

## Chapter 2

# Structural Change in Archaic Greek Housing

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A household consists of a group of people sharing a common place of residence, who by virtue of their joint behavior, function as a social and economic unit.<sup>1</sup> With the exception of widows, the unmarried, or cohabiting brothers and sisters, the basic element of the household in ancient Greece was the family, consisting of parents and children together. An exceptional form of household was one that comprised a group, unconnected by kinship, who shared the same architectural and structural dwelling complex (Ault, Chap. 9). In Archaic Greece, a household could have been composed of one or more families, sometimes including non-family members such as slaves (Laslett 1972, 25–38; Allison 1999b, 4).

The size of a household and the internal division of a house depend, among other things, on the following factors: the occupants—whether they comprise a nuclear or an extended family; the rules of marriage—whether patrilocal, matrilocal, or ambilocal; the source of income—whether based on agriculture, transhumance or pastoralism; and the engagement of males in military service or politics (Pfälzner 2001, 27–34). These observations also show that a household has different dimensions: the architectural dimension of the house (as a co-residence), the economic activity of the household, and the family as a social unit.

As is well known, in order to identify households archaeologically we have to rely on the architecture of houses and the finds within them. This is, however, not unproblematic. First, the ground plan of excavated houses is commonly used for the classification of houses within a settlement. This is fine if the settlement has only one occupation phase, but if it was inhabited over some generations, the size of the household, the composition of the family, the function of the house, and changing activities over time can produce changes to the ground plan. The later building phases of a house could differ completely, in function as well as in physical appearance, from the earlier phases. This fact must be considered during classification, otherwise the assumption is that no change of



any kind took place from the original foundation until the abandonment of the house. A second problem is that few settlements are excavated in their entirety, so that the ground plans of a few excavated houses that are not necessarily representative of the whole variety of existing house-types are taken, *pars pro toto*, as characteristic of the whole settlement, and its interpretation may even be based on a single house. These factors are especially critical where the aim is to reconstruct the social hierarchy of a settlement according to the ground-plan of the houses.<sup>2</sup> This problem particularly affects the pre-Classical periods in Greece, when a standardized settlement plan is not yet a common feature. A third difficulty is that social structure in Greece is highly variable. For example, the household might be identical with a house as an architectural structure, but on the other hand the family might live in more than one house. In addition, the pattern of living differs regionally so that the transposition of results from one region to another should not be undertaken without detailed consideration of the potential for variability. Finally, a detailed analysis requires detailed excavation reports, but typically only the architectural features of domestic structures are reported in detail, without adding complementary information about the finds and exact find locations. Fortunately, in recent years this attitude has changed and more studies present a detailed analysis of rooms and their inventories, so that critical examination and a comparative social analysis of the archaeology of Greek settlements are becoming increasingly feasible.

The intense interest in ancient housing—nowadays very fashionable—has focused mainly on the domestic architecture of the Early Iron Age or the Classical and Hellenistic periods (Drerup 1969; Fagerström 1988; Hoepfner and Schwandner 1994).<sup>3</sup> For a long time, the period in between, the Archaic, was not a particular topic of interest.<sup>4</sup> Excavators digging the Classical period stopped before reaching the Archaic phases, or excavators interested in the pre-Archaic periods destroyed the Archaic strata often without sufficient documentation. In a few settlements some houses were documented but most of their remains are quite sparse. Finally, when Archaic houses were excavated, only their architecture was typically published, without the finds. This means that interpretations relating to Archaic houses are, in most cases, based exclusively on architectural characteristics, and mostly wall foundations at that. Because of this fact, the approach to Archaic buildings is generally two-dimensional (concentrating on structural remains) and not three-dimensional (which would include consideration, for example, of their decoration, wall-painting, or windows), integrating artifacts and activity-areas for living, consumption, production, distribution, and so on (compare the approaches taken by Margueron 1983, 16–20; Ashmore and Wilk 1988, 4; and Allison 1999b, 4).



Even if this introduction sounds sceptical, and some points are indeed problematic and need more consideration, there are good reasons to be optimistic. The material is extensive enough to enable trends in Archaic housing to be described (as indicated in Map 2.1, showing sites mentioned in this chapter). Ultimately this period is particularly interesting because we are able to appreciate the fundamental changes which occurred in the Greek way of life from the Early Iron Age to Classical times. Indeed, the well-attested sociopolitical and artistic developments of the Archaic period are generally and to some degree reflected in domestic architecture as well.

### Typology and Organization of Archaic Houses

One means of interpreting housing is through a typology of ground plans and architectural design. Houses are classified in accordance with their ground-plan and size. For Early Iron Age houses such a typology was developed by Drerup (1969). A fundamental difference exists between apsidal or oval and rectangular ground plans. Rectangular houses are subdivided into further types, such as *antae* or square houses. In addition, Drerup distinguished a “Langhaus” from a “Breithaus” based on the position of the entrance in the Early Iron Age. In the former, the entrance is on the short side, in the latter the entrance is on the long side of the house. These house-types are common in the Early Iron Age (Fagerström 1988; Mazarakis Ainian 1997b).

From the tenth century B.C. onward houses with oval or apsidal shape spread throughout the whole of Greece with the exception of Crete. Examples of such houses are known at Assiros, Athens, Eretria, and Smyrna (Drerup 1969; Mazarakis Ainian 1997b, 43–113). At the same time, different types of rectangular houses can be studied, for example at Emporio on the island of Chios, founded in the eighth century (Boardman 1967). Sprawling down the slope of a hill, these houses were erected in isolation. The settlement reveals one-room or two-room houses and *antae* houses of various sizes (Fig. 2.1a–b). The houses of the Early Iron Age had a simple ground-plan and usually one room, or two rooms lying one behind the other (Fig. 2.1a–d), although in Crete there is some variation, as at Vrokastro (Hayden 1983; Lang 1996, 78–83).

An obvious change in house-types can be recognized in Greece from the seventh century onward. Some of the former house-types disappear entirely (for example, the square “Breithaus”) and there is a remarkable decline of the apsidal house-type (Map. 2.2). That this process was not accidental can be seen at Eretria (Fig. 2.1d) and Miletus, where apsidal houses are remodeled, or directly overbuilt by rectangular-shaped ones (Lang 1996, 85; Morris 1998, 14). This seems to suggest that from the





Map 2.1. Greece and the Aegean with Archaic sites mentioned in Chap. 2.



