns IV, Fig. 16.5	circular	rolled	zigzag	3.7	
Tiryns IV, Fig. 18.1	?	rolled	wavy lines		8.4
Tiryns VI, 83, Pl. 3	circular	rolled	zigzag	4.0	
Tiryns VI, 89, Pl. 4	circular?	rolled	spiral		
Tiryns IV, p. 42	circular	rolled	wavy lines/zigzag	4.0	5.2
Tiryns IV, Fig. 18.7	circular	rolled	outlined c- or hook-spirals	5.0	5.4
CMS V 563b	circular?	rolled	outlined c- or hook-spirals		
Tiryns IV, Fig. 18.5	Figure 8	rolled	outlined c- or hook-spirals	4.3	3.2
Tiryns IV, Fig. 18.10	circular	rolled	2 lines of opposed nested chevrons	4.0	3.4
Tiryns IV, Fig. 16.8	circular	rolled	herringbone		
CMS VS.1B 381 (a)	circular	rolled	interlocking spirals		
CMS VS.1B 381 (b)	circular	rolled	interlocking spirals		
CMS VS.1B 382	circular?	rolled	interlocking s-spirals		
CMS VS.1B 384	circular?	rolled	quadruple spiral		
CMS VS.1B 392	circular?	rolled	concentric circles		
CMS VS.1B 409	circular?	rolled	herringbone		
CMS VS.1B 410	?	rolled	chevrons		
CMS VS.1B 411	circular?	rolled	zigzag		
CMS VS.1B 413	circular?	rolled	zigzag		
CMS VS.1B 414	circular?	rolled	zigzag		
CMS VS.1B 415 (a)	circular?	rolled	zigzag		
CMS VS.1B 415 (b)	circular?	rolled	zigzag		
CMS VS.1B 417	circular?	rolled	zigzag		

CMS VS.1B 418	circular?	rolled	zigzag and circles		
CMS VS.1B 421 (a)	circular?	rolled	outlined c- or hook- spirals & lozenges		
Kilian 1983, 316, Fig. 41.2.	circular?	rolled	outlined c- or hook- spirals & lozenges		
Reliefpithoi und Herdplatten 318, Fig. 5.	oval	rolled	nested chevrons & spirals		
Reliefpithoi und Herdplatten 321, Fig. 11a,b.	unknown	rolled	quadrupeds		
Tiryns IV Plate XV.3	unknown	tool impressed	raised zigzag		4.0
Tiryns IV Plate XVI.13	unknown	tool impressed	raised zigzag		
Tiryns XI, Pl. 19.1	circular?	rolled	concentric semicircles		
Reliefpithoi und Herdplatten Fig. 7A	unknown	tool impressed	kerbschnitt		
Reliefpithoi und Herdplatten Fig. 7B	unknown	tool impressed	kerbschnitt		
Reliefpithoi und Herdplatten Fig. 8	unknown	tool impressed	sawtooth		

Table 4.6 Hearths from Tiryns

Deposit	Catalog, RBC	Not Catalog, RBC	Catalog, Talc	Not Catalog, Talc	Total
DepAC	37	4	2	0	43
DepAD	3	0	0	0	3
DepAG	1	0	0	0	1
Dep AL	2	3	0	2	7
DepAM	4	0	0	0	4
DepAN	1	0	0	0	1
DepAR	1	0	0	0	1
DepAY	2	10	0	2	14
DepBA	1	0	0	1	2
DepBB	0	0	0	0	0
DepBC	0	2	0	0	2
DepBG	1	0	0	1	2
DepBI	7	25	0	0	32
DepBJ	0	1	0	0	1
DepBL	29	8	0	0	37
DepBQ	0	1	0	0	1
DepBR	1	0	0	1	2
DepBY	0	1	0	0	1
DepCE	1	0	0	0	1
DepCF	1	0	0	0	1
DepCG	1	0	0	0	1
DepCK	2	0	0	0	2
DepCM	1	0	0	0	1
DepCP	0	1	0	0	1
DepCY	0	2	0	0	2
DepCZ	0	4	0	0	4
DepDE	0	1	0	0	1
DepDF	3	0	0	0	3
DepDG	0	1	0	0	1
DepDI	2	0	0	0	2
DepDL	0	1	0	0	1
DepDP	0	1	0	0	1
NoDep	14	0	0	0	14
Total	115	66	2	7	190

Table 5.1 Breakdown of Ay. Irini hearths by Deposit, and numbers that are cataloged and not cataloged. (II-415 was found in both DepAN and DepBB, but is only counted once. RBC = red-brown coarse ware; talc = talcware)

Inv. No.	CMS	Cat. #	Shape	H.rim	L.	W.	Motif	Method	Deposit
J119 #3		I-188	?				none		DepAB
J34 #140		I-189	?				none		
K.4081		II-351	keyhole	6.2	140	39	none		DepAG
K.3945		II-352	keyhole	7.4	18	3.4	2 concentric circles	stamped	DepBL
K.3896		II-353	keyhole	5	9.4	4	3 concentric circles	stamped	DepAC
K.3901		II-354	keyhole?	9	11	3.5	3 concentric circles, central disk	stamped	DepAC
K.4232		II-355	keyhole	4.7	7.8	3.4	3 concentric circles, central disk	stamped	DepAC
K.3897		II-356	keyhole		14.7	6	4 circles	stamped	DepAC
K.4068		II-357	keyhole	5.2	8		4 circles	stamped	DepAC
K.3895		II-358	keyhole	8	9.2		4 circles	stamped	DepAC
K.4027		II-359	keyhole	2.3	7	4	4 circles	stamped	DepBI
K.4529		II-360	keyhole	7.3	10.6	3.7	4 circles	stamped	Pd IV, under Rm A.3
K.2544		II-361	keyhole	6.3	9.5	3.6	4 circles	stamped	DepDI
K.3926		II-362	keyhole	4.1	8.5	2.2	4 circles	stamped	DepBL
K.3947		II-363	keyhole	7	6.7		4 circles	stamped	DepBL
K.3861		II-364	keyhole	6	10	3.6	4 circles	stamped	DepAM
K.3941		II-365	keyhole	4.2	5		4 circles with central disk	stamped	DepBL
K.3930		II-366	keyhole	9.7	13.2		4 circles with central disk	stamped	DepBL
K.2733		II-367	keyhole	5.5	12.1		5 circles	stamped	DepDF
K.3854		II-368	keyhole	8.5	12	3.8	5 circles	stamped	DepAM
K.3925		II-369	keyhole	7.4	17.2	4.5	5 circles	stamped	Pd Iva
K.3932		II-370	keyhole	8.5	12.2	4.3	5 circles	stamped	DepBL
K.3933		II-371	keyhole	3.8	4.3		5 circles	stamped	DepBL
K.3937		II-372	keyhole	7	11.9		5 circles	stamped	DepBL
K.3939		II-373	keyhole	8	10		5 circles	stamped	DepBL
K.3943		II-374	keyhole	5.5	7.8		5 circles	stamped	DepBL
K.3946		II-375	keyhole	9.8	10.4		5 circles	stamped	DepBL
K.3953		II-376	keyhole	7	9.8		5 circles	stamped	DepBL
K.3942		II-377	keyhole	6.8	18	4.1	5 circles	stamped	DepBL
K.3940		II-378	keyhole	4.9	7.8		5 circles	stamped	DepBL
K.3894	V.452	II-379	keyhole	8.2	18.5	4	5 circles w. central disk/4 circles	stamped	DepAC
K.3858		II-380	keyhole	8.1	22.5	3.9	5 circles w. central disk	stamped	DepAC
K.4028		II-381	keyhole	7.4	10.8	5.7	5 circles w. central disk	stamped	DepBI

Inv. No.	CMS	Cat. #	Shape	H.rim	L.	W.	Motif	Method	Deposit
K.3931		II-382	keyhole	9.1	12.7	3.6	5 circles w. central disk	stamped	DepBL
K.3935		II-383	keyhole	8	7.7	3.5	5 circles w. central disk	stamped	DepBL
K.3950		II-384	keyhole	7.8	26.5	3.4	5 circles w. central disk	stamped	DepBL
K.3936	V.455	II-385	keyhole	8.6	28.8		6 circles	stamped	DepBL
K.3929		II-386	keyhole	8	11		6 circles	stamped	DepBL
K.2734		II-387	keyhole	5.8	8.1	3.5	6 circles	stamped	DepDF
K.4084		II-388	keyhole	10	5	5.3	6 circles	stamped	NoDep
K.4129		II-389	keyhole	5.9	5.7		6 circles	stamped	DepBI
K.3956		II-390	keyhole	3.9	4.2		6 circles w. central disk?	stamped	DepBL
K.4060		II-391	keyhole	3	11.4		6 circles w. central disk?	stamped	NoDep
J11 #11		II-392	keyhole	4	6	2	Unk. # circles	stamped	DepCK
K.3938	V.457	II-393	keyhole	5.6	7.5	3.7	single spiral	stamped	DepBL
K.3944		II-394	keyhole	9.5	6.7	5.5	single spiral	stamped	DepBL
K.3934		II-395	keyhole	8	13	3.4	single spiral	stamped	DepBL
K.3905		II-396	keyhole	6.5	6	2.6	double interlocking spirals	stamped	DepAC
K.2547	V.459	II-397	keyhole	5.1	6	3.6	triple interlocking spirals	stamped	DepDI
K.3959		II-398	keyhole	5.8	7.5	3.8	triple interlocking spirals	stamped	NoDep Iva context
K.4128		II-399	keyhole	9	12.5	5.5	triple interlocking spirals	stamped	DepBI
K.3998		II-400	keyhole	8	5.5	3.1	raised zigzag kerbschnitt	tool impressed	DepAC
K.4130		II-401	keyhole	4	7	3.5	raised zigzag kerbschnitt	tool impressed	DepBI
K.4070		II-402	keyhole	6.4	3.4		raised zigzag kerbschnitt	tool impressed	DepAC
K.4062		II-403	keyhole	9.2	11.5	5.1	raised double zigzag kerbschnitt	tool impressed	DepAC
J117 #280		II-404	keyhole	7.5	8	3.5	raised double zigzag kerbschnitt	tool impressed	DepAC
K.4069		II-405	keyhole	6	7	3.8	double sawtooth kerbschnitt	tool impressed	DepAC
K.4066		II-406	keyhole	4.3	7.5	3.5	double sawtooth kerbschnitt	tool impressed	DepAC

Inv. No.	CMS	Cat. #	Shape	H.rim	L.	W.	Motif	Method	Deposit
K.3882		II-407	keyhole	4.8	3.2		double sawtooth kerbschnitt	tool impressed	DepAC
J117 #144		II-408	keyhole	6.5	8.5	3	double sawtooth kerbschnitt	tool impressed	DepAC
J117 #145		II-409	keyhole	4.5	7	3.6	double sawtooth kerbschnitt	tool impressed	DepAC
J117 #143		II-410	keyhole	6.5	5.3	3.1	double sawtooth kerbschnitt	tool impressed	DepAC
J1276 #4		II-411	keyhole	4	7.2	3.5	double sawtooth kerbschnitt	tool impressed	DepAC
J117 #279		II-412	keyhole	3.3	5		double sawtooth kerbschnitt	tool impressed	DepAC
K.3883		II-413	keyhole	7.2	6.5	4.5	multiple kerbschnitt	tool impressed	DepAC
K.2673	V.470	II-414	keyhole	7.5			chevron cross	stamped	DepAR
K.4057, K.4079	V.471	II-415	keyhole				chevron cross	stamped	DepAN, DepBB
K.3311	V.472	II-416	keyhole	5.2	9.5	7.5	chevron cross w. floral motif	stamped	NoDep, Pd. VI(?)
K.3862	V.473	II-417	keyhole	4.7	12.5	4.5	curved, forked central line with lozenges	stamped	DepAL
K.3948	V.462	II-418	keyhole	6	4.2	3.2	central rosette with 6 linked spirals	stamped	DepBL
K.3836	V.463	II-419	keyhole	4	5.5	4.6	central bird(?) with 6 interlocking spirals	stamped	NoDep, Ivc context
K.3290	V.474	II-420	keyhole	2.8	2.7		swastika	stamped	NoDep
K.3928	V.466	II-421	keyhole	9	10.3	4.2	labyrinth	stamped	NoDep, Ivb/c
K.3865	V.478	II-422	keyhole	5.4	15	3.2	divided field with anchors, duck, sauceboat	stamped	DepAM
K.3908	V.468	II-423	keyhole	6.2	6.6	4	joined c-spirals with calyx elements	stamped	NoDep, IV/V context
K.4061	V.468?	II-424	keyhole	8.3	8		joined c-spirals with calyx elements	stamped	DepAC
K.4243	V.465	II-425	keyhole	2.7	6.8	3.8	central cross with spiral arms	stamped	NoDep, Pd V
K.3951, K.3952	V.476	II-426	keyhole				central hexagram with kerbschnitt border	stamped	DepBL
K.3859	V.477	II-427	keyhole	5.4	9.5		asymmetrical linear design	stamped	DepAM

Inv. No.	CMS	Cat. #	Shape	H.rim	L.	W.	Motif	Method	Deposit
K.3857	V.469	II-428	keyhole	4.4	6.5		spiral and circle elements	stamped	DepAL
K.3734	V.481	II-429	keyhole	4.7	7.1		spiral with lunate border	stamped	NoDep, Pd. VI
C1009 #29		II-430	keyhole	8.5	9		none		DepBI
K.3955	V.454	II-431	pan	5.3		3.6	5 circles	stamped	DepBL
K.4389		II-432	pan	5.6			2 concentric circles with central disk	stamped	DepBL
K.4065		II-433	pan	8	13	3.1	double sawtooth kerbschnitt	stamped	DepAC
K.3954	V.464	II-434	pan	6.5	14.2	2.7	central insect with interlocking spiral ring	stamped	DepBL
K.2548	V.482	II-435	pan	7.2	14.6	3	three concentric rectangles	stamped	NoDep, Pd VI-VII
K.3784	V.480	II-436	pan	5.2	8.2	2.5	central Z-motif with concentric chevrons	stamped	NoDep, Pd V-VI
C919 #4		II-437	pan	7			none		DepBL
J117 #149		II-438	flat circular	3.2			none		DepAC
J117 #147		II-439	flat circular	4.2			none		DepAC
J117 #157		II-440	flat circular	2.8			none		DepAC
J117 #148		II-441	flat circular	4.3			none		DepAC
J1272 #5		II-442	flat circular	1.8			none		DepAC
J117 #151		II-443	flat circular	5			none		DepAC
J1243 #5		II-444	flat circular	3			none		DepAC
J117 #146		II-445	flat circular				none		DepAC
J117 #153, 154		II-446	flat circular				none (pan sherd)		DepAC
J117 #152		II-447	flat circular	4.5	17		incised diagonals, groups of 3 in alternating directions	incised	DepAC
J117 #158		II-448	flat circular	4	9		incised diagonals	incised	DepAC
J117 #277		II-449	flat circular	3.5	5.5		incised diagonals	incised	DepAC
J117 #155		II-450	flat circular	3.8	8.5		shallow channel?	incised	DepAC
C1008 #25		II-451	circular hearth table	4.2			none		DepBI
J1231 #2		II-452	circular hearth/pan sherd	4.3			none (pan sherd)		
J942 #1		II-453	hearth bottom		10.2	5.5	none (pan sherd)		DepAD
J942 #2b		II-454	Hearth (?) bottom		4	3	none (pan sherd)		DepAD



Inv. No.	CMS	Cat. #	Shape	H.rim	L.	W.	Motif	Method	Deposit
A20 #3a		II-455	portable circular hearth?	7.6	6.5		none		DepDF
J11 #16		II-456	flat circular (?)		6.4	5.5	none		DepCK
J117 #156		II-606	low circular	2.2			none		DepAC
J117 #139		II-607	?	5.7			none		DepAC
K.3892		III-227	keyhole				5 circles, joined by incised lines	Stamped & incised	DepBR
J1115 #6		III-228	keyhole				divided field with triskelion and other uncertain motifs	stamped	DepAY
K.4029	V.469	III-229	circular hearth	8.3	17	3.8	concentric circles, C-spirals	stamped	DepBG or DepBI
K.3880	V.461	III-230	circular hearth				C-spirals in 4 quadrants	stamped	DepBA
C1065 #1		III-231	flat circular				none		DepCF
C402 #2		III-232	flat circular	2.5	11		none		DepCG
C1016 #1		III-233	flat circular	2			none		DepAY
J87 #1		III-234	rounded bottom circular	6			none		DepCM
J1118 #2		III-235	rounded bottom circular	5			none		DepAY

