

DECONSTRUCTING CONTEXT

A CRITICAL APPROACH TO
ARCHAEOLOGICAL PRACTICE

Edited by

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Counting Sherds at Neopalatial Petras, Siteia, East Crete: Integrating Ceramic Analysis with Architectural Data

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The excavation at Petras in the last 20 years has brought to light a Minoan coastal urban settlement. The excavations of a new Minoan palace and three areas of the settlement are already completed. In the present paper I will discuss the Neopalatial (Middle Minoan III–Late Minoan IA) House I.1, which is a large two-storey structure very close to the palace and which displays a number of interesting architectural features (Table 8.1). Various activities took place in this house, including food preparation and consumption, storage, wine making, weaving and production of stone vases and obsidian blades. The analysis of the pottery and other artifacts (stone implements, loom weights), as well as faunal and palaeobotanical remains, combined with the architectural analysis of both floors enabled us to suggest the possible function(s) of the different areas. The present paper will concentrate mainly on the pottery analysis, combined with the data from the stratigraphical evidence and the architectural remains. It will also make some use of the results specialized studies of various other types of artifacts offered. The latter were presented in preliminary forms at the 9th International Cretological Conference in 2001 (Tsipopoulou and Dierckx in press, Chryssikopoulou in press, D’Annibale in press, Burke in press). The analysis of the ecofacts will be included in the final publication. A glimpse into the daily activities and social concepts of the people who used the house is given by the arrangement of the space (magazines, kitchen, staircases, open courtyards and sheltered verandas). The methods of analysis and their limitations are presented in this paper.

INTRODUCTION

One of the definitions of Archaeology is “an attempt to understand the life of ancient people” (Sanders 1990). This might sound commonplace, but it gains its real meaning and depth when the word “life” is replaced by “behavioral patterns”. We have just completed the study of the excavated remains of one of the two large and well preserved houses at the urban settlement of Petras, Siteia, East Crete, our House I.1. I will attempt here, as a preview of the final publication, to present succinctly the method that has been followed in this study. This

Final Neolithic	(c. 3000 BC)	
Early Minoan I-IIA	(3000–2400 BC)	
Early Minoan IIB–III	(2400–2100 BC)	
Middle Minoan IA	(2100–1950 BC)	
Middle Minoan IIA	(1850–1750 BC)	First Palace at Petras
Middle Minoan IIB	(1750–1700 BC)	Destruction of the first palace at Petras
Middle Minoan III– Late Minoan I	(1600–1450 BC)	Second Palace at Petras
Late Minoan IIIA–IIIB	(1400–1200 BC)	Postpalatial reoccupation

Table 8.1. Chronological table for the Minoan periods.

approach combines the excavation evidence, the analysis of the stratification and the architectural features and the three-dimensional context of the movable finds and the results from their study, as well as the time of their use and final deposition. For this presentation basic descriptive statistical methods are used. It is hoped that the present paper will contribute to an efficient approach of the problems of Petras itself, as well as of Neopalatial Crete in general.

Given a century of attention in Minoan Archaeology to artifact studies, especially pottery, one is able now to speculate, with a reasonable degree of confidence, on the probable uses and function(s) of an architectural space. One can begin to suggest from this the nature of a Minoan household belonging to a certain socioeconomic level and then proceed to comparisons with other units, both within the settlement of Petras and outside of it.

The only way to be able to interpret the archaeological record is to use a contextual approach: First, there are different hierarchical levels in the context, in our case a specific architectural context, namely a house. Second, the recording techniques during the excavation and after it allow us to delineate the stratigraphical sequence with a high degree of certainty. The system used allows for a three-dimensional control of the remains, which leads to the construction of the stratigraphy associated with the building, use, abandonment and the final destruction of the structure examined. Following this analysis, we are able to turn our attention to the study of the pottery as such, and then to the study of it in terms of context, physical and chronological. The same approach was followed by the various specialists who studied the other artifacts and the ecofacts. With the completion of the studies, we are ready to attempt an interpretation of the material in terms of the function of each particular item and, more importantly, the function(s) of all classes of material within the architectural framework (room/unit). This process is applied to every unit and contemporary deposit to enable us to talk about the house as a household. It should be kept in mind that during this interpretation process various assumptions about contemporaneity are inevitable.

The contextual approach used in this study will allow us to compare and contrast effectively other contemporaneous houses in the settlement as well as other houses at other settlements on the island, assuming that a similar analytical approach was used for the associated archaeological record. For the crafting of plausible suggestions of the form and nature of Late

Minoan I social and economic structure such an approach and processing would be indispensable.

Sanders (1990) presented seven constants for establishing the form and the function of domestic spaces, using the Early Minoan settlement at Myrtos as a case study. These constants are naturally defined (climate and topography), variable (available materials, level of technology, economic resources), or culturally defined (the function of the buildings and the needs of the people who constructed and inhabited them (Sanders 1990, 44; also Rapaport 1969, for a general discussion). The examination of the features of our House I.1 at Petras offers a typical example of a successful adaptation to the naturally defined parameters on one hand, and a statement about the social status and various attitudes of the inhabitants of this structure on the other. All these must have been easily understood at the time in the framework of the urban context of the local society of Petras and, more generally, of Neopalatial Minoan society. Given the level of our knowledge and the comparative archaeological evidence we are also able today to interpret, at least partially, these social and symbolic meanings. It is very interesting to note how the builders (and the users) of this large structure coped with the climate and the topography, by using the slope of the hill to assure for a beautiful view from any part of the house and plenty of light to the upper floor, where the living quarters must have been and where weaving was practiced. As for the building materials, both stone and mud bricks were used, as well as wood. Painted plaster with linear decoration suggests a certain high standard of living.

The fact that the same analytical approach has been used with the remains found in the palace of Petras, only 40m distant, will allow one to quantify closely how the same type of artifactual material could have different uses and meanings. The assumption here is that the close proximity of the House to the Palace and the high coincidence of similar artifact classes in both contexts, as well as the evidence for the production of what could be considered luxury products and commodities, leads us to believe that House I.1 was occupied by some group of people belonging to the elite stratum of the society.

The Neopalatial (Middle Minoan III–Late Minoan IA) House I.1 at Petras, Siteia, in north-eastern Crete, was excavated in 1985, 1986, 1989 and 1990. It is a large structure, which has two storeys in its central part. Its preserved ground floor measures c. 250 m² (Fig. 8.1, 8.2). It was discussed for the first time in 1992, through an analysis of its architectural features and functions, in comparison with the so-called “villas” in the Siteia area excavated by N. Platon in the 1950s. (Tsipopoulou and Papacostopoulou 1997) The aim of that publication was to insert the urban palatial settlement of Petras within its wider administrative and economic framework in the area of the Siteia Bay, as well as the investigation of the relationship between the second-tier settlements and the central place. House I.1 produced a large amount of pottery, both decorated and undecorated, in various states of preservation, as well as stone tools, obsidian, loom weights, stone vases and many more small finds of various types. There were also several stone mortars (*gournes*), a large stone wine press, which constitutes the largest preserved Minoan stone vessel (Tsipopoulou 1990, 318, fig. 5; Kopaka and Platon 1993, 52), and three pithoi. The preliminary study of the finds and the architecture showed that the house included on both its floors specialized areas for food preparation, storage and industrial activities.

