

THE EXCAVATION OF ARCHAIC HOUSES AT AZORIA IN 2005–2006

ABSTRACT

This article reports on the excavation of Archaic houses (6th–early 5th century B.C.) in 2005 and 2006 at Azoria in eastern Crete. Five houses are discussed: four on the South Acropolis on the periphery of the civic center, and one on the North Acropolis. Well-preserved floor deposits provide evidence for room functions and permit a preliminary analysis of domestic space. The houses fill a lacuna in the published record of the 6th and early 5th centuries B.C. and contribute to our understanding of the form of Archaic houses in the Aegean and the integration of domestic space into an urban context.

INTRODUCTION

Our understanding of houses in the Aegean region in the 6th and early 5th centuries B.C. remains poorly developed because of a lack of evidence from excavation and survey.¹ Current studies of the Archaic Greek house depend for the most part on examples from the 8th and 7th centuries on the one hand, and Macedonian, Anatolian, and western colonial contexts on the other.² Moreover, critical discussion of domestic space is usually driven by reductive analyses of schematic plans of isolated buildings, rather than study of stratigraphy and systemic assemblages, which are generally less well documented in excavation reports. In examining the Archaic houses at Azoria, however, we are able to draw on evidence derived from early-5th-century destruction contexts and well-preserved assemblages of artifacts and animal and plant remains, allowing us to evaluate the functions of rooms, the organization of space, and the role of household economy in an urban context.³

1. The situation is particularly acute on Crete: see, e.g., Morris 1998, pp. 63–66; and, in general, pp. 34–35; Nevett 1999, p. 160; 2007, p. 9; Foxhall 2009, p. 498, on the paucity of evidence for 6th- and early-5th-century houses

(all dates are B.C.). See also Foxhall 2003, pp. 77–78, on the difficulties in identifying and documenting Archaic houses in archaeological surveys.

2. E.g., Morris 1998, pp. 34–35, 46; Lang 2005, pp. 22–24; Crielaard 2009,

p. 362. It is interesting that two of the three examples of Archaic houses discussed by Lang (2007) are from Crete (Dreos and Onythe Goulediana).

3. For previous reports, see Haggis et al. 2004, 2007a, 2007b, 2011.

Two aspects of the study of Archaic houses are particularly relevant to our work at Azoria. The first is the identity and structure of the Greek household in the Aegean, which has conventionally been held to emerge around 600 in the form of the notional “courtyard house,” carrying with it social and gendered as well as functional divisions of space that emphasize the identity of the nuclear family and role of the male citizenry in the social and political landscape of the polis.⁴ Houses in Cretan cities, however, are generally thought to have followed a different path, with linear plans that seem to show little evidence of social or gendered segmentation, and material patterns that do not seem to fit with our preconception of the androcentric household symposium.⁵

The second aspect of study is the relationship between houses and the broader urban context.⁶ The work at Azoria has now provided substantial evidence for a reconsideration not only of the form of the Archaic household and the internal configurations of space, but also of the locations of houses within the urban environment and the relationship of the house to the polis, as well as to broader agricultural and political landscapes. Integrating evidence of domestic storage, food processing, and consumption, we can begin to evaluate the resource base of the Archaic Cretan household, as well as the cultural and environmental variables of labor allocation within the agropastoral economy of the city.⁷

Parts of nine Archaic buildings dating to the 7th–5th centuries and identified as domestic spaces have been discovered at Azoria since excavations began in 2002. Summaries of the excavation of houses on the south slope (South Slope Buildings) and the Northeast Building of the South Acropolis (Fig. 1) have been presented in earlier reports.⁸ During the 2005 and 2006 seasons we explored substantial parts of several other buildings: three on the northern edge of the South Acropolis (Northwest Building and North Buildings), two on the lower southwest slope of the South Acropolis (Southwest Buildings), and one on the North Acropolis (North Acropolis Building) (Fig. 2).

Azoria was radically rebuilt at the start of the 6th century with new forms of public and private architecture. This renovation included the construction of “spine walls,” megalithic walls generally oriented to the contours of the hill. In most cases the bedrock of the slope was cut back to form level floor surfaces and wall socles; the spine walls frequently serve as the back walls of buildings, and were positioned to expand and regularize the usable space on each terrace by retaining the edges of the slopes.⁹ These walls structured the urban topography, organized and delineated domestic and civic space, and controlled patterns of access and communication. The site’s civic center, consisting of the Communal Dining Building (putative *andreion* complex), the Monumental Civic Building, and associated service areas, was probably a continuous and contiguous array of public architecture situated along the western and southwestern slopes of the South Acropolis (Fig. 1). This area extends from buildings A1300 and D1000 in the north, to the Cult Building (B2000/2100) and southern end of the Service Building (B1700) in the south. An interesting aspect of the early-6th-century rebuilding of the site is not only the definition of civic architecture, but also the construction of new houses and new house types as part of the overall plan. Although there are Early Iron Age–Orientalizing deposits, occupation levels, and wall

Figure 1 (opposite). Azoria, state plan of the South Acropolis. R. D. Fitzsimons and G. Damaskinakis

4. Morris 1998, p. 33; 1999; 2000, pp. 280–286; Nevett 2005, 2007; Lang 2007, esp. pp. 191–192; Mazarakis Ainian 2007, pp. 167–168; cf. Foxhall 2009, p. 498. See Coucouzeli 2007, pp. 177–180, for an 8th-century date for the origin of the courtyard house.

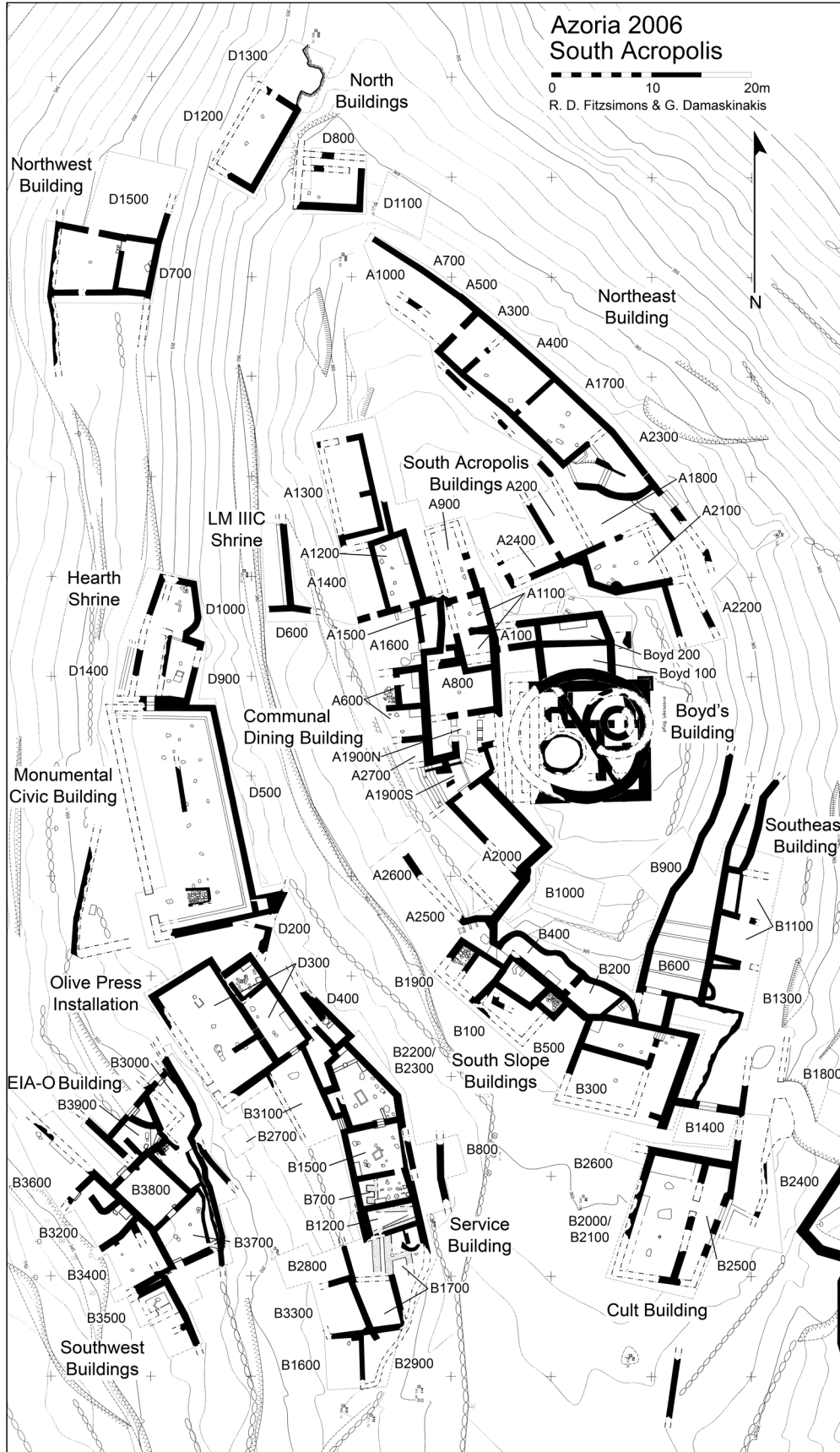
5. Westgate 2007, esp. pp. 448–450; Whitley 2009, p. 290.

6. See, e.g., the detailed studies of Lang (2005, 2007).

7. Foxhall 2003; Westgate 2007, pp. 451–452; cf. Jameson 1992, pp. 137–138.

8. Haggis et al. 2004, pp. 352–367; 2007a, pp. 246–252.

9. Fagerström 1988, pp. 113–114; Hayden 1995, pp. 130–131; detailed discussion in Haggis et al. 2004, pp. 349–352; 2007a, pp. 263–265.





segments lying beneath some Archaic houses, in most cases the 6th-century buildings were constructed directly on bedrock and, like the new civic buildings, were shaped to fit within the spaces defined by the spine walls. Houses were constructed around the periphery of the central area occupied by public buildings.¹⁰

THE NORTHEAST BUILDING

The pattern of development on the South Acropolis suggests the close spacing of houses and the use of the spine walls as an armature framing a linear progression of rooms along modified terraces that follow the natural contours. The best-preserved example of such a consecutive row of rooms with a linear communication pattern is in the Northeast Building (Figs. 1–3), excavated in 2002–2003.¹¹ The building may serve here as a conceptual model for interpreting the functions of rooms in other houses at the site, and as a demonstration of the recurring patterns in the use of space that have emerged from the excavation sample.

10. Haggis et al. 2004, pp. 352–363; Haggis and Mook, forthcoming. While we have characterized the South Slope Buildings (South Slope Houses) as domestic in function, they are evidently different from the other houses exam-

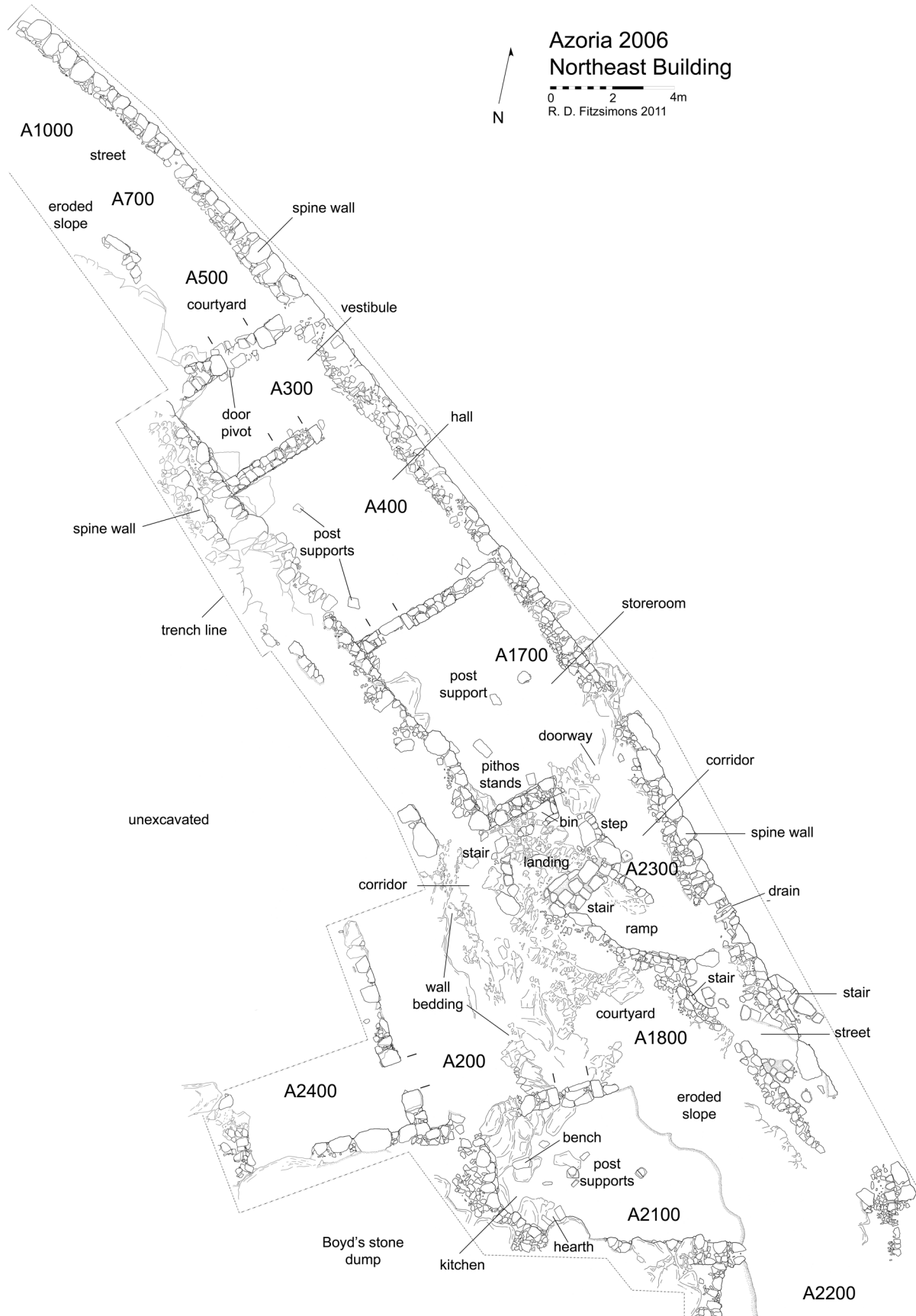
ined so far at Azoria: they are smaller in size, irregular in design, and located in the middle of the civic complex between the Cult Building and the Communal Dining Building. They may indeed have served domestic functions,

Figure 2. Azoria, North and South Acropoleis from the east. Photo M. S. Mook

Figure 3 (*opposite*). State plan of the Northeast Building: A300 (vestibule), A400 (hall), A1700 (storeroom), A2100 (kitchen). R. D. Fitzsimons

but given their location and form, it is likely that they were residences of the personnel responsible for maintaining or servicing the civic buildings.

11. Haggis et al. 2004, pp. 364–367; 2007a, pp. 246–252.



One interesting characteristic of the plan (Fig. 3) is the delineation of room functions: storage, food processing, and general living areas are clearly separate architectural spaces, which we call respectively “storeroom,” “kitchen,” and “hall.” Furthermore, a recurring feature of the arrangement of the rooms is the direct connection between the storeroom (A1700) and hall (A400) and the physical separation of the kitchen (A2100) from the other rooms of the house by means of a courtyard or corridor, often using the natural terrain to effect or reinforce these separations. The interpretation of domestic space presented here is, however, preliminary, pending full study and quantification of the assemblages of various classes of material from the buildings. The nomenclature is based on our current reading of the data, with inferences derived from the patterns of distribution of clusters or sets of artifacts and animal and plant remains, recurring features, and the organization of architectural space.

In the Northeast Building, the kitchen (A2100) has a permanent hearth and a fixed stone bench or work platform, as well as an array of food storage and processing pottery, including two pithoi, cookpots, a deep lekane, a spouted mortar, two coarse bowls, and a strainer, in addition to dining vessels. Among the nonceramic finds on the floor were an iron knife, a whetstone, six small stone hand tools with pecked and abraded ends and one abraded facet, and other stone tools with pecked and/or abraded margins and naturally smooth, polished, and abraded facets. Such stone tools are typical of food-processing assemblages at the site; they cluster in rooms with other indications of food processing (such as querns, strainers, and cookpots) and are noticeably scarce or absent in spaces defined as storerooms and halls. Remains of grain, pulse, and grape from the area immediately southwest of the bench in the northwest corner of A2100 are probably seeds that spilled from the work bench and were then trampled into the floor and subsequently carbonized when the room burned. Remains of olives, including five whole pits, were concentrated in an area east of the hearth, near the south wall. Sheep, goat, and pig were represented in the room by elements of the lower legs and feet or of the cranium. It is clear that lower legs of the animals were brought into A2100 still attached to the meatier upper-limb segments, and remained there after processing and cooking. Although Foxhall is both careful and emphatic in her rejection of the term “kitchen” as an inappropriate and anachronistic term for food-processing areas in Greek houses, Archaic contexts at Azoria suggest the existence of fixed kitchens.¹²

The storeroom (A1700) had four stone-slab pithos stands, as well as a platform cut in the bedrock against the west wall, probably also used as a pithos stand. While the fragmentary pottery from the floor deposit consisted of a variety of ceramic vessels (amphoras, jar, cookpot, lekane, hydria, krater, and cups), there were two well-preserved pithoi in the southwest corner, as well as fragments of no fewer than four others scattered about the room. The soil samples taken from the area of the pithoi produced small quantities of olive pits and grape pits and modest quantities of grain (including barley and wheat) and pulses (including chickpeas).

The designation of the hall in A400 is tentative, because the patterns of material, especially ceramic assemblages, that might help establish correlates

12. Foxhall's argument (2007, esp. pp. 240–242) is predicated largely on the absence of hearths and the ambiguity of assemblages that could indicate the locations of fixed kitchens in Classical contexts.

for the functions of such spaces are still being evaluated. We use the general term “hall” to indicate an interior space whose form, features, and assemblages are different from those of kitchens and storerooms, and which could have been used for multiple purposes. Rooms identified as halls are usually the largest roofed spaces in a building and have one or more post supports preserved, but lack distinctive features that might permit association with specific activities. Indeed, the apparent openness of the space, uncluttered with fixed, stone-built features, has contributed to its interpretation as a room of variable function; any number of movable installations, implements, and furniture made of perishable materials such as wood (e.g., benches, tables, containers, bedding, chairs, shelves, looms, hafts) might originally have occupied such rooms. We assume that they were the main living rooms of the houses.

A400 is large, indeed nearly the same size as A1700, but has no built installations or remains of portable hearths or cooking stands. The small group of objects recovered from the floor surface is distinctly different from the assemblages in adjacent rooms, but can hardly be exclusively definitive of the room’s functions. The material includes a loom weight and a cluster of stone implements related to cutting: two whetstones, a pumice cobble, and a small pebble tool for cutting and scraping. It is perhaps important that the room lacks both the range of small hand tools typical of kitchens, as well as the pithoi and pithos stands that help to define storerooms. The pottery is perhaps more telling: a large lamp, a black-gloss cup skyphos, a number of high-necked cups, kraters, a table amphora, a hydria, a lekane, and a cookpot. This ceramic assemblage clearly indicates that routine activities of drinking and dining took place in the room. Plant food debris, consisting of traces of grain and sparse fragments of olive pits and grape pips, was found, but was less abundant in this room than in the kitchen (A2100) or storeroom (A1700).

ISSUES OF INTERPRETATION

The definition of rooms in the Northeast Building and the nomenclature used in this report, while convenient, represent a preliminary interpretation, pending thorough examination of depositional processes and patterns of distribution across the site.¹³ The discussion presented here is based on our current understanding of material patterns, with the recognition that the quantification of assemblages and their distribution may enhance, qualify, or change our attributions of functions. Indeed, the question of what constitutes a house or domestic unit is as problematic as the reductive and anachronistic use of broadly conceptual terms for individual spaces such as kitchen, storeroom, or pantry.¹⁴ A fuller understanding of the forms of houses, and of households as social units, will require additional excavation in areas contiguous to the buildings presented here, as well as a consideration of the methodological implications of relating household structure to architectural and archaeological vocabularies and constructs. What we know of the economy of the Cretan household strongly suggests social and perhaps architectural configurations larger and more complex than our reductive definitions of a house unit and its daily domestic operations,

13. See Allison 1999b, esp. pp. 5–6, on the spatial distribution of domestic assemblages; Foxhall 2007, for a critical assessment of work in Greek contexts.

14. See Foxhall 2003, 2007.

especially the processualist concerns of food processing and consumption. These are, of course, the kinds of evidence that are most visible in excavation contexts, and the most easily integrated into middle-range models of room function and house definition.

Taphonomy is another preoccupying concern in archaeological studies of domestic space; indeed, it is apparently more important than issues of sampling bias and intensity, methods of excavation, or research design.¹⁵ The condition of abandonment contexts at Azoria suggests that in most cases floor deposits can provide reasonable indications of room functions (or distinctive differences in room functions) at the time of abandonment.¹⁶ While we are sensitive to both abandonment-stage and post-*de facto* depositional processes that caution against assuming that floor deposits represent primary use contexts, we think it is worth exploring the implications of the conditions of abandonment.¹⁷ The early-5th-century destruction of Azoria appears as a uniform and consistently identifiable horizon of burning across the site. Where this level is best preserved, it is clear that the wooden elements of the roof burned and then collapsed, along with a deep and normally even stratum of roofing clay, into the room, where they evidently ignited any combustible organic materials. It is therefore not surprising that the burning appears to have been most intense in kitchens and storerooms, where olive oil is a likely fuel, but less obvious or intense in halls. External areas, such as courtyards and streets, lack indications of clay roofs or burning, and their occupation surfaces are normally weathered.