Table 5.2 Table of all cataloged hearths from Ay. Irini

<b>Site</b>	<b># of Hearths</b>
Ay. Irini, Keos	111
Tiryns	40
Lerna	21
Fournoi/AEP	13
Tsougiza	8
Corinth	8
Ay. Dhimitrios	3
Berbati Limnes Survey	3
Zygouries	3
Asine	3
Berbati	3
Eutresis	2
Dokos	2
Makrovouni-Kephalari	2
Poros	2
Thebes	2
Askitario	1
Kastri, Syros	1
Kastraki, Kythera	1
Kolonna, Aegina	1
<b>Total</b>	<b>230</b>

Table 6.1 Number of hearths by site

Site	# circular hearths	Cat. Nos.
Argolid Exploration Project	13	649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, and 662
Corinth	3	MF 13146, MF 13394, MF 13395 (?)
Lerna	17	P519, P520, P521, P522, P690, P772, P934, P935, P939, P994, P1229, P1230, P1231, P1232, P1233, P1234, P1235
Tiryns	30	CMS V 529b (?), 530 (?), 534 (?), 535 (?), 536 (?), 538, 557, 559, 562a, 563a, 563b (?), 564, 566 CMS VS.1B 381a, 381b, 382 (?), 384 (?), 392 (?), 409 (?), 411 (?), 413 (?), 414 (?), 415a (?), 415b (?), 417 (?), 418 (?), 421a (?), 421 (b), Tiryns VI, 89, Pl. 4 (?) Tiryns XI, Pl. 19.1 (?)
Tsougiza	7	623, 624, 625, 626, 628, 629, 630
Zygouries	3	Fig. 114.4, Fig. 114.3, Fig. 114.1 (?)
Asine	2	Frödin and Persson 1938 Fig. 169.2 (?), Fig. 169.3 (?)
Berbati	3	Säflund 1965, Fig. 80, Fig. 83a, Fig. 83b
Dokos	1	A319
Eutresis	2	Goldman 1931 Fig. 16, Caskey and Caskey 1960, Pl. 48
Ay. Dhimitrios	2	8/83 (?), 22/83 (?)
Kolonna	1	Walter and Felten 1981, Fig. 16
Kastri, Syros	1	Bossert 1967, Fig. 5
Poros	1	Konsolaki-Giannoupoulou 2011, Fig. 6.
Thebes	1	Demakopoulou 1975, fig. 1.
<b>TOTAL</b>	<b>87</b>	

Table 6.2 Circular hearths by site

<b>Site</b>	<b># oval hearths</b>	<b>Cat. Nos.</b>
Tiryms	1	CMS VS.1B 424 (?)
<b>TOTAL</b>	<b>1</b>	

Table 6.3 Oval hearths by site

<b>Site</b>	<b># Figure 8 hearths</b>	<b>Cat. Nos.</b>
Tiryms	1	CMS V 563c
Dokos	1	A 151/3 (?)
<b>TOTAL</b>	<b>2</b>	

Table 6.4 Figure Eight hearths by site

Site	# keyhole hearths	Cat. Nos.
Corinth	3	MF13396, MF13397 (?), MF1976-66 (?)
Ay. Dhimitrios	1	21/83 and II3779 (?)
Askitaro	1	Theocharas 1953/54, Fig. 25.
Lerna	4	P541 (?), P938 (?), P1006, P1045 (?) - P1148 (?)
Tsougiza	1	627 (?)
Berbat-Limnes survey	3	53, 54, 132
Kythera	1	166
Keos	82	II-351, II-352, II-353, II-354 (?), II-355, II-356, II-357, II-358, II-359, II-360, II-361, II-362, II-363, II-364, II-365, II-366, II-367, II-368, II-369, II-370, II-371, II-372, II-373, II-374, II-375, II-376, II-377, II-378, II-379, II-380, II-381, II-382, II-383, II-384, II-385, II-386, II-387, II-388, II-389, II-390, II-391, II-392, II-393, II-394, II-395, II-396, II-397, II-398, II-399, II-400, II-401, II-402, II-403, II-404, II-405, II-406, II-407, II-408, II-409, II-410, II-411, II-412, II-413, II-414, II-415, II-416, II-417, II-418, II-419, II-420, II-421, II-422, II-423, II-424, II-425, II-426, II-427, II-428, II-429, II-430 III-227, III-228
Poros	1	Konsolaki-Giannopoulou 2011, Fig. 5.
TOTAL	97	

Table 6.5 Keyhole hearths by site

Site	# pan hearths	Cat. Nos.
Keos	9	II-431, II-432, II-433, II-434, II-435, II-436, II-437, III-229, III-230
TOTAL	9	

Table 6.6 Pan hearths by site

Site	# flat circular	Cat. Nos.
Keos	19	II-438, II-439, II-440, II-441, II-442, II-443, II-444, II-445, II-446, II-447, II-448, II-449, II-450, II-606, III-231, III-232, III-233, III-234, III-235
TOTAL	19	

Table 6.7 Flat circular hearths by site

Site	Incised	Impressed	Rolled	Stamped	Undecorated	Total
Argolid Exploration Project	5	3	5	0	0	13
Asine	1	0	2	0	0	3
Askitario	0	1	0	0	0	1
Ay. Dhimitrios	2	1	0	0	0	3
Berbati	0	0	3	0	0	3
Berbati-Limnes Survey	0	1	1	0	1	3
Corinth	1	1	6	0	0	8
Dokos	0	0	2	0	0	2
Eutresis	0	0	1	0	1	2
Makrovouni-Kephalari	0	2	0	0	0	2
Thebes	0	0	0	0	2	2
Kavos Vassili, Poros	0	1	0	1	0	2
Kolonna	1	0	0	0	0	1
Kythera	0	1	0	0	0	1
Lerna	6	1	7	0	7	21
Tiryns	0	5	35	0	0	40
Tsougiza	1	2	5	0	0	8
Zygouries	0	2	1	0	0	3
Total	17	21	68	1	11	118

Table 7.1 Hearths by Method of Decoration

Site (key below):	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
hatched triangles	4	1	1								3		1						10	
chevrons	1		1			1				4	3					1			11	
zigzags	3			2	1		2	1			3	9	5	1				1	28	
lozenges	1																		1	
kerbschnitt	3		1			1				1	1	2	1						10	
Concentric or semi-circles	1	1										3						1	6	
running spiral		1										1							2	
vertical striping				1															1	
diagonal lines					1	1			1		1								4	
wavy lines												2							2	
herringbone											1	2	1						4	
S-spirals											1	6							7	
hook spirals												6							6	
figural												1							1	
quadruple spirals												2							2	
raised zigzag												2		2			1		5	
hexastripe/ wave						5													5	
undecorated					1			1			7								2	11
sawtooth												1				1			2	
Totals	13	3	3	3	3	8	2	2	1	1	21	40	8	3	1	2	2	2	118	

Table 7.2 mainland hearths by motif and site

Key:

1 = Argolid Exploration Project;	2 = Asine;	3 = Ay. Dhimitrios;
4 = Berbati;	5 = Berbati-Limnes Survey;	6 = Corinth;
7 = Dokos;	8 = Eutresis;	9 = Kolonna;
10 = Kythera;	11 = Lerna;	12 = Tiryns;
13 = Tsoungiza;	14 = Zygories;	15 = Askitaro;
16 = Makrovouni;	17 = Kavos Vasili, Poros;	18 = Thebes



MOTIF	NUMBER	FRAGMENTS
Undecorated	11	Berbati-Limnes: Cat. 53 Eutresis: Caskey & Caskey 1960, Pl. 48 Lerna: P522, P938, P939, P1006, P1045-1148, P1234, P1235 Thebes: Aravantinos 1986, Demakopoulou 1975, Fig. 1
Hatched triangles	10	AEP: Cat. 657, 658, 659, 660 Asine: Frödin & Persson 1938, Fig. 169.2 Ay. Dhimitrios: Cat. 22-83 Lerna: P521, P690, P994 Tsongiza: Cat. 628
Chevrons	11	AEP: Cat. 655 Ay. Dhimitrios: 8-83 Corinth: MF 13160 Lerna: P519, P1231, P1232, P1233 Makrovouni 136 Tiryns: CMS VS 1B 410, Tiryns IV, Fig. 18.10, <i>Reliefpithoi und Herdplatten</i> 318, Fig. 5.
Zigzag	28	AEP: Cat. 649, 652, 653 Berbati: Säflund 1965, Fig. 83a, Fig. 83b Berbati-Limnes Survey: Cat. 132 Dokos: A319, A151/3 Eutresis: Goldman 1931 Fig. 16 Lerna: P772, P934, P935 Tiryns: CMS VS 1B 411, 413, 414, 415a, 415b, 417, 418; Tiryns IV, Fig. 16.5, Tiryns VI, 83, Pl. 3 Tsongiza: Cat. 623, 624, 625, 626, 630 Zygouries: Zyg. 114.4 Poros Fig. 5
Kerbschnitt	10	AEP: Cat. 654, 655, 662 Ay. Dhimitrios: 2/83 – Π3779 Corinth: MF 13146 Kythera: Chora 166 Lerna: P520 Tiryns: <i>Reliefpithoi und Herdplatten</i> , Fig. 7a, 7b Tsongiza: Cat. 627
Concentric circles or semi-circles	6	AEP: Cat. 650 Asine: Frödin & Persson 1938, Fig. 169.4 Tiryns: CMS VS 1B 392, Tiryns VI, 89, Pl. 4, Tiryns XI, Pl. 19.1 Poros Fig. 6
Hexastripe/wave	5	Corinth: MF 13396, MF 13397, MF 1976-66, CMS VS 1A 403, MF 13395
Wavy lines	2	Tiryns: Tiryns IV, Fig. 18.1, Tiryns IV, p. 42

Raised zigzag	5	Tiryns: Tiryns IV Plate XV.3, Plate XVI.13 Zygouries: Zygouries 114.1, 114.3 Makrovouni 156
S-spirals	7	Lerna: P1229 Tiryns: CMS VS 1B 381a, 381b, 382; Tiryns IV, Fig. 15.4, 17.4, 18.2
Hook spirals	6	Tiryns: CMS V 538, CMS V 563b, CMS VS 1B 421a, Tiryns IV, Fig. 18.5, 18.7; Kilian 1983, Fig. 41.2;
Quadruple spirals	2	Tiryns: CMS VS 1B 384, Tiryns IV, Fig. 18.8
Running spiral	2	Asine: Frödin & Persson 1938, Fig. 169.3 Tiryns: Tiryns IV, Fig. 18.6
Diagonal lines	4	Berbati-Limnes survey: Cat. 54 Corinth: MF 13394 Kolonna: Walter and Felten 1981, Fig. 16 Lerna: P541
Herringbone	4	Lerna: P1230 Tiryns: CMS VS 1B 409, Tiryns IV, Fig. 16.8 Tsoungiza: Cat. 629
Lozenges	1	AEP: Cat. 651
Vertical striping	1	Berbati: Säflund 1965, Fig. 80
Figural	1	Tiryns: CMS VS 1B 425
Sawtooth	2	Tiryns: Reliefpithoi und Herdplatten, Fig. 8 Askitaro Theochares 1953/4 Fig. 125.

Table 7.3 Chart of motifs of mainland hearths

<b>SITE</b>	<b>MOTIF</b>	<b>ARTIFACTS</b>
Tiryns, Lerna, Zygouries	Running spiral/quadrupeds	Tiryns: CMS V 529 a (pithos) Tiryns: CMS V 529 b (hearth) Lerna: Wiencke, <i>Banded Pithoi</i> Nos. 201-203 (pithos) Zygouries: <i>Zygouries</i> 114.6 (pithos)
Tiryns	S-spirals	CMS V 535 (hearth) CMS VS 1B 382 (hearth)
Tiryns	Wavy lines and zigzag or chevron	CMS V 562 a (hearth) CMS V 562 b (pithos)
Tiryns	Outlined c- or hook-spirals	CMS V 563 a (hearth) CMS V 563 b (hearth) CMS V 563 c (hearth)
Tiryns	Interlocking spirals	CMS VS 1B 381 a (hearth) CMS VS 1B 381 b (hearth)
Tiryns	Zigzag	CMS VS 1B 415 a (hearth) CMS VS 1B 415 b (hearth)
Tiryns	Outlined c- or hook-spirals and lozenges	CMS VS 1B 421 a (hearth) CMS VS 1B 421 b (hearth)

Table 7.4 Evidence for use of the same cylinder seal on hearths

<b>SITE</b>	<b>MOTIF</b>	<b>CITATION</b>
Lerna	zigzags	CMS V 137
Lerna	chevrons	CMS V 134
Lerna	zigzags	CMS V 145
Lerna	zigzags	CMS V 136
Lerna	S-spirals	CMS V 124
Lerna	irregular spirals, squares	CMS V 128
Lerna	wavy lines	CMS V 139
Lerna	spirals in squares	CMS V 129
Lerna	running spiral, zigzag, chevrons, cross	CMS V 125
Lerna	diagonal lines/chevrons	CMS V 143
Lerna	two rows of spirals with curvy lines in between	CMS V 123
Lerna	S-spirals and chevrons	CMS V 131
Lerna	irregular spirals, squares	CMS V 128
Lerna	concentric circles, herringbone	CMS V 130
Lerna	zigzags	CMS V 140
Lerna	running spiral, dog?	CMS V 120
Lerna	running spirals	CMS V 121
Lerna	concentric circles	CMS V 122
Lerna	concentric circles	CMS V 122
Lerna	running spirals	CMS V 121
Lerna	spirals and linear filler	CMS V 126
Lerna	spirals and linear filler	CMS V 126
Lerna	single spirals	CMS V 127
Lerna	concentric circles, herringbone	CMS V 132
Lerna	concentric circles, chevrons	CMS V 133
Lerna	irregular chevrons, dots, lines	CMS V 134
Lerna	zigzags	CMS V 138
Lerna	wavy lines	CMS V 141
Lerna	square lattice	CMS V 142
Lerna	irregular chevrons, lines	CMS V 144

<b>SITE</b>	<b>MOTIF</b>	<b>CITATION</b>
Tiryns	running spiral, dog?	CMS V 529
Tiryns	three bands of runnign spirals	CMS V 531
Tiryns	running spirals and crosses	CMS V 532
Tiryns	S-spirals and filler onrmanet	CMS V 533
Tiryns	two bands of s-spiarls	CMS V 537
Tiryns	irregular spirals	CMS V 538
Tiryns	concentric circles	CMS V 539
Tiryns	concentric circles	CMS V 540
Tiryns	concentric circles, some with crosses	CMS V 541
Tiryns	concentric circles	CMS V 542
Tiryns	concentric circles	CMS V 543
Tiryns	concentric circles	CMS V 544
Tiryns	concentric circles	CMS V 545
Tiryns	concentric circles, herringbone	CMS V 546
Tiryns	concentric circles, linear decoration	CMS V 547
Tiryns	concentric circles	CMS V 548
Tiryns	concentric circles, herringbone?	CMS V 549
Tiryns	concentric circles, wavy filler	CMS V 550
Tiryns	irregular chevrons, concentric circles	CMS V 551
Tiryns	irregular hook spirals, zigzags	CMS V 552
Tiryns	zigzag and finger impressions	CMS V 553
Tiryns	zigzag or chevrons	CMS V 554
Tiryns	wavy zigzag	CMS V 555
Tiryns	zigzag	CMS V 556
Tiryns	zigzag	CMS V 560
Tiryns	three bands of wavy lines	CMS V 561
Tiryns	wavy lines and chevrons	CMS V 562b
Tiryns	herringbone	CMS V 565
Tiryns	herringbone	CMS V 566
Tiryns	chevrons and lattice	CMS V 567
Tiryns	irregular squares with dots	CMS V 568
Tiryns	2 separate bands of lozenge lattice	CMS V 569