House I.1 is used here as an example for a detailed presentation of the distribution of finds in all its rooms and areas, in combination with its architectural features, the building methods

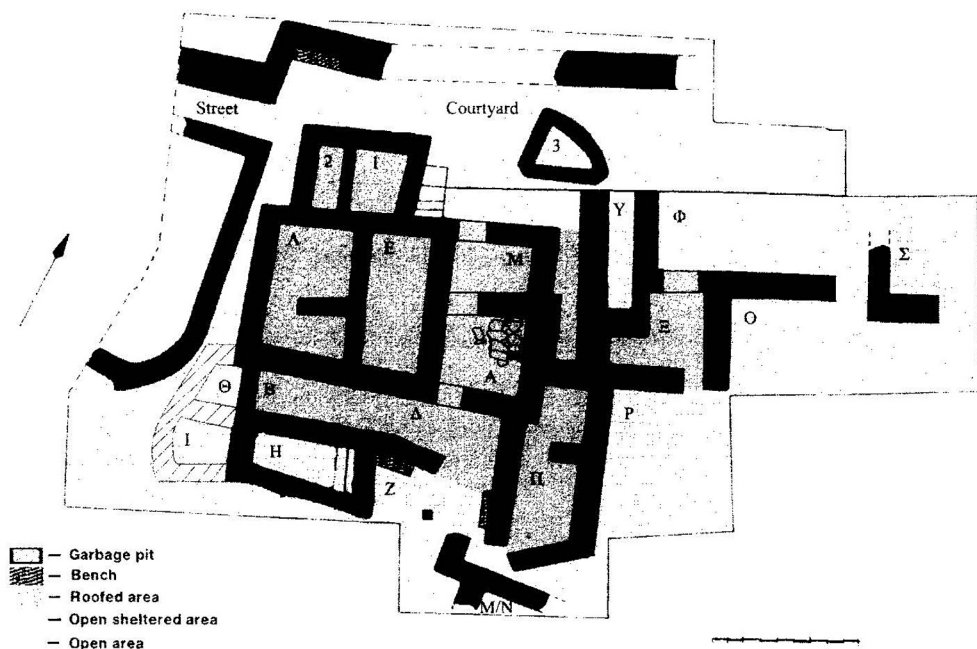


Fig. 8.1. Petras, House 1.1. Ground floor.

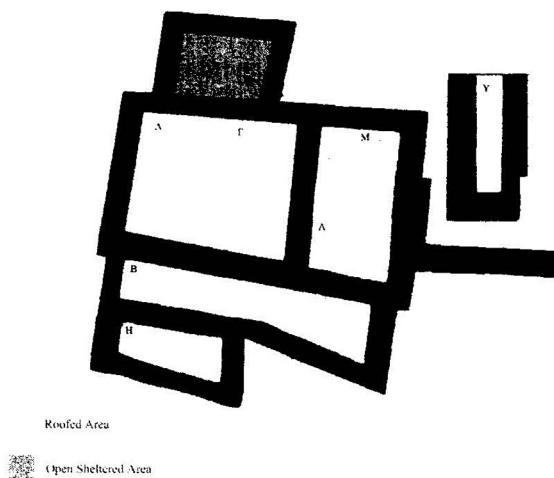


Fig. 8.2. Petras, House 1.1. Upper floor. Reconstruction.

and materials, as well as the circulation patterns. It preserved a large quantity and variety of movable finds in well-stratified floor deposits. Our analysis aims towards a better understanding of the correlation between house architecture and use, and consequently of the functions of this Neopalatial house within the urban settlement.

METHODOLOGY FOR THE STUDY OF THE MOVABLE FINDS

In trying to define and to understand the functions of the house, and also, as far as this is possible, the organization of the life of the people who inhabited it, a careful analysis of the stratigraphical data in combination with the movable finds was used. The methods applied during the excavation for the documentation of the stratification and of the finds as well as the determination of the stratigraphy were as follows.

A. Stratification

It was a happy coincidence, for reasons not connected to the intentions of the excavator, that the main part of House I.1 was excavated in two excavation periods, in 1985 and 1986. The existing surface was leveled in the mid-20th century and cultivated with a vineyard. This activity resulted in the total destruction of the Late Minoan III and later(?) strata. Below the plough zone, the next stratum was disturbed by some unknown cause(s), to a depth of c. 30 cm. This was deduced from the fact that Late Minoan I and III pottery were mixed together in it. No architectural remains were assigned to the Late Minoan III period, nor were there any signs of reoccupation of the house after its destruction and abandonment in Late Minoan IA. Given the fact that the Middle Minoan III–Late Minoan IA deposits in certain areas of House I.1 attained a depth of 1.5–2m, it was soon discovered that the upper floor deposit was more or less well preserved, and in most cases clearly distinct from the deposit of the ground floor, which was excavated in the next campaign. The upper floor deposit was more than 80cm thick and mixed with floor slabs made of clay or schist. It contained many complete vessels or partially restorable vases with full profiles, as well as large fragments of pottery which did not preserve a full profile.

It should be noted that House I.1 contained no pits caused by later use of the area, so the dating of the material was either uniform in the Neopalatial period (Middle Minoan III–Late Minoan IA) or was much earlier (Middle Minoan II) or later (Late Minoan III). The latter material was deposited in the voids of the destruction debris (*infra*) that only filled partially the ground floor spaces after the abandonment of the house. This most likely happened by natural causes (gravity, water flow, dissolution of mud bricks, *etc.*) and/or by the burrowing of small animals.

B. Excavation, recording and artifact processing procedures

Before we proceed to the analysis of the stratigraphical features, the methods used at the excavation and the processing of the finds should be briefly presented. Every architectural feature, change in the sediment color and/or consistency, significant variations in the quantity of the finds, as well as any possible sign of disturbance was called "locus" and was excavated separately. Notes were taken on the nature of the sediment, the existence and relative quantity of stones or organic remains. Many measurements were taken in the course of excavating each locus. Sherds were put in bags and labeled. Complete vases or those preserving a full profile were given Small Finds numbers (*mikra evremata* or ME). ME numbers were also assigned to

stone and clay tools, architectural fragments, samples of organic materials and sediment samples for water flotation. All MEs were included in detailed 1:20 scale plans using coordinates and the measurement of the absolute heights. At the time of the excavation all pottery bags and all of the MEs with their respective correlations were recorded in two different site-wide catalogues.