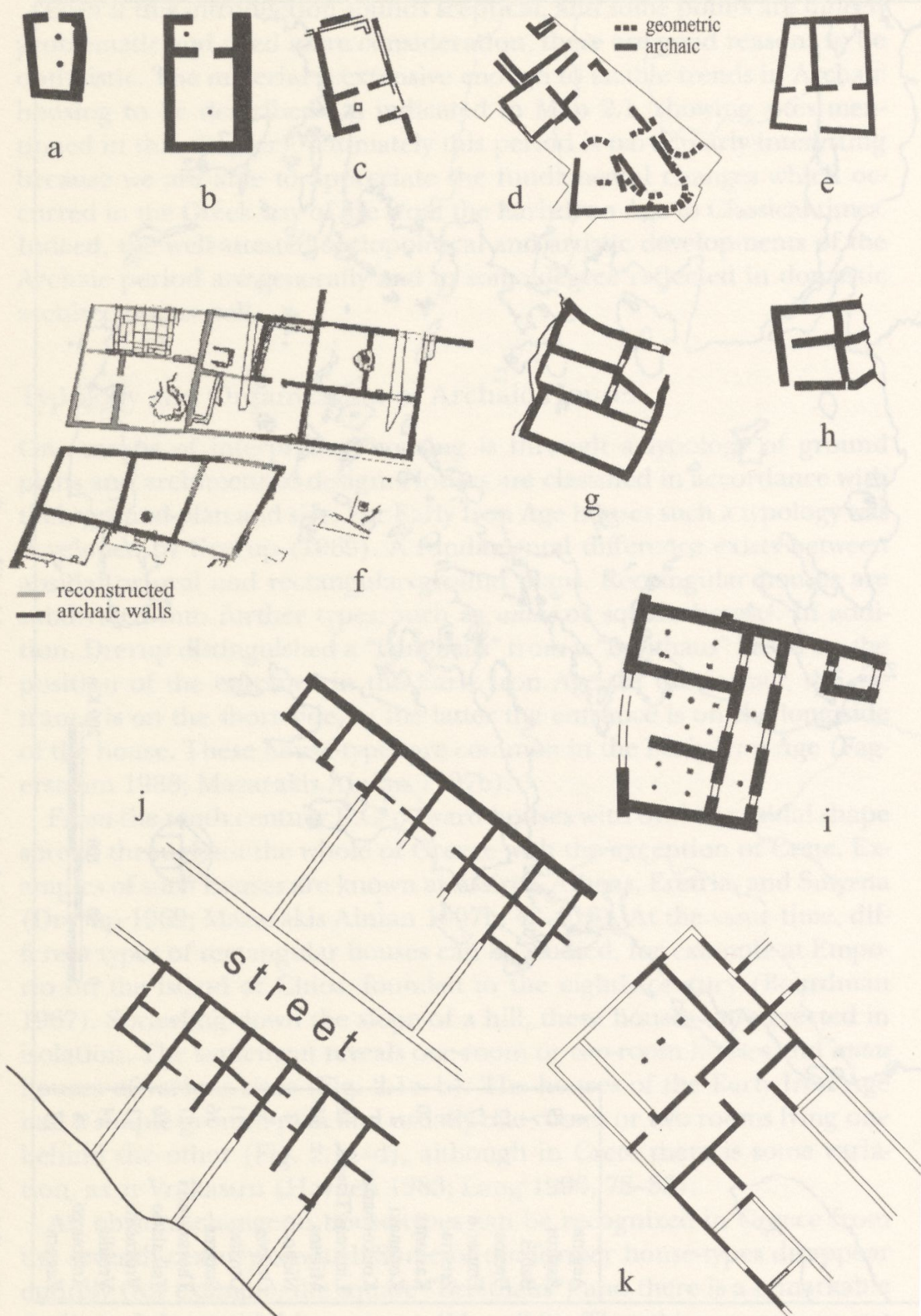
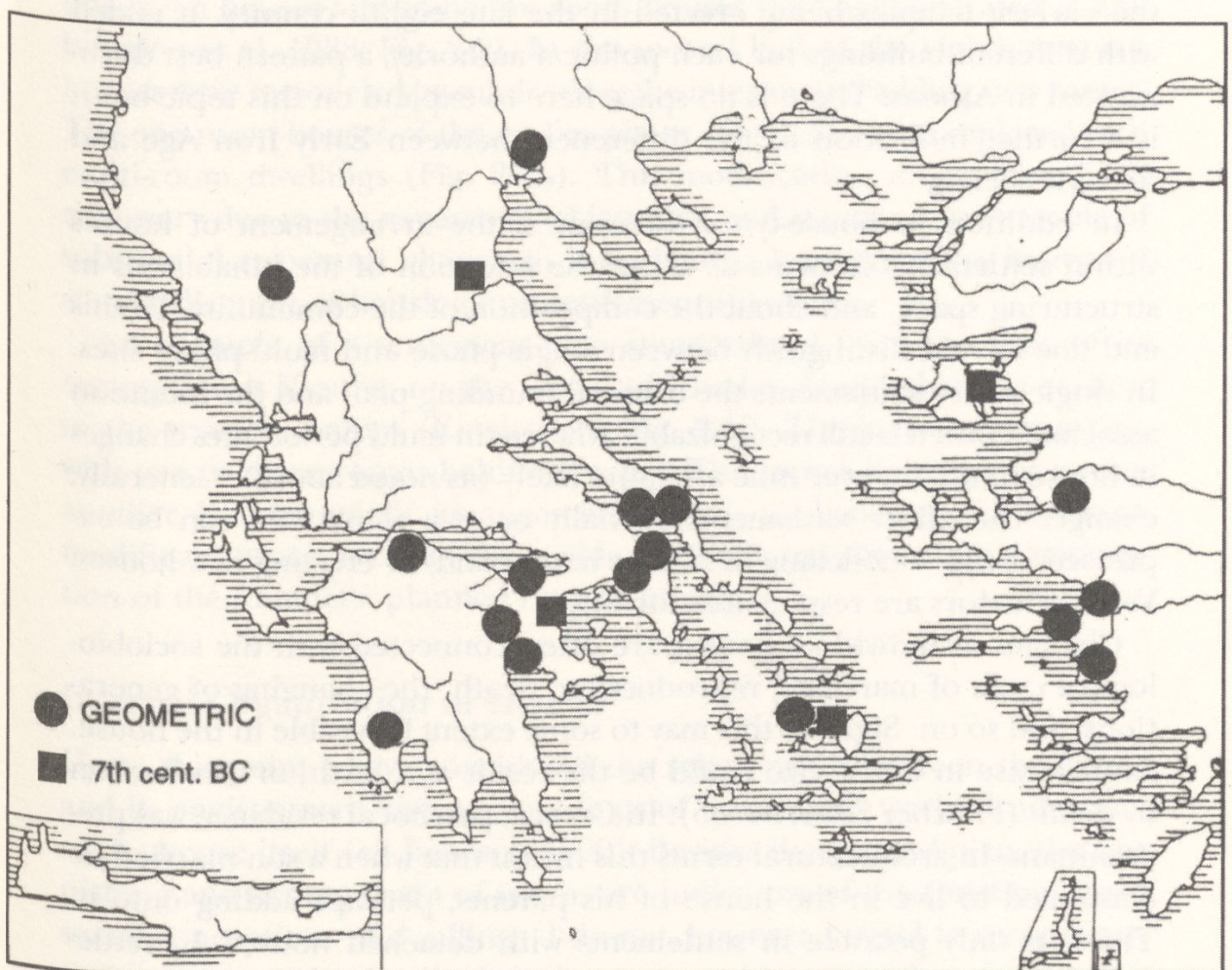