<b>SITE</b>	<b>MOTIF</b>	<b>CITATION</b>
Tiryns	lozenges and zigzag	CMS V 570
Tiryns	wavy pattern with zigzag	CMS V 571
Tiryns	stamped central cross with dots	CMS V 572a
Tiryns	stamped central cross with wavy line	CMS V 572b
Tiryns	running spirals	CMS VS 1B 376a
Tiryns	running spirals	CMS VS 1B 376b
Tiryns	S-spirals and filler onrmanet	CMS VS 1B 377
Tiryns	running spirals and crosses	CMS VS 1B 378
Tiryns	S-spirals	CMS VS 1B 379
Tiryns	S-spirals	CMS VS 1B 380
Tiryns	Running s-spirals, zigzag or chevrons	CMS VS 1B 383
Tiryns	concentric circles with dots	CMS VS 1B 385
Tiryns	concentric circles, wavy filler	CMS VS 1B 386
Tiryns	concentric circles with dots	CMS VS 1B 387
Tiryns	concentric circles with dots	CMS VS 1B 388
Tiryns	concentric circles with dots	CMS VS 1B 389
Tiryns	concentric circles	CMS VS 1B 390
Tiryns	concentric circles, zigzag	CMS VS 1B 391
Tiryns	concentric circles	CMS VS 1B 392
Tiryns	concentric circles, some with crosses	CMS VS 1B 393
Tiryns	concentric circles, crosses	CMS VS 1B 394
Tiryns	concentric circles, wavy filler	CMS VS 1B 395
Tiryns	concentric circles, wavy filler	CMS VS 1B 396
Tiryns	concentric circles or spirals	CMS VS 1B 397
Tiryns	concentric circles and semicircles	CMS VS 1B 398
Tiryns	concentric circles	CMS VS 1B 399
Tiryns	concentric circles and herringbone?	CMS VS 1B 400
Tiryns	concentric circles and herringbone?	CMS VS 1B 401
Tiryns	concentric circles and herringbone	CMS VS 1B 402
Tiryns	concentric circles and herringbone	CMS VS 1B 403

<b>SITE</b>	<b>MOTIF</b>	<b>CITATION</b>
Tiryns	herringbone or chevrons and concentric circles?	CMS VS 1B 404
Tiryns	circles and linear ornament	CMS VS 1B 405
Tiryns	concentric circles? And dots	CMS VS 1B 406
Tiryns	diagonal lines and t-shaped motifs	CMS VS 1B 407
Tiryns	S-spirals, hook spirals and herringbone	CMS VS 1B 408
Tiryns	zigzag	CMS VS 1B 412
Tiryns	zigzag	CMS VS 1B 416
Tiryns	uncertain, linear and dots	CMS VS 1B 419
Tiryns	lattice and zigzag, dots	CMS VS 1B 420
Tiryns	uncertain, irregular	CMS VS 1B 422
Tiryns	irregular, concentric circles, spirals	CMS VS 1B 423
Zygouries	running spiral, dog?	CMS V 504
Zygouries	zigzag	CMS V 505
Zygouries	concentric semicircles	CMS V 507

Table 7.5 List of motifs on rolled pithoi from Lerna, Tiryns and Zygouries

FIGURES

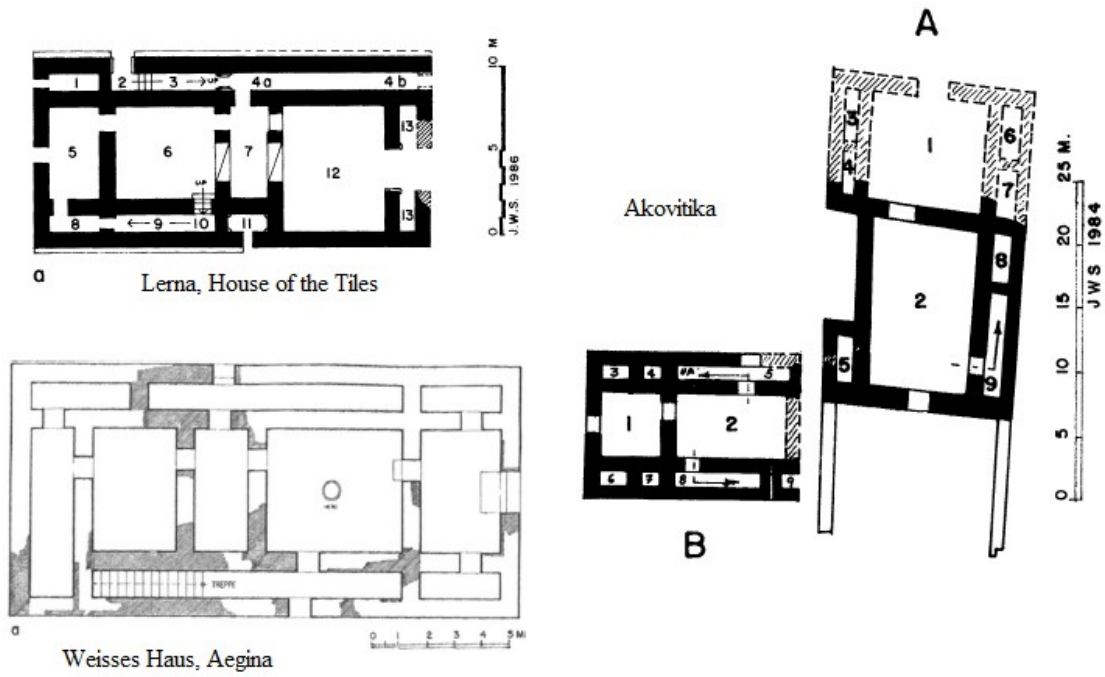


Fig. 2.1 Plans of selected Corridor houses, from Shaw 2007.

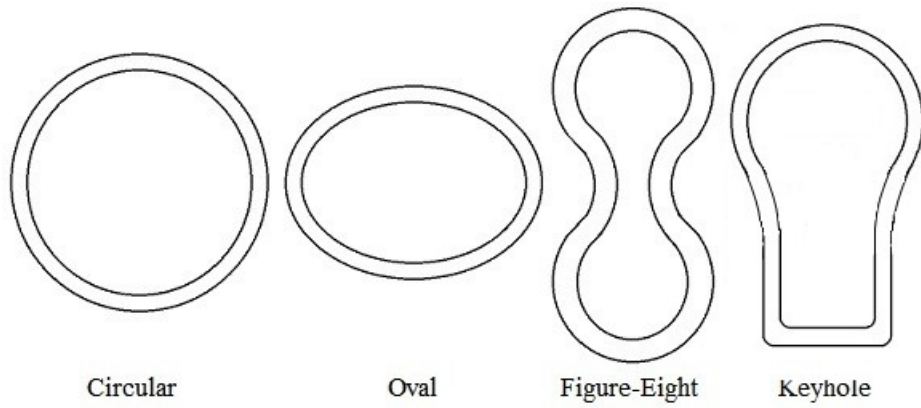


Fig. 3.1 Ceramic Hearth shapes





Fig. 3.2 Hearth P772 from Lerna, with central axe-shaped depression



Fig. 3.3 Hearth P772 from Lerna, detail, with additional decoration in the pan



Fig. 3.4 Hearth rim MF13394 from Corinth with incised decoration



Fig. 3.5 Hearth rim P520 from Lerna, with impressed kerbschnitt



Fig. 3.6 Stamp-seal impressed hearth rim from Ay. Irini, CMS V.453 (Wilson 1999, II-375).



Fig. 3.7 Hearth from Zygouries, CMS V.2.506, roller seal impressed with zig-zags

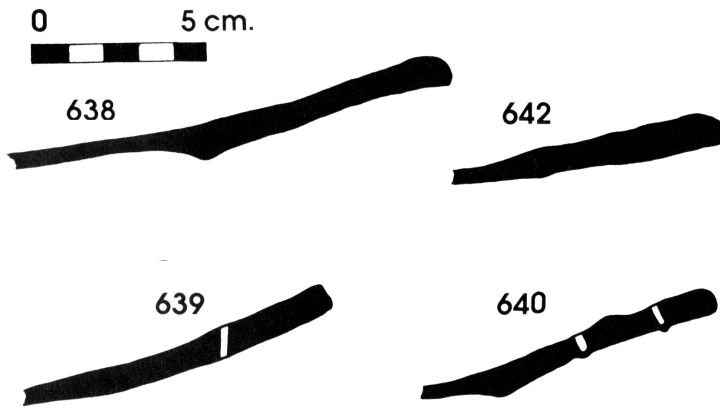


Fig. 3.8 Profiles of selected baking pans from Lerna (Wiencke 2000, Fig. II.35)

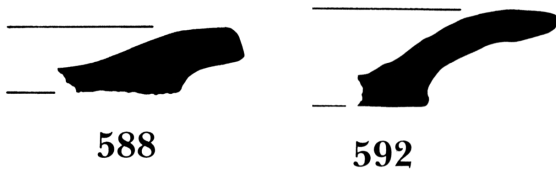


Fig. 3.9 Profiles of selected baking pans from Tsoungiza (Pullen 2011d, Figs. 5.112, 5.113, 5.116)

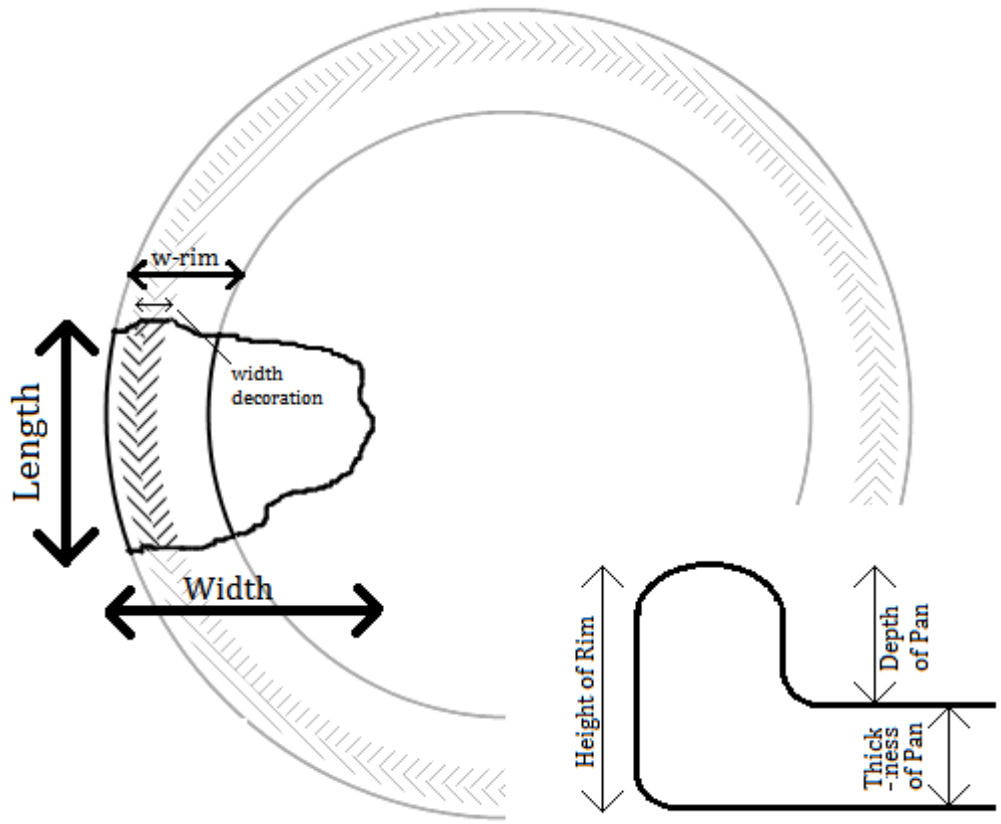


Fig. 4.1 Key to the measurements of the hearths



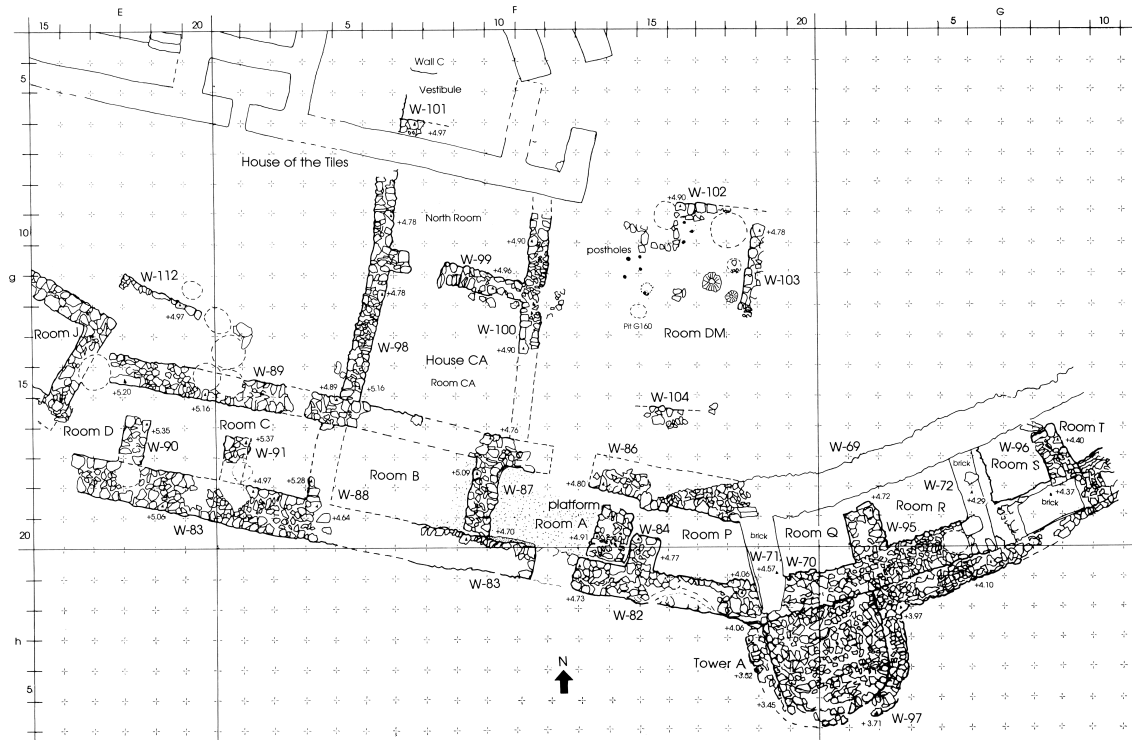


Fig. 4.3: Plan of Lerna, Phase IIIC, Rooms CA and DM (from Wiencke 2000, Plan 24)

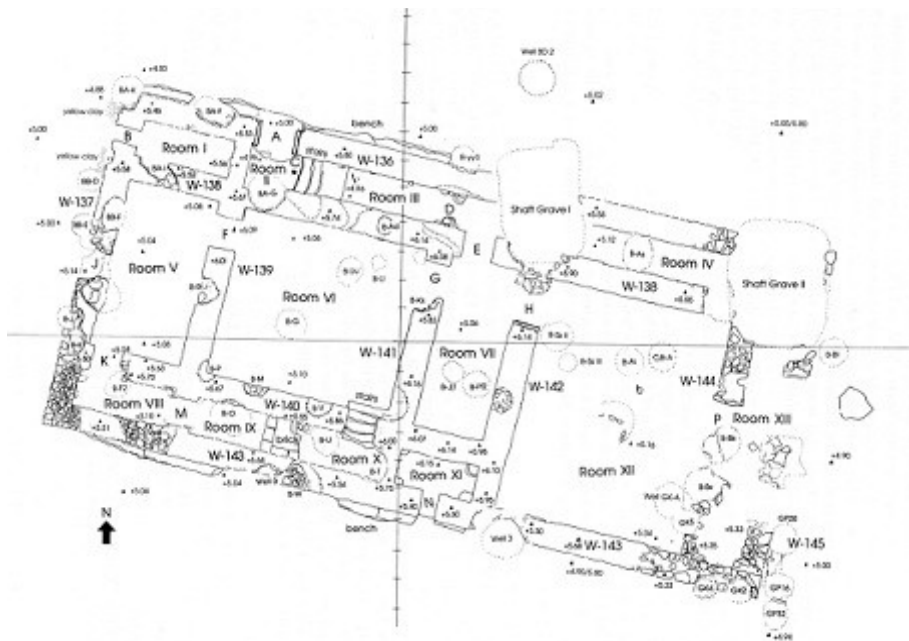


Fig. 4.4: Plan of Lerna, Phase IIID, House of the Tiles (from Wiencke 2000, Plan 32)