After the end of the fieldwork, the conservation and the processing of the finds started. Concurrently, all of the MEs were washed and conserved, and the locus pottery bags were spread by stratum and room/area. In this phase many pottery MEs were completed to form individual vessels. Within each locus joins were sought among the sherds to create partial or full profiles. They were given new ME numbers. Thus, the catalogue for the MEs was not completed until after the end of the processing of all finds and pottery bags. The conservators and archaeologists documented the intra-locus and inter-loci joins. A form was filled in for pottery from every locus, including information on the number of bags, weight, number of sherds, percentage of diagnostic sherds, shapes, fabrics, decoration and dating. Following this, all MEs and selected diagnostic sherds (about 20%, depending on the stratum and the percentage of diagnostic sherds present) from each bag were given excavation numbers and then were described, drawn and photographed.

C. Stratigraphy

After the processing of the finds, in order to proceed to the most significant stage of the analysis of the material, a decision needed to be made concerning which loci represented floor or other types of deposits. Using the stratification documented in the area of the house, the individual loci were grouped horizontally and vertically into contemporary phases of occupation or episodes of formation. In brief, the stratigraphy is as follows:

1. plough zone (c. 20cm)
2. disturbed layer (c. 30cm)
3. upper floor deposit (c. 80cm)
4. floor slabs and supporting ceiling materials (c. 20cm)
5. post-destruction fill of the ground floor spaces below the ceiling/floor deposit (3) and above the floor deposit (5) (c. 1m)
6. ground floor deposit (c. 20cm)
7. earthen floor layer (c. 5cm)
8. wall of a Middle Minoan IIB house (c. 30cm)
9. floor of a MMIIB house (c. 5cm)
10. bedrock

A form was filled in for every archaeological stratum, which could or could not coincide with an excavation locus. These forms give information on the nature of the sediments, the measurements taken, the existence of architectural remains or features, *in situ* or not, a detailed list of the relevant pottery bags and the MEs. Another form was filled in for every room, presenting all the architectural features.

The sherds from the loci related to Strata 3 + 4 and 6 + 7 were used for the descriptive analysis of the pottery. The ceramic analysis forms were separated by stratum and room/area of the house to facilitate this analysis. The remainder of the loci, *i.e.* Stratum 5, were considered to contain intrusive material and/or disturbed in some fashion. The dating of Stratum 5 was

determined by the presence of earlier and/or later material, the diverse nature of the material and the lack of joins to Strata 4 and 6. Thus, the material was not considered significant for determining the function of the rooms. The material that was left out of this discussion could either belong to later depositional processes and/or have come from the dissolution of mud bricks made from sediments containing earlier ceramic debris. It should be noted here that the limited amount of Postpalatial (Late Minoan III) pottery in Stratum 2, and the Middle Minoan II B pottery from Strata 8 and 9, were not included in the present discussion.

The basic difficulty in constructing the specific activities related to the Neopalatial use of the house was the definition and the separation of "floor deposits". The three stages of the formation processes, use/habitation, abandonment and post-abandonment, had to be separated, following the analysis of LaMotta and Schiffer (1999). The fact that the house was not destroyed by fire but abandoned, probably after an earthquake, complicated the situation, since we had to realize that only objects which were not easy to move, or were not of great value for their users, or were already broken, were left in the house to be discovered by the archaeologists. LaMotta and Schiffer (1999, 20) analyzed the concept of curate priority in the phase of abandonment. The factors that should be taken into consideration include replaceability, transport costs, and conditions of abandonment.

In the case of House I.1, it should be kept in mind that there is no evidence that the building was destroyed in a single violent episode; on the contrary, it was abandoned for some time before it collapsed. Also it is important to point out that when the structure was abandoned, all of the excavated areas were in use. Thus the deposits were created by use, storage of items and discard, and material was subtracted from them at the time of the abandonment or at a later time. There was plenty of opportunity for curation by the last formal inhabitants and/or for later scavenging by occasional visitors. Later, or at the same time, possible disturbances could have been caused by animals, such as small mammals. Interestingly enough, there was no evidence for use of the partially destroyed house as a sheep-goat pen, as no layer of organic material related to this use was observed. Furthermore, there is no evidence that there was a reuse of any sort of the area, before its collapse. We cannot establish when exactly the building finally collapsed. It is probable that this was the result of many episodes, as the layer between the upper and the lower floor was thick.

Another important factor that should be taken into consideration in order to understand the analytical method and process and their complications is the depositional difference between the ground floor and the upper floor, reflected in the state of preservation and the quantity of the pottery. The ground floor of House I.1 contained more complete and restorable pots. The upper floor deposit had probably suffered curation, and possibly scavenging, before the collapse of the ceiling and the deposition of material of the roof. Consequently, it cannot be excluded that it contains material initially resting on the flat roof surface. The consensus is that these flat roofs of Minoan houses were used for storage and as working areas.

ANALYSIS OF THE SPATIAL PATTERNING OF THE ARTIFACTS

A. *Ceramics*

The quantity of pottery preserved was quite large (more than 1200kg). Figure 8.3 shows the distribution of pottery by weight in the two floors of the house, including complete or restorable

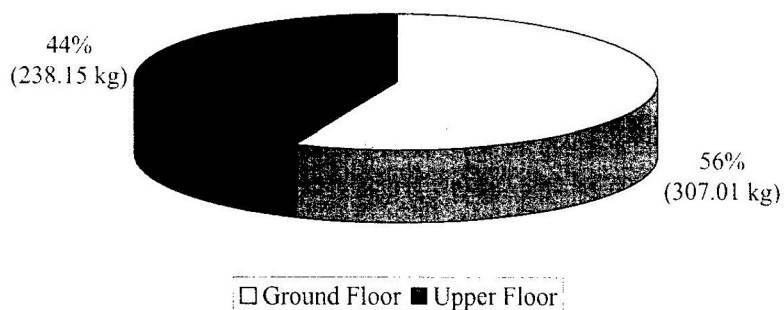


Fig. 8.3. Petras, House I.1. Pottery distribution between the two floors by weight.

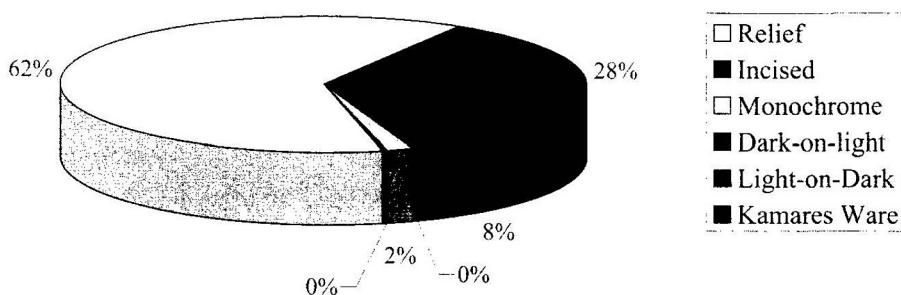


Fig. 8.4. Petras, House I.1. Room Lamda-Upper Floor. Decorated pottery.