Although this fiery destruction obviously helped to preserve the assemblages as we have them, the actual pre-destruction abandonment probably involved the displacement of objects, and even the removal of valuable materials, such as portable pottery and metals, as well as food stuffs, either by the fleeing occupants, or by pillagers who were perhaps responsible for the deliberate burning. That abandonment occurred rapidly, and the destruction shortly thereafter, is clearly indicated by the preservation and composition of the floor assemblages, the lack of evidence of damage to animal bones by rodents, and the presence of botanical remains that otherwise could not have survived long exposure to post-abandonment human foot traffic, the elements, or scavenging animals.¹⁸ Thus, we think that post-*de facto* deposition per se is relatively rare at the site. That said, we admit that seismic activity, natural erosion of the hill slope and other environmental variables, and deep plowing in modern times, as well as various cultural behaviors, including both curate and lateral cycling activities during the abandonment phase and prior to the site's destruction, preclude absolute certainty in our positivist assumptions about what constitutes a systemic assemblage, and consequently our synchronic definitions of rooms and houses.¹⁹

In the houses at Azoria, the consistent distinctions among the functions of rooms has economic and social implications, suggesting an emphasis on the access, control, and display of stored agricultural products, and the clear separation of cooking activities from the hall or main living room of the house. Absent in the houses so far excavated is the so-called hearth room, a domestic feature of the Early Iron Age in which the main room of the house seems to have combined the functions of living room, kitchen, and food storage. While storage areas and hearth rooms may have

15. E.g., LaMotta and Schiffer 1999; but see Ault and Nevett 1999, pp. 43–46, for a discussion of problems with early excavation samples.

16. LaMotta and Schiffer (1999) are skeptical of the value of floor assemblages in houses as evidence for the use of rooms during the period of habitation, suggesting that most contexts instead reflect abandonment and post-abandonment depositional processes.

17. Part of our continuing study of the ceramic material recovered from floors is an exploration of the history of room use based on the chronology and functions of residual sherds embedded in floor surfaces. On abandonment processes and diachronic changes in Greek domestic contexts, see Ault and Nevett 1999.

18. Schiffer (1987, pp. 89–97) discusses the effects of the rate of abandonment, population mobility, and distance to the next settlement on the formation of *de facto* refuse.

19. See Schiffer 1987, esp. pp. 94–97, on curate and lateral cycling behaviors.

been separated in Late Minoan IIIC buildings on Vronda and in some Late Geometric–Early Orientalizing houses on the Kastro,²⁰ later Hellenistic houses on Crete apparently combined storage and food processing with general living activities, such as drinking, dining, and weaving, around a well-built central hearth.²¹ In any case, the organization of space in the Archaic houses at Azoria represents an interesting departure from an evidently long-lived pattern of multifunctional living space centering on the hearth.²²

Another interesting characteristic of the houses at Azoria is that they appear to conform to, and remain statically adherent to, the overall plan of the settlement and the structured topography determined by the spine walls. We have not yet established a terminus post quem for the foundation of all of the excavated houses, but wherever stratigraphy has been recovered, the construction appears to be contemporaneous with the early 6th-century renovations visible across the site. Once established, the houses show no significant changes; there are no indications of the physical expansion of household units over time, and the internal modifications are consistent with periodic maintenance.

The absence of evidence for the expansion of individual houses is especially interesting if we consider that such physical growth is characteristic of household blocks throughout the Early Iron Age at the neighboring sites of Vronda and Kastro.²³ The pattern at Azoria in the Archaic period thus suggests deliberate planning. Building forms remained fixed from the time of their construction until abandonment, with clay and bedrock floors reused continuously throughout the lifespan of the house. Although this did not preclude the growth of the settlement by the construction of additional houses elsewhere at the site, the primary household unit was evidently a feature of a planned built environment. The process of urbanization thus established and fixed the architectural form of the house, and perhaps by extension, the social configuration and identity of the household.

The irregular plan of the site reflects the vagaries of the terrain and the conformity of buildings to the steep contours of the hill; with more excavation it may end up looking very different from the neat rows of houses at roughly contemporary sites such as Prinias on Crete and Vroulia on Rhodes, or the orthogonal plans of Classical cities such as Olynthus and Priene. The absence of orthogonal regularity should not, however, be interpreted as evidence of a lack of city planning or community organization,²⁴ nor does it diminish the potential sociopolitical importance of the static footprint of households implanted around the peak of the South Acropolis. Although the proximity of adjacent houses could well indicate kinship connections, the topographical and architectural separation of house units suggests the social and symbolic primacy of the individual household. This distinction is not as clear in Early Iron Age contexts, where contiguous houses share party walls, and clusters of buildings—blocks or neighborhoods within settlements or hamlets within regions—express long-established connections to the landscape and a social identity dominated by the extended family or clan. At Azoria, although we do not see the linear growth associated with the consolidation of expanding kinship groups, it is likely that the houses were continuously reused as urban residences by such groups.

20. Coulson et al. 1997; Mook 1998; Glowacki 2004. See also Sjögren 2007, pp. 151–152, on fixed hearths at Phaiastos and potential communal functions; Tsakirgis 2007, pp. 225–226, on domestic fixed hearths of the Bronze Age and Early Iron Age–Archaic period.

21. Westgate (2007) provides a survey of houses at Lato, Trypetos, and elsewhere; see, however, Greco et al. 2000, pp. 552–555; 2002, pp. 581–582, for an Archaic *pastas*-style building with a well-built curbed hearth in the area of the north cemetery at Itanos; Foxhall 2007, on the general absence of fixed hearths and permanent food preparation areas in Classical Greek houses.

22. Some houses on the Kastro, however, such as Building L (Late Geometric–Early Orientalizing) and NW 7–9 (Protogeometric–Late Geometric), have complex plans (Coulson et al. 1997, pp. 345–349, 370–374), suggesting separate living rooms, store-rooms, and kitchens.

23. Mook 1998; Glowacki 2004.

24. Cf. the extreme view of Lang (2007, pp. 183–185), who assumes that planning predicates spatial regularity.

THE NORTH BUILDINGS

D1200–D1300

Excavations in 2006 at the southern edge of the saddle connecting the North and South Acropoleis brought to light the remains of two houses (Figs. 1, 4). D800, discussed below, consists of a single kitchen, one room of a house whose unexcavated foundations extend onto the adjacent, slightly lower terrace to the east. The other house, consisting of rooms D1200 and D1300, is located on a lower terrace northwest of D800 (Fig. 4). As is the case on most of the outer slopes of the site, the western edge of the terrace on which D1200–D1300 is situated has suffered severe erosion, resulting in the loss of the entire northwestern side of the building. A neat line of cut bedrock at the western edge of the terrace, in places supporting the large dolomite boulders that remain from the original spine wall, runs parallel to the well-preserved east wall of the house (D1203) and appears to have served as bedding for a west wall, thus providing a rough estimate of ca. 6 m for the original width of the terrace.

Two rooms belonging to this house were excavated: the south room (D1200) is a large rectangle, ca. 8.5 m long (northeast–southwest) \times 4–5 m wide (northwest–southeast) (Fig. 4). The great size of this chamber, the largest domestic hall space so far recovered at Azoria (ca. 42.5 m²), necessitated the use of two roof supports, the schist bases for which were located ca. 3.20 m apart along its central (long) axis. Extensive sections of bedrock were cut away to accommodate the construction of the room, as shown by the bedrock ledges visible at various points along the base of the east (D1203) and south (D1204) walls, and in large sections of the floor.

A stepped doorway was cut through the north wall of the room (D1207), providing access to another room, D1300 (Fig. 4). The eastern jamb had evidently toppled into the doorway, where it now stands on edge; evidence for the western jamb survives in the form of a cutting in the bedrock that accommodated the bedding for the threshold. The upper step is a thick slab of schist set on a bedding of small flattish stones, preserving in situ a tread height of ca. 15 cm; only the bedding for the lower step (ca. 15 cm high) is extant. Unfortunately, little survives of the architecture of D1300 itself. The bedrock foundations mark the original position of walls along its eastern flank, and a roughly cut ledge, ca. 0.45 m wide, suggests the original line of the north wall. An oval cutting (ca. 2.8 \times 1.7 m) in the bedrock on the eastern side gives the room an irregular shape.

The house evidently had a northern and western aspect, and the main entrance was likely to have been through an unexcavated room north of D1300, where cut bedrock and visible wall segments suggest that the building continued some distance in that direction, or by means of a corridor along the western edge of the building. The absence of a doorway in Wall D1204 may indicate that it formed the southern limit of the building.

D1200 is very likely the hall of the house, given its large size, regular plan, and direct connection to D1300, which was probably a storeroom (see below). While few finds were recovered, traces of burning are evident along the base of the east wall and in the northeast corner, where the roofing

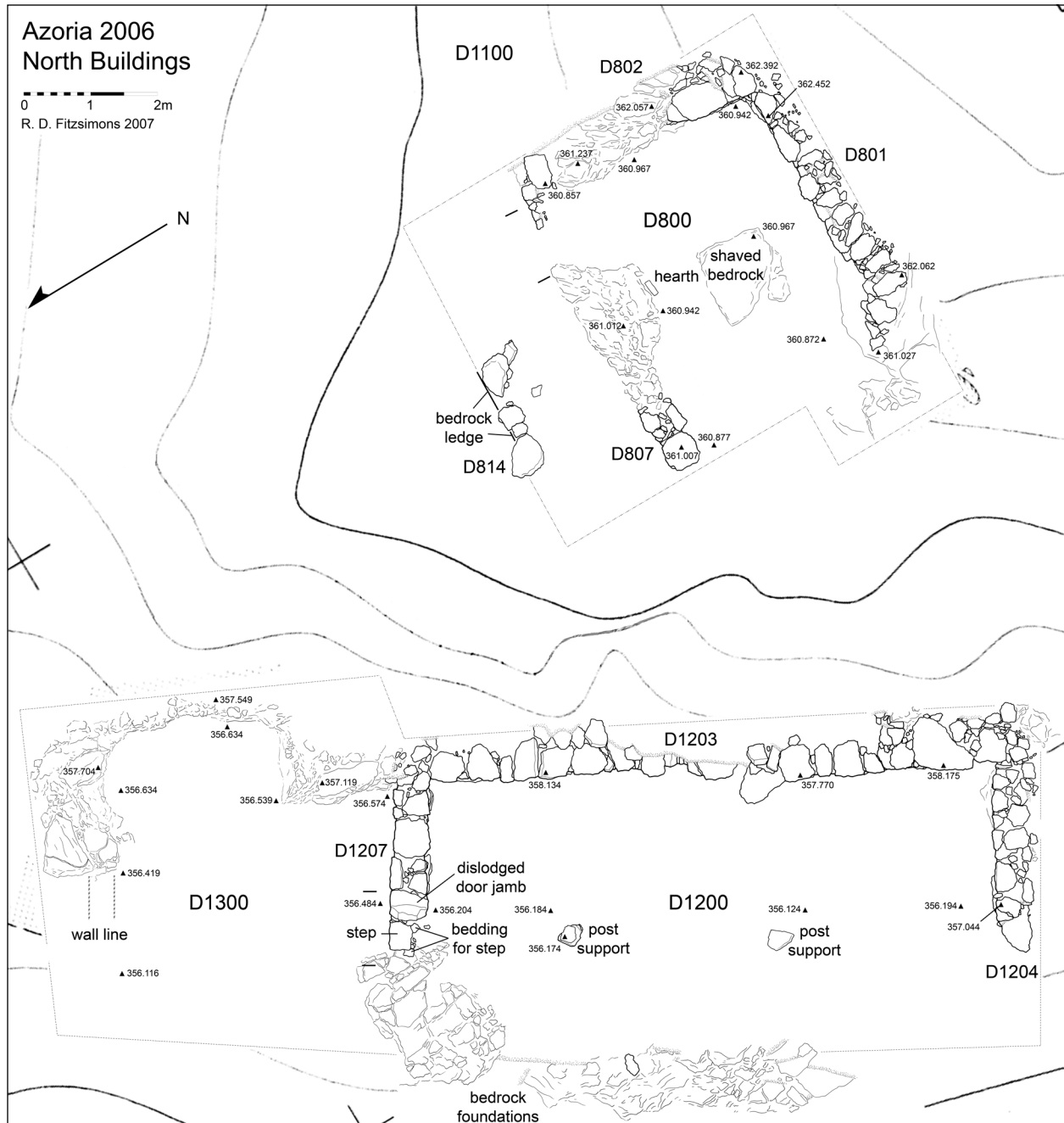


Figure 4. State plan of the North Buildings: D800 (kitchen), D1200 (hall), D1300 (storeroom). R. D. Fitzsimons

material was best preserved. Although the room had been largely cleared of its contents at the time of abandonment and before the destruction, the paucity of finds is typical of the main halls in houses at Azoria, which tend to have fewer objects compared to storerooms, kitchens, and pantries. We did, however, find remains of common serving and dining vessels characteristic of hall assemblages, including pithos, transport amphora, chytra, hydria, and black-gloss cup fragments.

The oval cut-bedrock room D1300 is likely to have been a storeroom, for it contained a considerable amount of pottery, including fragments of at

least two pithoi, a chytra, three or four other cookpots, two lekanes, a mortar, a possible scuttle or lamp, a hydria, a jug, a krater, a black-gloss skyphos, and at least two high-necked cups. Many remains of Late Geometric and Orientalizing pottery were also found in this room, including a groove-collared cookpot, a hydria, several cups, and a large loom weight of Late Geometric type.

Few food remains were found in these rooms. The hall produced only a trace of grape, while the storeroom produced traces of grape and olive, although neither context is particularly well preserved. The same is true of the faunal assemblage, which consists of a mixture of pig, sheep or goat, and domestic cow bones, including a good deal of cranial material together with limb bones and rib segments. A few of the bones show evidence of partial burning, although none exhibit chop or cut marks. In general, the mixed character of the deposit, evidence of partial digestion and weathering, and the presence of several isolated dog elements suggest that parts of the room's floor might have been exposed and perhaps eroded sometime after the final collapse of the west wall.

D800

Immediately above and east of D1200, on a narrow spur at the northern end of the South Acropolis, is a rectangular room, D800, bounded on its southern, eastern, and northern sides by walls D801, D802, and D807, and measuring ca. 3.30–3.40 m north–south (Figs. 4–6). The west wall of the building is no longer extant, but its original position is indicated by the presence of substantial bedrock foundations, suggesting an original interior width of ca. 5.7–6.0 m. The east and south walls of the room had been trenched and partially exposed before our excavation, perhaps as a result of the same exploration that exposed the walls of A300 on the terrace above,²⁵ but this disturbance apparently did not penetrate to the floor level.

The floor of the room was composed of hard-packed clay, but a substantial section in the center was a neatly shaved outcrop of bedrock, the northern edge of which served as the southern side of a rectangular built hearth, 0.70–0.80 m wide (Figs. 5, 6). The other sides of the hearth were evidently lined with slabs of *sideropetra*, one of which was preserved in situ near the southern side of wall D807; two others were found in disturbed positions elsewhere in the room. An embedded circular quern of beach-rock conglomerate was found near the south wall in the southwest corner of the room (Figs. 5–7). The entrance to the room was a single door at the eastern end of wall D807, of which only the bedding for the threshold survives. Although no jambs are preserved, an original width of ca. 1.10 m (the standard door width at the site) is possible.

Pottery from the room includes fragments of a pithos, a jar, an Aiginetan chytra²⁶ and other cookpots, a scuttle or lamp, hydrias, a black-gloss cup skyphos, high-necked cups, and a krater stand; also found were a bronze pin fragment, a bronze scoop, and a decorated bronze spatula or clasp. A few fragments of grape pips and olive pits were recovered from the floor, but no cereal grains or pulses. The presence of a curbed hearth in this room is supported by the animal remains from the floor. These

25. Haggis et al. 2004, p. 367.

26. Chytrai can be identified as Aiginetan on the basis of their distinctive fabric and, in the case of better-preserved vessels, their thin-walled shape and surface treatments (pattern-burnished on the exterior and wiped on the interior). We thank Sara Strack for suggesting the origin of these imported cookpots at Azoria, and both her and Gudrun Klebinder-Gauss for discussion of the Aiginetan cookpots found in the Athenian Agora, which are now being restudied by Strack. Strack informed us that several of these chytrai were first published by Sparkes and Talcott (*Agora* XII, pp. 224–225, pl. 93), who, although aware of the Aiginetan fabrics and Farnsworth's study (Farnsworth 1964, pp. 223–224; *Agora* XII, pp. 34–36), were unable to distinguish macroscopically between local Attic products and Aiginetan imports. Figure 26:2 below is an Aiginetan chytra from E100; for other examples from Azoria, see Haggis et al. 2004, pp. 383–385, fig. 41:6; 2007a, pp. 260–261, fig. 14:10, 11. A program of petrographic analysis is planned for this class of cooking pottery.

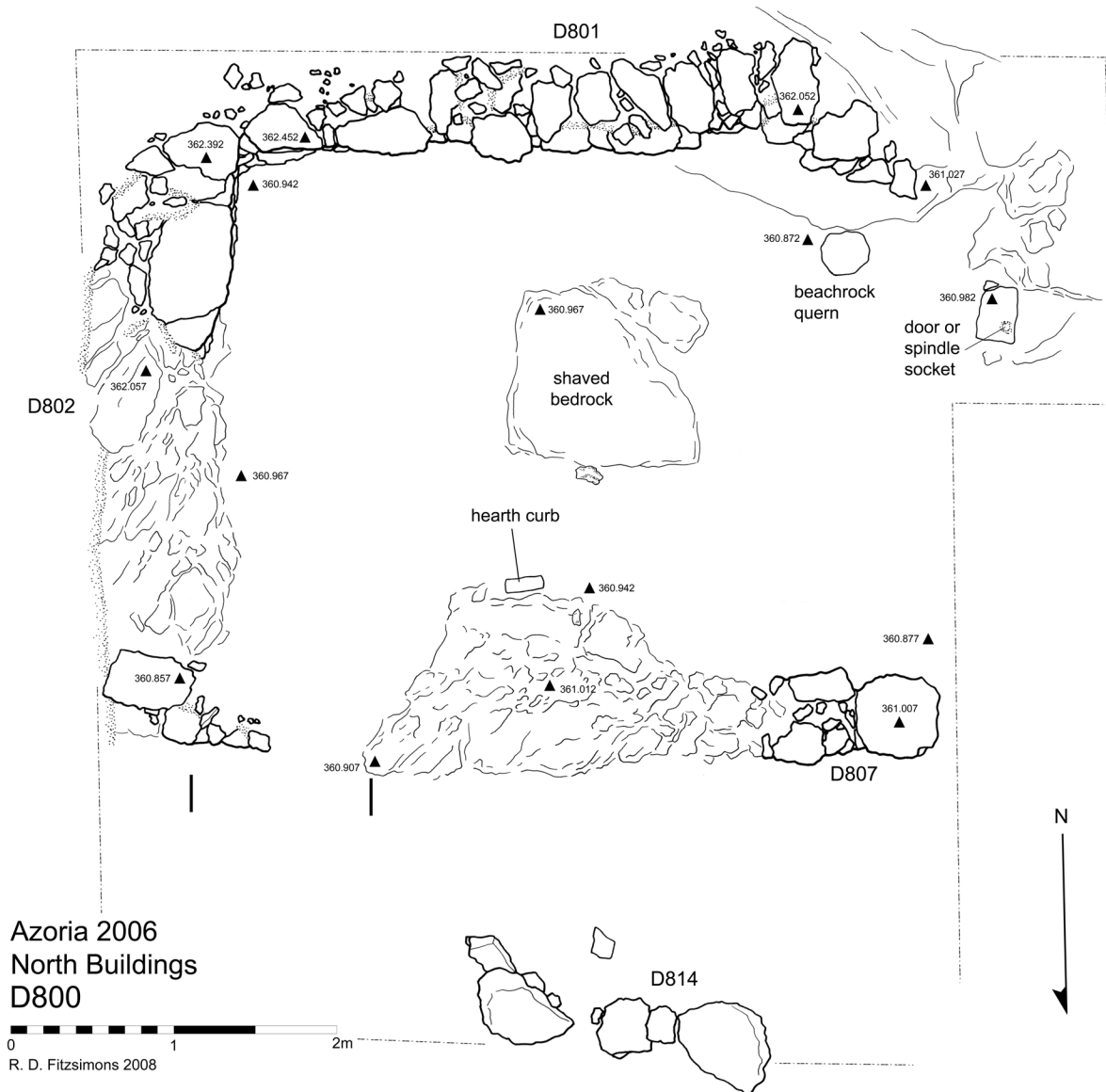


Figure 5. State plan of D800. R. D. Fitzsimons

consist primarily of cranial and postcranial bones from a young sheep or goat, possibly a single animal, including articulating elements from at least one front and one hind limb. Chop marks are present on one femur diaphysis and the neck portion of one proximal scapula. In addition, there are indications of partial burning on an innominate segment, a calcaneum (lower hind-limb joint element) and at least two rib-shaft segments. This pattern of chop marks and partial burning, along with the evidence of the articular limb segments of a young or juvenile animal, suggest the roasting of a single, whole young animal, or of whole limb segments and the thorax (ribs) of the animal after initial butchering.