Fig. 4.5: Hearth rim P520 from Lerna

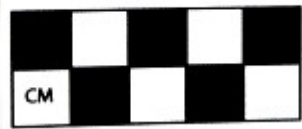


Fig. 4.6: Hearth rim P521 from Lerna





Fig. 4.7: Hearth P772 from Lerna and detail



Fig. 4.8 Hearth rim P935 from Lerna



Fig. 4.9 Hearth rim P938 from Lerna



Fig. 4.10 Hearth rim P939 from Lerna



Fig. 4.11 Hearth rim P994 from Lerna



Fig. 4.12 Hearth rim P1230 from Lerna



Fig. 4.13 Hearth rim P1232 from Lerna



Fig. 4.14 Hearth rim P1233 from Lerna



Fig. 4.15 Hearth rim P1235 from Lerna



Fig. 4.16 Hearth P1006 from Lerna



Fig. 4.17 Hearth P1148 from Lerna



Fig. 4.18 Hearth rim P1229 from Lerna



Fig. 4.19 Hearth rim P1231 from Lerna





Fig. 4.20 Hearth rim fragments of P1234 from Lerna

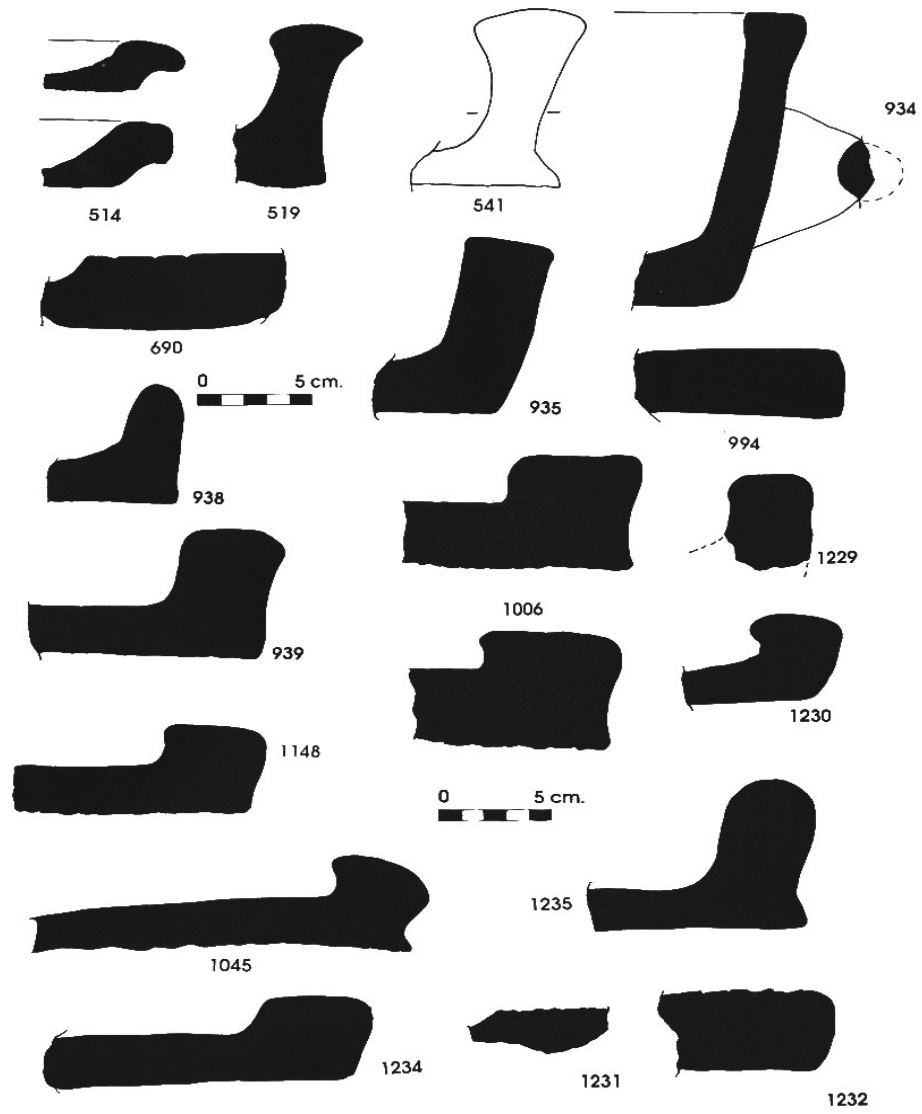


Fig. 4.21 Rim profiles of selected Lerna hearths (from Wiencke 2000)



Fig. 4.22 Mat impressions on bottoms of hearth fragments P935 and P1234 from Lerna



Fig. 4.23 Signs of burning on hearth fragments P1233, P1148 from Lerna



Fig. 4.24 Small incision on exterior of hearth rim P1230 from Lerna

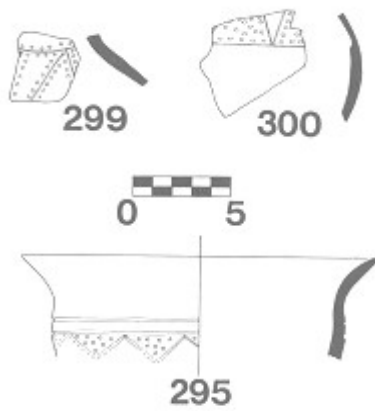


Fig. 4.25 Examples of Lerna IV impressed/incised decoration (from Rutter 1995, Fig. 13)

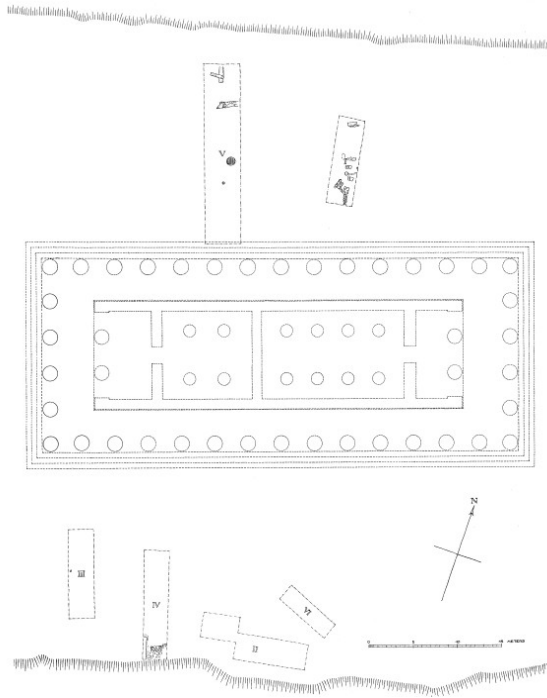


Fig. 4.26 Plan of Trenches from Temple Hill (Weinberg 1937, Fig. 1)

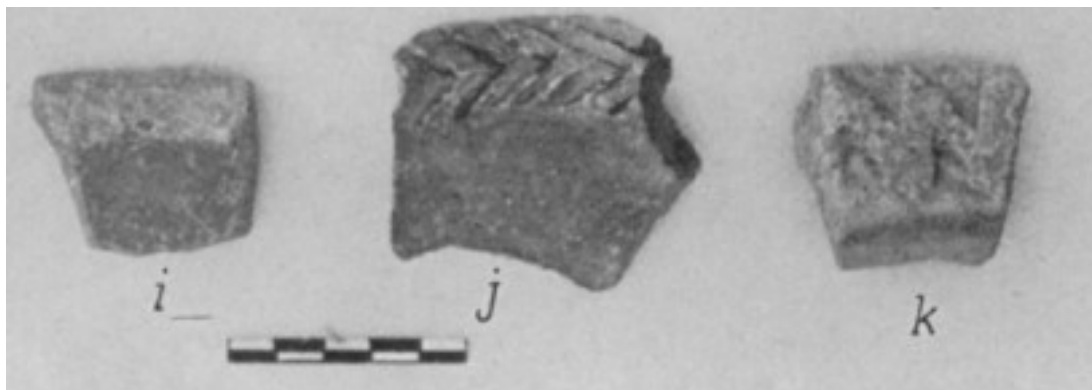
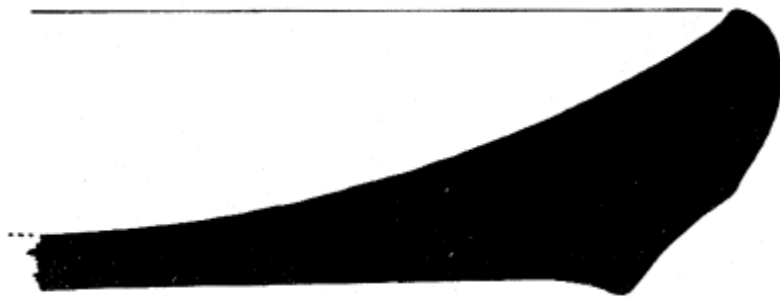


Fig. 4.27 Decorated Early Helladic rims, possibly hearths? (Weinberg 1937, Fig. 34).



MF 13393

NO. 1

Fig. 4.28 Corinth hearth rim MF 13393 (Lavezzi 1979, Fig. 1)



Fig. 4.29 Corinth hearth rim MF 13394



Fig. 4.30 Corinth hearth rim MF 13146



Fig. 4.31 Corinth hearth rim MF 13146, bottom





Fig. 4.32 Corinth hearth rim MF 1974-71



Fig. 4.33 Corinth hearth rim MF 1974-71, bottom, finger indentations

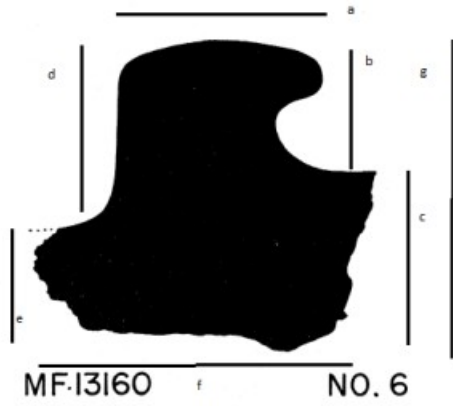


Fig. 4.34 Corinth hearth rim MF 13160, profile from Lavezzi 1979, Fig. 1



Fig. 4.35 Corinth hearth rim MF 13160



Fig. 4.36 Corinth hearth rim MF 13395



Fig. 4.37 Corinth hearth rim MF 13397



Fig. 4.38 Corinth hearth rim MF 13397, detail



Fig. 4.39 Corinth hearth rim MF 13396



Fig. 4.40 Corinth hearth rim MF 1976-66



Fig. 4.41 Corinth hearth rim MF 1976-66, detail

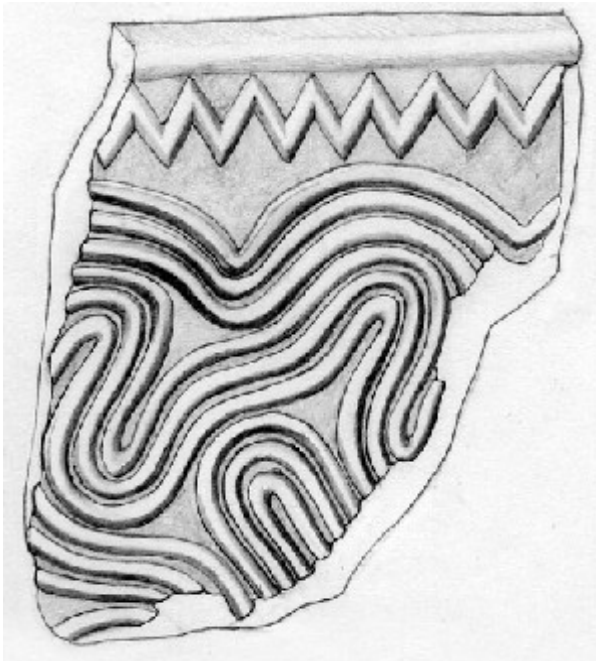


Fig. 4.42 Corinth hearth rim CMS V S1A.403



Fig. 4.43 Banded pithos from Tiryns, CMS V.571

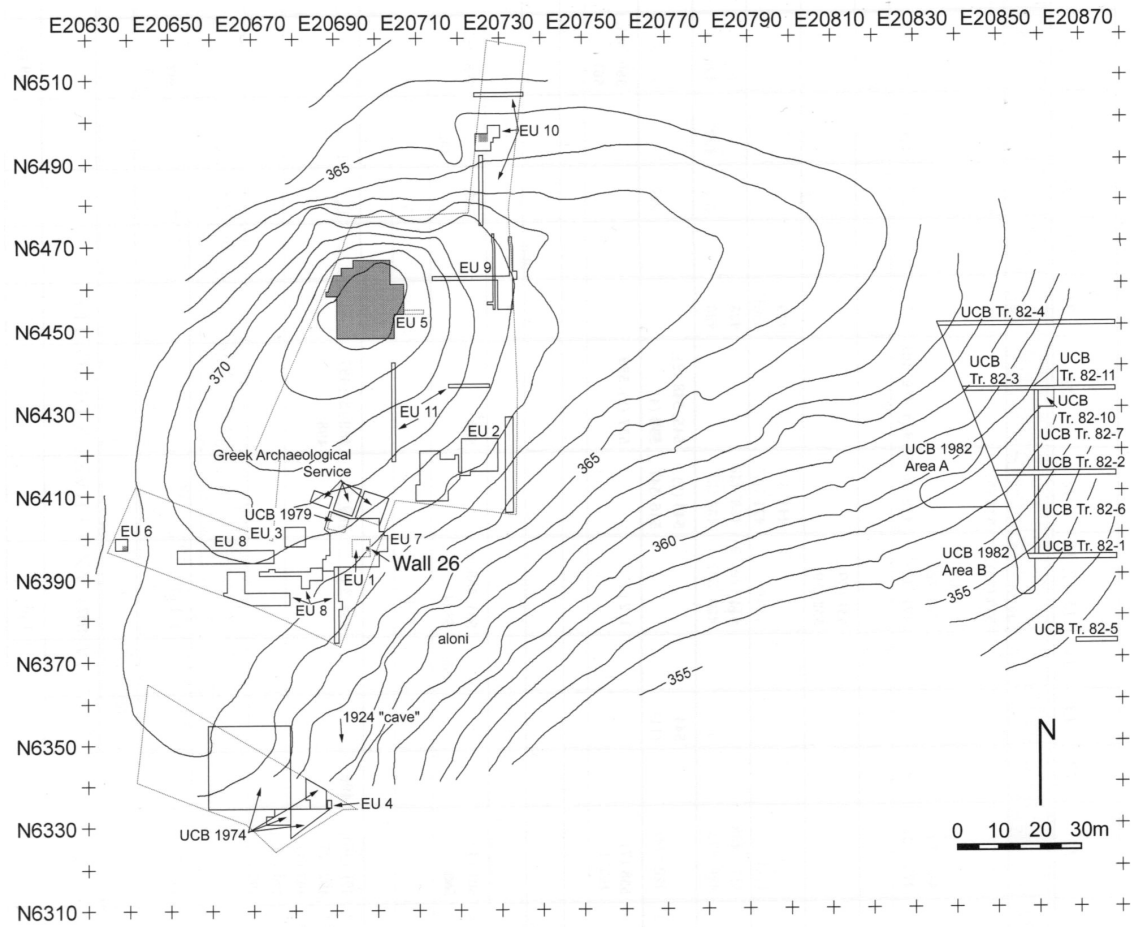


Fig. 4.44 Tsoungiza map (Pullen 2011d, 244)



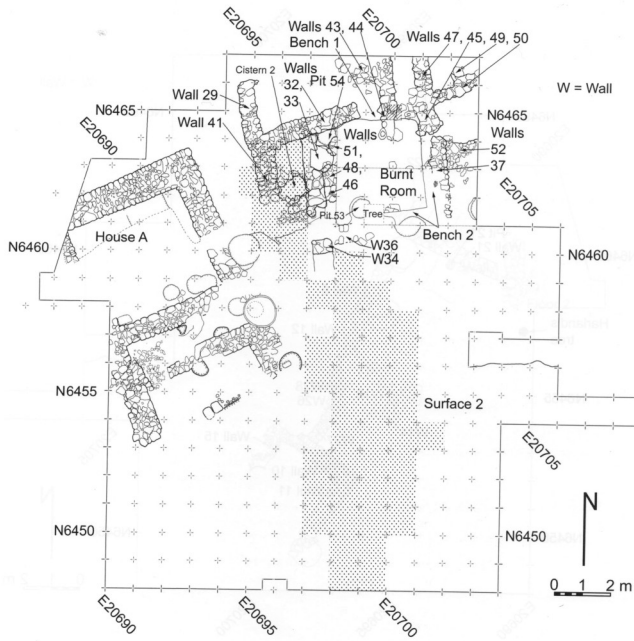


Fig. 4.45 House A (Pullen 2011d, 247).