Fig. 2.1. a–b. Emporio, Chios; c. Thorikos, Attica; d. Eretria, Euboea; e. Aigina; f. Limenas, Thasos; g. Dreros, Crete; h. Koukounaries, Paros; i. Onythe, Crete; j. Vroulia, Rhodes; k. Kopanaki, Messenia.



Late Geometric period there was a planned replacement of apsidal and oval houses. In the northern Greek settlement at Assiros, however, the contrary development took place. A pre-existing, large, rectangular house-complex was replaced by two large, apsidal houses in the Late Geometric period. The shape of the *antae* or apsidal houses survived in the Archaic period in other parts of Greece, but was now used for sacred purposes, namely, as temples (Lang 1996, 73).

Apart from this, new house-types appeared and exhibit a general pattern ranging from one- or two-room houses to multiple-room houses (Fig. 2.1). The ground-plans of the latter are compact and have a common access-area connecting the rooms. A further fundamental change in the Archaic period affected the arrangement of rooms. Since the Early Iron Age, the rooms had been situated one behind the other. In Archaic times they were placed next to each other paratactically, thereby creating a radial arrangement (Fig. 2.1e-k). In front of the back rooms at least one additional room was constructed. These new ground plans can be



Map 2.2. Map showing the distribution of apsidal and oval houses in the late-Geometric and Archaic periods.



categorized according to their anterooms. Dwellings in Aegina (Fig. 2.1e), Thasos and Corinth had a three-room scheme: one room in front of two paratactically arranged rooms. A *pastas*-like anteroom is known in Corinth, Onythe (Fig. 2.1i) and Xobourgo. Alternatively, the rear rooms were preceded by a court, as at Vroulia on the island of Rhodes (Fig. 2.1j) or the houses on the Kalabaktepe at Miletus, where these houses appear in a row. Examples of compactly arranged rooms can be seen in the approximately square houses with a couple of rooms from Dreros on Crete (Fig. 2.1g; Drerup 1969) or Koukounaries on Paros (Fig. 2.1h; Schilardi, 1987, 228–231; Kiderlen 1995, 26–27). A similar compact design is found in multi-room houses at Kopanaki in Messenia (Fig. 2.1k) and Tsikalario on the island of Naxos. These new house-types reflect changes in society to be discussed below.

Another significant change occurred in Archaic times with the separation of private and official buildings. A different political and social organization required specific types of buildings, whereupon new types of architecture arose. This started with special buildings for the gods, with the earliest temples being erected in the late eighth century. It ended with different buildings for each political authority, a pattern best documented in Athens. There is no space here to expand on this topic but it is a further indication of the differences between Early Iron Age and Archaic society.

In addition to house-types themselves, the arrangement of houses within settlements informs us about the intention of the inhabitants in structuring space, and about the composition of the community. To this end one should distinguish between single-phase and multi-phase sites. In single-phase settlements the original founding-plan and the intention associated with it is still recognizable, whereas in multi-period sites changes in house-structure over time are quite likely (as noted above). Generally, changes can affect settlements partially or as a whole and can be expressed in the remodelling of former houses and/or erecting new houses. Various factors are responsible for this.

Changes in individual houses are often connected with the sociobiological cycle of marriage, reproduction, death, the changing of generations, and so on. Signs of this may to some extent be visible in the house. An increase in house size could be the result of a birth, or a reduction by death (Pfälzner 2001, 34–35). In Greece, patrilocal residence was predominant. In architectural terms this meant that when a son married he continued to live in the house of his parents, perhaps adding onto it. This was only possible in settlements with detached houses. In settlements with an agglomeration of houses, such extensions could not be made, so either remodelling subdivided the interior of the house or the son built a new residence elsewhere in the settlement. It is important to



note that in the latter case the numbers of houses within a settlement would increase, without there being an actual growth in population.

Changes in the overall settlement could result from a variety of factors: such modifications were accepted by the whole community; the leading group exerted pressure; external powers put pressure on the community; or economic factors forced modification. The particular explanations which are valid in each case must be studied through detailed analysis of the archaeological facts.

The arrangement of houses within a settlement indicates the relationship between the settlers and the extent of formalization of the inhabited space. In general, the settlements in the Early Iron Age are of two types, with houses erected at a distance from one another, as at Koukounaries (Schilardi 1978, 195–210; 1979, 236–248), or with houses forming an agglomeration, as at Ag. Andreas on the island of Siphnos (Philippaki 1978, 192–194). In both instances, the arrangement was haphazard without any regular network of streets.