The doorway in the northeast corner of the room opens onto a narrow corridor running across the width of the room and bordered on the north by wall D814, which may represent the southern edge of another small room, no longer extant. The original position of this wall is marked by a



Figure 6. D800 from the north. Photo D. Haggis



Figure 7. D800: beachrock quern embedded in floor. Photo D. Haggis

shallow ledge cut into the bedrock ca. 1.50 m north of wall D807, but the extant stones appear to have been displaced a short distance to the south. Given the presence of the embedded quern, the hearth, and typical cooking vessels, D800 is evidently the kitchen of a house, the other rooms of which extended to the east of the corridor and southeast along the slope below the Northeast Building. We opened one exploratory trench, D1100, in this area, exposing the tops of some poorly preserved segments of walls that may belong to this building.

THE NORTHWEST BUILDING (D700 AND D1500)

Excavation on the northwest slope in D700 brought to light the remains of two rooms forming what appears to be the hall and storeroom of a house (Figs. 1, 8). Given the presence of doorways leading from the west room of D700 into the unexcavated areas to the north and south, it is clear that the entire house is much larger. Excavation at the end of the season in 2006 in the area to the north, D1500, had begun to reveal wall collapse and burned roofing clay, indicating an interior space, most likely the kitchen. The eastern and western limits of the house are defined by two massive retaining walls (D705, D717), spine walls that form the terrace, ca. 10 m wide, on which the house was constructed (Figs. 1, 8). Two long walls (D704, D706), each built in two sections, define the northern and southern limits of D700, while a thin cross wall (D711) divides the space into two rooms (Figs. 8, 9).

The east room is roughly rectangular in shape (ca. 2.80 m east–west × 4.65–4.80 m north–south) and was entered from the west through a doorway, 1.10 m wide, at the northern end of wall D711 (Figs. 8, 9). The bedding course for the threshold, a line of flattish schist stones, has survived along the western side of the doorway. A circular piece of burned olive wood (ca. 0.25–0.30 m in diameter) was exposed on the floor next to the north jamb, perhaps the remains of a fallen beam or lintel of the doorway (Fig. 8). Two large schist slabs near the center of wall D705, embedded in the floor but rising ca. 0.02–0.06 m above it, evidently served as pithos stands, a common characteristic of storerooms at the site (Fig. 9). The wall dividing the east and west rooms (D711) was preserved only two to three courses high; additional wall-stone debris had collapsed directly into the west room. Given the slope and the evidence of erosion along the western side of the building, much of the occupation material from these rooms might have been moved from its original location after the building's abandonment.

Pottery from the east room includes fragments of at least four different pithoi, a transport amphora, an Aiginetan chytra, at least one other cookpot, four lekanes, two mortars, two handles from scuttles or lamps, two hydrias, jugs, two black-gloss cup skyphoi, a low-necked cup, and at least six high-necked cups. Other finds include two loom weights, a spindle whorl, a stone lid, and one hand tool. The presence of several pithoi and a transport amphora, as well as the schist pithos stands, suggest that this chamber functioned as a storeroom, an identification not precluded by the other material found in the room, since storerooms at the site frequently contain a variety of objects, either stored during the use of the building or brought in at the time of abandonment.

A rich assemblage of food plants was recovered directly from the floor, especially from the northeast corner near the pithos stands. Olives, including whole pits and large fragments, were most abundant, but grape, barley, chickpea, poppy, and fig were also present. There were also small seeds of many types, as yet unidentified, which may derive from roofing material, but could also include spices or other edible plants. The range of foods represented in this room is comparable to that found in the storerooms of the Communal Dining Building and Service Building.²⁷ The remains give us some idea of the agricultural wealth of the household, but the assemblage

27. Haggis et al. 2011, pp. 7–12, 25–27, 31, 43, 57.

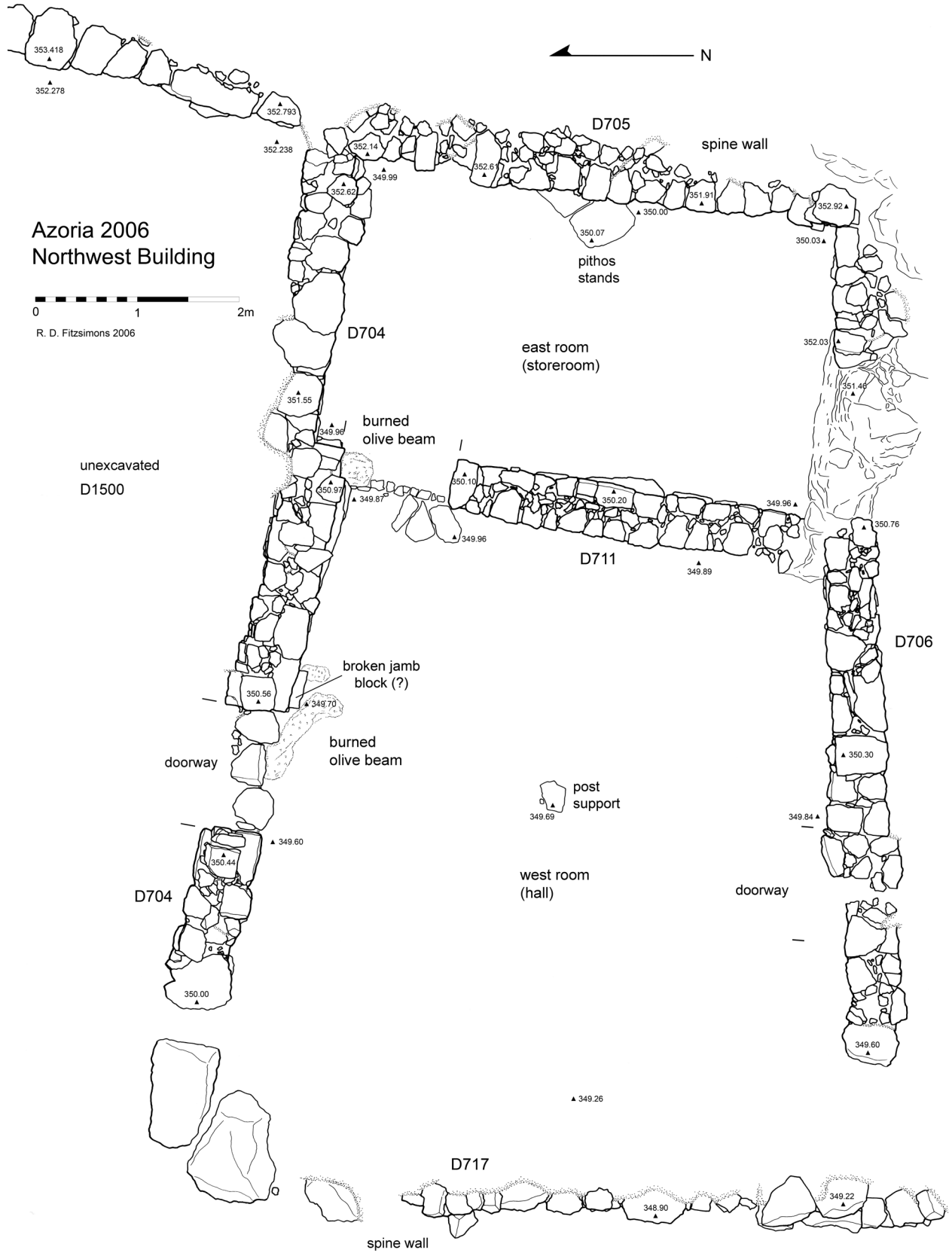


Figure 8. State plan of the Northwest Building (D700). R. D. Fitzsimons



Figure 9. D700, east room (store-room), from the southwest. Photo D. Haggis

may also suggest that, at least as far as plant foods were concerned, civic dining in the public buildings was distinguished more by abundance, setting, distinctive equipment, and perhaps recipes than by the ingredients per se.

The western room has the form of a large trapezoid with a flat dolomite block in the center serving as a post support for the roof (Fig. 8). The room is nearly as large as the hall in D1200, with an area of ca. 38 m²: the width is 4.8 m at the east, widening to 6.1 m at the west. A doorway 1.10 m wide provided stepped access to the northern reaches of the building, while the eastern jamb of a doorway in the south wall indicates access to the south. Another burned olive beam fragment, again either part of the roof or a lintel, was found lying in the room in front of the north doorway.

The trapezoidal shape of the hall is interesting. The north and south walls splay outward obliquely, so that the room is significantly wider at the west side. The obtuse angles and oblique lines of the walls evidently mark a transition in the direction of the terrace, permitting adjacent rooms with different orientations to be constructed orthogonally. Similar irregular spaces with obliquely aligned walls can be seen in the transition from D500 to the Hearth Shrine (D900–D1000), in the Communal Dining Building (A1900, A1600), and in the Southwest Buildings (B3700) (Fig. 1). Such irregular room plans occur only within single buildings that straddle the directional transition on the terrace, and are probably evidence of planned and integrated construction. Separate buildings, such as the South Slope Buildings, normally do not have party walls that would require divergence from an orthogonal plan.

The pottery from the room includes fragments of at least two pithoi, a jar, a transport amphora, an Aiginetan chytra and possibly other cookpots, two lekane, a mortar, two hydrias, an exaleiptron, a Lakonian krater, and

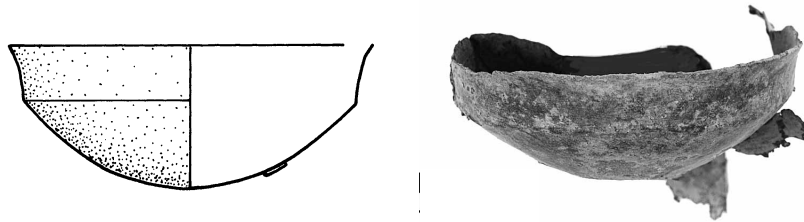


Figure 10. D700: miniature bronze cup. Scale 1:1. Drawing R. Docsan; photo C. Papanikolopoulos

four cups, as well as an Orientalizing krater and high-necked cup. Other finds include a bronze fishhook and a lead plummet. A patch of burned debris along the wall separating the hall from the storeroom (D711) produced olive, grape, barley, and pulse in association with fine ware cups and pithos sherds.

The faunal assemblage was consistent in both rooms, an almost balanced mix of head, upper-limb, lower-limb, and foot debris, probably indicating that the material had been dumped here from a primary butchering location or food preparation area. Sheep and/or goat bones dominate the assemblage, and all parts of the carcass are represented. It is perhaps important that few of the specimens show discoloration from burning, although there is ample evidence of the destruction of the room itself by fire, especially along the bases of the walls, where it was sheltered from erosion. In the better-preserved floor deposit from the east room, by contrast, a number of burned animal-bone fragments were recovered from flotation residue. One pig bone, one hare bone, and two sheep or goat elements exhibit cut or chop marks. The sheep or goat bones include a proximal metacarpal segment chopped on the distal end, and a first phalange with cut marks on the posterior surface. These elements are indicative of skinning (the phalange) and separation of the lower leg/foot (metacarpal) during butchering. Another indication of the mixed nature of the deposit is the presence of a number of scattered dog bones, together with several pig, sheep, or goat bones that exhibit surface erosion resulting from partial digestion (most likely by scavenging dogs).

There is nothing distinctive in this assemblage to confirm the function of the room as a hall, although drinking and serving vessels are the most common finds in such spaces. The large size of the space, however, its location adjacent to the storeroom, and its position controlling communication within the building, especially between the storeroom and other rooms of the house, support the identification.

One other interesting object, a miniature bronze cup (Fig. 10), was also found in the room, although not in the occupation deposit; it was removed from the earth mortar between stones of the east segment of the north wall (D704) during architectural conservation in 2007.²⁸ The cup is very small, ca. 5 cm in diameter, has a carinated and everted rim, a round bottom, and a rivet for attachment of a strap handle. Similar cups have been found in ritual contexts in the Idaean Cave and in the Hearth Shrine at Azoria itself, and are generally dated to the Early Orientalizing period.²⁹ Whether the cup accidentally fell into the mortar of the wall during construction or was placed there as part of a foundation ritual we cannot know, but a 7th-century date is well within the range of the material found in foundation deposits across the site.

28. The first stage of wall conservation at Azoria consists of removing as much as possible of the surface mortar from between the wall stones, without displacing or destabilizing the stones or compromising the fabric of the wall. The interstices are then packed by hand with a permanent mortar compound. The bronze bowl was recovered during the cleaning stage.

29. The vessel (07-1006) is similar in size to a miniature bronze votive cup from the Hearth Shrine (06-1027); see Haggis et al. 2011, pp. 31–33, fig. 22. For examples from the Idaean Cave, see Boardman 1961, pp. 86–87, where a vessel in the Ashmolean Museum is dated on the style of the inscribed, compass-drawn rosettes.

The walls on the eastern side of the building are preserved almost to their original height, giving us perhaps the most complete picture of the technique of the construction at the site and thus meriting a more detailed discussion (Figs. 8, 9, 11). The space that accommodates the eastern part of the house was literally carved out of the bedrock, which is still visible to the east and south of the excavation trench, where the outcrop rises to a height of nearly 4 m above the room's floor level (Fig. 11). The floor of the building was shaved down to form an even surface leveled out in places with packed earth. The technique of incorporating extensive stretches of bedrock into the fabric of the wall (as foundations and wall faces) is apparent across the site, but is remarkably well preserved in the east room of D700. In the south wall of the east room (D706), a narrow ledge, ca. 0.40–0.60 m deep and ranging in height from 1.15 to 1.60 m above floor level, was cut into the bedrock (Fig. 11). The face below the ledge was worked with a hammer and chisel to form a relatively smooth surface, while the portion above was left rough, providing the bedding for the wall's rubble superstructure, a small section of which is preserved for a distance of ca. 2 m at the eastern end of the room.

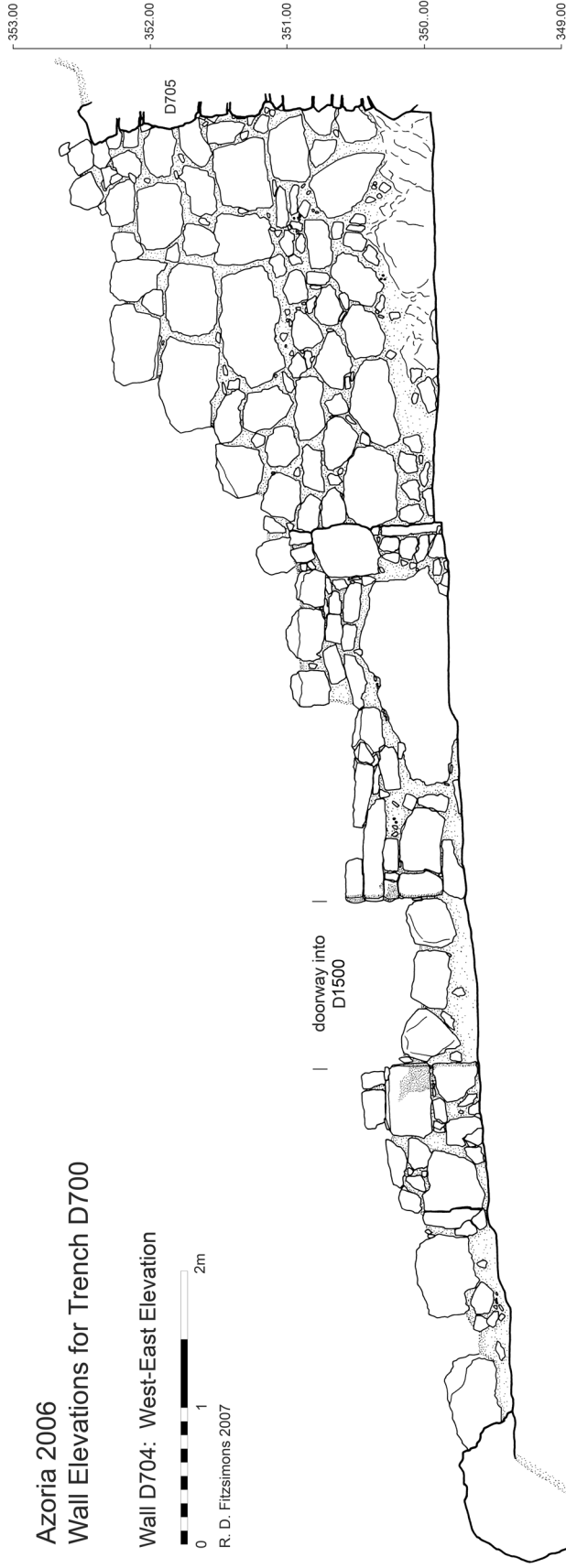
This superstructure was composed of medium-sized dolomite and *sideropetra* stones forming a tightly-packed face, set against a packing of smaller stones that were inserted into the spaces between the wall face and the bedrock that rose above the ledge (Fig. 11). The stones appear to have been laid in discrete sections, each two courses high. This practice of building up the wall in segments, two courses at a time, is a feature that appears quite frequently in Archaic structures at the site. The same general principle is also evident in the east wall of the room (D705), which provides a well-preserved example of spine-wall construction.³⁰ Set on a bedrock ledge (Fig. 9), which is visible only at the northern and southern corners, the wall was composed of a number of discrete segments, each of which is marked by a series of vertical and horizontal seams discernible in its western face (Figs. 9, 11). The lowest segment consists of large and medium-sized dolomite boulders set in very rough courses, rising to a height of ca. 1.55–1.70 m toward the middle of the wall. Dolomite boulders were then laid in a series of rough courses. Three wall segments together formed a single structural unit that served as a level foundation—a kind of compound string course—roughly the same height as the bedrock ledge in wall D706, upon which the upper section of the wall was erected to a minimum height of 2.85 m.

Although rarely preserved above the level of the lower string-course unit, the spine walls elsewhere at the site display a similar segmental construction in their lower sections, suggesting that this building technique was typical throughout the Archaic period. Virtually all of the public buildings at the site incorporate one or more walls built in this fashion, most notably the east wall of the Monumental Civic Building (D205), the wall retaining the upper terrace in the Communal Dining Building (A602), and that bounding the upper terrace of the South Slope Buildings (B304).³¹ This repeated pattern of wall design, as well as the ambitious scale of the construction, reflect publically organized and managed labor, and suggest that specific groups of workmen mobilized for civic building projects were also involved in the construction of individual private houses.

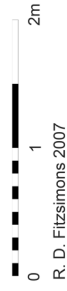
30. For spine walls, see Haggis et al. 2004, pp. 349–352; 2007a, pp. 263–265.

31. Wall D205: Haggis et al. 2007a, p. 295, fig. 40. Wall A602: Haggis et al. 2004, p. 368, fig. 21; 2007a, pp. 254, 263–264, figs. 7, 16. Wall B304: Haggis et al. 2004, p. 353, fig. 6.

Azoria 2006
Wall Elevations for Trench D700



Wall D705: North-South Elevation



R. D. Fitzsimons 2007

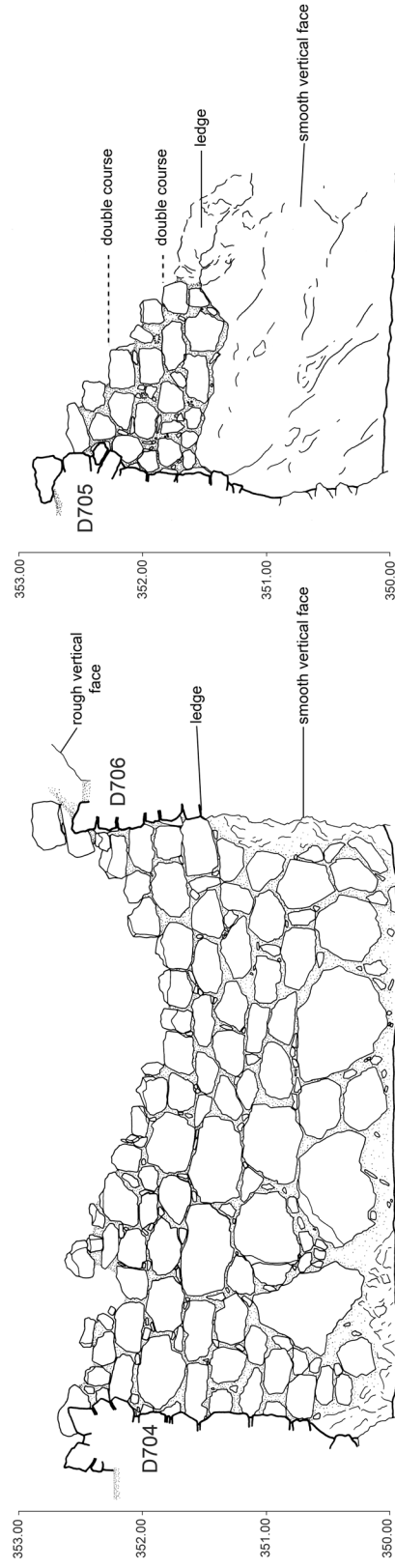


Figure 11. D700: elevations of walls D704–D706. R. D. Fitzsimons

THE SOUTHWEST BUILDINGS

B3200, B3400–B3600

The lowest terrace of the Southwest Buildings, excavated in 2005, has an identifiable main hall (B3400) with direct access to storage facilities on the north in B3200 and B3600 (Figs. 1, 12, 13). South of the hall along the terrace is another room (B3500), which was largely destroyed during a Hellenistic reuse of the space.