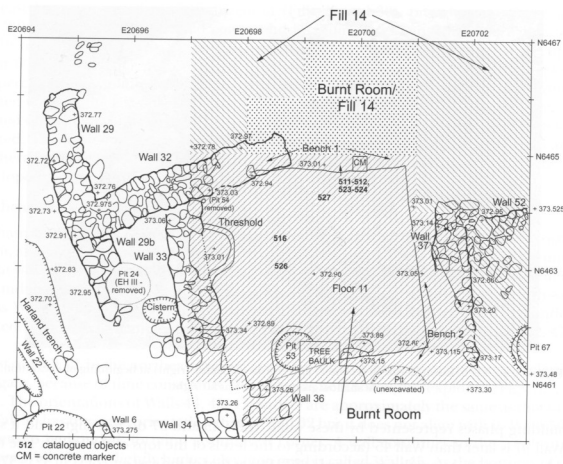


Fig. 4.46 Burnt room (Pullen 2011d, 311).

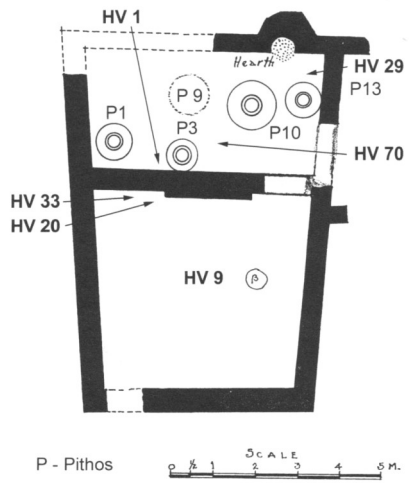


Fig 4.47 House B (Pullen 2011d, 325)



Fig. 4.48 Tsoungiza hearth rim 229



Fig 4.49 Tsoungiza hearth rim 287



Fig. 4.50 Tsoungiza hearth rim 310



Fig. 4.51 Tsoungiza hearth rim 623



Fig. 4.52 Tsoungiza hearth rim 624



Fig. 4.53 Tsoungiza hearth rim 625



Fig. 4.54 Tsoungiza hearth rim 626



Fig. 4.55 Tsoungiza hearth rim 626, bottom, groove indicated



Fig. 4.56 Tsoungiza hearth rim 627



Fig. 4.57 Tsoungiza hearth rim 628



Fig. 4.58 Tsoungiza hearth rim 629



Fig. 4.59 Tsoungiza hearth rim 630

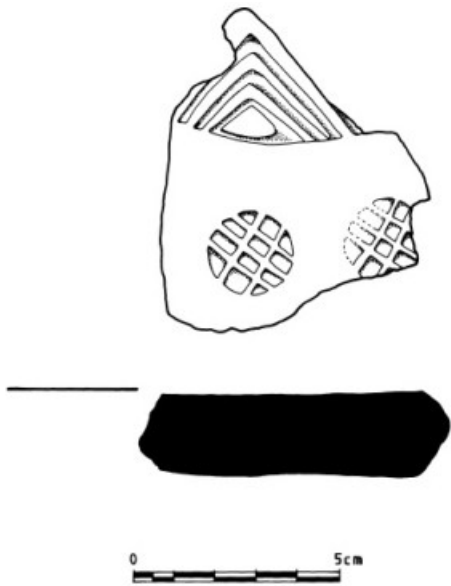


Fig. 4.60 Possible hearth rim from Tsoungiza 631 (drawing from Pullen 1994, Fig. 4)



Fig. 4.61 Tiryns hearth rim CMS V 529, from CMS

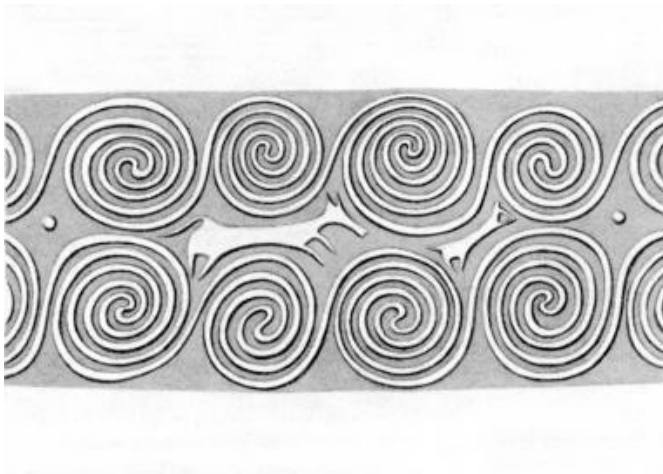


Fig. 4.62 Drawing of impression from banded pithos from Tiryns, from CMS



Fig. 4.63 Tiryns hearth rim CMS V 530





Fig. 4.64 Tiryns hearth rim CMS V 534, drawing from CMS

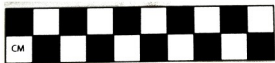


Fig. 4.65 Tiryns hearth rim CMS V 538

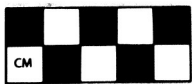


Fig. 4.66 Tiryns hearth rim CMS V 557



Fig. 4.67 Tiryns hearth rim CMS V 558



Fig. 4.68 Tiryns hearth rim CMS V 559



Fig. 4.69 Tiryns hearth rim CMS V 559, detail



Fig. 4.70 Tiryns hearth rims CMS V 562 (a)



Fig. 4.71 Tiryns pithos sherd CMS V.562 (b)



Fig. 4.72 Tiryns hearth rim CMS V.563 (a) / Inv. No. 1277



Fig. 4.73 Tiryns hearth rim CMS V.2.563 (c)



Fig. 4.74 Tiryns hearth rim CMS V.564



Fig. 4.75 Tiryns hearth CMS V 564, display in Nafplio Museum (from CMS)



Fig. 4.76 Tiryns hearth rim CMS VS.1B 381b, from CMS



Fig. 4.77 Tiryns hearth rim CMS VS.1B 384, from CMS

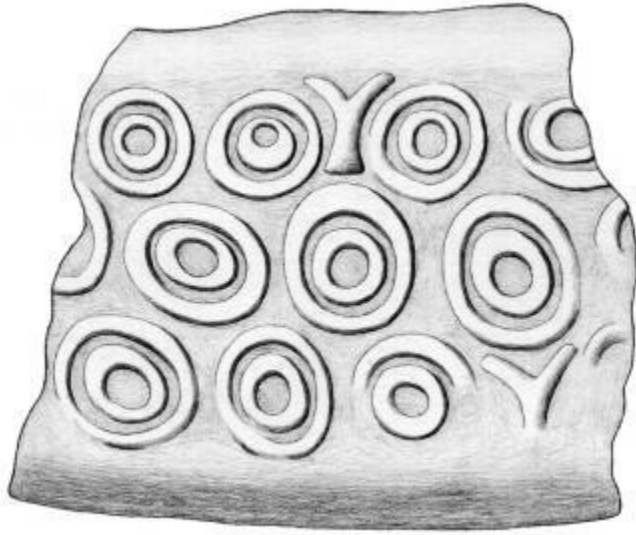


Fig. 4.78 Tiryns hearth rim CMS VS.1B 392, from CMS



Fig. 4.79 Tiryns hearth rim CMS VS.1B 410, from CMS



Fig. 4.80 Tiryns hearth rim CMS VS.1B 415 (b), from CMS



Fig. 4.81 Tiryns hearth rim CMS VS.1B 421 (a)

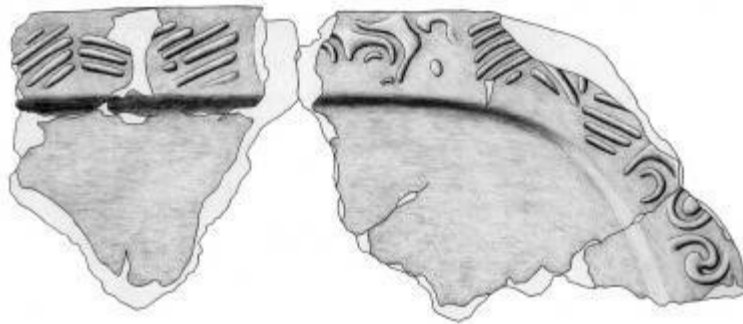


Fig. 4.82 Tiryns hearth rim CMS VS.1B 424, from CMS

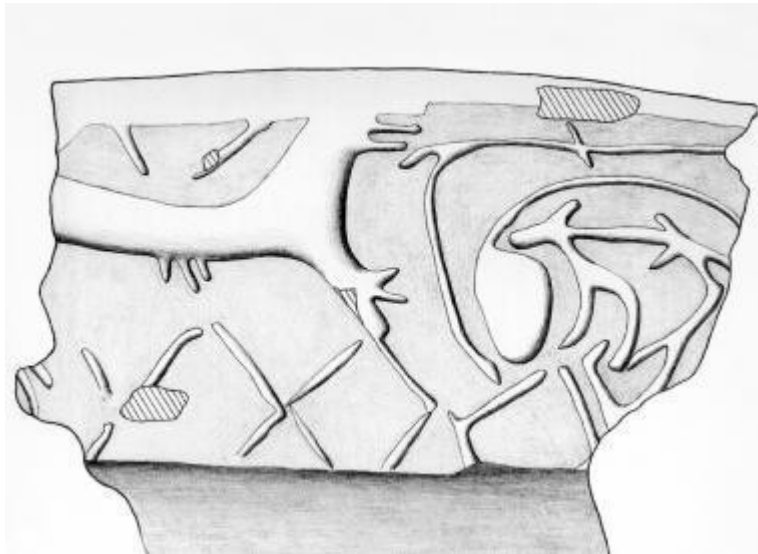


Fig. 4.83 Tiryns hearth rim CMS VS.1B 425, from CMS

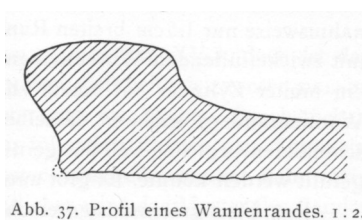


Fig. 4.84 Profile of a hearth from Tiryns, from Müller 1938, Fig. 37





Fig. 4.85 CMS V 562b, a pithos sherd from Tiryns with same impression as CMS V 562a

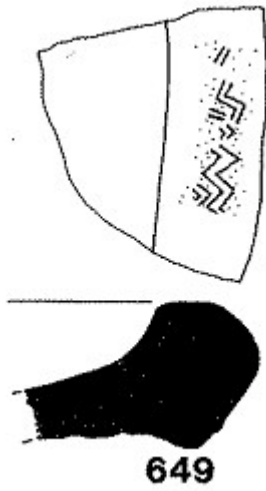


Fig. 4.86 AEP hearth rim *Artifact* No. 649

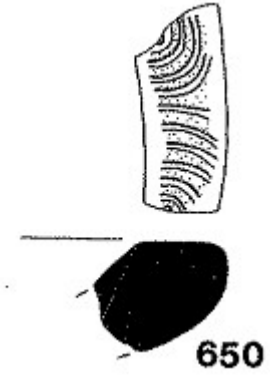


Fig. 4.87 AEP hearth rim *Artifact* No. 650



Fig. 4.88 AEP hearth rim *Artifact* No. 651

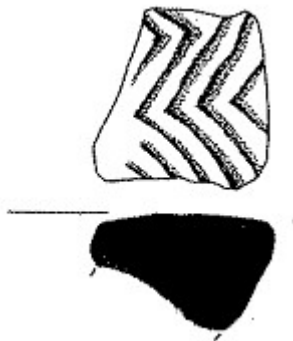


Fig. 4.89 AEP hearth rim *Artifact* No. 652



Fig. 4.90 AEP hearth rim *Artifact* No. 653

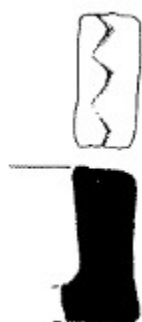


Fig. 4.91 AEP hearth rim *Artifact* No. 654



Fig. 4.92 AEP hearth rim *Artifact* No. 655



Fig. 4.93 AEP hearth rim *Artifact* No. 656 (Fig. 4.93)

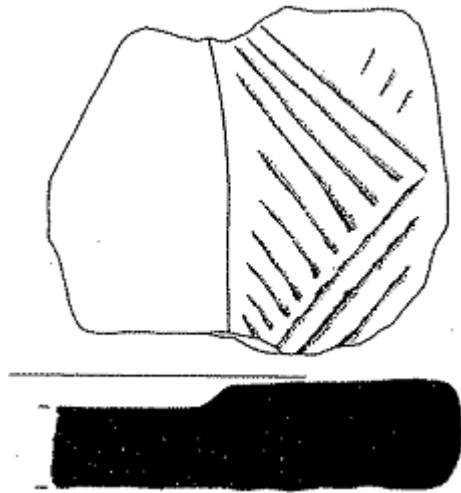
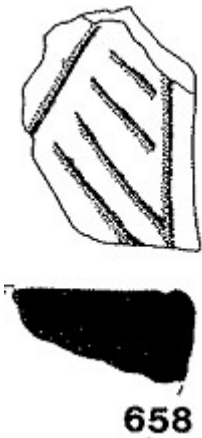