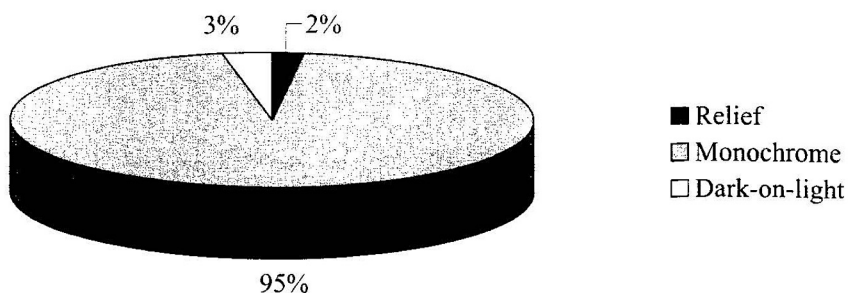


Fig. 8.5. Petras, House I.1. Room M. Upper Floor. Decorated pottery.

vessels with full profiles and sherds. For the interpretation of the specific activities that took place in each room we combined the typology of the pottery along with the fabric and the function of each shape present. Figure 8.4 is an example of the distribution of the various fabrics in Room A of the upper floor, while Figure 8.5 shows the various types of decoration in Room M of the ground floor. It should be noted that this does not represent the complete range of possible comparisons, but we select just a few, to show the potential of this method. The validity of our classification approach and its use for the basic quantitative statistics presented has to be justified, although it is always open to criticism. At the time of writing, the ceramic data has yet to be subjected to exploratory descriptive statistics or tests of significance.

There are other problems one has to face in this context. The first is the ability to identify accurately a specific shape from the sherds. Another is the degree of preservation of the vases which hinders assigning them to their use at the time of the abandonment or simply considering them to be discards (Frankel and Webb 2001, 122–127). It is interesting to compare the pie charts of the pottery from the Refuse Pit Θ (Fig. 8.6), which contained various broken and discarded vessels, some of them earlier than the phase of use of the house (such as sherds with light-on-dark, polychrome, and burnish decoration), to the pie charts for Rooms A and M (Figs. 8.5 and 8.6), which represent storage areas of the phase of the use of the house. Rooms A and M contained hardly any sherds with light on dark-decoration, which is not encountered in the Late Minoan I period. Interestingly enough, relief decoration, used only on pithoi and pithoid jars, is represented in roughly the same percentage in all three areas. Also dark-on-light decoration, mostly used on fine and medium wares, was more common in the Refuse Pit Θ (29%). This probably indicates that broken tablewares were disposed of in the Pit, while these were absent from the storage areas. Pits with domestic refuse are very common in

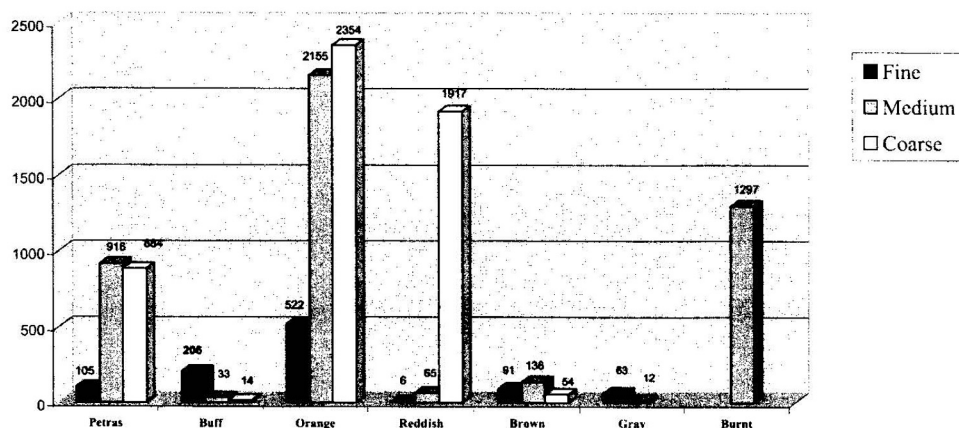


Fig. 8.6. Petras, House I.1. Pit Θ. Types of clay.

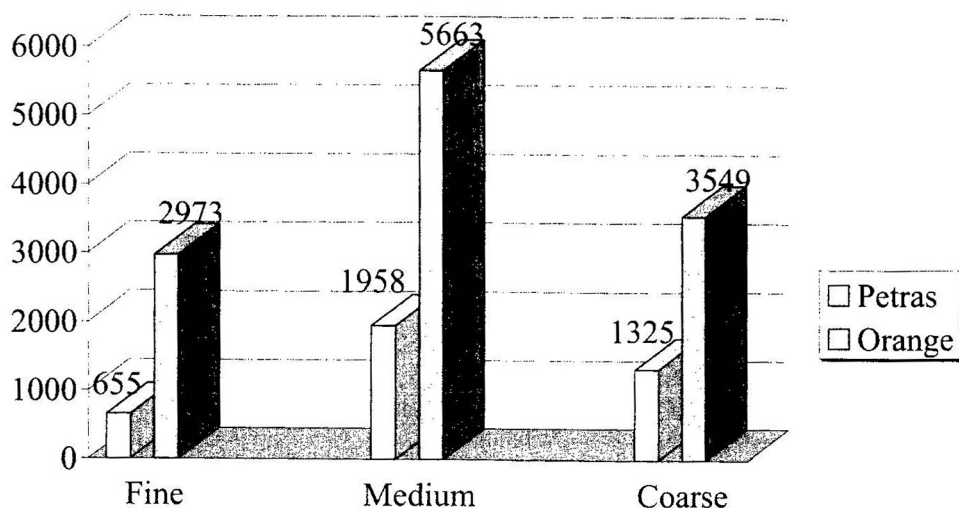


Fig. 8.7. Petras, House I.1. Distribution of the local Petras clay, and the Palaikastro clay.

Minoan houses all over Crete, and usually contain, along with broken pots and stone tools, animal bones and other food remains.

The ground floor of House I.1 produced 44% of the pottery, while the upper floor the remaining 56%, although only a part of the house had a second floor. This could possibly be due to the fact that the inhabitants of the house were able to take with them more of the ceramic contents of the ground floor (usually storage vessels). As it is known, although Petras had its own ceramic production that used a distinctive yellowish local clay, a large part of the needs of its inhabitants was fulfilled through imports from area of neighboring Palaikastro, where an orange clay was used. The ceramic workshop of Petras has been identified and studied petrographically by P. Day, in the framework of a wide study on pottery trade and circulation patterns in Eastern Crete (Day 1997, 222–224; Day 1995). Figure 8.7 shows the ratio of the local Petras clay (yellowish) to the imported Palaikastroian one (orange) in House I.1. It was established that the ratio in the fine wares between Petras and Palaikastro fabrics was 1:3, in the medium wares the Palaikastro fabrics constituted more than 60%, while in coarse wares the Petras clay was 1/3 of the Palaikastro clay. The latter is surprising given the difficulty in transporting large bulky vessels such as pithoi. This preference could be due to the fact that the Palaikastro vases are of a better quality. This situation does not refer exclusively to this particular house and to the lifestyle of its inhabitants, but it is in accordance with what was happening in the rest of the excavated area at Petras. Imported pottery is related to the general economic strategies of the settlement and does not reflect a social differentiation of certain groups. It is obvious that the inhabitants of Petras were able to acquire from Palaikastro clay pots of every type and size, of a quality superior to that that was produced in their own settlement. It is also significant that at Neopalatial Palaikastro the ceramic production was

extremely well organized and on a large scale. It has been suggested by the first excavators of Palaikastro that this, probably a non-palatial town, was more of an industrial center. The intensive archaeological research in the last 20 years in eastern Crete in general tends to prove this hypothesis, as the important role of Palaikastro in the trade of various archaeologically visible products becomes more and more evident. Probably the inhabitants of the area had to trade their pottery with products from Petras that have left no archaeological trace.