During the Geometric period at Zagora on the island Andros, large one-room houses and some two-room houses were agglomerated (Cambitoglou et al. 1988; Fig. 2.2). In the second half of the eighth century, houses were remodeled by subdividing the interior and adding new rooms. The one-room houses of the earlier phase (Fig. 2.2a) were replaced with multi-room dwellings (Fig. 2.2b). This modification might have been necessary due to the expansion of families, and stands as an example of substantial structural change in a settlement leading to the increased standardization of housing and settlement structure.

An example of a settlement plan standardized from the time of its conception is Vroulia, on the island of Rhodes, founded at the earliest in the seventh century (Kinch 1914; Fig. 2.1j). The houses form a row, with two or more rooms behind a court. The rooms lie adjacent to one another, in a paratactic arrangement. In this settlement no subsequent modification occurred, so the visible plan mirrors the original conception of the founders: planned rows of houses.

### Internal Organization of Houses

Up to this point I have considered the relationship between the house and its environment, the surroundings of the outside world. I now turn to the house itself (cf. Jameson 1990). Besides the ground-plan, the furnishing and arrangement of rooms are indicators of the functional and social conceptions of dwellings. I do not, however, intend to reconstruct social structure in detail, since in most settlements only a few houses have been excavated, the finds are often not published in detail, and other sources of data are lacking. My intention is rather to show which



parameters can give us an idea about structural changes in Archaic Greek housing, and to describe some trends which need to be explored in further studies. There are many dimensions of the house which relate to the social, economic, technological, sociopsychological, symbolic, functional, and representative spheres.

### THE SOCIAL SPHERE

The “social space” (Parker Pearson and Richards 1997) in a house can be defined with reference to the number of rooms, the subdivision of the house, and the position of doorways that indicate the nature of internal communication. The number of rooms affects internal differentiation in terms of function, arrangement and segregation. In one-room houses multi-functional utilization is dominant, whereas in multi-room houses the possibility of a mono-functional use for each room within the house increases. In the Early Iron Age one- and two-room houses predominate (Mazarakis Ainian 1997b, tables I–VIII). The arrangement of rooms is sequential; because one room is situated behind another, the rear room was only accessible via the front room. In the late eighth century, the first examples of houses with a more complex pattern of spatial organization appeared (for example, at Zagora, Fig. 2.2.b). The houses had more than two rooms but a linear arrangement was still dominant, not to be replaced by a radial room arrangement until the Archaic period. Now, the rooms were placed alongside one another in a paratactic manner. Furthermore, the houses included a courtyard, as seen at Zagora, Miletus, Limenas in Thasos; or a corridor, for example, at Athens and Dreros (Lang 1996, 94–97).

As mentioned above, multi-period sites give us the chance to study changes in the architecture and activity-areas of houses as a result of functional, social, and other shifts over time. These changes—distinguishable through the different phases of the house—were a result of the developmental cycle of the household (Pfälzner 2001, 34). This developmental cycle was, in turn, influenced by both the family cycle (its sociobiological development) and the economic cycle (the development and extent of household activities).

Changes can be recognized at multi-period sites like Zagora (Fig. 2.2. a; Cambitoglou et al. 1988). Here, the older houses were surrounded by open spaces. Within the houses were benches which might have been used for sitting, sleeping or as storage/work space. All the tasks of daily life were carried out in the one room of the house, which was multi-functional in nature. There were no divisions between a living-room (in this sense of *oikos*) and storage-room. If there were a need to subdivide areas, this would have been determined by social convention; for instance, an area