Fig. 4.94 AEP hearth rim *Artifact* No. 657



658

Fig. 4.95 AEP hearth rim *Artifact* No. 658



Fig. 4.96 AEP hearth rim *Artifact* No. 659

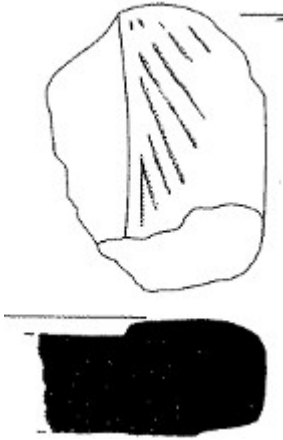


Fig. 4.97 AEP hearth rim *Artifact* No. 660



Fig. 4.98 AEP hearth rim *Artifact* No. 661

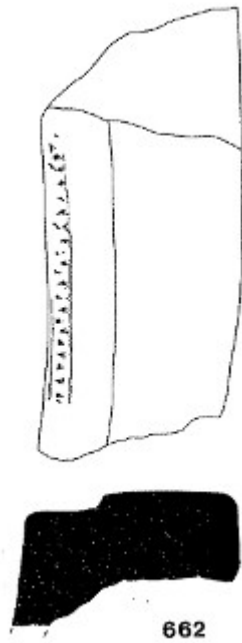


Fig. 4.99 AEP hearth rim *Artifact* No. 662



**663**

Fig. 4.100 AEP hearth rim *Artifact No. 663*



**664**

Fig. 4.101 AEP hearth rim *Artifact No. 664*



**665**

Fig. 4.102 AEP hearth rim *Artifact No. 665*

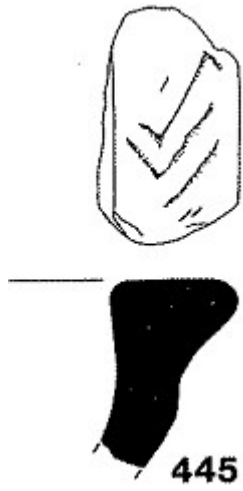


Fig. 4.103 AEP *Artifact* No. 445, Large shallow bowl

**AYIOS DHIMITRIOS - LEPREON**  
**site plan**  
 scale 1:200

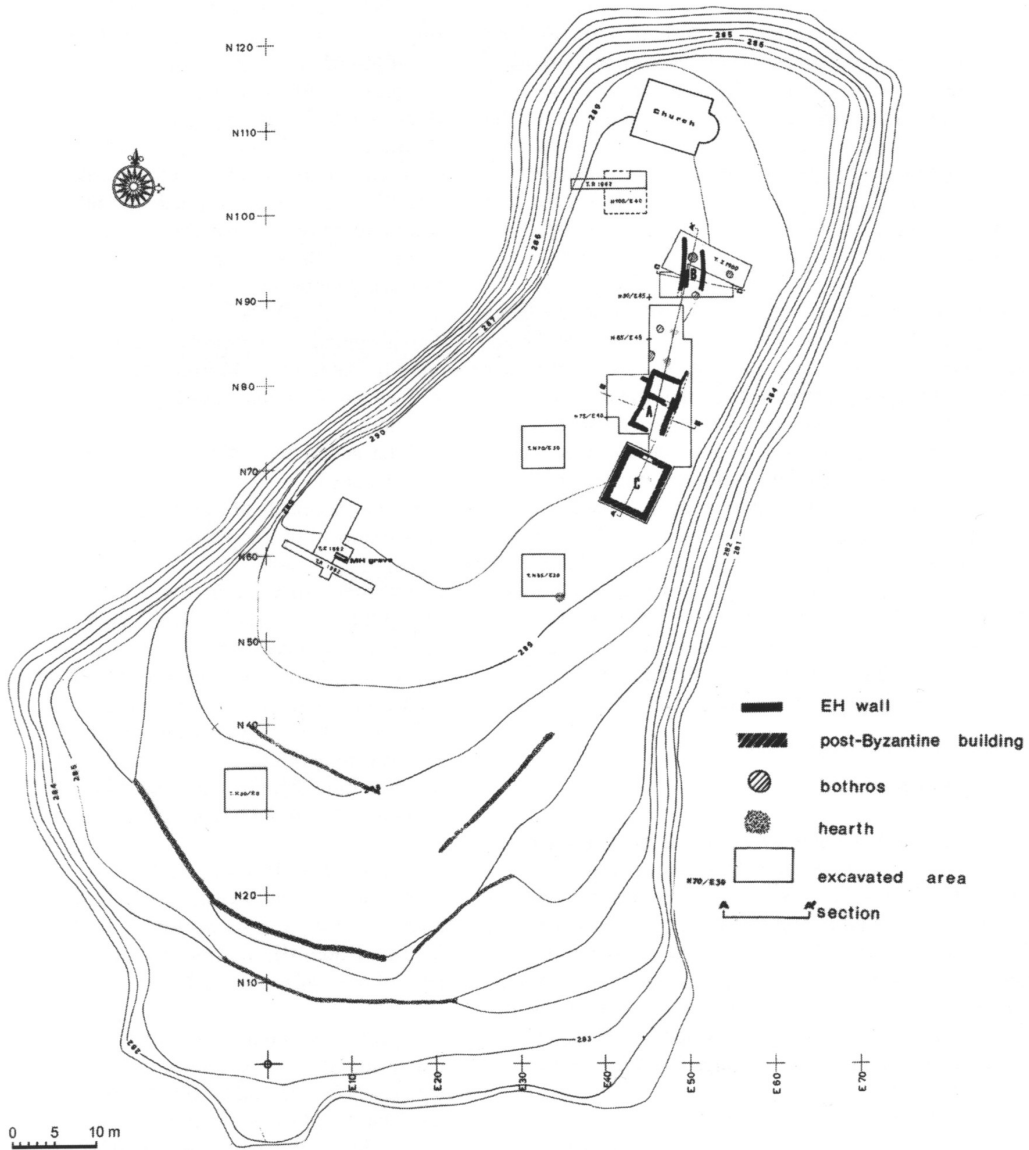


Fig. 4.104 Plan of Ay. Dhimitrios



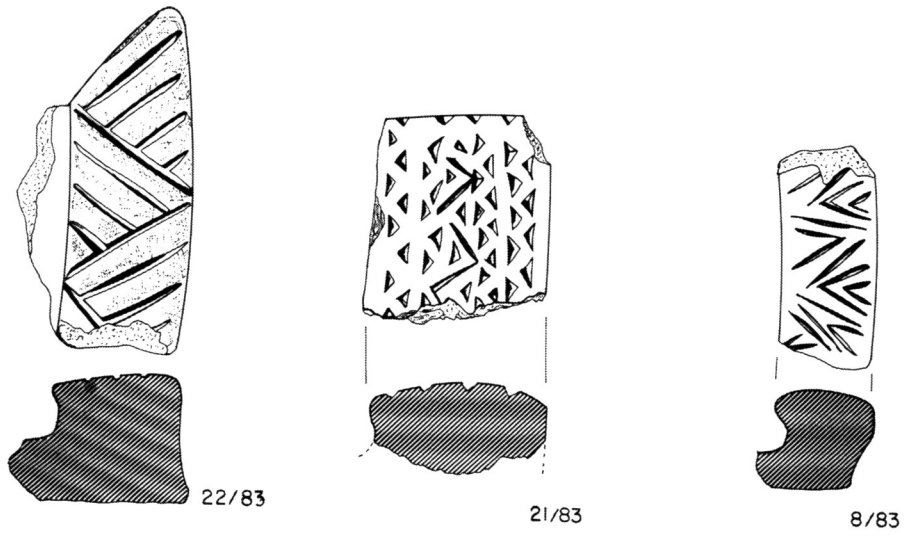


Fig. 4.105, Hearth rims from Ay. Dhimitrios, Zachos 2008, Fig. 62.

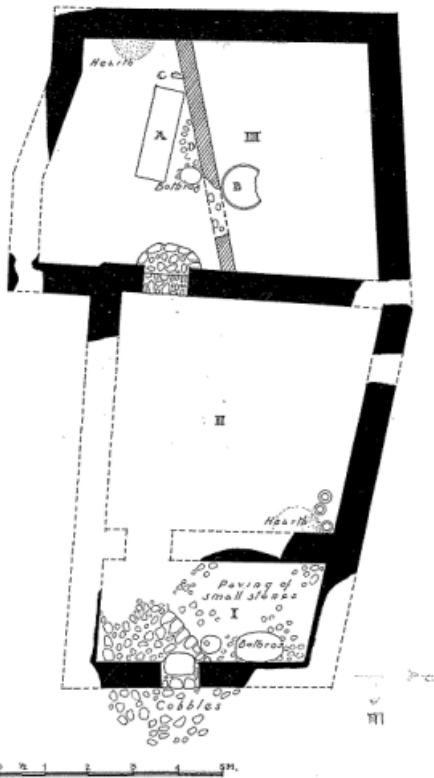


Fig. 4.106 Eutresis House L plan, (Goldman 1931, 17).



Fig. 4.107 Eutresis, House L, Uncovering of hearth, Goldman 1931

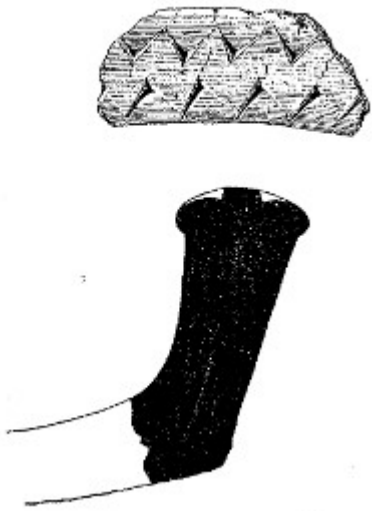


Fig. 4.108 Bowl from Eutresis (Goldman 1930, Fig. 141.1)



Fig. 4.109 Hearth fragment from Asine, Frödin & Persson 1938, Fig. 169.3.

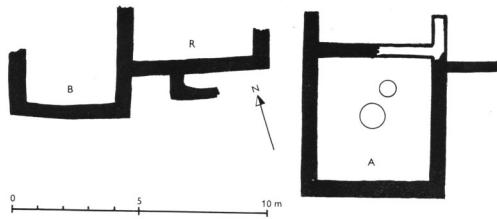


Fig. 4.110: Megaron A, Berbati plan (Säflund 1965, Fig. 78)



Fig. 4.111 Picture of hearth in situ Berbati Megaron A (Säflund 1965, Fig. 81)



Fig. 4.112 Hearth from Berbati, Megaron A, on display in Nafplio Museum



Fig. 4.113 Detail of decoration on hearth from Berbati, Megaron A

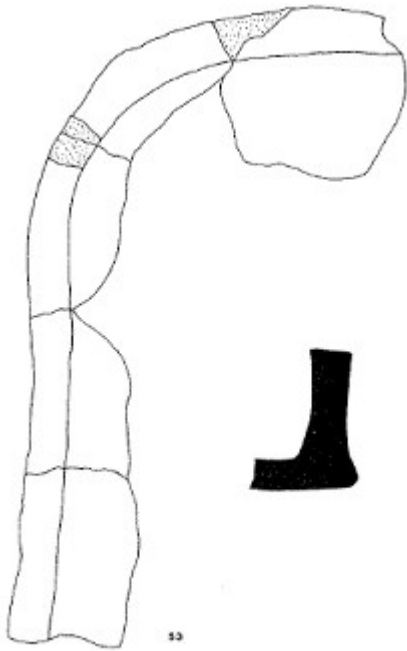


Fig. 4.114 *Berbati-Limnes* hearth Cat. No. 53, drawing and profile

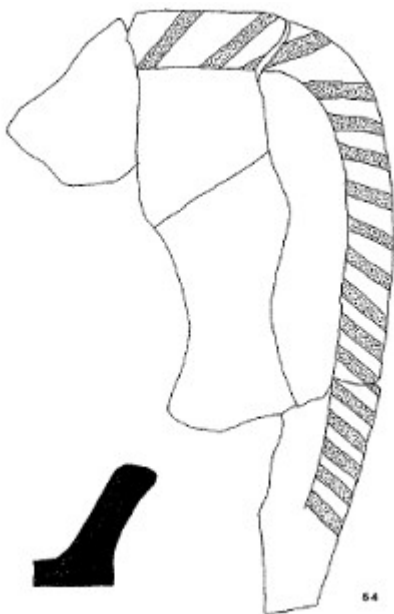


Fig. 4.115 *Berbati-Limnes* hearth Cat. No. 54, drawing and profile

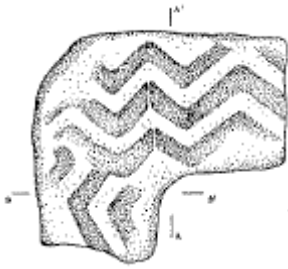


Fig. 4.116 *Berbati-Limnes* hearth rim No. 132, drawing

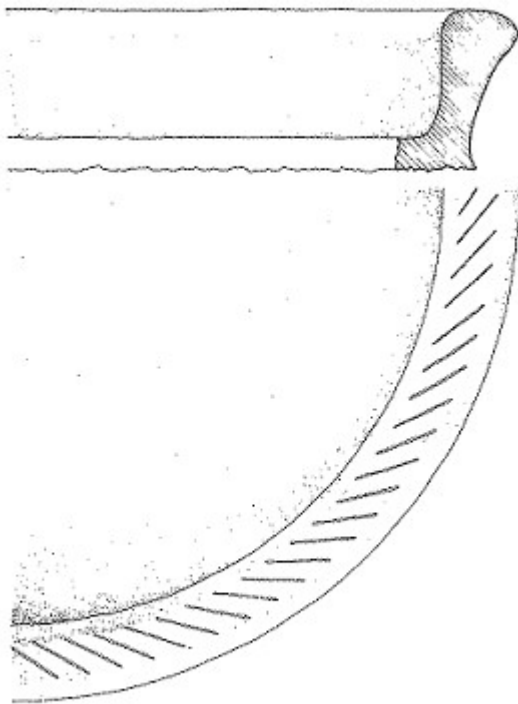


Abb. 16 'Weißes Haus' - Töpferherd.

Fig. 4.117 Drawing of hearth rim and profile from Kolonna



Fig. 4.118 *Zygouries* hearth rim Fig. 114.4



Fig. 4.119 *Zygouries* hearth rim Fig. 114.1, detail of pan



Fig. 4.120 *Zygouries* Fig. 114.1



Fig. 4.121 *Zygouries* hearth rim Fig. 114.3



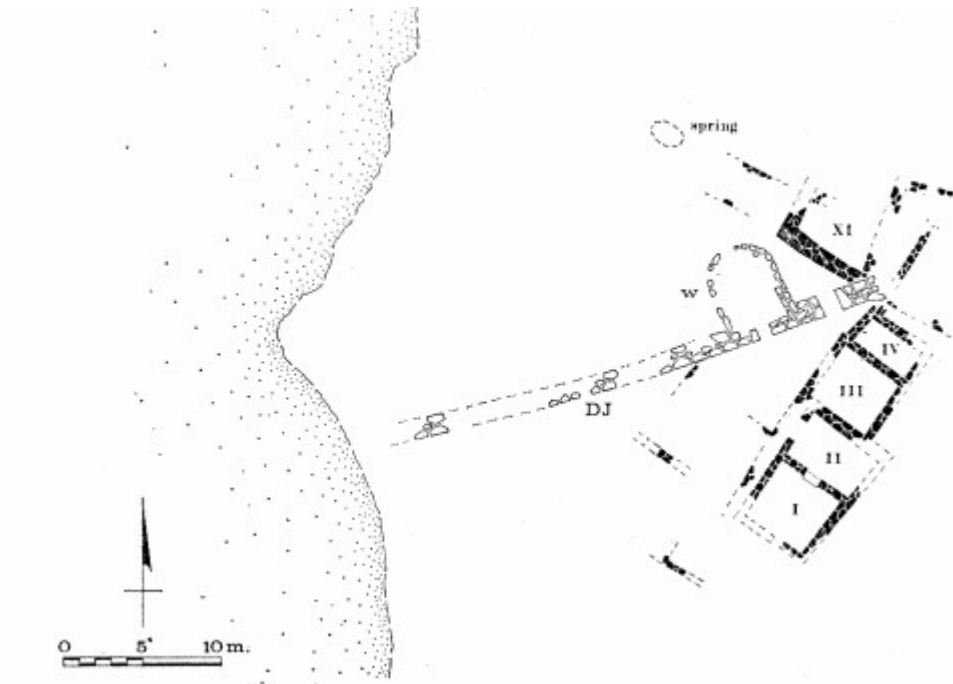


Fig. 5.1 Plan of EB II Ay. Irini, House E, from Caskey 1971

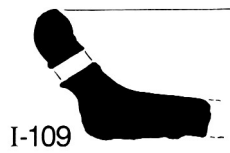


Fig. 5.2 Profile of Keos baking pan I-109, from Wilson 1999, Pl. 3

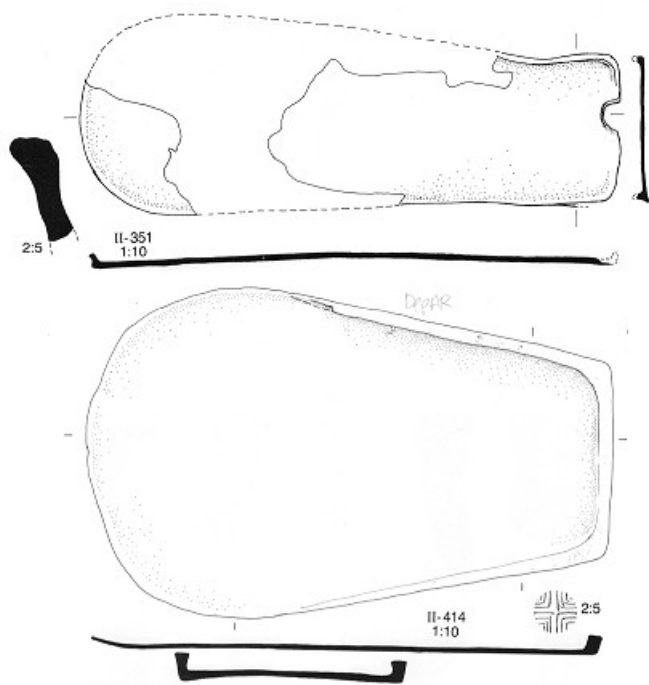


Fig. 5.3, Drawings of Keos hearths II-351 and II-414, from Wilson 1999, Pls. 13, 14

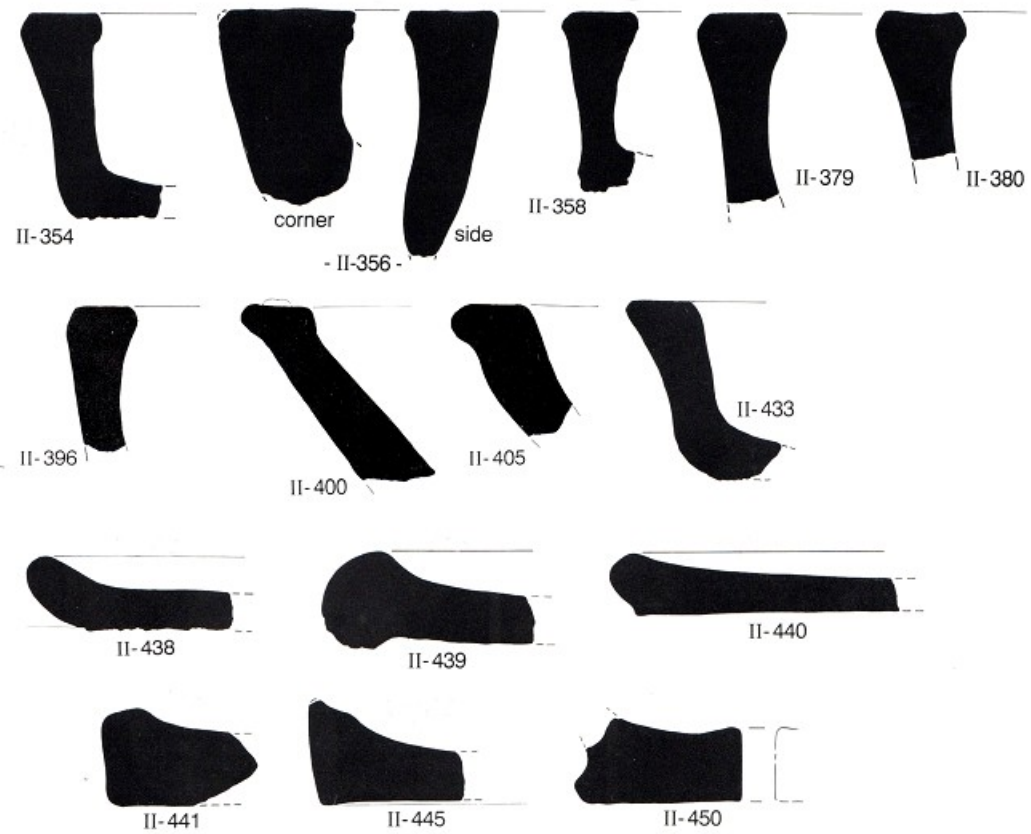


Fig. 5.4 Rim profiles of Keos hearth rims from DepAC, from Wilson 1999, Pls. 13-15