The distribution of pottery shapes between ground floor and upper floor is also interesting. We used a functional ceramic typology, which was proposed by the author for the pottery of the Late Minoan IIIC settlement at Halasmenos, Ierapetra (Tsipopoulou 2004, 106). According to this the vases were divided into:

1. Storage with two subdivisions: a) long term and b) short term
2. Food preparation
3. Food consumption and drinking
4. Specialized shapes used for, *e.g.* a) lighting, b) cult, c) agriculture

The following observations can be made:

1. There is a greater variety in the upper floor, since food consumption took place there, along with other activities. The ground floor was used for storage, industrial activities and food preparation.
2. The few more or less complete or restorable pithoi in the house are found only in the ground floor. To explain their limited number several hypothesis could be advanced: First, it could be assumed that goods were stored in containers made of perishable materials; second, that some large storage vessels were removed at the time of the abandonment of the house or later; third, that there were never many pithoi in the house. Although it is not easy to decide which one of the above possibilities applied in this case, it is interesting to point out that the other completely excavated house at Petras, House II.1, which was destroyed by fire, again contained very few storage vessels of medium capacity. Consequently, it is quite probable that these large urban houses did not have any large scale storage of goods and depended on the Palace. On the upper floor of House I.1, one encounters only short-term storage, in medium-size shapes suitable for liquids or solids. These vessels, amphorae, jugs and pithoid jars, are usually decorated.
3. The variety of shapes for food preparation, storage and food consumption is great, roughly three times larger than the late Minoan IIIC Halasmenos, as expected for the Neopalatial era, especially in an urban context. During this period of sophistication and standardization of the production, under the strong control of centralized political/economic power, especially in a central place such as Petras, the variety of the pottery shapes, fabrics and decoration schemes was great. More than 40 open, closed and specialized shapes are identified in House I.1. Each shape has several typological subdivisions, which are not included here, since the present statistics concern the function (an analytical presentation of the pottery and the relevant statistics will be given in the final publication of House I.1.). In the upper floor there were fewer concentrations of sherds that came from a single vessel than in the lower floor. In the ground floor larger vessels were mainly concentrated in the corners of the rooms, while smaller were scattered on the floor. It is important to note that no room appeared to have been cleared of all its contents before the abandonment.

B. Ground Stone Tools

An examination of the patterns of artifact distribution, other than pottery, within and around House 1 can provide additional clues as to the function of certain spaces and rooms of the building. Figure 8.8 shows the distribution of ground stone tools. The analysis of the artifacts of House I.1 focuses primarily on the distribution of the ground stone implements, as they constitute the highest percentage of the total material remains found other than pottery. A little over 300 ground stone tools were excavated from the house. The distribution of the other finds, such as loom weights (Fig. 8.9), obsidian and stone vase fragments have also been added and contribute to a more complete analysis and interpretation of House I.1 at Petras.

The distribution of the ground stone implements indicates that a high concentration occurs in the open areas associated with the structure, both the open-air as well as the sheltered open spaces, most notably in Areas Z, south of Z/H, K, Φ and the courtyard beyond, Σ, and Ξ (plan 4). A similar distribution pattern is evident for the chipped ground stone (*infra*). All the above-mentioned areas and spaces are the most task-specific or active working areas. Further, they are easily accessible from other areas, both from the interior and the exterior of the house. Important to note also are the built-in bench features associated with area Z and the courtyard.

As regards the distribution of the ground stone tool types, specialized purpose tools are observable in the open-air and sheltered open spaces. These tools consist of heavy pounding and/or hammering tools (pounders with heavy pecking, faceted pounders and hammers), whetstones and polishers, pumice abraders, a drill holder, a chisel-like tool, and a knife-like tool. The latter tools are set apart from the others due to their distinctive sharp working edge. *Gournes* (mortars), querns and abrader-grinders occur most prominently in the same areas. These ground stone implements could be and probably were used in a variety of activities. Within the context of the other finds, it appears that they were used in the preparation of food, sharpening of metal tools, obsidian blade production, stone vase production, and perhaps cloth dyeing and weaving (the *gournes* in the courtyard and numerous loom weights may indicate the latter activity). Stone vase production was restricted to the west corner of the courtyard, close to the paved road, which led to the top of the hill and probably the palace itself.

Distribution of the ground stone tools also indicates working activity also within the main original structure Rooms A and M. The activity appears to be restricted to the two spaces accessible from outside. The wine press in Room A suggests wine production. The *gourna* in Room M may be related to the cloth making activity, such as dyeing (as perhaps was the case also with the *gournes* in the courtyard area), as the room is located in the vicinity of Room Λ, whose upper floor was associated with weaving. The largest concentration of loom weights was found in this room. The large amount of ground stone tools and other finds, associated with the lower floor of the central building, in Rooms E and Λ, as well as the enclosed and remote location of the rooms within the house, suggest their function as storage areas. Lastly, the *lakkos* (pit), space Θ, needs mentioning. Because of its small size and enclosed character, as well as the variety of finds, including large amounts of ground stone tools and pottery, it has been identified as a rubbish space (Fig. 8.6).

C. Obsidian

It is evident from the obsidian assemblage that blade production took place outside the main building. About 90 obsidian pieces were recovered. These consist of blades as well as the débitage products of obsidian knapping: cores, core preparation flakes and platform preparation