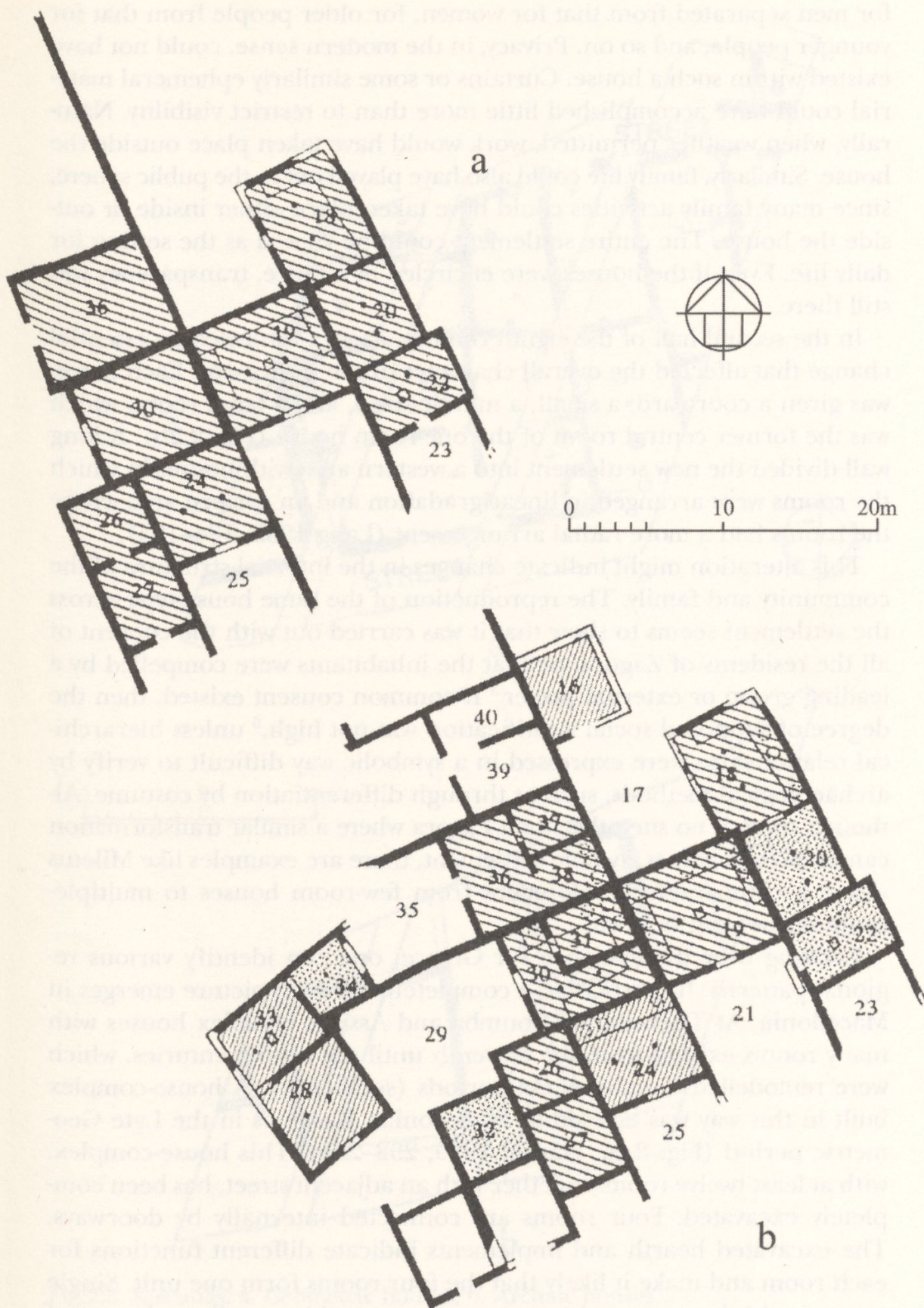


Fig. 2.2. Zagora, Andros. a. Houses of the first half of the eighth century;  
b. houses of the second half of the eighth century.



for men separated from that for women, for older people from that for younger people, and so on. Privacy, in the modern sense, could not have existed within such a house. Curtains or some similarly ephemeral material could have accomplished little more than to restrict visibility. Naturally, when weather permitted, work would have taken place outside the house. Similarly, family life could also have played out in the public sphere, since many family activities could have taken place either inside or outside the house. The entire settlement could be viewed as the setting for daily life. Even if the houses were encircled by a fence, transparency was still there.

In the second half of the eighth century, Zagora witnessed an essential change that affected the overall character of the settlement. Each house was given a courtyard, a small, a middle-sized, and a large room, which was the former central room of the one-room house (Fig. 2.2b). A long wall divided the new settlement into a western area with houses in which the rooms were arranged in linear gradation and an eastern area where the rooms had a more radial arrangement (Lang 1996, 104–105).

This alteration might indicate changes in the internal structure of the community and family. The reproduction of the same house-type across the settlement seems to show that it was carried out with the consent of all the residents of Zagora, or that the inhabitants were compelled by a leading group or external power.<sup>5</sup> If common consent existed, then the degree of supposed social stratification was not high,<sup>6</sup> unless hierarchical relationships were expressed in a symbolic way difficult to verify by archaeological methods, such as through differentiation by costume. Although there is no site other than Zagora where a similar transformation can be proven across a whole settlement, there are examples like Miletus where a comparable development from few-room houses to multiple-room houses can be seen.

Looking over the evidence for Greece, one can identify various regional patterns. In particular, a completely different picture emerges in Macedonia. At Thessaloniki Toumba and Assiros complex houses with many rooms existed from the eleventh until the ninth centuries, which were remodelled in subsequent periods (see below). A house-complex built in this way was erected in Macedonian Kastanas in the Late Geometric period (Fig. 2.3a; Hänsel 1989, 232–254). This house-complex, with at least twelve rooms together with an adjacent street, has been completely excavated. Four rooms are connected internally by doorways. The excavated hearth and implements indicate different functions for each room and make it likely that the four rooms form one unit. Single rooms in this house-complex were not connected internally to the rest of the house; their entrances opened out to the street. In some of these single rooms hearths were found, possibly indicating that these were



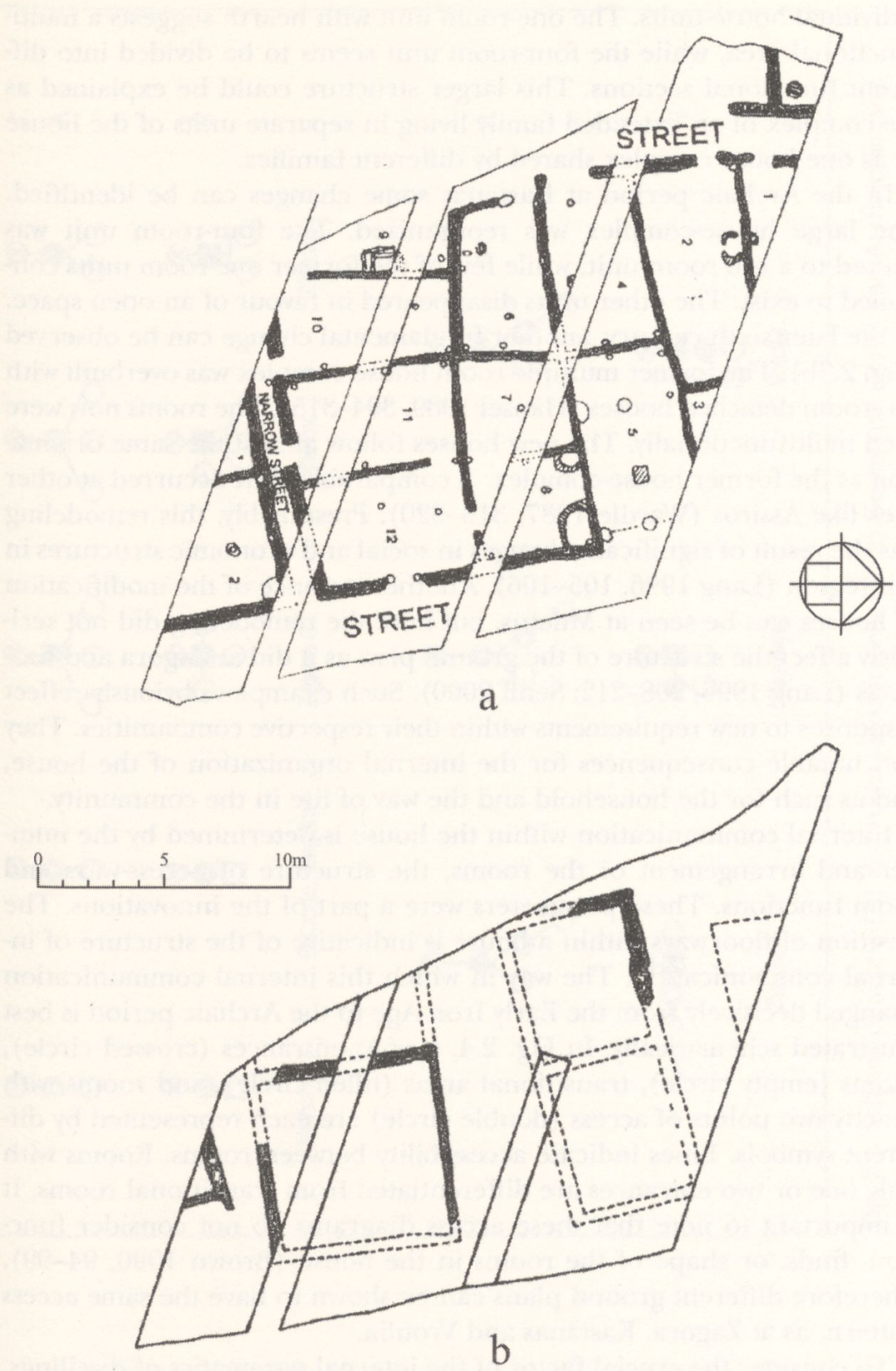


Fig.2.3. Kastanas. a. Geometric houses; b. Archaic houses.