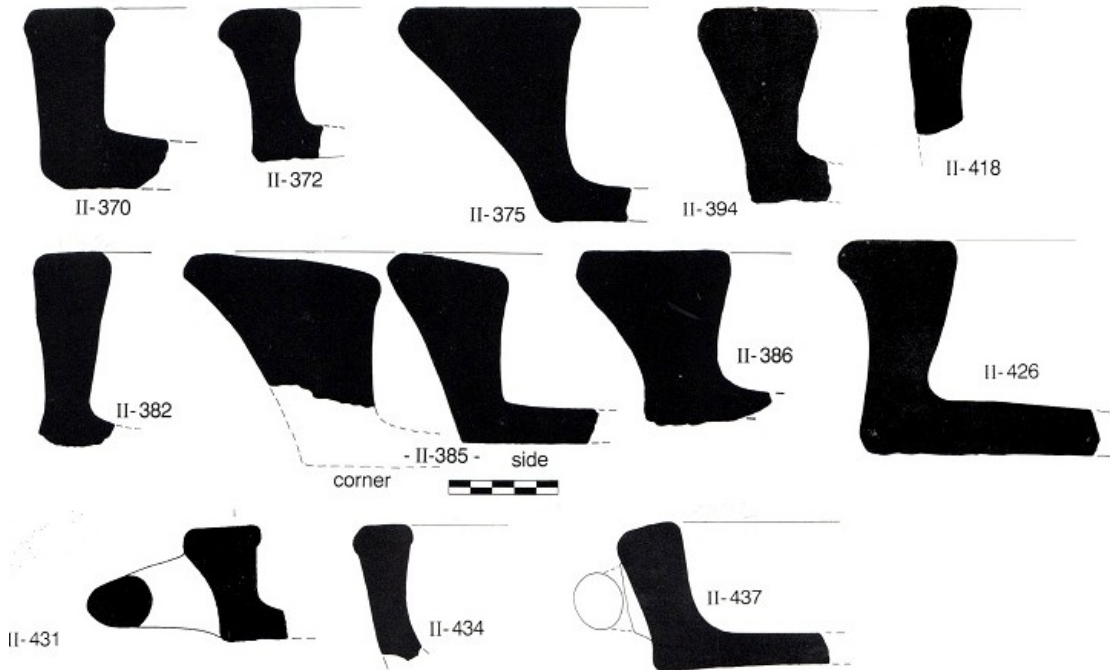


Fig. 5.5 Rim profiles of Keos hearth rims from DepBL, from Wilson 1999, Pls. 13-15

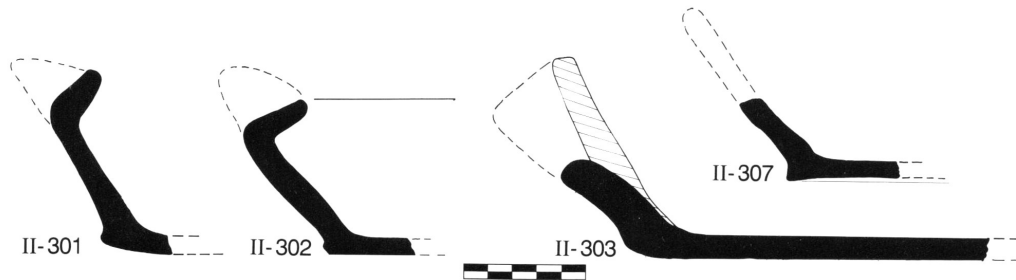


Fig. 5.6 Profiles of Period II Keos pans, from Wilson 1999, Pl. 11

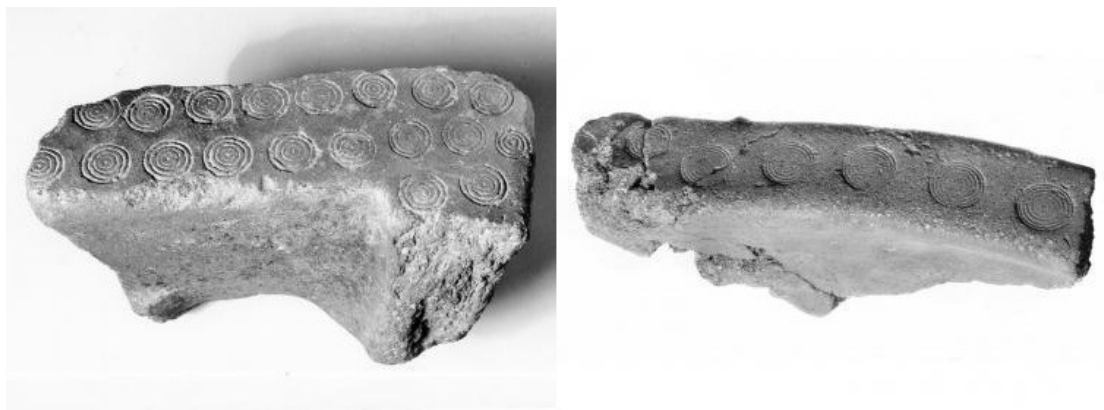


Fig. 5.7 Examples of concentric circle motifs on Keos hearth rims, CMS V 451b and CMS V 452 (Keos II-356 and II-379)



Fig. 5.8 Examples of chevron cross motifs on Keos hearth rims



Fig. 5.9 Examples of possible figural motifs on Keos hearth rims, not to scale, CMS V 463, 464, 478 (Keos II-419, 434, and 422)

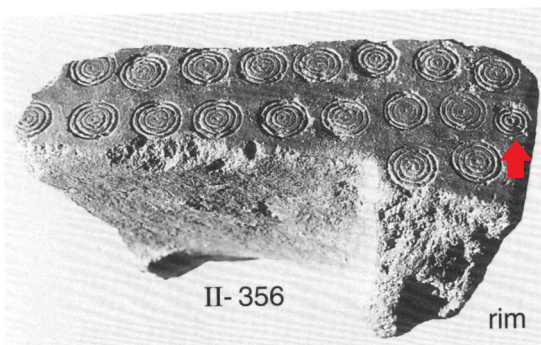


Fig. 5.10 Keos hearth rim II-356, photo from Wilson 1999, Pl. 55, with different stamp seal indicated

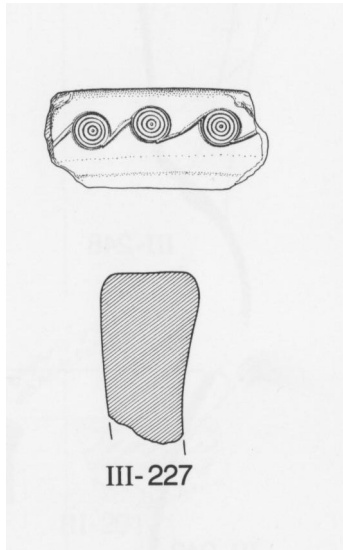


Fig. 5.11 Keos hearth rim III-227, with stamped concentric circle motifs joined by incised lines, drawing from Wilson 1999, Pl. 29

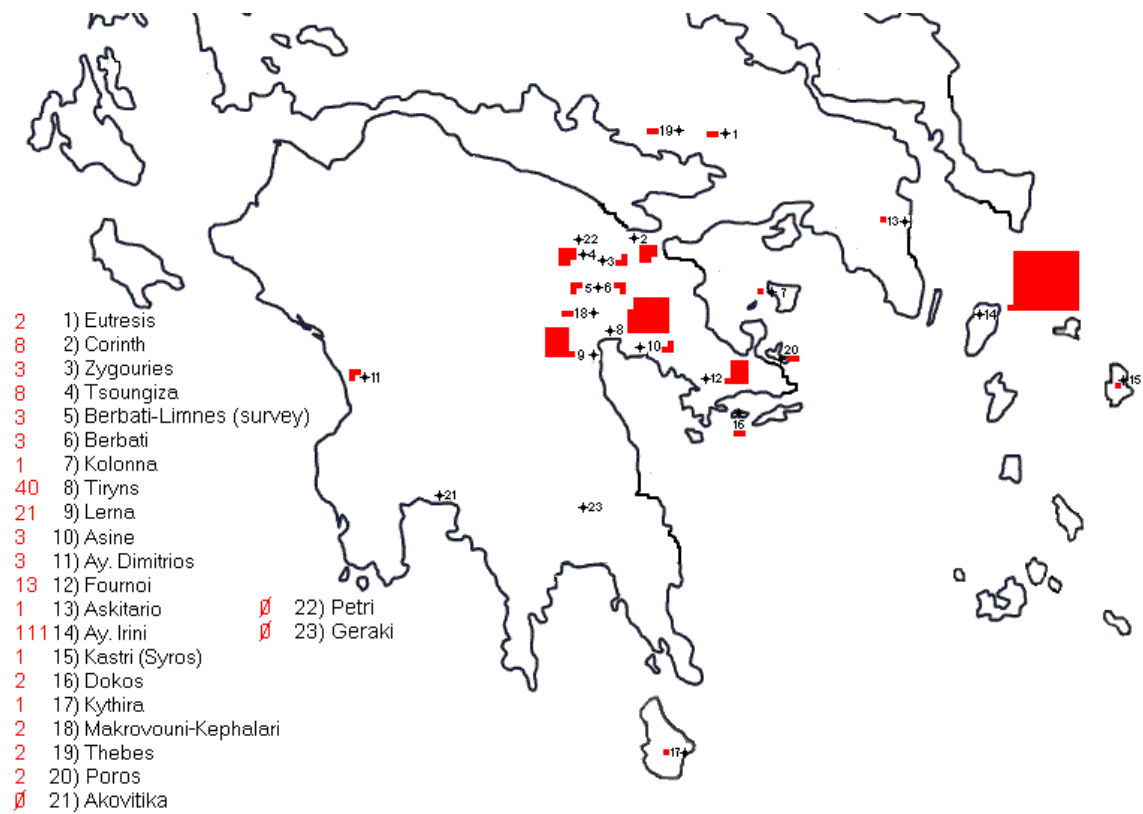


Fig. 6.1 Map of distribution of hearths by number

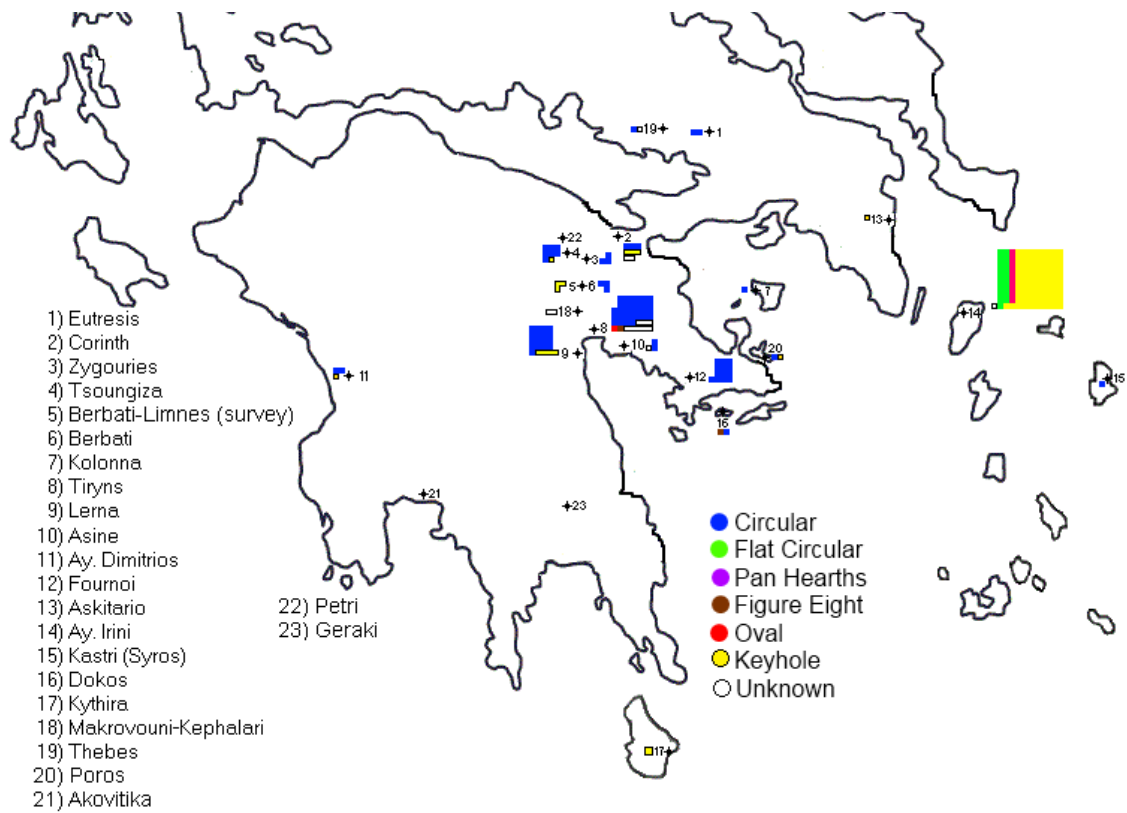


Fig. 6.2 Map of distribution of hearths by shape



Fig. 6.3 Tiryns hearth rim CMS V 535



Fig. 6.4 Lerna hearth P1006



Fig. 6.5 Examples where the cylinder seal extends past the width of the hearth rim:  
Corinth MF 13396; Tiryns CMS V 563c



Fig. 6.6 Tiryns hearth rim CMS V 562a (L) and pithos sherd with same seal (R)

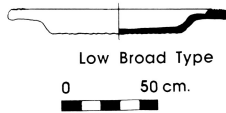


Fig. 6.7 Profile of Lerna hearth P772, from Wiencke 2000, Fig. II.84.

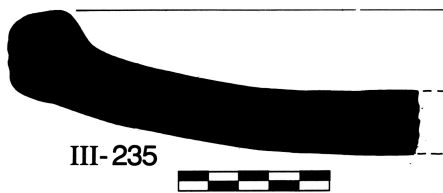


Fig. 6.8 Profiles of Keos hearth III-235, from Wilson 1999, Pl. 30.