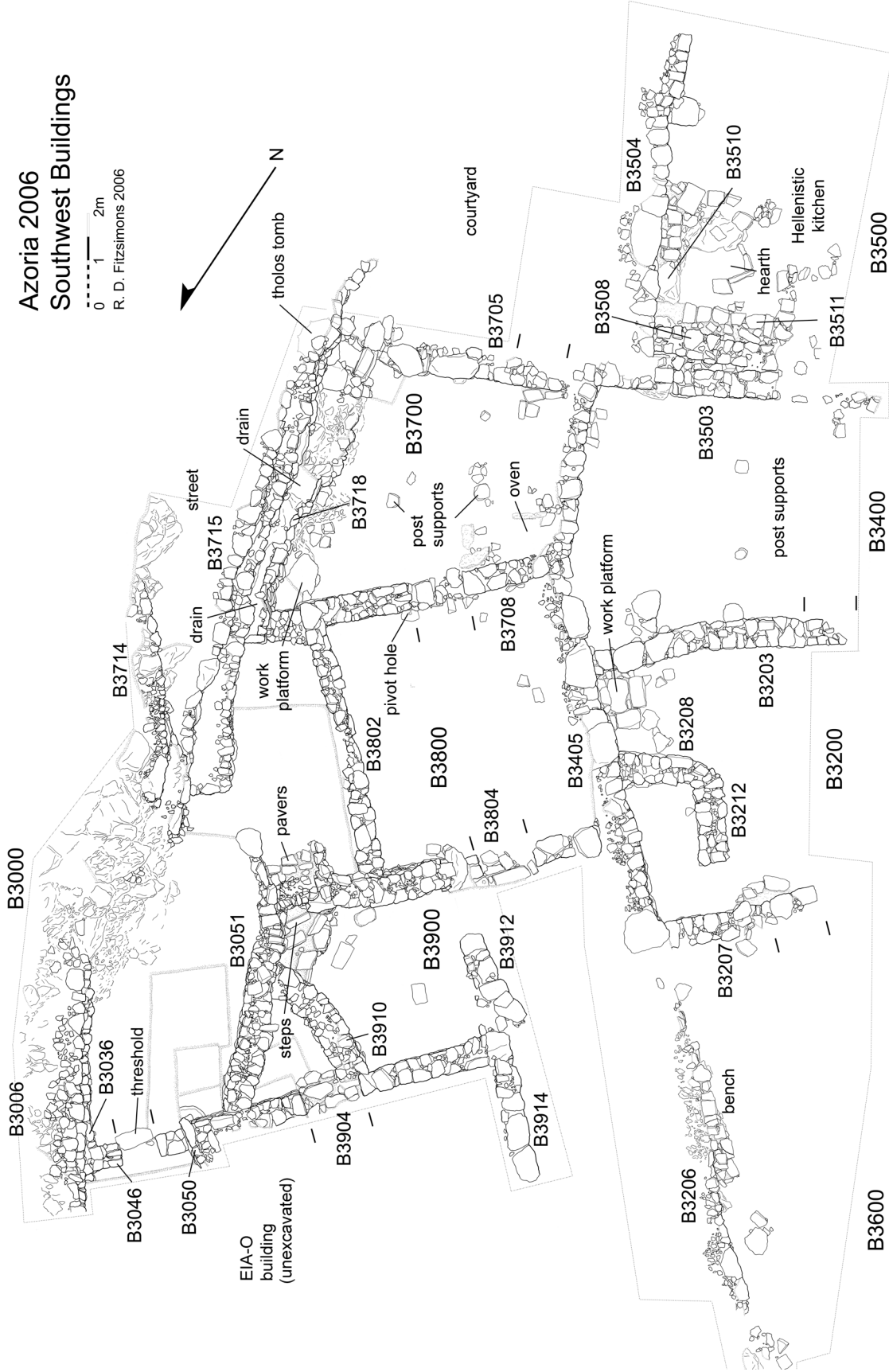
The hall (B3400) had two post supports on a north–south axis approximately in the center of the room (Figs. 12, 13). The irregular lines of the room's east (B3405) and north (B3203) walls are a result of both a jog in the spine wall, which conforms to the natural contour of the terrace, as well as the use of earlier 8th- and 7th-century wall segments for foundations. In addition to fragments of pithoi, a jar, a transport amphora, Aiginetan and other chytrai, two lekane, and a mortar, the hall had the usual assemblage of fine drinking and serving vessels, including at least three hydrias, an oinochoe, a fine bowl, a black-gloss skyphos, and at least eight cups. Among other finds were an iron arrowhead (Fig. 14:1), an iron chisel or cutting implement (Fig. 14:4), and a bronze pin (Fig. 15). The pin is a typical Archaic Cretan type with a tapered knob, a pan-shaped disk, and a biconical ring on the shank above two ribs. An interesting feature is the presence of traces of silver plating or coating apparent at the upper part of the shank where it meets the disk.³² The room also contained a few fragments of olive, grape, and pulse, as well as a sizable assemblage of pig, sheep, and goat bones, consisting of both cranial and postcranial elements. Meaty upper-limb bones as well as rib-shaft segments indicate food remains. Upper hind-limb elements as well as a segment of a scapula blade of a pig were recovered, the latter chopped through the margin, indicating a shoulder cut. Segments of upper-limb elements of sheep or goats were also found, including the articular portion of an innominate that bore cut marks near the articular surface, resulting either from the separation of the joint at the hip or from meat removal.

A doorway off-center in the north wall (B3203) provided access to a storeroom/pantry in B3200, which has a stepped work platform in the southeast corner and an L-shaped wall (B3212) curving out from the east wall, dividing the space within the room in a but-and-ben arrangement (Figs. 12, 13). On the floor of the inner room were found a pithos base and the remains of an Aiginetan chytra, a lekane, a hydria, and black-gloss cups. The bench in the southeast corner of the main room (Figs. 13, 16) has two rectangular blocks of *sideropetra* forming seats or steps on the north and west sides of a block of similar size, which is set at a higher level than the others against the east wall of the room. On the floor at the base of the bench on the northwest side are two flat stones, one schist, one *sideropetra*, which have the dimensions of normal pithos stands. None of the stones has the signs of pecking or abrasion on the upper surfaces that are typical of work platforms. It is possible that the installation was used as a work area, as a stand or table, or perhaps as a bench allowing more convenient access to pithoi. The room contained at least two pithoi, a transport amphora, an Aiginetan chytra, a lekane, two hydrias, a fine lid, several black-gloss skyphoi, and

32. We thank Kathy Hall for identifying the traces of the silver coating.

Azoria 2006
Southwest Buildings

0 1 2m
 R. D. Fitzsimons 2006



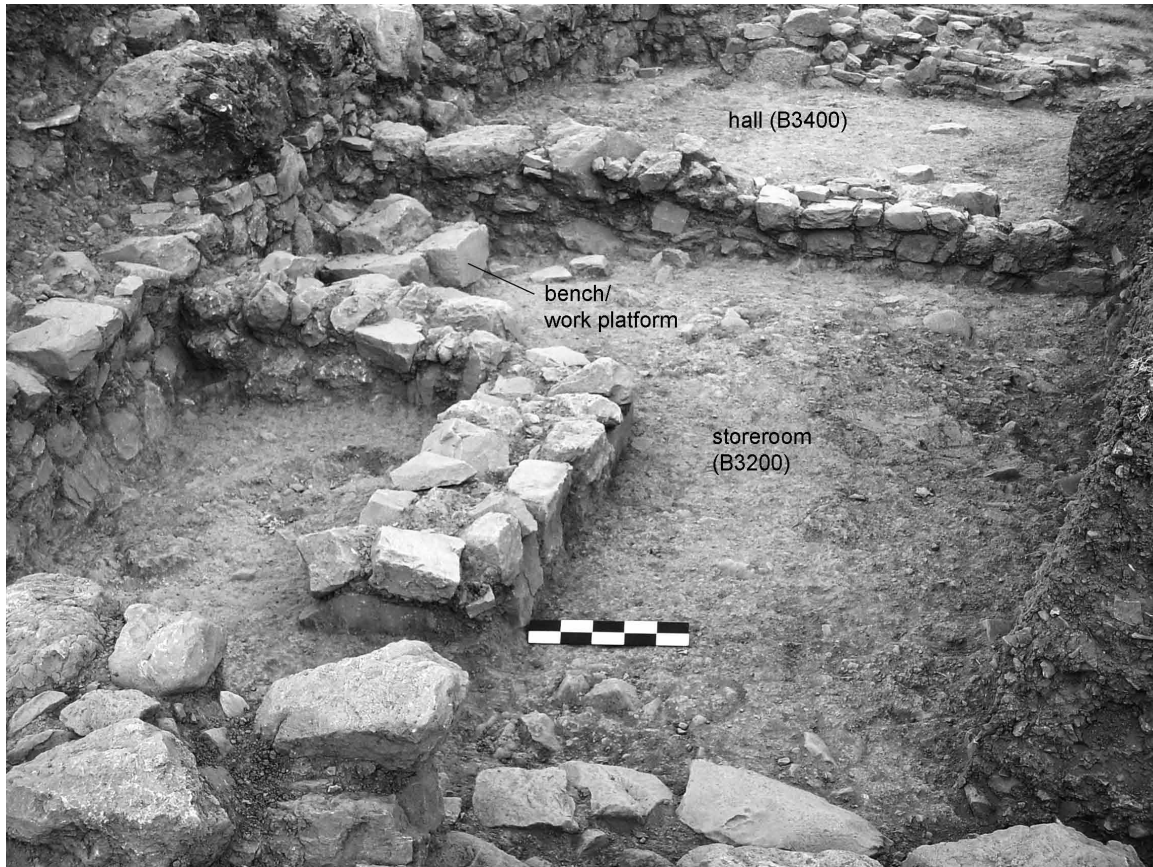


Figure 13. B3400 (hall) and B3200 (storeroom) from the north. Photo D. Haggis

black-gloss cups. Other finds include two bronze pin fragments, three loom weights, a spindle whorl, and a fragment of an iron knife blade (Fig. 14:3).

Plants found in the room, perhaps stored in pithoi, include olive, grape, cereal, almond, fig, and elderberry. The range and condition of animal bones is consistent with that of the remains found in the other houses: primarily a mixture of cranial and postcranial bone fragments of pig and sheep or goat. Several bone fragments and one shell fragment show traces of burning, but this is not inconsistent with the evidence for the destruction by fire of the room itself. The distal portion of a pig femur exhibits cut marks on the inferior surface of the distal condyle, which is consistent with separation of the meaty limb portion at the femoral/tibial joint.

A stairway through a door in the center of the north wall (B3207) of B3200 leads up to B3600, evidently the main storeroom of the house (Figs. 12, 17). A rise in the bedrock at this juncture of the terrace brought the ancient floor level of the room very close to the modern ground surface and plough zone; as a result, only about a third of the floor area has survived the erosion of the western edge of the terrace. The east wall (B3206) is preserved only in segments one to two courses high, built on and against the modified bedrock; remains of a long step or bench are preserved along the southern part of the wall, along with two pithos stands near the northern end of the bench (Fig. 12). In spite of its unusually poor preservation, the room contained a wide range of objects: two spindle whorls, an iron

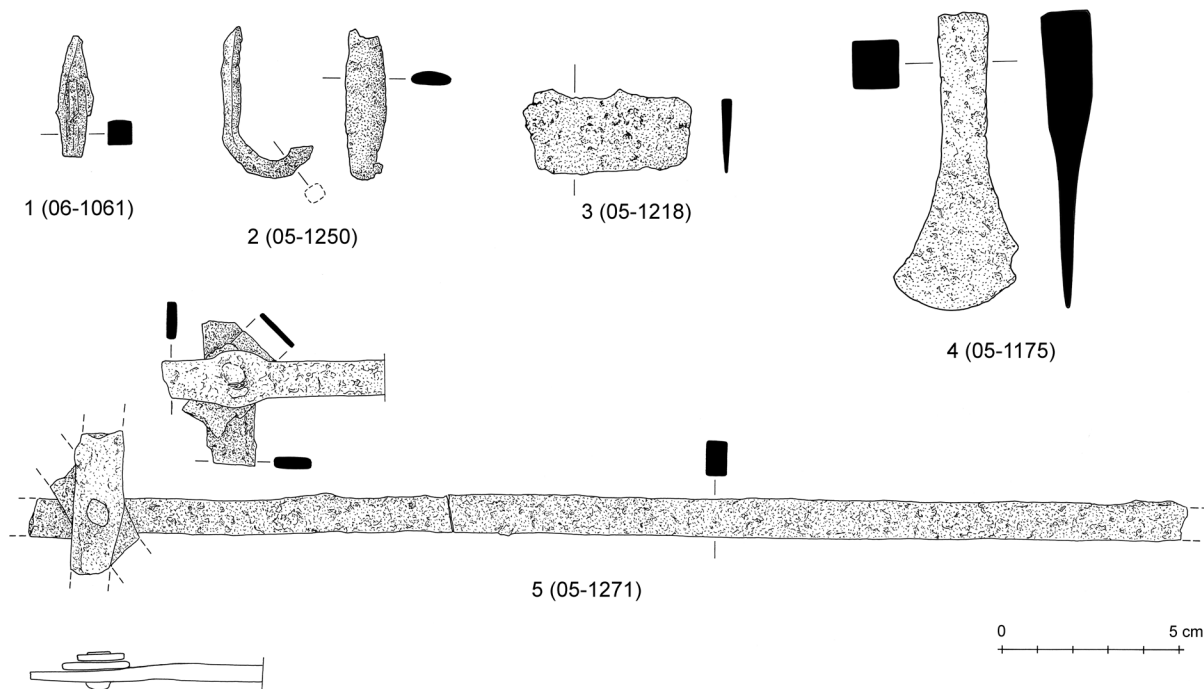


Figure 14. Iron objects from the Southwest Buildings: (1) arrowhead (B3400); (2) arrowhead (B3600); (3) knife blade fragment (B3200); (4) chisel or cutting implement (B3400); (5) firedog (B3500). Drawing R. Docsan

spike, an iron leaf-shaped arrowhead (Fig. 14:2), and a number of stone tools, including four querns, four pumice cobbles, a whetstone, and several handstones.

At least five different pithoi originally stood in this room, including one with a capacity of ca. 727 liters (Figs. 17, 18), the largest by volume yet recovered at the site.³³ In addition, a variety of cooking, serving, drinking, and dining vessels were also found here: fragments of Aiginetan chytrai, lekane, a mortar, hydrias, jugs, an Attic black-figure lekythos, skyphoi, and cups, as well as two well-preserved krater stands (Figs. 17, 19). The large pithos and the more elaborate krater stand both have fabrics rich in granodiorite inclusions, indicative of ceramics produced in the vicinity of Kalo Chorio.³⁴ Their decoration is also distinctive. The body of the pithos is entirely decorated with registers of appliqué motifs, a technique used far more sparingly on pithoi in the local phyllite-quartzite fabric, which tend to be embellished with stamped motifs.³⁵ On the few local examples with appliqué motifs, the patterns are largely restricted to one side of the vessel.³⁶ The imported krater stand is decorated with an elaborate register of stamped lotus and palmette motifs and another of intricate guilloche, both so far unique at Azoria.

While the artifact assemblage from the small area of the surviving floor surface in B3600 is remarkably well preserved, the shallowness of

33. Capacities for this and other vessels were measured using the "Calculation of Capacity" applet at the Centre de recherches archéologiques, Université Libre de Bruxelles, (<http://lisa.ulb.ac.be/capacity/>).

34. See Hayden 2004, pp. 227, 234, n. 86, for discussion of the distribution of Archaic granodiorite-tempered pottery in the region; Haggis et al. 2007a, p. 277, n. 83, for examples of other pottery in this fabric found at Azoria.



Figure 15. B3400: bronze pin. Photo C. Papanikolopoulos

35. See Haggis et al. 2004, pp. 355–356, 362–363, 375–376, figs. 11, 17:5, 18, 29:1, 30; 2007a, pp. 250–251, 280, 282, figs. 5, 6:9, 27, 29:9, 10.

36. See Haggis et al. 2004, pp. 376–377, fig. 29:2; 2011, pp. 46, 49, fig. 30.



Figure 16. B3200: bench in southeast corner from the west. Photo D. Haggis



Figure 17. B3600: pithos and krater stand from the northwest. Photo D. Haggis

the deposit and poor conditions for preservation resulted in the recovery of few foodstuffs. Traces of olive, grape, and almond were present. Animal bones, also poorly preserved, are represented by a very small assemblage of pig, cow, and sheep or goat bone fragments that appear to be severely weathered, no doubt on account of their proximity to the modern surface. While several fragments were partially burned, none bore cut or chop marks.

Room B3500, the southernmost excavated space on the terrace, is stratigraphically complicated, and most of the latest surviving features are evidently Hellenistic in date (Fig. 12). These consist of low benches (B3510, B3511), one course high and constructed of flat *sideropetra* blocks fitted against the north and east walls of the room, bordering a clay floor with



Figure 18. B3600: pithos with granodiorite fabric (05-0168).
Photo C. Papanikolopoulos

a pot stand and stone-lined hearth. A small sondage between the hearth and the north bench confirmed the date of the features, which evidently represent an early-2nd-century intrusion into the abandoned buildings.³⁷ The benches are 0.55–0.56 m deep and rise ca. 20–40 cm above the floor level. The built hearth is open on the east and constructed against a large boulder that extends up to the southern end of the eastern bench (Fig. 12); the bedrock has been modified and is partially built over by a line of limestone blocks on the south and one paver on the north, forming a wide bench or table. The north wall of this hearth room (B3508) is constructed against the south wall (B3503) of the Archaic hall in B3400. Late Archaic wall collapse and destruction debris are visible in the narrow space between the walls.

The sondage conducted in 2006 revealed that the east wall of the room is part of the original Archaic spine wall (B3504), while part of the eastern bench and the boulder bordering the hearth on the south are actually the exposed remains of an earlier building of Early Iron Age–Orientalizing date. It is remarkable that there was no Archaic (6th- or 5th-century) floor surface preserved between those of the early 7th century and the Hellenistic period. The Hellenistic occupants evidently cleared out a space for their construction by digging down into and removing Archaic features and destruction debris, using the wall collapse as material for the room's new superstructure. They ultimately reached and built directly on top of Early Orientalizing occupation levels, using the uppermost extant boulder walls

37. For examples of Hellenistic reoccupation in D300, B1100, and B1300, see Haggis et al. 2007a, pp. 265–272, 295.



Figure 19. B3600: krater stand with granodiorite fabric (05-0133).
Photo C. Papanikolopoulos

of the Early Iron Age as the foundations for their benches, floor, and hearth installation.

The only indication of the existence of an Archaic phase of the room is a short segment of spur wall and a patch of clay floor that preserve the original southeast corner of the room (Fig. 12). In this area we found a discrete pile of pig bones and, nearby, fragments of an iron fire dog (Fig. 14:5), perhaps indications that the room was originally a kitchen, accessible from the hall via a corridor along the western edge of the building. The concentration of pig bones is from a single animal, dumped in a single event. The material consists of both upper (maxilla) and lower (mandible) tooth-bearing portions of the skull, a vertebra, rib segments, and left and right front and back metapodials. The right mandible had evidently been chopped through, just anterior to the cheek teeth, possibly indicating removal of the anterior portion of the jaw (and perhaps the snout). Cuts were also noted on rib segments and on a number of the metapodials, indicating disarticulation and possible skinning and meat removal. The absence of major limb bones in the deposit suggests that the meatiest portions of the animal were removed for cooking and consumption.

The only indications of the Hellenistic use of the room are the hearth and benches. The pottery is sparse and fragmentary, and few faunal materials were recovered. The exceptions are a number of sheep or goat elements from a single young animal. Also found was a sheep or goat tibia diaphysis segment burned only at the distal end, possible from a meat joint roasted over an open fire or coals, most likely on the curbed hearth.

What can be said about the house in the Archaic phase is that the kitchen and storage areas are distinctly separate units, and, perhaps more important, that they are not in directly adjoining compartments of the house. As in the other houses at the site, the main hall separates areas of food processing and storage, mediating and organizing storage and service functions within the household. Access to storage facilities was controlled by the space of the hall, where activities must have ranged from public and private dining to administration of the household's storage and consumption.³⁸ It is clear that this connection between storeroom and hall was functionally more important than ease of access between pantry and food-processing areas.

38. See Lang 2005, p. 30, on the functions of halls in Archaic houses.

B3700–B3900

In 2005 and 2006 a sequence of three interconnected rooms (B3700–B3900) was discovered on the terrace immediately above and parallel to the building just described, and west of a north–south street that runs along the west side of the Service Building (Figs. 1, 12, 20).