individual house-units. The one-room unit with hearth suggests a multifunctional area, while the four-room unit seems to be divided into different functional sections. This larger structure could be explained as the complex of an extended family living in separate units of the house or as one house complex shared by different families.

In the Archaic period at Kastanas some changes can be identified. The large house-complex was reorganized. The four-room unit was altered to a two-room unit, while few of the former one-room units continued to exist. The other units disappeared in favour of an open space. In the later sixth century, another fundamental change can be observed (Fig. 2.3b). The former multiple-room house-complex was overbuilt with two-room detached houses (Hänsel 1989, 304–315). The rooms now were used multifunctionally. The new houses follow almost the same orientation as the former house-complex. A comparable shift occurred at other sites like Assiros (Wardle 1987, 315–320). Presumably, this remodeling was the result of significant changes in social and economic structures in this region (Lang 1996, 105–106). Another instance of the modification of houses can be seen at Miletus, but here the remodeling did not seriously affect the structure of the ground plan as it did at Zagora and Kastanas (Lang 1996, 208–212; Senff 2000). Such examples obviously reflect responses to new requirements within their respective communities. They had notable consequences for the internal organization of the house, and as such for the household and the way of life in the community.

Internal communication within the house is determined by the number and arrangement of the rooms, the structure of access-ways and room functions. These parameters were a part of the innovations. The position of doorways within a house is indicative of the structure of internal communication. The way in which this internal communication changed decisively from the Early Iron Age to the Archaic period is best illustrated schematically. In Fig. 2.4, row A, entrances (crossed circle), rooms (empty circle), transitional areas (filled circle), and rooms with exactly two points of access (double circle) are each represented by different symbols. Lines indicate accessibility between rooms. Rooms with only one or two entrances are differentiated from transitional rooms. It is important to note that these access diagrams do not consider function, finds, or shape of the rooms in the house (Brown 1990, 94–99). Therefore different ground plans can be shown to have the same access pattern, as at Zagora, Kastanas and Vroulia.

To consider the crucial factor of the internal systematics of dwellings, a second set of diagrams showing the size of rooms and their position in the house is included. Fig. 2.4, row R, employs the same conventions as Fig. 2.4, row A, adding smallest rooms (dotted circle), largest rooms (empty square), and largest rooms serving as transitional areas (filled square).