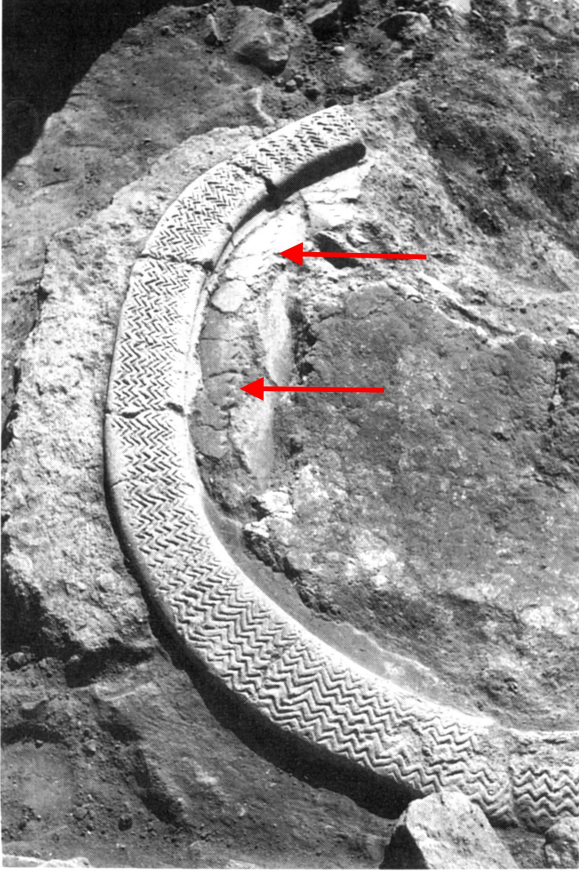


Fig. 7.1 Photo of hearth P772 from Lerna at excavation

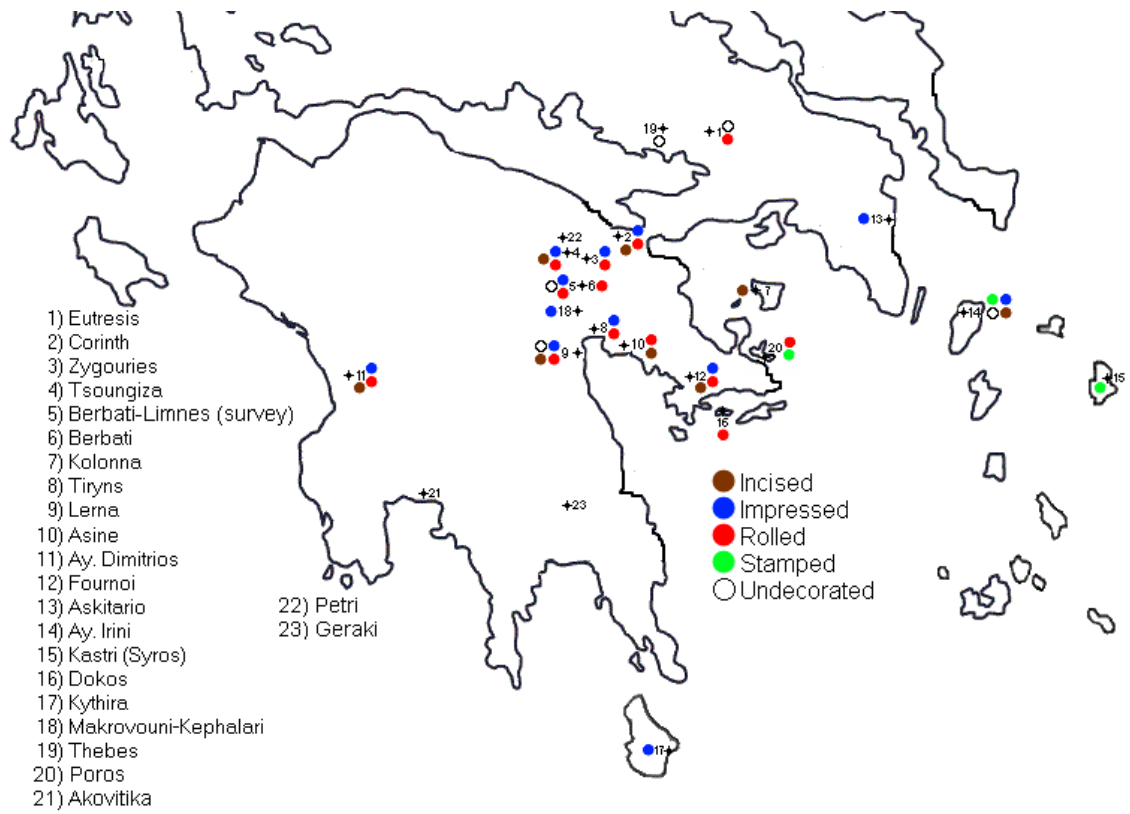


Fig. 7.2 Distribution map of methods of hearth decoration

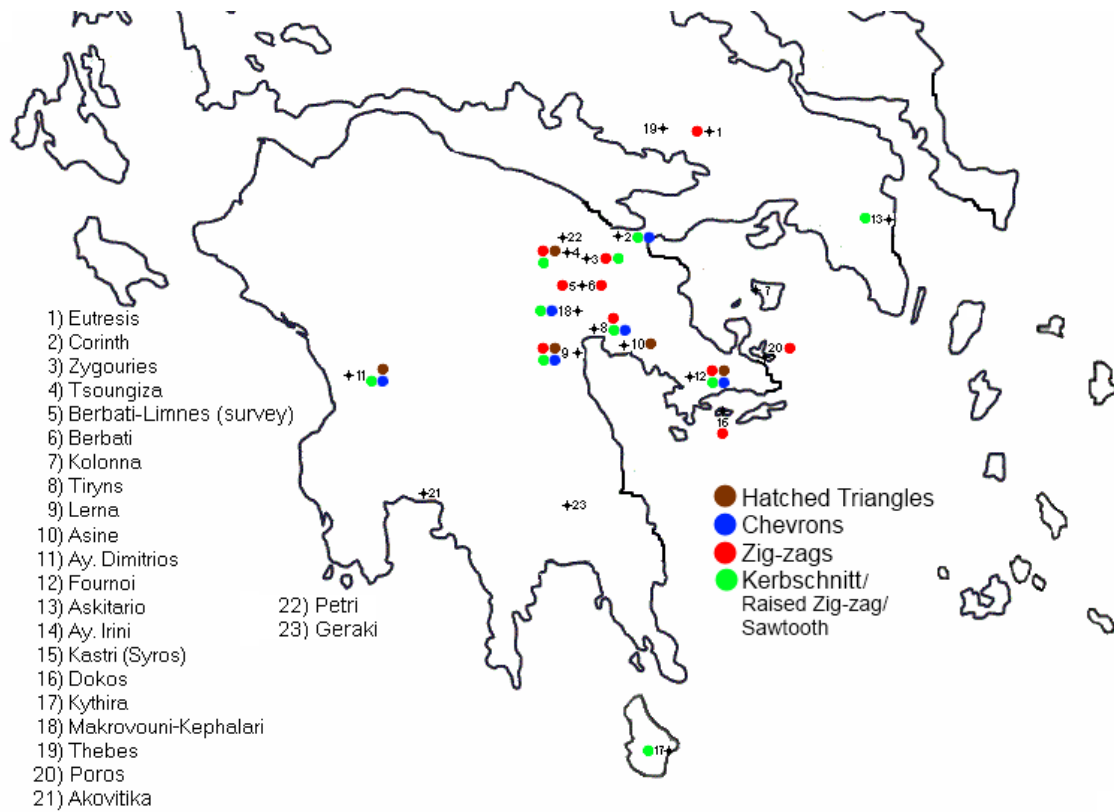


Fig. 7.3 Distribution map of four popular motifs: Hatched triangles, chevrons, zigzags, and kerbschnitt/raised zigzag/sawtooth

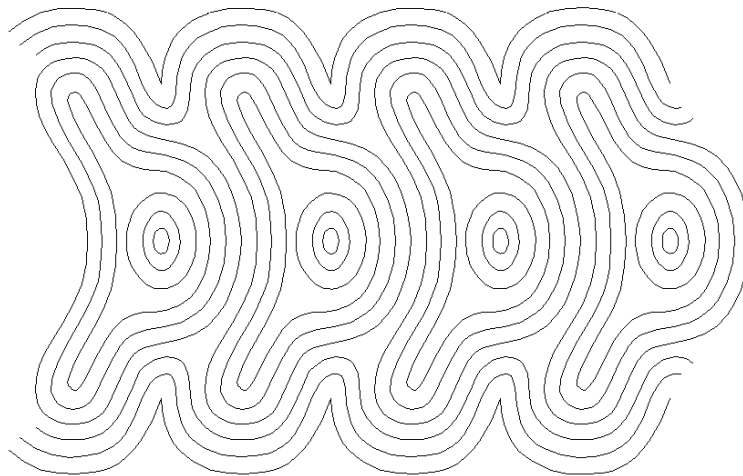


Fig. 7.4 Possible reconstruction of seal used to impress Corinth hearth rims MF 1976-66 and MF 13397, if the same seal was used



Fig. 7.5 Fragmentary clay cylinder seal from Nafplio museum, CMS VS 1B 104, from CMS

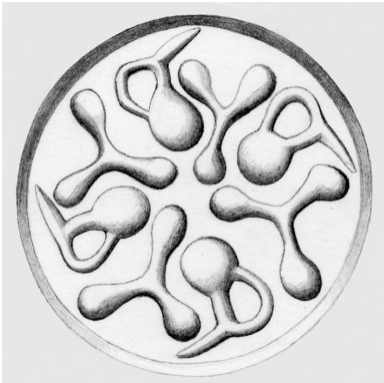


Fig. 7.6 CMS V.109, the sealing leader at Lerna IIID

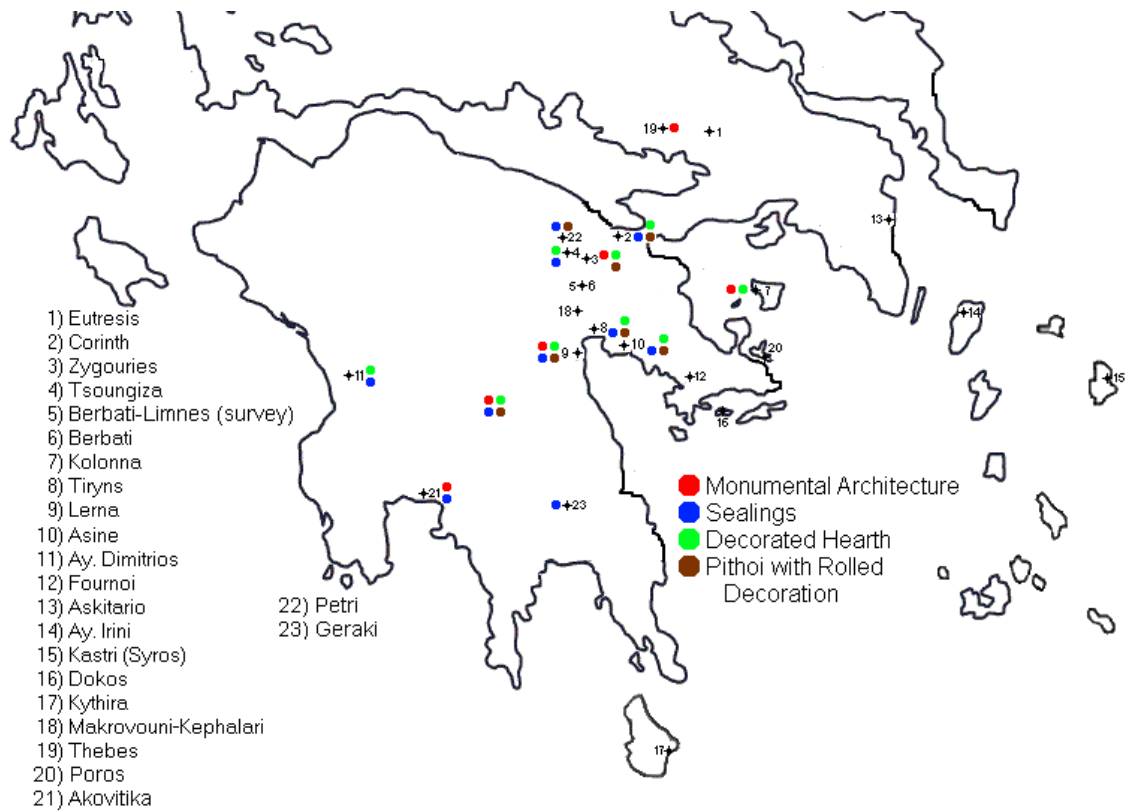


Fig. 7.7 Distribution map of EH II monumental buildings, sealings, hearths, and roller-impressed pithoi

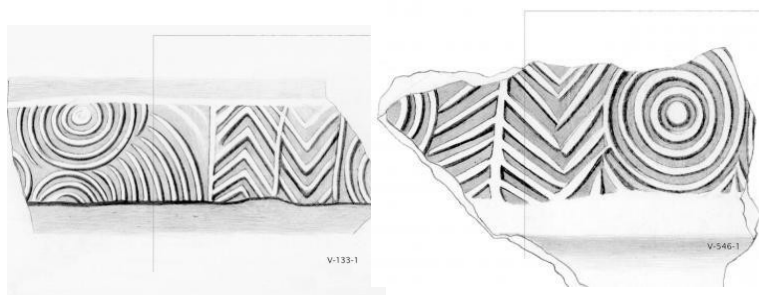


Fig. 7.8 Pithoi: concentric circle with herringbone, CMS V 133 (Lerna) and CMS V 546 (Tiryns), from CMS



Fig. 7.9 Pithoi: concentric circles, CMS V 122 (Lerna) and CMS V 541 (Tiryns), from CMS



Fig. 7.10 Sealings from Room XI, House of the Tiles: S7, S13, S16, S27, S37, S41, S46, S53, S57, and S33 from Heath 1958, Pls. 20-22.

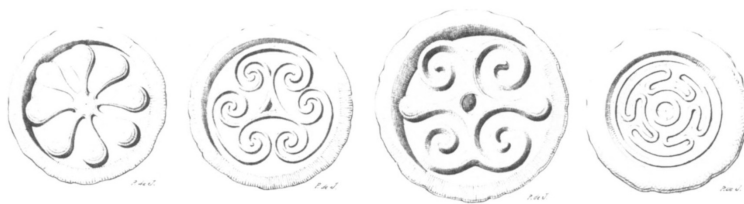


Fig. 7.11 Sealings from Lerna Room DM

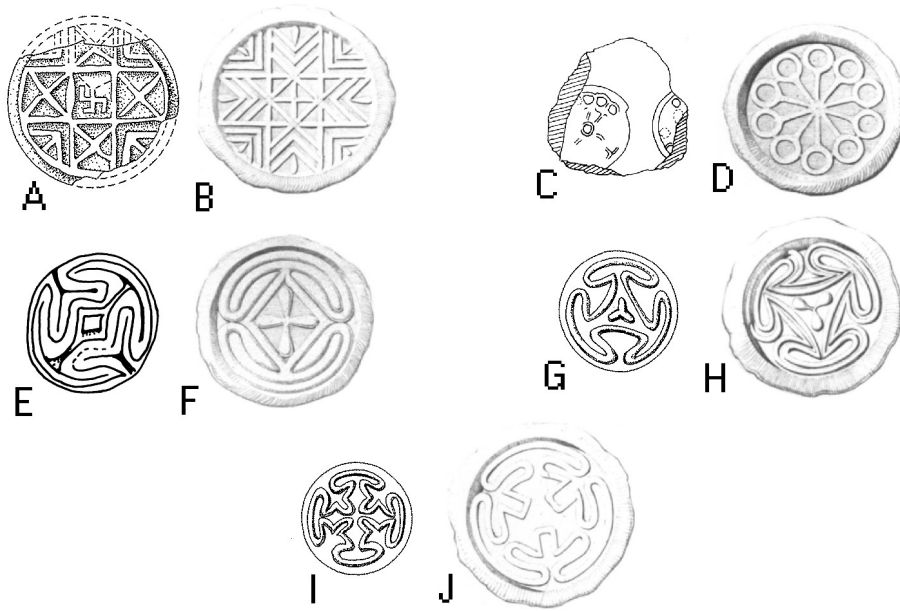


Fig. 7.12 Sealing Comparanda (a) Geraki G-1; (b) Lerna S-58; (c) Geraki G-14; (d) Leran S-63; (e) Geraki G-16; (f) Lerna S-28; (g) Petri S-13; (h) Lerna S-7; (i) Petri S-16; (j) Lerna S-36; from Hearsh 1958, Pls. 20-22; Weingarten 2000; Weingarten et. al. 2011; Kostoula 2000.

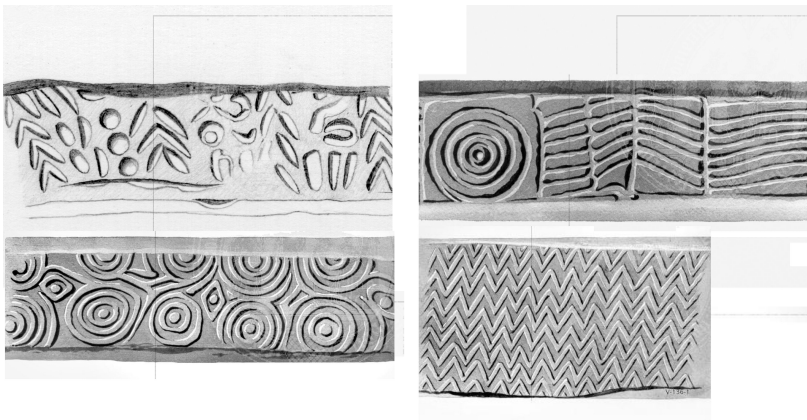


Fig. 7.13 Pithoi outside of Lerna's House of the Tiles, from CMS, clockwise from top left: P1242, P1167, P1223, P936

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