B3700 is accessible from an exterior courtyard on the south via a doorway in the southwest corner of the room. The doorway has a built threshold and step that leads down to the floor level of the room, which is slightly lower than that of the courtyard to the south. The room is oddly shaped, with oblique walls and obtuse angles like those of D700; it measures ca. 4.30 m from east to west, but is narrower on the west (3.50 m) than on the east (5.30 m). Two worked *sideropetra* blocks aligned on an east–west axis down the middle of the room served as post supports. A small bin or pot stand built of cobblestones was constructed against the western post support. In its Archaic phase, the northeast corner of the room had a stone bench made of a single dolomite boulder on a cobble bedding and, next to it, an upright *sideropetra* block that probably functioned as a seat or work platform. The disarticulated pieces of an oven were found opposite a bench in the northwest corner of the room, west of the doorway into B3800 (Figs. 12, 20). From the position of the remains, it is clear that the oven was built into the northwest corner of the room. The evidence consists of three large slabs of pisé, one found lying against the west wall, one projecting perpendicular to the wall, and the third just west of the doorway into B3800 (Fig. 20).

Another interesting feature is a blocked, stone-lined drain (B3718), built on bedrock and running along the east side of the room. The drain was probably built originally to channel runoff from the adjacent street (B3715) and an earlier 7th-century courtyard east of B3800 (Fig. 12). It extends across the full width of the room, directly over the stomion of a Late Minoan IIIC–Protogeometric tholos tomb, which had been blocked during 7th-century renovations on the southwest slope, and out into the courtyard to the south of B3700.³⁹ By the time the space of B3700 was functioning as a room, the drain was no longer in use, but the dome and capstone of the tomb, as well as the slabs forming the stomion and lintel blocks, were still intact. The structure had evidently remained visible and the Archaic builders carefully incorporated it into the architecture of the adjacent room by blocking the stomion and building directly on top of the dromos and dome. The east wall of B3700 (B3715) supports the adjacent street on the east, and runs directly over the capstone of the tholos, while the Archaic floor surface of the room is ca. 0.40 m above the floor of the tomb. The drain, which belonged to an earlier use of the space, perhaps as an exterior courtyard, was evidently blocked on the north when the room was enclosed and roofed.

The presence of the oven suggests that B3700, at least in its final Archaic phase, functioned primarily as a space for food processing; the seat and bench in the northeast corner are characteristic features of kitchens at the site. Although very fragmentary, the pottery included sherds from at least two pithoi, a coarse jar or jug, a transport amphora, one Aiginetan chytra

39. The tholos tomb and the early stratigraphy of the associated buildings will be presented in a separate report.



Figure 20. B3700 and B3800 from the south. Photo D. Haggis

and two other cookpots, four lekanes, a large mortar, a possible scuttle or lamp, at least one hydria, a lekythos, a plate, a black-gloss skyphos, and at least six cups. Other artifacts found on the floor were two loom weights, a small pebble, three small flat querns, and, in the drain, a small cobble hand tool.

Burned and completely calcined animal bones, perhaps indicating roasting, were recovered in the oven and in floated samples from the west side of the building. The assemblage is a mixture of fragmentary pig, sheep or goat, and cow elements, including both cranial and limb-bone elements. A pig ulna segment and one sheep or goat radius segment exhibit cut marks on their proximal articular surfaces, indicating separation of the limb or limb segment below the humerus. A sheep or goat proximal ulna is partially burned on the protruding beak portion of the proximal epiphysis, and a segment of a sheep or goat tibia diaphysis exhibits partial burning on one aspect of the broken distal margin. This partial burning suggests the roasting of a joint of meat over an open fire or coals; although it may also be the result of exposure to fire during the destruction of the building itself, there were few other indications of burning in the room. The plant foods recovered from the room are typical of those found in most food-processing areas at the site: small to modest quantities of seeds, including olive, grape, cereal, pulse, almond, and fig.

B3800 consists of a single square room (5.40 m north–south × 5.00 m east–west), accessible from B3700 to the south and B3900 to the north

via centrally placed doorways, both with threshold blocks and door pivots (Figs. 12, 20). While the abandonment phase of the room is Late Archaic, with good evidence for the early-5th-century destruction by burning, it appears to have had an earlier, 7th-century phase as well, although its use in this period is unknown. At the time of the 5th-century abandonment, the artifact assemblage appears to indicate yet more food-processing and storage functions, as attested by the presence of a whetstone, several querns and handstones, fragments of several pithoi, a transport amphora, at least one Aiginetan chytra and three other cookpots, and nine or more lekanes. It also contained a range of drinking and dining vessels normally associated with the halls of houses so far excavated at the site: approximately three hydrias, three kraters, a black-gloss cup skyphos, and nine cups. Several loom weights and spindle whorls found in a cluster in the northern part of the room, near the doorway into B3900, may indicate the presence of a loom.

The nonceramic assemblage in B3800 is dominated by food-processing equipment: four querns, three pumice stones, and 15 stone hand tools. Among the latter are the usual range of small implements that we associate with small flat and saddle querns: small cobbles with pecked ends and abraded facets (Blitzer type 1); disk-shaped implements with pecked margins and abraded facets (Blitzer type 2); and triangular and trapezoidal pebbles with abraded margins, pecked and abraded ends, and abraded, scratched, and polished facets (Blitzer type 3).⁴⁰ These small tools were apparently not used for the fine grinding of grain for flour. They appear to have been worked over a relatively small surface area of a flat quern, their ends and margins used for pounding or mashing (e.g., to break up grains or pulses), and the facets, as well as the margins of type 3 tools, for grinding the material into smaller particles or paste.

The animal remains found on the floor of B3800 were a mixture of pig, cow, sheep, and goat debris, with sheep and goat bone predominating. Elements from the meaty upper-limb portions of pig and sheep or goat are more heavily represented, a certain indication of food debris. There are also at least two articulating limb segments, one pig, one sheep or goat, that exhibit cut marks from the separation of limbs at the joint, possibly prior to cooking. Elements of both adult and juvenile pigs are represented on the floor. From the upper levels of the occupation debris we recovered a mandible segment, isolated teeth, and articulating front-limb elements from a young or juvenile piglet, which likely represent a single animal. A second articulating limb joint (right astragalus and calcaneum) comes from a sheep or goat; in this case each element exhibits cut marks indicating separation of the hind limb at the joint. Other right hind-limb elements from the same pail may represent parts of the same animal. In general, throughout the deposit, the presence of articulating elements (some of which clearly have cut marks) indicate a condition of primary deposition, a mixture of food and processing debris represented by both upper limbs, as well as crania (including a large horn core of *Ovis aries* chopped at the base). Other food remains include olive, grape, almond, barley, and pulse. B3800 thus shows evidence of multiple functions. While it is approximately

40. Blitzer 1995, pp. 425–438.



Figure 21. B3900 from the north-west. Photo D. Haggis

the size of a normal domestic hall, and has the expected range of artifacts and considerable food debris, the sheer quantity of stone tools strongly suggests food processing as the primary activity in this space.

A doorway with a built threshold and door pivot in the middle of the north wall (B3804) leads from B3800 into trench B3900 (Figs. 12, 21). Excavation in B3900 and the adjacent trench, B3000, revealed a complex series of walls representing three distinct architectural phases that begin as early as the Late Geometric period. The early stratigraphy and sequence of Early Iron Age and Orientalizing buildings will be presented in detail in a subsequent report. What follows here is a description of the area in the Late Archaic phase.

B3900 was built directly on top of an earlier (Late Geometric–Orientalizing) room of an unexcavated Early Iron Age building that extends to the north along the terrace (Fig. 12). While the western side of the trench remains unexcavated, the doorway from B3800 probably led to a corridor that provided access to B3900. The room's north, south, and west walls follow the lines of earlier walls. The west wall survives only in its foundations (B3912, B3914), which consist of the reused southern extension of the west wall of the Early Iron Age building, terminating on the south to form a doorway into the Archaic room of B3900. The curved

east wall (B3910) was built to retain the fill that covered the Early Iron Age–Orientalizing building complex and supported a broad street to the east, which ran along the terrace below D300 (Figs. 1, 12, 21).

The Archaic room in B3900 was evidently used principally for storage. A pithos stand was situated near a stepped bench on the eastern side of the room, a position similar to that of the stands near the bench in B3200 on the terrace below. A second pithos stand sits in roughly the middle of the room (Figs. 12, 21). In addition, the evidence of intense burning in the space is characteristic of storerooms and kitchens in Late Archaic contexts at the site, probably because of the presence of combustible food-stuffs and oil, and perhaps fabric, reed, or wooden containers. The deposit also produced moderate quantities of grape pips and olive pits, as well as sparse quantities of grain and pulse. As in adjacent rooms, the animal bone assemblage consists of a mixture of cranial and limb-bone material. It appears to represent a mix of food and butchering debris, including a sheep or goat cranial fragment with a horn core bud and segments of several unfused limb-bone elements from a young sheep or goat. An unsided hyoid (throat bone) segment with cut marks is evidence that a whole animal was processed, and possibly cooked, nearby. Although a few pieces of pumice and loom weights were recovered in the room, the artifact assemblage from the Late Archaic destruction debris, which includes fragments of at least two pithoi, jars, two Aiginetan chytrai, three other cookpots, a lekane, a hydria, and several black-gloss high-necked cups, is consistent with the functions of a storeroom.

While we can visualize the use of the individual spaces comprising rooms B3700–B3900, we still do not understand their function as a unit within the settlement. The complex is certainly separate from the Service Building to the east, from which it was divided by two streets, and there is no obvious direct communication with the house on the terrace below to the west (B3200 and B3400–3600). Although the courtyard south of B3700 or the corridor west of B3900 could have formed a connection between the structures, there are no doors or stairs that certainly link the two terraces and their buildings. Further excavation is needed both north and south of the exposed structures on both terraces in order to clarify the relationship between them. The building consisting of B3700–B3900 does seem to have had a range of normal domestic functions, which is why we have included it in this report, and it remains possible that in their Late Archaic phase, the rooms formed a three-room house. B3800, given its size, multiple functions, and direct connection to the storeroom in B3900, fits our model of the hall or main living area of the house; while B3700, the room with the oven, would be the kitchen or main food processing area, although it lacks a built hearth, which is a normal feature of both domestic and civic kitchens, and has a direct connection to the putative hall.

There are, however, several problems with this interpretation, which challenge our normative and reductive definition of a house as a sequence of three functionally distinct spaces used for food processing, storage, and general living. Although we are reasonably certain that cooking took place in B3700, with its bench, oven, and stone tools, and that B3900 was used for storage, the middle room on the terrace, B3800, remains problematic.

Weaving could well have been conducted here, thus explaining the presence of loom weights, but the floor produced an unusual number of stone hand tools and querns, as well as several lekanes, which suggest rather intensive food processing, probably related to the cooking facilities in B3700 and storage in B3900. In short, although the building had domestic functions, it does not fit neatly into the pattern of the organization of domestic space found elsewhere at the site. It may be that these rooms are common storage chambers and food-processing areas shared by more than one house or household, or that they represent a “service” or “kitchen” wing of the house on the terrace below. In the latter case, we would need to rethink our definition of a house, and reconsider the scale of the household and of domestic food storage, production, and consumption within the city.

NORTH ACROPOLIS BUILDING

The North Acropolis Building came to light in 2005 during the excavation of four trenches (E100, E200, E300, and E600) on the eastern flank of the North Acropolis, just below the summit (Figs. 2, 22). Virtually all of the walls in the northern and eastern portions of the complex have been lost to deep plowing and field clearing, and much of the ancient building material has been reused in the modern terrace walls visible in the area. While the absence of a coherent architectural framework has been challenging, the presence of partially preserved walls in trench E100 and extensive bedrock foundations along the west side of the building, together with the distribution of discrete floor deposits in E100, E200, and E300, allow a reasonably confident reconstruction of the original layout and dimensions of a three-room house (Fig. 22).

The northern half of the complex was occupied by two large rectangular rooms (E200, E300) arranged on an axis against the bedrock, portions of which were cut to serve as foundations for the western walls, in much the same manner as in D700. The presence of a cut-bedrock socle projecting eastward at the northern end of both rooms provides an approximate north–south dimension for each. In E200 the northwest and southwest corners are both indicated by these wall beddings. From the doorjamb in the south to the line of the bedrock socle in the north, the distance is ca. 6 m. The interior length of E300 from the approximate position of the bedrock socle that divides it from E200 to the northwest corner is a little over 6 m. The eastern sides of the rooms have not been fully excavated, so their widths are not certain, but floor surfaces and sherd scatters were traced for a distance of over 4 m, suggesting a likely width of ca. 5 m for both rooms.

E100 is a large trapezoidal room southwest of E200, its western limit set roughly 3 m farther west than those of the rooms to the north (Figs. 22, 23). It has an irregular shape, measuring ca. 6 m east–west and from 2.30 to 6.00 m north–south.

E100 was evidently a kitchen, fitted with a number of built features, including a stone-lined hearth with a small stone-built bin or pot stand at its eastern edge, a large saddle quern (turned upside down) near the southwestern corner, and two stones forming a work platform to the

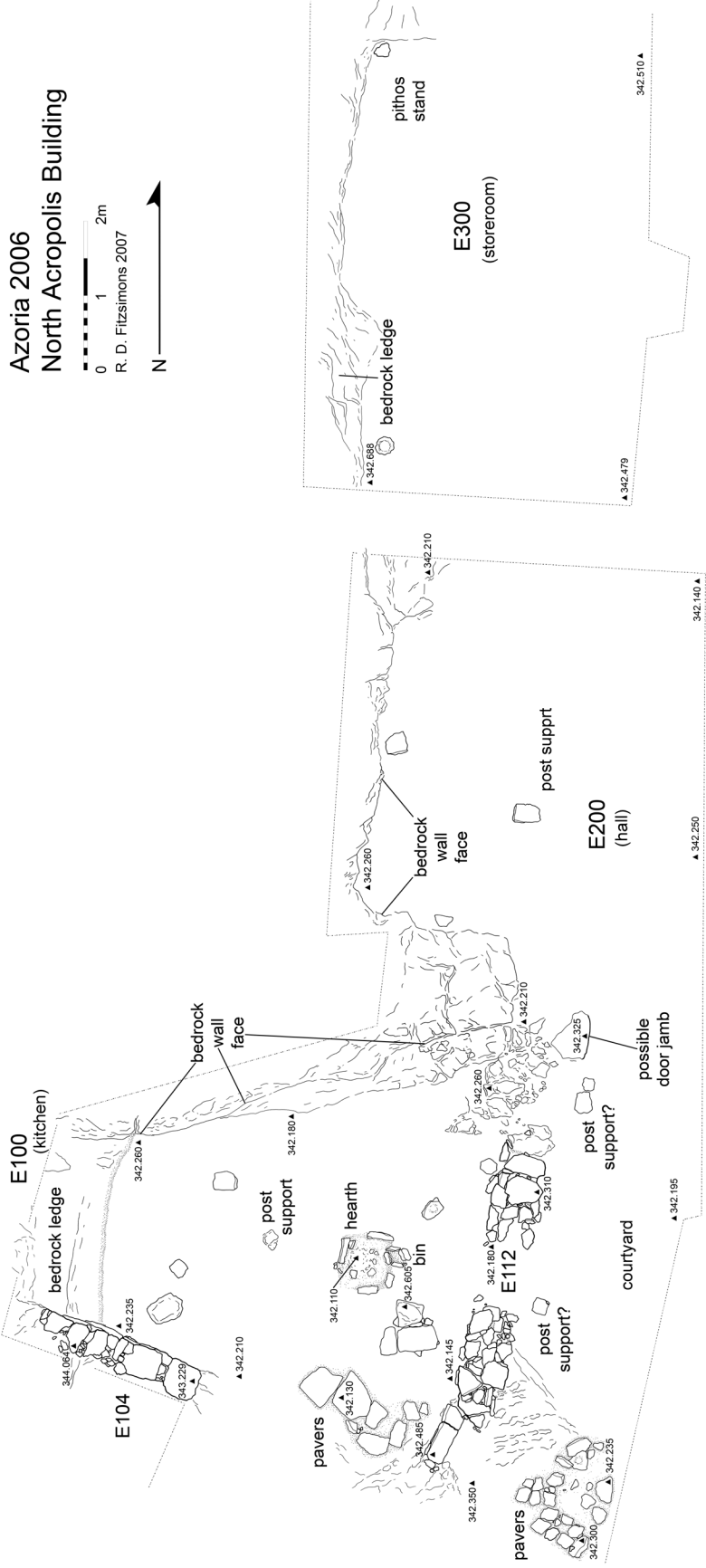


Figure 22. State plan of the North Acropolis Building: E100 (kitchen), E200 (hall), E300 (storeroom). R. D. Fitzsimons

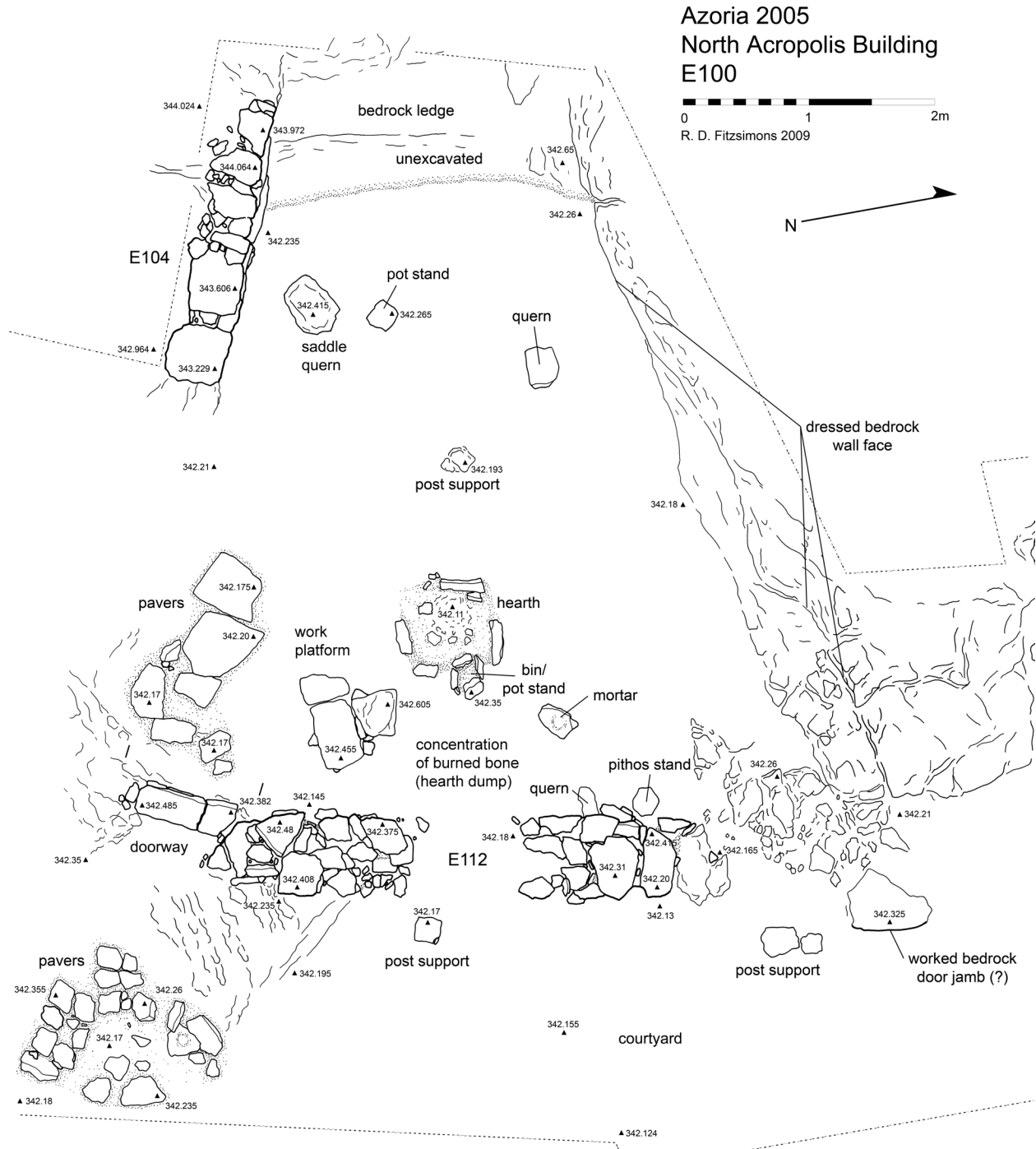


Figure 23. State plan of E100 (kitchen). R. D. Fitzsimons

right of the entrance in the southeast corner (Fig. 23). The doorway is indicated by a large schist threshold block at the southern end of the east wall of the room, and, just inside the doorway, a paved surface of schist slabs. The floor of the room is made of hard-packed phyllite clay, about 20 cm lower than the contemporary ground level outside the room; a small, severely burned patch of shaved bedrock in the middle of the room evidently served as a post support. Taking advantage of the bedrock for high wall socles, the room effectively uses the natural terrain for shelter from northwesterly winds.

A courtyard extends across the east side of E100, providing access to the kitchen as well as to the hall in E200 (Figs. 22, 23). The arrangement of rooms in the North Acropolis Building is thus similar to that of other houses at the site. The hall (E200) and storeroom (E300) are directly connected, while the kitchen (E100) is accessible to the main hall but only through the courtyard (cf. the Northeast Building, Fig. 3). The southern end of the courtyard in front of the doorway was paved with cobbles, and two schist post supports spaced along the eastern side of room might have supported a narrow porch or overhang. Access to E200 was through a doorway on the northern edge of the courtyard, where a single possible doorjamb of worked bedrock survives.