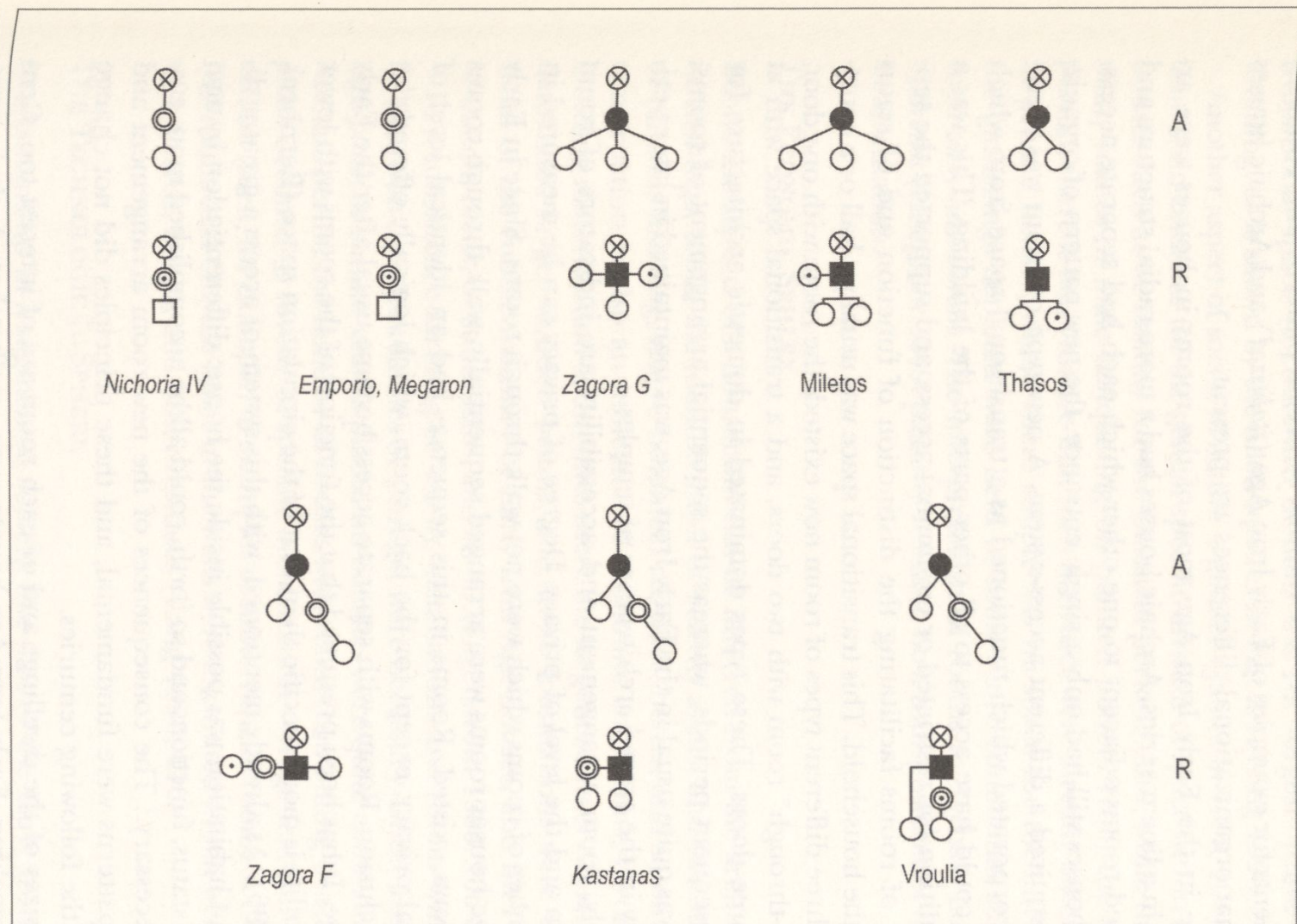


Fig. 2.4. Scheme of access (A) and room arrangement (R) in Geometric (*italic*) and Archaic houses: crossed circle = entrances; empty circle = rooms; filled circle = transitional areas; double circle = rooms with exactly two points of access; dotted circle = smallest rooms; empty square = largest rooms; filled square = largest rooms serving as transitional areas.



These diagrammatical representations of access patterns and room arrangements for examples of Early Iron Age (*italicized*) and Archaic houses show that organizational differences are present.

While in the Early Iron Age most of the rooms in houses were arranged in a linear series, Archaic houses had a more radial structure and possessed rooms adjacent to one other which each had separate access. As the houses still had only a single entrance, the new pattern of organization required a different access-system. A new type of room was therefore incorporated which functioned as a transitional space from which people could have access to all other parts of the building. This was a precondition for restricted or communal access, and supported the separation of rooms facilitating the distinction of function and of status within the household. This transitional space was usually a hall or a courtyard. Three different types of room now existed: the room with one door, a “walk-through” room with two doors, and a transitional space with at least three doors. These types dominated in domestic architecture for the subsequent periods, whereas the sequential arrangement of rooms, which was quite usual in the Early Iron Age, was maintained in later periods only in the sacred architecture of temples.

Finally, room arrangement and accessibility are indicators of room function and the level of privacy. Degree of privacy can be measured in the number of rooms which were not walk-through rooms. Since in Early Iron Age houses rooms were arranged sequentially, walk-through rooms had always existed. Rooms in this sequence had an identical level of potential privacy, except for the back room, which logically offered the most seclusion. Rooms with separate access became usual after the Early Iron Age. It has been presumed that the function of the rooms with lower accessibility is more specific than that of the circulation space (Bernbeck 1997, 196). As already mentioned, with this system of access a greater diversity of habitation was possible inside the house: differentiation by age, gender, status, function, and so forth, could all be accomplished more easily if necessary.<sup>7</sup> The consequences of the new room arrangement and access patterns were fundamental, and these principles did not change during the following centuries.

The sizes of the dwellings and of each room are of interest too. Generally speaking, Early Iron Age houses were smaller than Archaic ones. This is a result of the greater number of rooms in Archaic houses. Many Early Iron Age houses contained one large room of considerable size, sometimes with a small anteroom, as at Emporio or Thorikos (Figs. 2.1 a–c). In houses with more than one room, the sizes of the rooms were generally not equal: usually one room was larger. From the late eighth century onward, there was a tendency towards conformity with one larger room and a few smaller, more-or-less equal-sized rooms. Often the common



transitional space (a courtyard or hall) was the largest “room” in the dwelling, as is shown by the filled squares in Fig. 2.4 (Lang 1996, 87–103).

Another aspect of social structure is gender (Jameson 1990, 104). There is no solid evidence for the gender-specific division of space within Archaic houses such as we assume for the Classical period.<sup>8</sup> And, while there are many scenes of male banqueting on painted pottery from the Archaic period, there is no evidence that such activities were already taking place in private houses, where there simply was no space for them. Perhaps, the gatherings depicted were held in some more communal structure, such as a *hestiatorion*. The interpretation of rooms in Archaic houses as *andrones* (Hoepfner 1999, *passim*) seems to be a transposition of the Classical situation.

### THE ECONOMIC SPHERE

Economic aspects of a household can be inferred from the architecture, furnishings, tools, the identification of activity areas, and various kinds of remains like slag, macro-botanical residues, bones, and so on. House construction is also an indicator of economic conditions, through the building materials and techniques used: the larger rooms of Archaic times demanded larger wooden beams, and stone foundations were used instead of the rubble masonry of Early Iron Age houses, and tiles instead of thatch, reeds, or stone slabs, and so on (Fagerström 1988, 106–123).

In a subsistence-farming economy, installations and rooms with specific functions, such as stables or storage, were necessary. In the Early Iron Age *pithoi* or similar vessels placed on benches were quite common. In the Archaic period the number of houses with rooms containing benches and *pithoi* declined in favour of specific architectural storage features such as cellars (seen, for example, in examples of subterranean rooms at Corinth). In Vroulia and Onythe holes in the walls were excavated which were filled with sherds, bones, and other residues (Lang 1996, 116).

### THE TECHNOLOGICAL SPHERE

Craftsmanship in a segmented society, like that of the Early Iron Age, is connected to what Sahlins referred to as the “domestic mode of production” (Sahlins 1974). In many Early Iron Age settlements indications of metal-working have been found in house-groups (as, for example, at Oropos: Mazarakis Ainian 1997a, fig. 2). Archaic period furnaces and kilns have been excavated in public spaces like the *agora* (Athens) or temples (Olympia) and in houses (e.g., at Corinth) in different areas (Lang 1996, 166–167, 170).<sup>9</sup> By this time the mode of production was no longer limited to the domestic domain. The new requirements of the rising



*poleis* for public building projects demanded a new form of collective production, as is demonstrated by new architectural features. Increasing familiarity with new materials also allowed for the development of useful tools and devices (e.g., clamps and dowels). Many of the new production techniques can only have been mastered by specialists, who were dependent upon close collaboration with others for the realization of a project. This required professionals, and the self-sufficient subsistence economy began to be supplemented by the economy of product exchange, as demonstrated, for example, with the creation of the *agora*. Prestige objects such as bathtubs have been found in some Archaic houses, probably demonstrating the wealth or the status of the inhabitants (Lang 1996, 128–136).