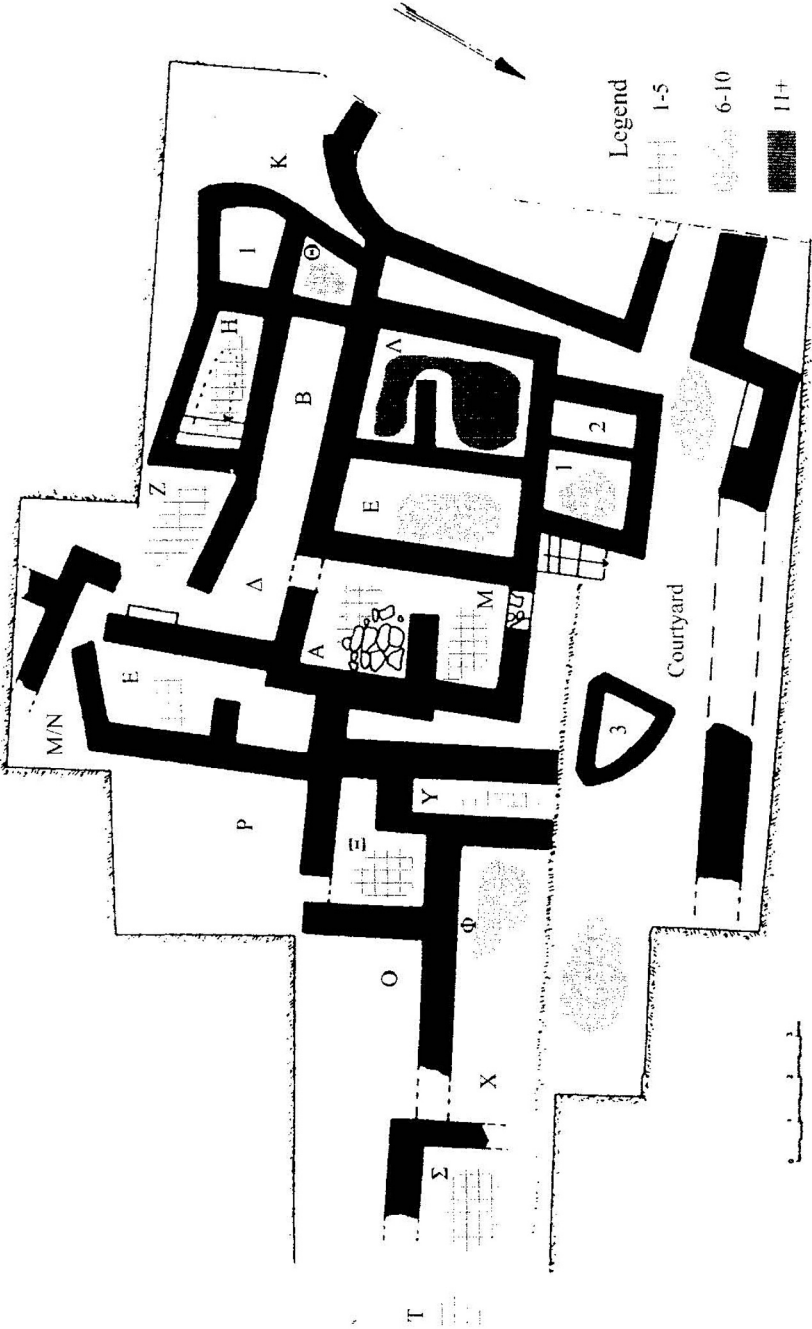


Fig. 8.9. Petras, House I.1. Distribution of loom weights.

flakes. The concentration of the débitage products suggests that the manufacture of obsidian blades was carried out in two areas: Area K and the Courtyard/Area Φ, both open-air spaces.

D. Loom weights

Loom weights constitute a special category of finds particularly useful for the identification of the function of a room of the upper floor. In the present context, loom weights are examined *in toto*, independently of their typology and weight. They came to light, one in each of Rooms Λ, Ε, Β, Ζ and Σ, of the ground floor and three in Rooms Ξ and Ο. As expected there were more (11) loom weights, in the garbage pit Θ. On the upper floor there were 13 loom weights in Α, 8 in Ε and 3 more in Α. Although it is not possible to reconstruct the exact wall partitions on the upper floor, the distribution as well as the quantity of the loom weights suggests that in an area above Room Α of the ground floor, which had obviously good natural lighting, and probably also a good view, a loom was situated. More than one window can be reconstructed in this area, that is at the corner of the building, as well as two doors, one toward the veranda towards Area Β-Δ, and the other to the balcony above the Rooms 1 and 2 in the backyard.

Discussion

A closer look at the typology of the ground stone and chipped stone assemblages as well as the occurrence of stone vase fragments and loom weights indicate that the types of activities carried out in these exterior areas include obsidian knapping, stone vase manufacturing and other household activities, such as cloth dyeing, and food preparation, *i.e.* the grinding and pounding of grains and/or other food material.

The distribution patterns of the various types of artefacts reveal that many types of objects that one would normally expect to have been part of the assemblage of a large Neopalatial urban house are missing from our House I.1. For example there were practically no metal objects, nor objects of precious materials or of personal adornment, and/or indications of social status, such as jewellery, seals *etc.* The fact that there has been no violent destruction and that the building was abandoned is responsible for this. One can plausibly infer that the last formal residents curated the material culture remains in this house. Of course one could never know what happened to the portable objects made of organic materials, such as furniture, textiles, clothing *etc.*, because no direct evidence about this was preserved. So what was left in the house was first and foremost the high bulk-low value easily replaceable items, either ceramics (some of them undoubtedly already broken at the time of the abandonment), or stone tools and vessels and built-in industrial installations (such as the wine press and the accompanying buried pithos).

None of the above suggestions would be possible without having contextualized the material at the time of the excavation (excavation techniques, recording methodology) and the study (stratigraphic, artefactual, and architectural analyses).

It is apparent that the specialized and the domestic activities associated with House I.1 were carried out mostly in the exterior areas of the house or, in fewer cases, within the central rooms that were easily accessible from the outside. It also appears that several areas were also used for more than one activity. In conclusion, the above analysis of the distribution of artifacts within and around House 1 has contributed to our understanding of the functional interpretation of the building.

LOCAL TOPOGRAPHY, STRUCTURE AND ACTIVITIES OF THE BUILDING

House I.1 (Fig. 8.1) is situated in what is assumed to be a central place of the coastal settlement and it is orientated so as to offer a relatively easy access to the bay, most likely to the northwest. It has also a good view towards the bay and the sea beyond, especially from its upper floor. It occupies a whole building block of the settlement and has access to two roads. It is separated from its neighboring House I.2 by a narrow passage, less than 1m wide, which must not have had any other use but to protect the two structures from humidity. This practice is known from traditional architecture in the Aegean and Crete itself. Although House I.1 does not present any architectural refinements, as they are known in Minoan architecture from official, or rather luxury, constructions of Neopalatial Crete, *i.e.* it does not contain any pier and door partitions, nor has it any ashlar blocks in any of its parts (Tsipopoulou and Papacostopoulou 1997, fig.3, pl. 1, 2), yet it takes advantage in the best possible way of the topography and the climate of the area. Thus, it offered its inhabitants/users the necessary comfort for the life and the activities conducted in it.

House I.1 was built during the Middle Minoan III period, partially on the ruins of an earlier (Middle Minoan IIB) structure, with the same orientation (see plan, Fig. 8.1). Initially it had probably only one storey. In its final phase, in Late Minoan IA, it expanded to fulfil in an efficient way the more complex needs of its users. The plan was initially almost rectangular, or rather slightly trapezoid (Areas Λ, Ε, Α, Μ), with an annex near its northwest corner (Rooms Β-Δ, Ζ, Π, Ρ, Ξ, Φ, Ο and Σ, and the Staircases Η and Υ), but still retained its coherence. As only the last occupation is preserved, the earlier smaller version of the house is not documented by ceramics or stratigraphical evidence and is deduced solely from architectural evidence. The ground floor was probably constructed entirely of stone, while mud bricks and wood were primarily used for the upper floor. The floors of the ground floor were made of beaten earth, with only a flagstone floor in the area where the large wine press was found (Room Α). The upper storey had floors made of schist and clay slabs. The walls of both floors were plastered, white on the ground floor and decorated in at least some of the rooms of the upper floor.