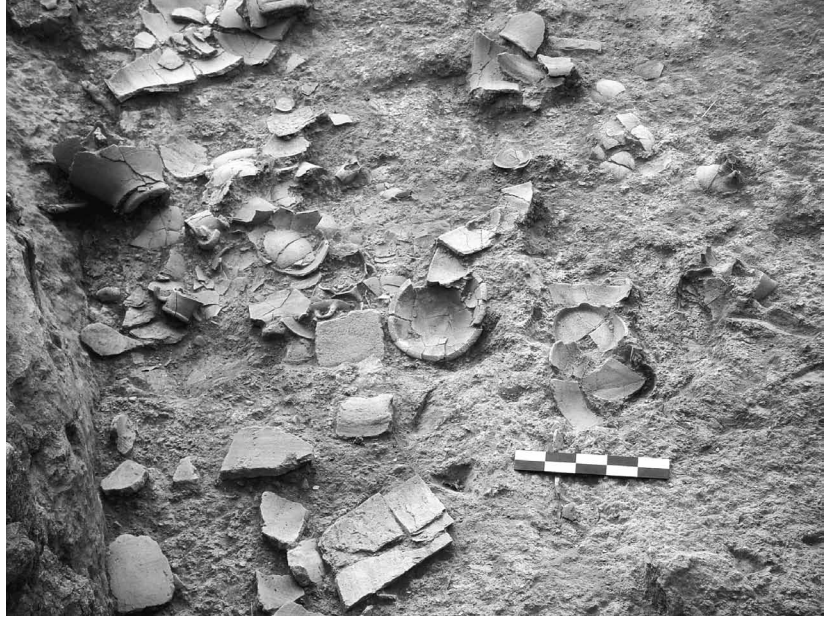
In E200, the absence of a distinguishable layer of debris from the collapse of the walls is surely the result of modern plowing and field cleaning along the terrace. Burned sediments and cultural material, the remains of both roofing clay and habitation debris, were found immediately under the topsoil. Pottery scatters and other occupation debris, lying directly on the floor surface, were best preserved in the middle and on the west side of the room. The matrix consisted of gray and yellow phyllite silt, remnants of roofing material, as well as patches of burned clay and flecks of charcoal. In E300, there was an easily definable stratum of roofing material and habitation debris lying directly on phyllite clay and bedrock surfaces. The bedrock rises markedly in the northwest part of the room, where the bare rock formed the floor surface. The clay floor across the middle and southern part of the room is burned in patches to shades of red with embedded ash and charcoal debris. Although a pithos base was recovered near the west wall in the southwest corner, and a pithos stand in the northwest corner, the distribution of broken pithoi suggests concentrations in the center and northern part of the room.

The scant architectural remains of the building contrast strikingly with the unusually rich floor deposits. The main hall (E200) contained an Attic black-gloss skyphos, a black-figure cup, two high-necked cups, five other cups, a Lakonian krater, an olpe, a flask, a fine lid, a hydria, and five chytrai, two of which are Aiginetan. Even though the assemblage is dominated by pouring and drinking vessels, there is also some storage equipment: a small relief pithos, a transport amphora, and a jar or pyxis. The other objects from the floor of the room are a spindle whorl, a bone bead, an iron knife blade, a whetstone, and two pebble implements: one a burnisher, evidently used for scraping across a relatively soft surface, the other a fragment (the tip and working edge) of a small elongated implement with a notched and abraded end. Similar cutting and scraping tools were found in the hall of the Northeast Building (A400).

The storeroom (E300), like A1700 in the Northeast Building and the east room of D700, contained at least five pithoi and two transport amphoras, an Aiginetan chytra and fragments of other cookpots, a groove-collared Late Geometric–Orientalizing cooking jug, two lekanes, a probable scuttle or lamp, and an array of drinking and pouring vessels, including three hydrias, a monochrome black jug and two juglets, an olpe, a black-gloss cup skyphos, a high-necked cup, and fragments of other cups. Both the hall and storeroom produced olive pits and grape pips, as well as fragmentary remains of sheep, goat, pig, and marine shells.

Figure 24 (*right*). E100: floor deposit during excavation, from the west.
Photo D. Haggis

Figure 25 (*below*). E100: selected pottery. Photo C. Papanikolopoulos



41. Smaller still is the smallest example from E100, which is almost half this size.

The kitchen assemblage (E100) was extraordinarily well preserved, consisting of more than 60 pots representing the full range of vessels for food storage, preparation, and serving (Figs. 24, 25): five pithoi, four transport amphoras, two jars, three small chytrai (chytridia), four Aiginetan chytrai, a large cookpot and two other cooking vessels, a bucket, five lekane, a mortar, a dish, two scuttles or lamps, a black-gloss lamp, three hydrias, two spouted jugs, two jugs, two olpes, a krater, two cup skyphoi, a black-gloss stemmed cup, six high-necked cups, four other cups, and other fine table ware. Round cookpots show a significant range in size, from the chytridion, with a capacity of 1.35 liters (Fig. 26:1),⁴¹ to an Aiginetan chytra (Fig. 26:2), holding 9.3 liters, to the largest (Fig. 26:3), with a volume of 21.8 liters.



Figure 26 (*left*). E100: cooking pots.
Photo C. Papanikolopoulos

Figure 27 (*opposite*). E100: various artifacts: (1) terracotta plaque; (2, 3) loom weights; (4–7) spindle whorls; (8) shell scoop; (9) bronze grater; (10) stone weight. Photo C. Papanikolopoulos

This diversity in the size of vessels used for heating, boiling, and stewing suggests not only variations in quantity, but also perhaps the cooking of a diverse range of foodstuffs and different preparation techniques.

Other finds were a fragment of a Daedalic terracotta votive plaque (Fig. 27:1), a spiny oyster (*Spondylus gaedoropus*) shell scoop (Fig. 27:8), two iron nails, a bronze cheese grater (Fig. 27:9), an iron hoe (Fig. 28), an iron arrowhead, three loom weights and four spindle whorls (Fig. 27:2–7), a stone lid, a perforated cobble weight (Fig. 27:10), six handstones, four pebbles, twelve pumice cobbles, three small querns, one large saddle quern, and two whetstones.

The terracotta plaque (Fig. 27:1), found next to the quern in the northwest area of the room, is a typical Middle Daedalic type:⁴² the figure is clothed in a cape and peplos; the face has articulated ears and brow and lidded eyes; single braids extend onto each shoulder and two more over the shoulders onto the breast. There is a trace of black or dark brown slip on the hair. The 5th-century context of the plaque calls into question the longevity of these objects, their molds, and their stylistic traditions, as well as the pitfalls of reconstructing the history of votive activity on the basis of the stylistic date of terracottas.⁴³

42. Jenkins 1936, pp. 33–36; Erickson 2009, pp. 358, 376.

43. So too with the figurines and plaque from the Hearth Shrine of the Monumental Civic Building (Haggis et al. 2011, pp. 31–34, 37, fig. 21).



1 (05-1311)



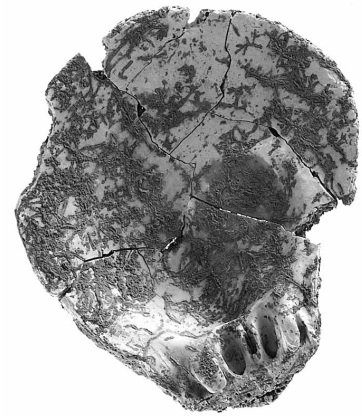
8 (05-11316)



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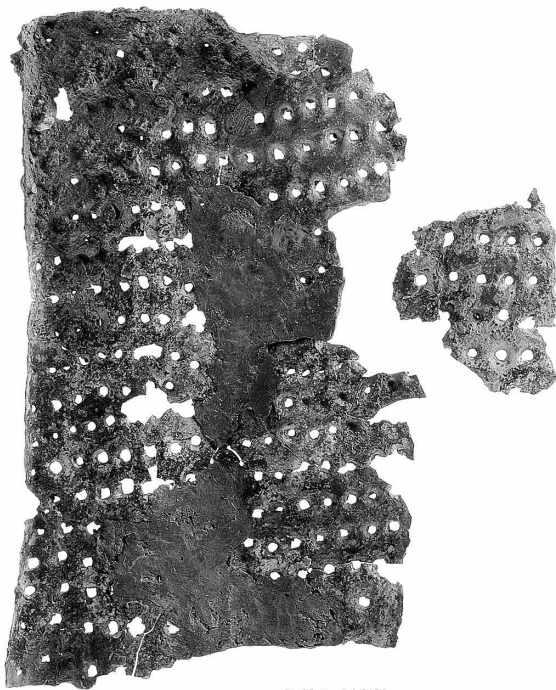
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6 (05-1119)



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9 (05-1132)



10 (05-1174)





Figure 28. E100: iron hoe. Photo C. Papanikolopoulos

The large breccia cobble with a wide rounded bottom and natural perforation at the narrow end was most likely a stone weight (Fig. 27:10). Its size, ca. 12–13 cm high and wide, and its weight, ca. 1.35 kg, would make it exceptionally unwieldy and heavy for a loom weight; it could have functioned as a counterweight, perhaps for suspending a cloth sack or other container from the rafters of the building.

The bronze cheese grater (Fig. 27:9) has only two of the original edges preserved, although when intact it was probably not much larger than the preserved dimensions, ca. 15 × 9.0 cm. The long side is bent as if originally fitted to a wooden block, and the edge is pierced with a series of holes, three of which have tacks preserved. The grating surface is formed by perforations made with a square punch. While iron and bronze graters have been found in 5th- and 4th-century houses and sanctuaries, they are rare in nonfunerary Archaic contexts.⁴⁴

The iron hoe (Fig. 28) is also unusual and represents the only agricultural implement found so far at the site. Metal tools and weapons in general are fragmentary, most probably having been curated and removed during abandonment. The square blade is almost complete (ca. 21 × 19 cm), and the socket for the handle is a separate Y-shaped brace attached to the upper back of the blade. The rivets (ca. 1.0–1.3 cm in diameter), no longer visible because of extreme corrosion, appear in an x-ray, one near the end of each of the supports and one in the center.

The ground-stone assemblage from the room provides a good picture of the standard food-processing equipment of an Archaic house: hand tools, fist-sized cobbles of pumice, small querns, a shallow mortar-quern, and a large saddle quern. In the northwest corner of the room a tool kit was preserved in situ (Figs. 29–31): a small flat quern (Figs. 29, 31:1), a small handstone (Figs. 29, 30:2), a whetstone (Figs. 29, 30:5), a pumice stone (Figs. 29, 30:1), and a small curved slab of schist worked smooth on the faces and at both ends (Fig. 29). The function of the latter is uncertain, although its proximity to the quern might suggest an association with food processing. It has clearly been partially worked into this distinctive shape and smoothed on the top, bottom, and ends, but there are no signs of direct wear or abrasion. It probably functioned as a wedge to brace or level off the

44. See Curtis 2001, pp. 315–316; Cahill 2002, p. 180; Haggis et al. 2007a, p. 289.

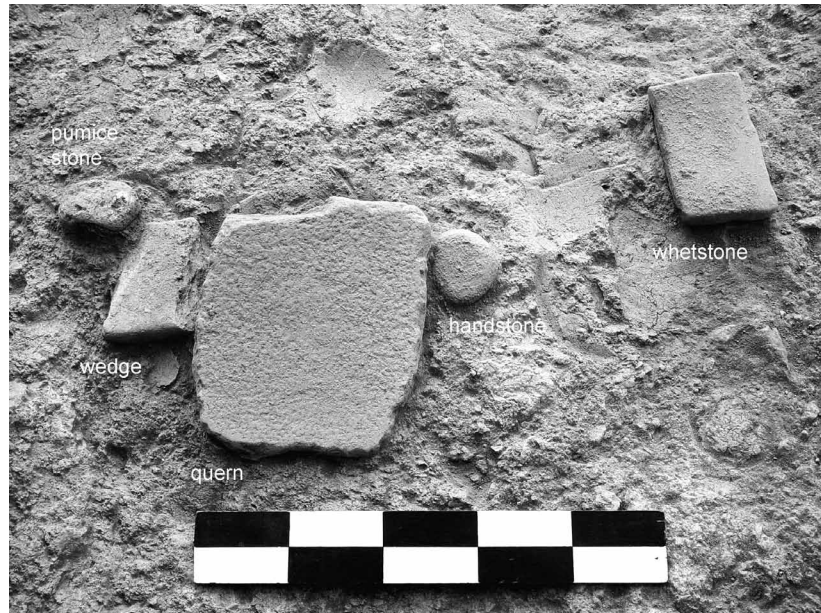


Figure 29. E100: stone tool kit in situ in northwest corner, from the west. Photo D. Haggis

uneven bottom of the quern.⁴⁵ The large pumice cobble (Fig. 30:1) has two abraded facets and grooves, and the quartzite whetstone (Fig. 30:5) shows a heavily abraded top surface with traces of corroded iron residue. These are standard kitchen implements used for sharpening and polishing iron blades. Another cobble of pumice (Fig. 30:6) was found nearby, north of the quern, against the bedrock socle of the north wall. This example has no knife scars but rather an evenly abraded facet, suggesting that it has been rubbed repeatedly over a hard, even surface. While we normally think of pumice cobbles as implements suitable for working or sharpening knives and other metal tools, at Azoria they are frequently found in association with querns, and we wonder if they might have been used to roughen or clean the working faces of the querns.

The quartzite quern (Figs. 29, 31:1), is typical of those found in both domestic and civic kitchens at the site. It is roughly rectangular in shape (ca. 25 × 27 cm) with a flat upper surface and hammered sides; the top surface is pecked and abraded to the edges and very slightly concave in section along the length. The roughly hammered bottom is slightly convex but flat in the middle, probably in order to facilitate the adjustment of the angle and orientation of the working surface. As on most of the querns found at the site, the outer edges of the upper surface are abraded smooth, while the rest of the surface has been intensively pecked; this evidently represents a reworking of the grinding surface.⁴⁶ An area 6 cm wide in the middle of the surface is abraded smooth, almost to a polish, suggesting that in its final phase of use the principal grinding action was palindromic. Right next to the quern was a small, disk-shaped marble handstone with a pecked circumference and abraded bottom face (Figs. 29, 30:2). The abraded surface is polished across ca. 6 cm of its face, a contact area identical to the abrasion pattern on the adjacent quern. The stone is palm-sized and fits neatly into the hand. Although the pecking is denser or more obvious on one end, it is clear that the entire circumference of the

45. Another example of the type comes from the kitchen of the Hearth Shrine in D1000 (Haggis et al. 2011, p. 35).

46. See Blitzer 1995, p. 479, for querns at Kommos.

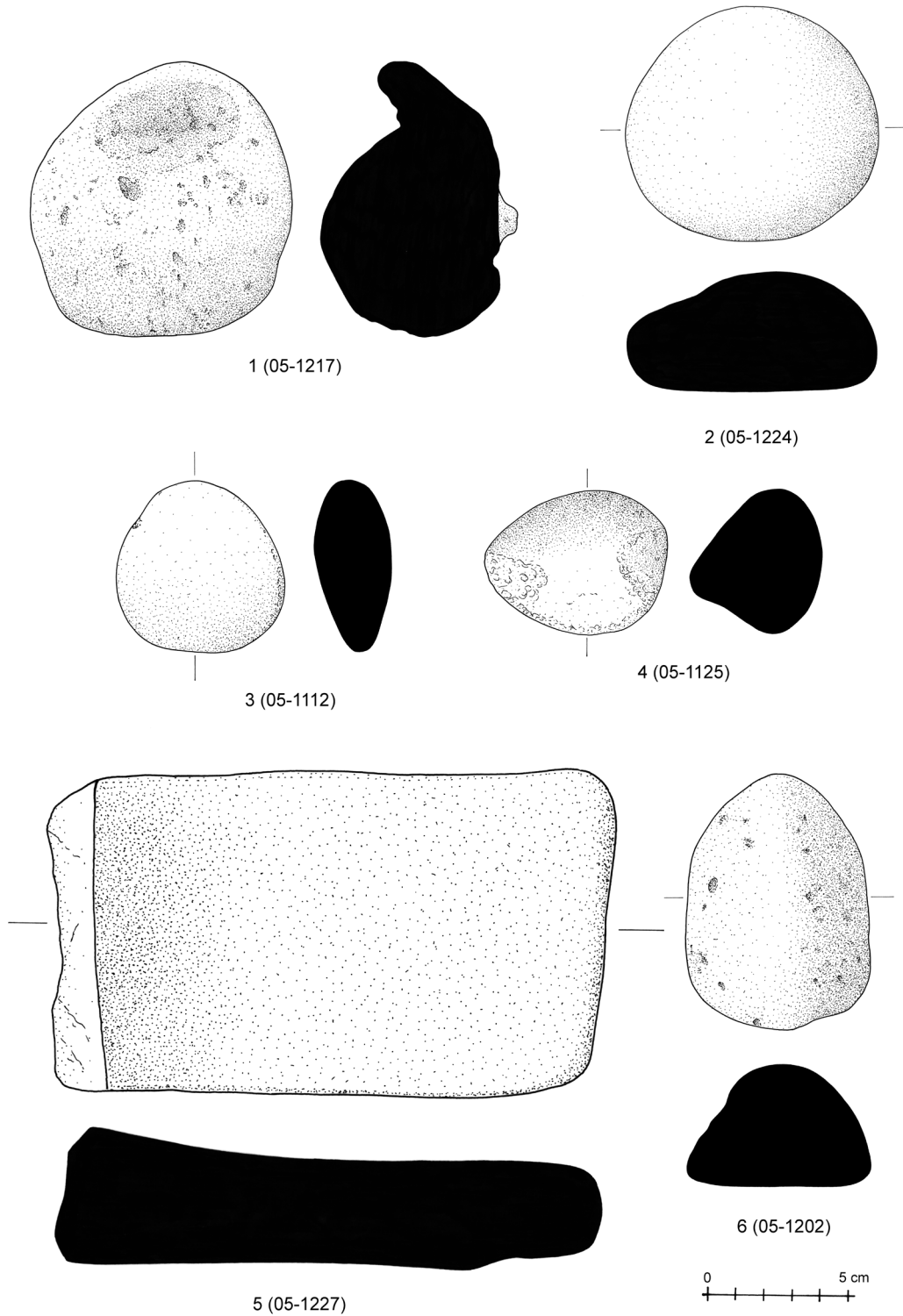


Figure 30. E100: stone tools: (1) pumice stone; (2-4) hand tools; (5) whetstone; (6) pumice stone. Drawing R. Docsan

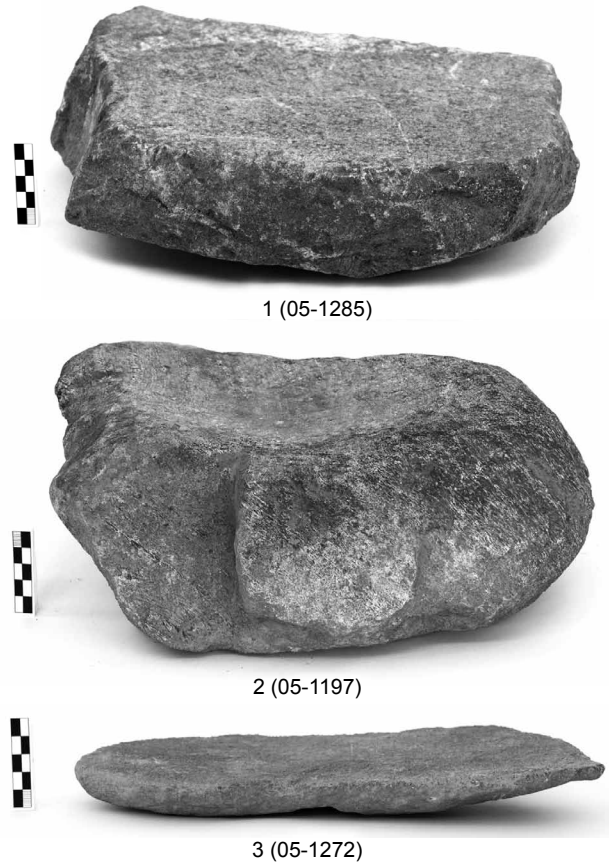


Figure 31. E100: querns. Photo C. Papanikolopoulos

stone has been used for pounding as well as grinding on a hard surface, presumably that of the adjacent quern.⁴⁷

Not far from the quern were two other small handstones: a small cobble with pecked ends and an abraded face, and a flat, disk-shaped stone with a pecked and abraded circumference (Fig. 30:3). Such small implements, ca. 6–8 cm in length, roughly disk-shaped, with pecking around the edges and one abraded face, are the most common tools in kitchen assemblages at Azoria, and are frequently associated with small querns.

Against the east wall of E100 was another small, flat quern, formed from a thin slab of quartzite measuring ca. 30 × 13 cm (Figs. 23, 31:3), and near it along the wall face to the north, a quartz pebble with an abraded facet and pecked ends and margins (Fig. 30:4). The patterns of wear on this tool, which are similar to those of the other small hand tools in the room, suggest both crushing (pounding) and light grinding in palindromic and circular motions on the querns. Near these tools on the east side of the room was a mortar-quern fashioned out of a block of granodiorite (Figs. 23, 31:2). It has a pecked top surface with a sharply concave center on both axes; abrasion polish is concentrated in the center of the depression, which is sufficiently shallow to have been used effectively with any of the small cobbles found in the room. The size and type of the majority of querns and handstones seem impractical for grinding even a small amount of grain to make flour.

47. The use patterns suggest the functions of type 1 and 2 implements in Blitzer 1995, pp. 425–426, 434–435.

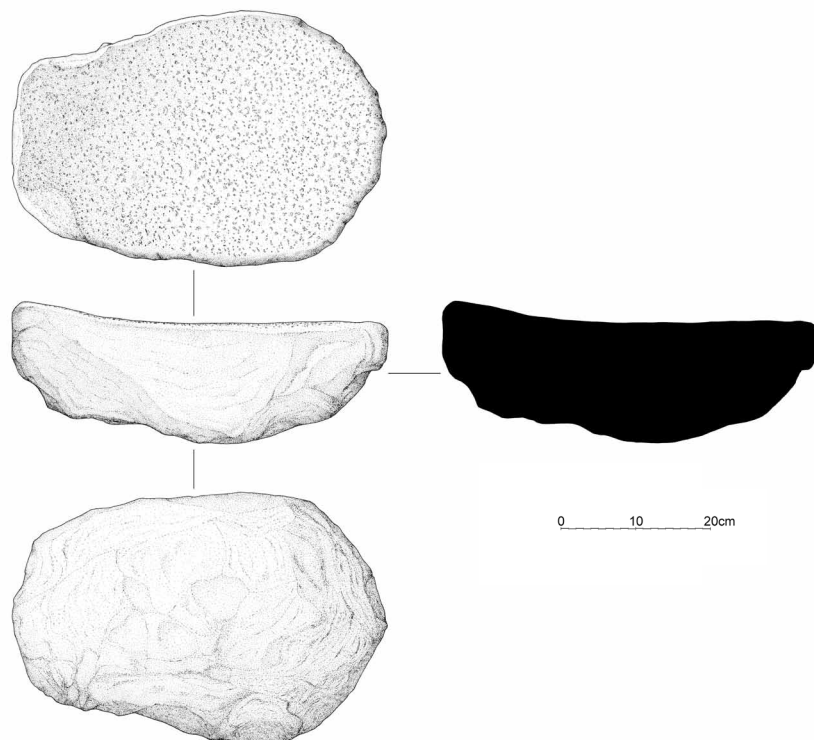


Figure 32. E100: large saddle quern.
Drawing D. Faulmann

A large saddle quern was found in the southwest corner of the room (Figs. 23, 32), and next to it a quartzite cobble with a completely pecked surface, probably for resurfacing the quern.⁴⁸ The size of the quern (50 × 34 cm across and 16–20 cm high) and the deep, concave profile of the upper surface on the long axis indicate the uniform palindromic grinding that one would expect for grain processing with a large handstone.⁴⁹ Although only one suitable grinding implement was found in the vicinity—a fragmentary marble cobble from the exterior courtyard—the presence of the saddle quern in the room points to a kind of processing entirely different from that represented by the small, flat querns with working surfaces that rarely exceed 25–30 cm in length. It is possible that some of the small, thin querns from the site, such as the slab-shaped example mentioned above (Fig. 31:3), could have been used as top stones or grinding implements with large saddle querns. Many are narrow and light enough to have been managed with two hands, although a number of these are slightly concave along the long axis, suggesting that they were used as querns rather than large handstones.

Remains of grain were sparse in the house. Indeed, this is true of the site as a whole, where grain, although widely distributed, is found in relatively small quantities, and primary processing debris, such as the remains of chaff and glume, are nonexistent. The scarcity of grain in our samples, both here and elsewhere, may be a consequence of poor preservation or extensive burning, and should not entirely rule out the practice of final-stage processing of flour. Moreover, careful and efficient use of the grain during grinding might have left insufficient remains to be recovered archaeologically. That said, we also find no significant evidence for the storage of grain in houses, and the common household querns and cobble implements are

48. See Blitzer 1995, pp. 440–441, for type 4 implements.

49. See Blitzer 1995, p. 451, for type 7 handstones.



Figure 33. E100: animal bone dump.
Photo C. Papanikolopoulos

generally poorly suited to the fine grinding required to process flour. The kinds of tools consistently associated with the querns are roughly spherical implements pecked all over, as well as pebbles and cobbles with pecked and battered ends and abraded facets and margins (Fig. 30:2–4). While the spherical or rounded oblong stones with entirely pecked surfaces may have been used for fashioning or working the surfaces of other stone tools,⁵⁰ most look as if they have been used for coarse processing of food, probably a variety of pulses, grains, and nuts.

Analysis of plant remains from the room revealed numerous olive pits, as well as grape pips, almond shell, chickpea, broad bean, and a trace of cereal grain. Although the entire floor of the room was sampled intensively, the overwhelming majority of the food plants came from an unusual deposit located immediately east of the hearth, retained by wall E112 and the work platform (Fig. 23). The deposit, consisting of a layer of ash and charcoal 10–20 cm deep, seemed to form a discrete dump of burned plant and animal remains, sealed by roofing material, wall collapse, and several pithos fragments.

While there were identifiable remains of pig, cow, hare, and marine fauna, most of the animal bones in the deposit belong to sheep and goat, including both cranial and foot fragments, as well as food debris such as meaty upper-limb elements (Fig. 33). An innominate segment exhibits cut marks on the ilial neck, indicating separation of the hip joint, and a proximal tibia diaphysis segment shows cut marks on the anterior aspect of the bone, possibly from the cutting of meat from the bone. Two burned fish skull elements and one fish vertebra were also recovered. On the basis of preliminary analysis, the two skull parts appear to be from a parrot fish (*Sparisoma cretense*). The presence of both cranial fragments and vertebrae in this context indicate that whole fish were being brought to the kitchen for preparation.⁵¹

50. See Blitzer 1995, pp. 440–441, for type 4 implements.

51. The Mediterranean parrot fish is a medium-sized food fish, growing to a maximum length of 50 cm, and is found along rocky coasts to a depth of ca. 50 m.



Figure 34. Pot-boiling using a round-bottom cookpot in a curbed hearth. Aegean Ceramics Seminar (J. Herbert, UNC-CH Art Lab, 2009). Photo D. Haggis

The dump is particularly interesting because a significant portion of the bone is burned, including 11 of the 16 identified sheep and goat bones (68.8%), as well as an articulated portion of a cow foot (Ph2, Ph3, and distal sesamoid). In general, the indications range from discoloration to complete blackening, suggesting the deliberate burning of food and butchering debris, rather than routine cooking or exposure to fire during the room's destruction. Both the concentration of bone and the intensity of burning distinguish this deposit from other material found scattered across the floor of the room, of which only some 14% (14 out of 97 identifiable elements) of sheep and goat bones showed any signs of exposure to fire; moreover, the burning on these elements appears more random and is consistent with surface discoloration caused by exposure to fire during destruction. The composition of bone assemblages from elsewhere in the kitchen is similar to that of the material recovered from the dump, and includes primarily sheep, goat, cow, pig, and fish. Although cranial elements and foot bones of sheep or goat are present, the assemblage contains a considerable component of major meaty limb-bone (food) elements, including an articulating hind-limb joint, consisting of a right innominate segment bearing cut marks near the acetabulum and a right proximal femur with cut marks on the proximal articular surface. These articulating elements are unburned, and may represent a high-value meat joint that was cooked by boiling, probably in one of the cookpots found nearby (Figs. 26, 34), and separated at the hip either before or after cooking.

The hearth was thoroughly cleaned before the destruction of the room, a strong indication that the adjacent dump of burned debris represents

material swept out of the hearth—that is, butchering as well as food debris, intentionally burned in the hearth and then collected and deposited beside it shortly before the room's destruction. The unusual and clearly intentional burning of animal bones suggests the remains of a hearth sacrifice, perhaps related to the use of the female terracotta votive plaque found on the floor nearby (Fig. 27:1).⁵²

DISCUSSION AND CONCLUSIONS

The Archaic houses at Azoria are large in size and complex in design, having perhaps developed out of a local Cretan tradition of multiroom residences.⁵³ While our general picture of the simplicity of Archaic houses in the Aegean is derived from a small sample of sites, it is also driven by evolutionary paradigms of the Greek household in which social changes are reflected in the development of certain architectural forms. Unfortunately, efforts to reconstruct the history of the Greek house commonly frame arguments in developmental rather than cultural terms, and lack a full range of evidence from properly excavated and well-defined archaeological contexts of the 6th and early 5th centuries. Furthermore, the sample from the 8th to the 6th century is composed of contexts that may not be culturally, regionally, or chronologically comparable. The general lack of evidence for houses in the Archaic period therefore presents something of a problem, a gap that may distort our understanding of the functions of domestic space and the presumed changes that occurred over time. In spite of these handicaps, we commonly assume that the trend was toward an increasing complexity of social and functional space, including differentiation of social groups (based on age, gender, or status), domestic activities, and room functions (such as weaving, storage, cooking, drinking, and dining).⁵⁴

Although complex house plans are probably not unusual on Crete in the Early Iron Age, what is interesting about the Archaic houses at Azoria is the static character of the buildings, perhaps as physical expressions of household identity, and their integration into an urban plan. Early Iron Age houses undergo generations of modification, in which the expansion and contraction of space is a manifestation of changing extended or corporate-kinship social entities. Late Minoan IIIC and Protogeometric–Orientalizing houses in the neighboring settlements of the Kastro and Vronda show clearly the physical extension of domestic space, as part of a periodically expanding and shifting architectural landscape that necessitated the negotiation of space with neighboring households and common spaces, and an active construction of identity and continuity with every generational change and addition to the house unit.⁵⁵ By contrast, the Archaic houses discussed here are tied directly to an overall renovation of the site and reorganization of space that took place by the early 6th century, with no evidence for modular or incremental expansion or development of house units thereafter. The Northeast and Northwest Buildings (Figs. 1–3, 8) are good examples of this predetermined and fixed use of space, their foundations locked between the parallel spine walls that were integral to the overall plan of the settlement. Contemporary parallels for this kind of

52. See Tsakirgis 2007, p. 230, on domestic hearth cult. See also the fascinating discussion by LaMotta and Schiffer (1999, esp. p. 23) of ritual abandonment processes that involved the caching of objects—components of the household assemblage—before abandonment.

53. Cf. Morris 1998, p. 66; Whitley 2009, pp. 282–283, 291.

54. See, e.g., Morris 1998, pp. 20–21; Nevett 1999, pp. 160–161; Lang 2005, pp. 24–27.

55. Mook 1998; Glowacki 2004.

architectural integration are few, no doubt because of the lack of extensive excavation of 6th-century settlement sites.

The Archaic houses at Onythe Goulediana are similar in internal area (ca. 139 and 158 m²) to the largest at Azoria, such as the Northeast Building (ca. 164 m²) and the lower house of the Southwest Buildings (at least 109 m²). At Onythe, rooms were placed paratactically along a spine wall, to be directly accessible from exterior courtyards.⁵⁶ The hall and storeroom assemblages there also show clear differentiation of functions. Rooms A and I at Onythe are evidently halls; like the halls at Azoria, they are the largest rooms in the houses, equipped with pillar supports, and had a preponderance of fine table wares as well as serving and small storage equipment. The storerooms at Onythe (Rooms B and K) had rows of large pithoi and stone-slab pithos stands.⁵⁷ Unfortunately, because of the limited excavation sample, we know very little of the structure of the settlement as a whole, although it appears to have been an urban center of considerable size.⁵⁸

From their inception, the buildings at Azoria appear to have been planned and locked into the urban structure. Static and unchanging in form, the houses reflect a household (family or clan) identity that had evidently already been firmly established, and presumably remained unaltered throughout the life of the Archaic settlement. If domestic architecture expresses a social reality, that at Azoria indicates permanence, constancy, and longevity. Linked to the urban transformation of the site, the houses near the peak of the South Acropolis take on a monumental and physically permanent form, not unlike the civic buildings themselves. They are part and parcel of the process of urbanization, not merely incidental to the construction of the new public buildings in the civic center.

We have not excavated enough houses to reveal a definite pattern of differentiation, such as a hierarchy of size or wealth and proximity to public buildings. In one case, that of the North Acropolis Building, we can say that, while similar to the houses on or near the peak of the South Acropolis in terms of resources and room functions, it appears to be somewhat smaller in internal area (ca. 84 m²) than the Northeast Building and the Southwest Buildings. While we cannot be certain, given the small number of houses excavated so far, it is possible that house size and proximity to the civic center could be correlates indicating status distinctions within the socio-political topography of the urban landscape.

General patterns of room use at the time of abandonment can be defined from the excavated sample. Storerooms are of various sizes and normally indicated by the presence of pithoi and pithos stands. The latter are flat slabs of schist or *sideropetra* used to level the uneven floor surface and elevate the jar a few centimeters above the clay floor. These pithoi and stands are the most characteristic features, although a variety of smaller storage vessels (such as small pithoi and transport amphoras), as well as serving, drinking, and dining wares, and even stone tools, may also be found in storerooms, either as a result of curate behavior at the time of abandonment or stored there as in pantries. Furthermore, the evidence of burning is visibly most intense and widespread in storerooms and kitchens, where combustible substances (cloth sacks, woven baskets, wooden boxes and implements, and dried food, as well as olives and olive

56. See Haggis et al. 2004, p. 360; Lang 2007, pp. 188–189, on paratactic construction.

57. Platon 1956, pp. 226–227; Sjögren 2003, pp. 18–21.

58. See Psaroudakis 2004 for a recent reanalysis of the houses and a comprehensive survey of the topography and finds from the broader settlement.

oil) would presumably have been found more frequently than in other spaces of the house.

Halls are large square or rectangular rooms with one or more post bases, generally clean floor surfaces, and no discernible built features. They are always directly connected to the storerooms: in the Northwest Building (Fig. 8) the exclusive access to the storeroom from the hall is obvious, and similar controlled access is apparent in the Northeast Building (Fig. 3) and the lower terrace of the Southwest Buildings (Fig. 12). The mostly fragmentary assemblages of pottery found in the halls comprise a wide range of drinking, dining, and serving vessels, along with some small storage containers such as small pithoi, hydrias, and amphoras. Lamps are also found, but stone querns and hand tools (food-processing implements) are very rare, probably accidental or post-*de facto* occurrences. Large and small cookpots are also part of the assemblages, but there are no hearths, cooking stands, portable braziers, or visible concentrations of burning that would suggest that they were used for cooking in the halls themselves.⁵⁹ Instead, we believe, cooking pots were probably brought from the kitchens and used as serving vessels on occasions of dining.

Various pieces of weaving equipment, such as loom weights and spindle whorls, have been recovered in halls, but we do not find them in sufficient quantities to argue decisively for the use of the space for weaving. Looms were both portable and valuable, however, and they were likely removed from the site during the abandonment.⁶⁰ Also found in halls are implements related to cutting and scraping: whetstones, abrasive pumice cobbles, knives, and small pebbles with notched or abraded ends. We tend to think of the hall as the main living area of the house, sometimes directly accessible from an exterior corridor or courtyard, or through a vestibule. Its functions appear to have included, at a minimum, drinking, dining, and perhaps textile working.

Kitchens are always separate from halls, and normally not directly connected to storerooms. They produce relatively consistent assemblages dominated by remains of food and food processing; vessels for food preparation and serving, such as cookpots and lekanes; some storage vessels (usually several smaller pithoi and one or more amphoras); and regular kits of stone tools that show consistent patterns of processing. Portable implements of metal (such as knives, graters, and spits) and bone or shell are rare, having no doubt been removed from the site at the time of abandonment; the bronze grater and the shell scoop from E100 and the iron fire-dog from B3500 are reminders of the range of kitchen implements that are not frequently recovered.

Small flat or saddle querns are more common than large saddle querns, and are accompanied by whetstones, pumice stones, and small cobble-sized tools for pecking, pounding, and grinding on the surfaces of the querns. Mortars, mortar-shaped querns, and pestles are very rare in household kitchens. Whetstones are normally small in size—some could conveniently be held in the palm of the hand—and show very abraded, in some cases polished, surfaces with knife scars; traces of iron residue are usually visible on the surface of the stone and within the scars. Cobble-sized pumice stones are also found alongside querns and whetstones. While some examples have

59. See Tsakirgis 2007, pp. 228–229, on the evidence for braziers in Archaic–Classical domestic contexts that lack fixed hearths.

60. *IC IV* 75 lists a loom among personal property exempt from seizure at Gortyn.

a number of irregular abraded facets and/or knife scars suggesting use for honing and polishing metal blades, others have wide and very even abraded faces, indicating regular use on a wide, flat surface, perhaps (as suggested above) for roughening or cleaning the surface of the quern.

Four recurring types of implements appear to have been used regularly with the small querns. Blitzer types 1 and 2 are common, showing regular patterns of pecking or battering on the ends and margins, and abrasion on one or two faces.⁶¹ The examples at Azoria are generally very small, fit neatly into the palm of the hand, and could have been used for both grinding (in circular or palindromic motions) and pounding on the quern surface. Implements of Blitzer type 4 have totally pecked or battered surfaces, while those of Blitzer type 3 are pebbles or small cobbles, normally with one or more abraded and pecked ends and distinctively abraded margins and facets.⁶² Large handstones of Blitzer type 7 are rarely found, and were evidently not a regular feature of the domestic tool kit.

The Blitzer type 3 tools at Azoria are remarkably consistent in size and shape. They are triangular, square, or trapezoidal cobbles, normally polished, water-worn, metamorphic and igneous rocks (metaconglomerate, amphibolite, basalt, dark diorite, or metamorphosed chert). They are usually 7–9 cm long and 6–7 cm wide, and were clearly selected for hardness and angular shape. They have two to five margins creating a number of planar surfaces or facets that would have facilitated gripping and rotation, leaving exposed an end, face, or margin for use as a working surface. One or more margins show distinctive signs of intensive abrasion and some pecking, and one or more ends—the apexes or points of the margins—are abraded, pecked, and in some cases battered or broken. The facets show few signs of wear and the high natural polish is smooth to the touch, although examination with a 10× hand lens reveals regular gouges, scratches, or striations across one or more of the faces.

The work conducted with these tools would have involved relatively small amounts of material and concentrated effort focused on relatively small, flat surfaces. It looks as if the tips or ends of the tools were used for pounding or crushing, the tips and margins for grinding, and the facets for finer grinding over a small surface area. These patterns of use suggest a process of crushing or mashing foods into fine particles or pastes by working the substance in small palindromic and circular motions across a fairly small, flat, abrasive surface.

Although the range of foods that could have been prepared with the small querns (pulses, nuts, fruit, and grains) is likely to have been extensive, the size of the querns and the pattern of use seen in the small grinding and pounding implements suggests not the fine grinding of flour, but rather the final preparation—grinding, splitting, breaking, and mashing—of whole cleaned grains and pulses for stews and boiled dishes. Only in E100 did we find a large saddle quern, and some distance away, a Blitzer type 7 handstone, suitable for the processing of grain into flour.

Cooking and food-preparation facilities are well represented in kitchens. Small benches and work platforms are found, normally consisting of single or stacked blocks, together with fireplaces of three types: a small side hearth (as in A2100);⁶³ a larger, rectangular, stone-lined hearth (as in E100 and D800); and a *pisé*-built oven (as in B3700). By contrast, evidence

61. Blitzer 1995, pp. 425–438.

62. Blitzer 1995, pp. 438–441, 458–461.

63. Haggis et al. 2007a, pp. 247–250. See Tsakirgis 2007, pp. 226–228, on the range of fixed cooking installations in Greek houses.

of temporary hearths, cooking stands, and portable braziers has not been found in the domestic kitchens. The small side hearth or *parestia*, consisting of two upright slabs of stone angling out from the face of a wall, is most appropriate for bracing a cookpot during stewing or boiling. Although roasting meat is possible in such a fireplace, its size and proximity to the wall make it much less convenient for this purpose than a rectangular built hearth, whose larger size and position in the middle of the room could accommodate either spit-roasting or pot-boiling.

The evidence of the faunal assemblages supports both of these methods of cooking. Thin-walled, round-bottomed cookpots, including chytai, might be most effectively and conveniently used in open, stone-lined hearths, where they could have been braced by stones or charcoal, or nested in a bed of ash and coals in a corner of the hearth for warming or slow cooking (Figs. 26, 34). Ovens might have had been used for various purposes, including warming or boiling by bracing a pot near the mouth or directly on top of the dome itself. While it is possible to grill meat at the mouth of an oven or roast it on a spit within the oven itself, we imagine that baking was its principal function. Our sample of kitchens is not yet sufficiently large to be able to detect patterns in the choice of a particular type of hearth or cooking installation, but the variation is nevertheless interesting.