The examination of the plans of the ground (Fig. 8.1) and the upper floors (Fig. 8.2) shows the methods used by the Minoan builders to cover the needs of the inhabitants of the house, as well as to cope with the climate. House I.1 includes roofed areas, open sheltered areas and open spaces, which offer flexibility in adapting with the changing conditions, both in an horizontal and in a vertical level, *i.e.* during the seasons of the year and the lifespan of the building itself. In all spaces, except for Room Ε, in the ground floor and in a lesser degree in Room Α, the latter with a probable window facing the narrow passage towards House I.2, there was excellent natural lighting and circulation of air. There is a possibility that Room Α and Ε had some light through the adjacent area Β, Δ to the south. The open sheltered areas in the ground floor (Ζ, Ρ, Ο and Σ) offered shadow and protection from the heat on hot days. This architectural feature is very common at Petras and in other Minoan settlements of various periods, as well as in traditional Cretan villages, because it constitutes a successful passive adaptation to the climate.

Figure 8.10 shows the remarkable flexibility of the circulation patterns within and around House I.1. It should be noted here, given that so few houses have been excavated fully at Petras, that one cannot generalize at this point whether the postulated circulation patterns were unusual or common in the settlement. The main entrance was from the southeast, facing

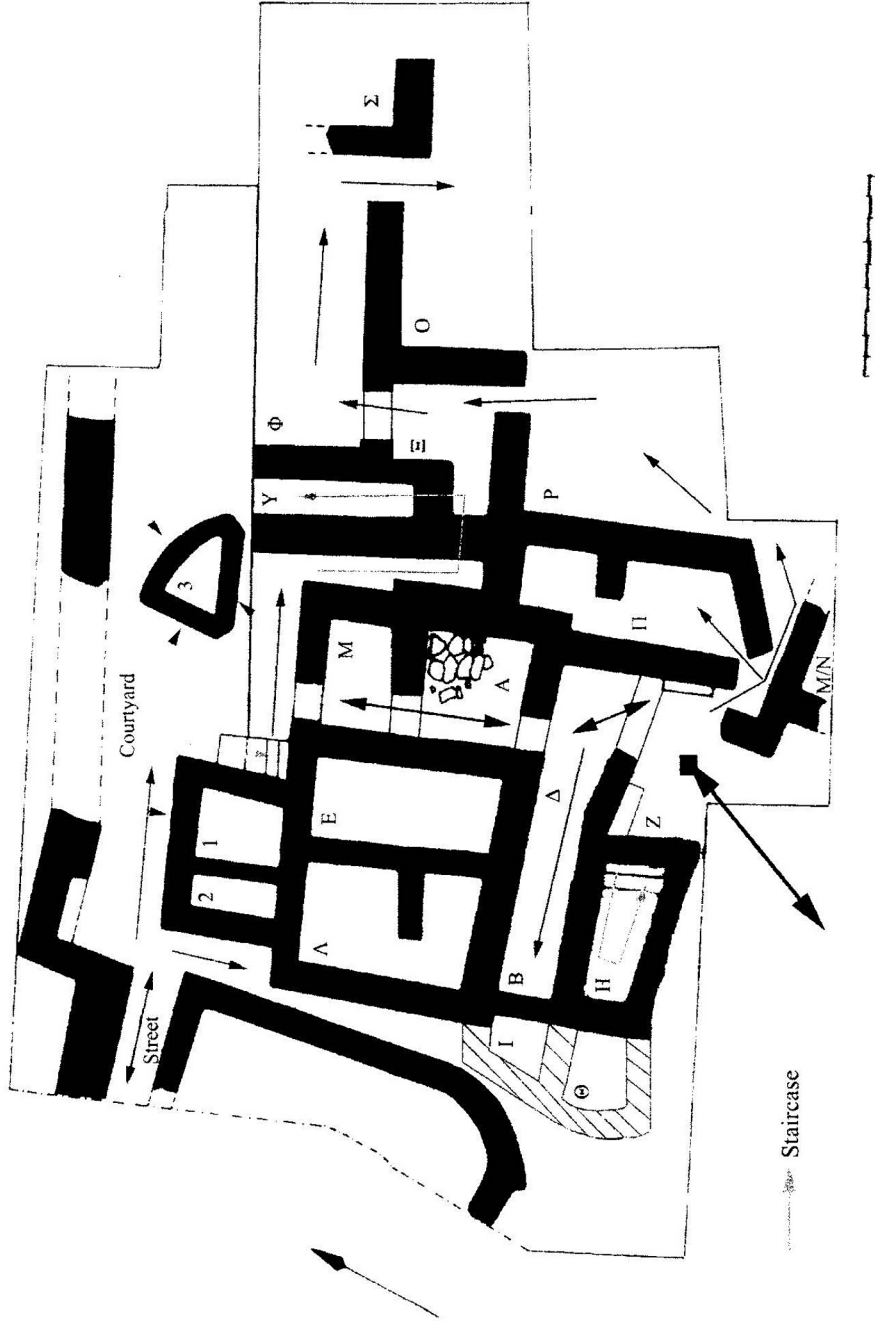


Fig. 8.10, Petras, House I.I. Circulation patterns.

the anchorage, close to a rock-cut path. One arrived at a semi-covered area equipped with two benches and a column (Z), and through it at Area B-Δ, and subsequently the wine making installation (A, M). From Room M, through a doorway at the northwest corner, which had two steps, probably made of wood no more preserved, there was exit to a ramp, a stone staircase, and finally to the backyard. Also from the sheltered Area Z, which must have had a wooden roof and was open on the front side, one could reach directly the upper floor through Staircase H. Alternatively, from the same entrance there was access to the main kitchen/vessel storage area Ξ through another open sheltered space, P. Room Ξ was very important to the function of the house, being the only area for food preparation. The pottery found in the room included both tripod cooking pots connected with two hearths and other vessels, probably initially stored on shelves. Room Ξ has an exit to Courtyard Φ, used for various activities auxiliary to food preparation, maybe also the washing of the cooking vessels. The second entrance of the house is connected to a paved road, which leads to the top of the hill, probably also to the palace. This entrance was directly connected to the backyard, which was used for various industrial activities, including stone vase making. There is evidence for the manufacture of stone tools and obsidian blades. Also the presence of the three mortars in triangular space 3 was presumably connected with food preparation. The spacious backyard is situated at a level 1–1.5m higher than the level of the ground floor and is defined by a thick terrace wall, which continues to the west, and supports the paved road. This feature of a large and strong enclosing wall is unknown in other areas of the excavated settlement at Petras. Continuation of the excavation in 1995–1996 showed that this wall was built on top of a large Prepalatial dump pit. It is possible that the nature of the loose soil led to this construction. The yard includes two small roofed industrial areas (1, 2) and one open sheltered triangular space (3), which contained three mortars. A small stone staircase with four steps, led on the one hand to the winemaking area and from it to the rest of the auxiliary rooms of the ground floor and also to the upper floor through a wooden Staircase Y. The only isolated parts of the ground floor level, A and E, were accessible only from the upper floor, probably with ladders. These spaces most likely were used for the storage of goods. Any other use, besides storage, is not easy to accept, given the lack of natural light. Two built pits, deeper than 1.5m (Θ and Ι) at the southeast corner of the house, were found full of domestic refuse, including large quantities of broken pottery in various shapes, and stone tools. Refuse pits are very common in Minoan houses. Especially in settlements with a long history of habitation, the already complex stratigraphy is further complicated by the presence of these pits cut into the earlier levels. In the case of House I.1 at Petras the refuse pits were not inside one of the rooms, but at the periphery of the house. Both the shape and the dimensions of these built pits, as well as the finds (broken non-restorable vessels, broken stone tools and animal bones) leave no doubt as for their identification as domestic refuse pits.

The plan of the second floor except for the dividing walls (Plan 3) can be securely reconstructed because of the good preservation of the excavated deposits. Only the central part of the house had a second-storey. The elongated space B-Δ had a veranda upstairs, as shown by the presence of clay drains, which was necessary for the access from the ground floor through Staircase H. Also in the west part of the house, on top of the small industrial areas 1 and 2 in the backyard, there was probably a balcony, thus creating a more private space, with no direct access from the ground floor, used to give the necessary lighting to Room A in the upper floor and also good visual contact with the backyard and the paved road.

ACTIVITIES AND ROOM/AREA FUNCTIONS

The following activities were identified in House I.1:

1. Food preparation
2. Wine making
3. Food and wine consumption
4. Storage
5. Weaving
6. Making of ground stone tools, obsidian tools and chert blades
7. Manufacture of stone vases

Beyond the scope of this paper is the central topic of the engendering of these activities within the built environment of House I.1. Another article will address the organization and use of the built space of the household in terms of domestic and community behaviors based on gender, age, social status and wealth (*cf.* Webb 2002). Some of these activities, namely 1, 3 and 4, refer to the everyday life of the occupants of the house and need no further analysis, at least within the present framework. A more detailed presentation, concerning the extant of food preparation and the types of food that were prepared and consumed in the House is beyond the limits of the present paper. It cannot be excluded, however, that these two activities related to a group larger than the inhabitants of the house, such as occasional visitors and guests, at least in some special cases, as it is probable that this was an elite house. The explication of the presence of the wine press is more complex. The fact that wine presses were found only in a few, rather elite houses, both urban (including Petras) and rural, probably suggests that wine making exceeded the limits of a household within the community. A similar situation can be observed in traditional Crete where wine and olive presses served a whole neighborhood or at least an extended family. Given the fact that wine drinking, unlike food consumption, is not necessary for everyday life, this observation is of disputable value for the Neopalatial society. Alternatively, wine consumption could have been a privilege reserved only to a certain part of the Minoan society (see especially for Petras, Rupp and Tsipopoulou 1999, 729–743, with further bibliography; also, Kopaka and Platon 1993, where it is stated that in many cases of palatial settlements wine presses were situated close to the palaces).

Access to the activity areas 1–4 could be controlled by the occupants of the house and distinct, both from the exterior and the interior space. Thus access to the area of wine making and storage is easy from the ground floor, open to the road of the settlement, but also controllable since to reach it one would pass through the sheltered areas of the southeast part of the house. Even more controlled was Room Ξ, an area used for food preparation and storage of vessels, which was accessible through the sheltered areas at the east, to facilitate bringing in foodstuffs and other materials. Room Ξ has another open space to its west, Φ, completely closed from the rest of the house. Also Ξ is situated close to the staircase to the upper floor, where food consumption presumably was taking place. For this latter activity were used various vessels, either for serving solids and liquids, such as cups, bowls, dishes etc., and for short term storage of small quantities, such as amphorae and jugs.

Even more private and consequently secluded (as opposed to the “public”), or at least not easily accessible by people visiting the house for a limited period of time, is the weaving activity. Apparently in this case the final product, as suggested by the rather limited number

of the loom weights, which suggest only one loom, was not intended for trade but destined to the inhabitants of the house. This would conform to a "Homeric" model, according to which weaving was an activity suitable for women of the upper classes. The picture given by the other excavated house at Petras, II.1, is completely different. This structure, although in Late Minoan IA it was very similar to House I.1, became an industrial area in Late Minoan IB and housed activities connected with wool and weaving (Tsipopoulou and Hallager 1996, 9–11). The stone vase manufacture, on the other hand, took place at the west end of the large courtyard of House I.1, in an open space equipped with a bench, at the edge of the paved road, which links the house with the rest of the settlement and probably also with the palace. This is expected for a specialized industrial activity, exceeding the needs of a particular household and aiming at trading the ultimate product to various users. It is worth noting, however, that this activity was not a full time one, but rather occasional and limited in time, trying to satisfy the needs of the users of the product.

Also in general one observes a pattern of clear differentiation, as suggested by the plan, in the circulation patterns and the distribution of finds in House I.1 and the adjacent areas, both private and public. Some of the activities that were related to agriculture, such as the grinding of seeds in the mortars in Areas 3 of the backyard and P took place in the sheltered western and eastern parts of the building. These areas had easy access to the food preparation Area Ξ, but were also clearly separated from it (Figs. 8.1, 8.2 and 8.10).

As far as the functions of the various areas/rooms of the house are concerned, one can observe that only in the ground floor were there specific dedicated rooms/areas/spaces, namely magazines, a kitchen and two staircases. These were practically for single functions. In the upper floor, the room(s) had multiple functions, such as food consumption, weaving, and most probably sleeping as well.

A particularly interesting feature of House I.1, which constitutes one of the most important cultural and/or social conventions related to it, particularly because it is not expected and easily understood using our standards, is the lack of evidence concerning large scale long-term storage of agricultural produce. The few pithoi that came to light in House I.1 are almost exclusively related to the wine making. If this fact reflects the real situation at the time of the use of the house, and it is not connected with circumstances concerning its abandonment and later fate, it would imply a limited self-sufficiency of the inhabitants of this urban house, especially during a period of crisis. This inevitably presupposes and also strengthens the leading central economic and administrative role of the palace as a place of central storage and probable controlled redistribution. This fact was the most likely cause of the rise, but also the destructive collapse, of the Neopalatial economical system. It is possible that the palace offered to the inhabitants of these large urban houses the means of subsistence, and in their turn they produced various artefacts for the palace, such as obsidian blades, stone vases, etc. This suggests a system of craft specialization that conforms to a bureaucratic palace administration. As a consequence, these specialized craft people had very little independence and, apparently, after the destruction of the palace, they lost their ability of maintaining a comfortable life, because they were not self-sufficient. This was probably the cause of the abandonment of House I.1 and also of a significant part of the settlement of Petras, following the first Neopalatial destruction in Late Minoan IA.

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