If we regard the Archaic house at Azoria as a physical embodiment or manifestation of a social unit, we might argue that it does not appear to have been a dynamic architectural form, and that it therefore represents a significant change from the house of the Early Iron Age in organization and use of space, and in the way in which its physical articulation reflects the operation of the household. The building of the city evidently did not involve the gradual and long-term formation of architectural spaces expressing changing or expanding lineages. This is not to say that the houses were inhabited for only a short time—we believe that most were occupied for a century or more—or that they were socially insignificant or economically insular. We imagine that the effective social unit was a kinship-corporate group that was more complex socially and economically than the nuclear family, and that required living and working spaces larger and architecturally more complex than the house itself.⁶⁴

This view of the household as a social and economic corporation and an institution that transcends the nuclear family should inform our discussion of the form of Archaic houses, not only on Crete but in the Aegean generally. In discussing Archaic Crete, Whitley has aptly used the terms “segmentary lineages” and “clans.”⁶⁵ Along similar lines, Westgate’s analysis of domestic space in Classical Crete emphasizes the historical evidence suggesting that citizen households would have had subordinate labor and dependents living in separate residences, implying (although not stating outright) the phenomenon of multilocal and decentralized or dispersed households.⁶⁶ The conceptualization of the household as an effective unit larger than the physical form represented by the archaeologically identifiable architectural unit has been developed by Foxhall, who draws on models of ancient and ethnographic subsistence and surplus production, as well as evidence of kinship-group compounds from diverse Early Iron Age and Early Archaic contexts.⁶⁷ In Foxhall’s view, for an Archaic Greek

64. See Driessen 2010, pp. 55–56, on multilocal house groups in modern Cretan and Minoan contexts.

65. Whitley 2009, p. 283.

66. Westgate 2007, pp. 450–451. Morris has rightly emphasized the conservative and *ethnos*-like quality of the emergent citizen-state on Crete, where an entrenched agro-literate structure promoted a system in which serfs were dependent on elite households; see Garnsey and Morris 1989, pp. 100–101; Morris 1997, pp. 101–102.

67. Foxhall 2003, esp. pp. 83–85; 2009, p. 500; cf. the discussion in Garnsey and Morris 1989, p. 101, on the economic relationship between Hesiod’s nobles and their dependents.

household to have generated significant agricultural surplus—that is, real agricultural wealth beyond normal or subsistence-level production—it would have required access to land, labor, animals, equipment, and other economic resources exceeding a normal nuclear household's capacities.⁶⁸ This view resonates with the evidence from Azoria, where the architecture and features of the Archaic houses emphasize both the quantity of stored agricultural wealth and its display, where production appears limited to final-stage processing of a variety of foods for consumption, and where an identical range of agricultural goods as surplus would have been paid into the civic stores of the Communal Dining Building and Monumental Civic Building.⁶⁹

Several kinds of evidence indicate the production of surplus in the form of agricultural wealth, and imply the existence of dependent labor and human resources exceeding those that could have been accommodated by the insular house plans. Perhaps most important is the fact that household storage was substantial and given its own space, separate from living and cooking areas. The best-preserved storeroom at Azoria, A1700 in the Northeast Building, has an area of more than 30 m² (Fig. 3), nearly identical to that of the domestic storage areas in the houses at Onythe Goulediana (Rooms B and K) and to the estimated area of the storeroom in the North Acropolis Building (E300) (Fig. 22).⁷⁰ While remains of at least six different pithoi were recovered from the destruction deposit in A1700, and at least five from E300, the rooms could easily have accommodated more such vessels, if spaced in a row against the walls as they were at Onythe.⁷¹ Even the smallest storeroom so far recovered at Azoria, the east room of D700 in the Northwest Building (Figs. 8, 9), produced at least four pithoi. We are only beginning to evaluate the numbers, sizes, and volumes of the pithoi from the storerooms, as well as those of other household storage vessels such as amphoras (not to mention the possibility of perishable containers that have not survived). Such vessels are also found in halls and kitchens, thus considerably increasing even the minimum capacities represented by the storerooms.

Another indication of the importance of agricultural wealth is the visibility of such storage. The physical interconnection of storeroom and hall suggests not only the control of produce, but the visible and perhaps socially symbolic expression of the agricultural wealth of the household in contexts of formal or communal dining activities, which some scholars believe did not normally take place in Cretan houses.⁷² If we accept the display of agricultural wealth as part of our interpretation of rooms as social spaces,

68. Foxhall 2003, p. 85. This approach encourages a reconsideration of the complex relationships between urban and rural contexts, as well as the reductive definitions of households (cf. Nevett 2005). For the economic function and complex social configuration of the elite house of the Greek city-state, see Small 1997, esp. p. 111.

69. For inventories of foods stored and consumed in civic contexts at Azo-

ria, see Haggis et al. 2011, pp. 7–12, 25–27, 31, 43, 57.

70. For Onythe, see Platon 1956, pp. 226–227; for A1700, see Haggis et al. 2007a, p. 248;

71. Platon (1956, pp. 226–227) records no fewer than seven jars from storeroom K at Onythe.

72. It has been persuasively argued that the interiors of Classical Cretan houses, with combined living, dining,

and food-processing areas, as well as the distinctive austerity of Archaic household drinking and dining equipment, deemphasize the expression of status, social roles, and identities, which would have been more appropriately displayed outside the house in corporate and communal venues such as the *andreion*. See Westgate 2007, pp. 450–451; Whitley 2009, p. 290.

then we can begin to understand the importance of the pithoi themselves, especially the large and ornately decorated examples (Fig. 18), not only as expensive pieces of household furniture, but as impressive and visually striking indications of landed wealth and material prosperity.

The use of smaller decorated jars in halls and the direct connection between the hall and the storeroom would have allowed the owner of the house to display this wealth to visitors on occasions of formal or informal dining in the hall. The normal patterns of communication between the rooms of the house suggest the regular movement of food from the storerooms through the hall to the kitchen, and then back again from the courtyard and kitchen into the hall; this would have made the hall a central location for visible display and consumption of agricultural goods. The wide range of foodstuffs recovered in storerooms and kitchens, including tree crops and vines (e.g., olive, grape, fig, almond, and elderberry), as well as pulses and grain, reflects varied and extensive use of land, while the presence of these same crops within the civic buildings indicates either the appropriation of labor or land by the state, or the significant allocation of household labor and surplus produce for public consumption, in the form of individual tithes or contributions to communal feasts.

Perhaps the most interesting evidence of the household economy concerns the processing of grain. In the houses at Azoria we find no indications of large-scale storage or primary processing of grain, a conclusion supported by the artifact assemblages, in which large saddle querns are occasionally found, but the common household tool kits (small querns and cobbles) are generally unsuitable for the processing of flour (Figs. 29–31). Chaff and glume fragments are completely absent in the samples, even though the intensely burned condition of the storerooms and kitchens would normally be favorable for the preservation of such material. In marked contrast to the Archaic houses at Azoria, primary processing debris is common at the neighboring site of the Kastro (principally in Late Geometric–Early Orientalizing contexts), where chaff is regularly found on floors and was apparently used as fuel in hearths.⁷³ Its widespread occurrence in Early Iron Age contexts in the same environment demonstrates that during that period long-term staple storage and primary processing of grain were localized in the individual houses, and were thus probably concerns of the nuclear household. In the Archaic contexts at Azoria, however, grain is rare, and where it appears, it seems to have been brought into the houses already cleaned for crushing and pot-boiling. Although the large saddle quern recovered in E100 of the North Acropolis Building could have been used for finer grinding, we suspect that, in general, processed flour was brought into the houses already prepared.

The distribution and condition of the grain found in the houses at Azoria suggests that a large part of a household's agricultural wealth was stored and processed somewhere else. We might imagine that household dependents, labor, storage and processing space were located away from the urban house unit, either elsewhere in the city or in the countryside. Viewed in this way, the households in the city center functioned principally as consumers: their assemblages reflect final-stage processing and conspicuous consumption, with storage displays that were primarily symbolic, rather

73. Flint-Hamilton 2000. See also Megaloudi 2004, esp. pp. 154–155, on the prevalence of grain in Protogeometric contexts, with lesser amounts of grape and olive.

than multiple-stage processing and long-term storage of staple foodstuffs. The same might be said for more valuable agricultural goods as well, such as olive oil and wine, which are well represented in the botanical record, and appear to have been stored in large quantities in the houses, but were processed and transported by a labor pool in contexts removed from the locus of consumption. Furthermore, in light of the evidence for patterns of butchering, reduction, and cooking of meat that are emerging from the faunal assemblages, it also seems likely that the inhabitants brought whole, dressed animals into the kitchens from the countryside, or from pens located elsewhere in the city, in order to prepare the carcasses for spit-roasting and pot-boiling. While we are not yet in a position to assess the amounts of meat consumed in houses or civic buildings relative to other types of food, it is clear that by the time of abandonment, the households were supplying meals that exceeded the needs or regular diet of a nuclear family.

Questions about the constitution of the family and the labor pool, the nature of their civic obligations and social relationships, and the way in which these factors are reflected in the archaeological record of the houses themselves, will be addressed more fully in the future, when excavation continues on the slopes below the hilltop. While we have not yet identified the locations of most primary agricultural processing and storage,⁷⁴ or animal pens and fodder storage, we can say that such facilities were not a physical part of the urban house. An attractive model is the multilocal household: a system incorporating kin and serf populations residing and working elsewhere in the city, who were dependent on and obliged to both the city and the urban citizen household.⁷⁵ Finally, the scale of household storage and food processing is not yet fully understood. The evidence from the Southwest Buildings might lead us to adjust our understanding of the size, scale, and even the function of urban houses, and to redefine entirely what constitutes a house unit.

The Archaic houses at Azoria demonstrate an entrenched configuration of both practical and social space.⁷⁶ The houses are well integrated into the plan of the South Acropolis as established by the early 6th century. The juxtaposition of storeroom and hall must be related to the importance of agricultural storage as both a practical concern and a social process, both a vital aspect of daily routines of consumption and control of the household's agricultural surplus, as well as a visual, and therefore symbolic, indicator of the household's size, wealth, land, and labor. The separation of the kitchen from the hall and the storeroom should not immediately be interpreted as support for a model of engendered differentiation of space, with females sequestered to food-producing areas of the house. Such a model may be accurate, but we know little about who would have been principally responsible for much of the food preparation in the Archaic Cretan urban house. Slaves or servants, while not necessarily living in the houses themselves, probably used the courtyard and kitchen areas most frequently. What is perhaps most interesting about the houses is the absence of a hearth room—a single space combining a range of storage, cooking, and other domestic activities. This feature, common in both Early Iron Age and Hellenistic contexts on the island, is absent at Azoria. The Archaic houses were complex social spaces;

74. In the case of olive oil, the elaborate olive-oil press in D300 of the Service Building is evidence for centralized, scaled-up, and state-sponsored production of oil (which does not, of course, preclude decentralized household production as well); see Haggis et al. 2011, pp. 46–61.

75. See Jameson 1992, p. 138; Westgate 2007, pp. 450–451; Driessen 2010, pp. 55–56.

76. See Forbes 2007, esp. pp. 290–292, on the house as a reification of kinship histories and historical memory; Driessen 2010, pp. 43–46, on the permanence of domestic space and the construction of memory.

the halls were multifunctional units that accommodated daily domestic routines, but also very likely formal dining and drinking activities that would have included the management and display of the agricultural wealth of the household.⁷⁷ The picture that emerges is of a house that was the center of a complex *oikos*, the economic and social nucleus of a larger household, whose dependents, storerooms, and work areas would have been located away from the South Acropolis.

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77. Cf. Whitley 2001, pp. 251–252; 2009, p. 290.

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REFERENCES

- Agora XII* = Sparkes, B. A., and L. Talcott, *Black and Plain Pottery of the 6th, 5th, and 4th Centuries B.C.* (*Agora XII*), Princeton 1970.
- Allison, P. M., ed. 1999a. *The Archaeology of Household Activities*, London.
- . 1999b. "Introduction," in Allison 1999a, pp. 1–18.
- Ault, B. A., and L. C. Nevett. 1999. "Digging Houses: Archaeologies of Classical and Hellenistic Greek Domestic Assemblages," in Allison 1999a, pp. 43–56.
- Blitzer, H. 1995. "Minoan Implements and Industries," in *Kommos I: The Kommos Region and Houses of the Minoan Town*, Pt. 1: *The Kommos Region, Ecology, and Minoan Industries*, ed. J. W. Shaw and M. C. Shaw, Princeton, pp. 403–536.
- Boardman, J. 1961. *The Cretan Collection in Oxford: The Dictaeon Cave and Iron Age Crete*, Oxford.
- Cahill, N. 2002. "Lydian Houses, Domestic Assemblages, and Household Size," in *Across the Anatolian Plateau: Readings in the Archaeology of Ancient Turkey* (*AASOR* 57), ed. D. C. Hopkins, Boston, pp. 173–185.
- Coucouzele, A. 2007. "From Megaron to Oikos at Zagora," in Westgate, Fisher, and Whitley 2007, pp. 169–181.
- Coulson, W. D. E., D. C. Haggis, M. S. Mook, and J. Tobin. 1997. "Excavations on the Kastro at Kavousi: An Architectural Overview," *Hesperia* 66, pp. 315–390.
- Crielaard, J. P. 2009. "Cities," in Raaflaub and van Wees 2009, pp. 349–372.
- Curtis, R. I. 2001. *Ancient Food Technology*, Leiden.
- Driessen, J. 2010. "Spirit of Place: Minoan Houses as Major Actors," in *Political Economies of the Aegean Bronze Age. Papers from the Langford Conference, Florida State University, Tallahassee, 22–24 February 2007*, ed. D. J. Pullen, Oxford, pp. 35–65.
- Erickson, B. 2009. "Roussa Ekklesia, Part 1: Religion and Politics in East Crete," *AJA* 113, pp. 353–404.
- Fagerström, K. 1988. *Greek Iron Age Architecture: Developments through Changing Times* (*SIMA* 81), Göteborg.
- Farnsworth, M. 1964. "Greek Pottery: A Mineralogical Study," *AJA* 68, pp. 221–228.
- Flint-Hamilton, K. B. 2000. "The Paleoethnobotany of Iron Age Crete," *AJA* 104, p. 368 (abstract).
- Forbes, H. A. 2007. *Meaning and Identity in a Greek Landscape: An Archaeological Ethnography*, Cambridge.
- Foxhall, L. 2003. "Cultures, Landscapes, and Identities in the Mediterranean World," *Mediterranean Historical Review* 18, pp. 75–92.
- . 2007. "House Clearance: Unpacking the 'Kitchen' in Classical Greece," in Westgate, Fisher, and Whitley 2007, pp. 233–242.
- . 2009. "Gender," in Raaflaub and van Wees 2009, pp. 483–507.
- Garnsey, P., and I. Morris. 1989. "Risk and the Polis: The Evolution of Institutionalized Responses to Food Supply Problems in the Ancient Greek State," in *Bad Year Economics: Cultural Responses to Risk and Uncertainty*, ed. P. Halstead and J. O'Shea, Cambridge, pp. 98–105.
- Glowacki, K. T. 2004. "Household Analysis in Dark Age Crete," in *Crete Beyond the Palaces. Proceedings of the Crete 2000 Conference* (Prehistory Monographs 10), ed. L. P. Day, M. S. Mook, and J. D. Muhly, Philadelphia, pp. 125–136.
- Greco, E., T. Kalpaxis, N. Papadakis, A. Schnapp, and D. Viviers. 2000. "Travaux menés en collaboration avec l'École française en 1999: Itanos (Crète orientale)," *BCH* 124, pp. 547–559.
- . 2002. "Travaux menés en collaboration avec l'École française en 2001: Itanos (Crète orientale)," *BCH* 126, pp. 577–582.
- Haggis, D. C., and M. S. Mook. Forthcoming. "The Archaic Houses at Azoria," in *ΣΤΕΓΑ: The Archaeology of Houses and Households in Ancient Crete* (*Hesperia* Suppl. 44),

- ed. K. Glowacki and N. Vogeikoff-Brogan, Princeton.
- Haggis, D. C., M. S. Mook, C. M. Scarry, L. M. Snyder, and W. C. West III. 2004. "Excavations at Azoria, 2002," *Hesperia* 73, pp. 339–400.
- Haggis, D. C., M. S. Mook, R. D. Fitzsimons, C. M. Scarry, L. M. Snyder, M. I. Stefanakis, and W. C. West III. 2007a. "Excavations at Azoria, 2003–2004, Part 1: The Archaic Civic Complex," *Hesperia* 76, pp. 243–321.
- Haggis, D. C., M. S. Mook, T. Carter, and L. M. Snyder. 2007b. "Excavations at Azoria, 2003–2004, Part 2: The Final Neolithic, Late Prepalatial, and Early Iron Age Occupation," *Hesperia* 76, pp. 665–716.
- Haggis, D. C., M. S. Mook, R. D. Fitzsimons, C. M. Scarry, L. M. Snyder, and W. C. West III. 2011. "Excavations in the Archaic Civic Buildings at Azoria in 2005–2006," *Hesperia* 80, pp. 1–70.
- Hayden, B. J. 1995. "Rural Settlement of the Orientalizing through Early Classical Period: The Meseleroi Valley, Eastern Crete," *Aegean Archaeology* 2, pp. 93–144.
- . 2004. *Reports on the Vrokastro Area, Eastern Crete 2: The Settlement History of the Vrokastro Area and Related Studies* (University Museum Monograph 119), Philadelphia.
- Jameson, M. H. 1992. "Agricultural Labor in Ancient Greece," in *Agriculture in Ancient Greece. Proceedings of the Seventh International Symposium at the Swedish Institute at Athens, 16–17 May 1990* (*SkrAth* 4°, 42), ed. B. Wells, Stockholm, pp. 135–146.
- Jenkins, R. J. H. 1936. *Dedalic: A Study of Dorian Plastic Art in the Seventh Century B.C.*, Cambridge.
- LaMotta, V. M., and M. B. Schiffer. 1999. "Formation Processes of House Floor Assemblages," in Allison 1999a, pp. 19–29.
- Lang, F. 2005. "Structural Change in Archaic Greek Housing," in *Ancient Greek Houses and Households: Chronological, Regional, and Social Diversity*, ed. B. A. Ault and L. C. Nevett, Philadelphia, pp. 12–35.
- . 2007. "House—Community—Settlement: The New Concept of Living in Archaic Greece," in Westgate, Fisher, and Whitley 2007, pp. 183–194.
- Mazarakis Ainian, A. 2007. "Architecture and Social Structure in Early Iron Age Greece," in Westgate, Fisher, and Whitley 2007, pp. 157–168.
- Megaloudi, F. 2004. "Agriculture in Mainland Greece at the Proto-geometric Period: A View from the Archaeobotanical Remains," *Eulimene* 5, pp. 151–160.
- Mook, M. S. 1998. "Early Iron Age Domestic Architecture: The Northwest Building on the Kastro at Kavousi," in *Post-Minoan Crete. Proceedings of the First Colloquium on Post-Minoan Crete Held by the British School at Athens and the Institute of Archaeology, University College London, 10–11 November 1995* (*BSA Studies* 2), ed. W. G. Cavanagh, M. Curtis, J. N. Coldstream, and A. W. Johnston, London, pp. 45–57.
- Morris, I. 1997. "An Archaeology of Equalities? The Greek City-States," in *The Archaeology of City-States: Cross-Cultural Approaches*, ed. D. L. Nichols and T. H. Charlton, Washington, D.C., pp. 91–105.
- . 1998. "Archaeology and Archaic Greek History," in *Archaic Greece: New Approaches and New Evidence*, ed. N. Fisher and H. van Wees, London, pp. 1–92.
- . 1999. "Household Archaeology and Gender Ideology in Archaic Greece," *TAPA* 129, pp. 305–318.
- . 2000. *Archaeology as Cultural History: Words and Things in Iron Age Greece*, Oxford.
- Nevett, L. C. 1999. *House and Society in the Ancient Greek World*, Cambridge.
- . 2005. "Between Urban and Rural: House Form and Social Relations in Attic Villages and Deme Centers," in *Ancient Greek Houses and Households: Chronological, Regional, and Social Diversity*, ed. B. A. Ault and L. C. Nevett, Philadelphia, pp. 83–98.
- . 2007. "Greek Houses as a Source of Evidence for Social

- Relations," in Westgate, Fisher, and Whitley 2007, pp. 5–10.
- Platon, N. 1956. "Ανοσκαφή εις Γουλεδιανά Ρεθύμνης," *Prakt* 1956, pp. 226–228.
- Psaroudakis, K. 2004. "Ονιθέ Γουλεδιανών: Νέα ματιά στα ίχνη μιας αρχαίας Κρητικής πόλης," *Κρητική Εστία* 10, pp. 9–50.
- Raaflaub, K. A., and H. van Wees, eds. 2009. *A Companion to Archaic Greece*, Chichester.
- Schiffer, M. B. 1987. *Formation Processes of the Archaeological Record*, Albuquerque.
- Sjögren, L. 2003. *Cretan Locations: Discerning Site Variations in Iron Age and Archaic Crete (800–500 B.C.)* (*BAR-IS* 1185), Oxford.
- . 2007. "Interpreting Cretan Private and Communal Spaces (800–500 B.C.)," in Westgate, Fisher, and Whitley 2007, pp. 149–155.
- Small, D. B. 1997. "City-State Dynamics through a Greek Lens," in *The Archaeology of City-States: Cross-Cultural Approaches*, ed. D. L. Nichols and T. H. Charlton, Washington, D.C., pp. 107–118.
- Tsakirgis, B. 2007. "Fire and Smoke: Hearths, Braziers, and Chimneys in the Greek House," in Westgate, Fisher, and Whitley 2007, pp. 225–231.
- Westgate, R. 2007. "House and Society in Classical and Hellenistic Crete: A Case Study in Regional Variation," *AJA* 111, pp. 423–457.
- Westgate, R., N. Fisher, and J. Whitley, eds. 2007. *Building Communities: House, Settlement, and Society in the Aegean and Beyond. Proceedings of a Conference Held at Cardiff University, 17–21 April 2001* (*BSA Studies* 15), London.
- Whitley, J. 2001. *The Archaeology of Ancient Greece*, Cambridge.
- . 2009. "Crete," in Raaflaub and van Wees 2009, pp. 273–293.

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