Craftsmanship and technological developments influenced architectural design. New skills determined to what extent building materials could be worked. New types of construction led to technological innovations. In Archaic times techniques of quarrying and dressing stones improved radically. This affected above all the stone walls of the houses: whereas in the Early Iron Age “the stone socle . . . is not to be regarded as a foundation . . . of a wall, but to keep the moisture of the ground off the mud brick wall-foot” (Fagerström 1988, 99), in the Archaic period a new masonry technique appeared having two important effects on house construction. First, new construction techniques utilizing headers and stretchers in ashlar masonry or well-dressed polygonal stones allowed the thicker wall that is the precondition for a second story. Second, mud-brick construction was reinforced by a transverse timber framework laid within the wall itself. This framework and the thicker walls could carry more weight, allowing more substantial beams to be used for the roof, so that supporting posts were no longer necessary. Therefore, in the seventh century the use of uprights started to decline. They had disappeared almost entirely by the sixth century (Fagerström 1988, 122–124; Lang 1996, 108–111), with the exception of northern Greece, where walls were still erected using the technique of wattle and daub.

Another significant invention was the clay roof tile. The earliest examples of tiles in the post-Mycenaean period seem to have appeared on temples at the end of the eighth century (Schwandner 1990). Tile roofs have less weight than stone slabs and can span a greater distance without supports. A newly specialized mode of production allowed for the serial output of tiles and their standardization in size and shape.

#### THE SOCIOPSYCHOLOGICAL SPHERE

The sociopsychological dimensions of houses can be studied via the patterns of communication they enabled: Archaic houses were more compact, complex, and allowed different kinds of communication for the



household, both within the domestic sphere and with the outer world. In the one- or two-room houses of the Early Iron Age one entered directly into the family sphere, whereas in Archaic houses the visitor first enters a “neutral” area, a transitional space (generally a court or corridor). The inhabitants of houses without a courtyard would, upon leaving the house, immediately perform some of their domestic tasks in the outside world where a stranger could see them work: eye contact with neighbors could be made and unexpected encounters were possible. Houses closed to the outside world, such as Archaic courtyard houses, did not allow this kind of accidental contact. Communication could only occur upon intentional entry into the house. The courtyard of such houses could be used for any sort of outdoor work. As a result the residents were more isolated from their neighbours and from the outside world, and the possibilities of contact with that world were more controlled.

One aspect of nonverbal communication is visibility between rooms. This can be understood from the way in which “pathways” through the house are organized: radial Archaic houses have a non-axial alignment of doorways and lack intervening spaces from which rooms branch off (Figs. 2.1e–k and 2.4). In contrast, the sequential arrangement of rooms in houses of the Early Iron Age is determined by a design with a clear visual connection between the rooms and axially aligned entrances (Figs. 2.1a–d and 6). A further aspect of non-verbal communication is the hierarchy of rooms expressed by different furnishings and decoration. A raised threshold may imply a psychological restriction on who could enter the house or the room. In addition, barriers like low walls or columns could also restrict visibility through the house.

### THE SYMBOLIC SPHERE

The symbolic dimension is a further aspect of domestic architecture. Symbols operate as a medium to convey information about, for example, the status of the household and its residents, ideas or beliefs, ideological or ethnic affiliations, a separation of private spheres within the house for individual residents, and so on. The door—like the city gate—is a point of transition from an outside world to an inside world and is highly symbolic (Carsten and Hugh-Jones 1995, 40–42). It mediates between the world of the collective (the male world) and the world of the family (the female world).<sup>10</sup> Thresholds can symbolize the border between different spheres and indicate representative and spiritual rooms (Parker Pearson and Richards 1997, 25). It may be that the mere existence of a threshold, its construction, and the material used, indicates further different symbolic spheres within the house. Sills are less common in the Early Iron Age houses than in the later Archaic ones.



As the number of rooms in a house increases, so too does the probability that individual rooms served restricted functions. This evolution can be seen from the Early Iron Age to the Archaic period. The Early Iron Age one- or two-room houses had multi-functional rooms, whereas the Archaic multi-room houses offered more possibilities for mono-functional rooms. Functional divisions are most clearly indicated by changes in the architecture, material culture, and related features.

#### THE REPRESENTATIVE SPHERE

In some houses conspicuous rooms have been excavated: in Corinth, where a couple of houses have rooms below ground level, and in Emporio, Vroulia, and Tsikalario, rooms without doorways were found. It seems likely that these rooms were used for storage (Lang 1996, 139). A further architectural hint as to the function of a room is the nature of its floor surface: for example, waterproof flooring is presumably used for bathrooms or stables as at Smyrna or Corinth (Lang 1996, 168, 239).

Installations like hearths or storage pits or circular stone floors give clear evidence of room function (Lang 1996, 114–117, 138–140). Whereas the construction and usage of hearths remained constant, the number of rooms containing storage pits declined in the Archaic period. Distinctive finds such as bathtubs (as at Vroulia and Smyrna) and fragments of *pithoi* (for example, at Onythe and Zagora), cooking ware or loom-weights are also indicative of specific functions. Instances where several of these objects have been found together are identifiable as multi-functional spaces. This is often seen in courts or *oikoi* (main living rooms). These were the preferred locations for domestic activities such as cooking, eating, and talking, and normally they were not restricted in access, visibility, or by domestic rules. Often these rooms had multiple points of access. Single-access rooms ensure a subdivision of the house by function (be it working, eating, sleeping), and social structure (where status, age, or gender restrictions may have been enforced).

The function of rooms and houses can also be understood in terms of their spatial context. At Dreros and Koukounaries multiple-room dwellings with similar ground plans (Fig. 2.1.g, h) are situated beside temples. In both dwellings distinctive finds were made: at Koukounaries a cache of seals (for which this dwelling was named “house of the seals”), at Dreros steatite vases. It may be that both buildings had some specific purpose connected with a cult or served as official buildings within the settlements (Lang 1996, 183, 188).

Certain nonessential fittings and furnishings were used for the decoration of the house, and the self-portrayal and representation of household members. These could be expressed either in sophisticated architectural decoration or by specific objects such as statues and terracottas. Innovations



in the architecture of Archaic temples were adopted in the architecture of public and private buildings (Schwandner 1990). For example, in Thasian Limenas or Elian Babes the adoption of architectural features like antefixes or tiles, first used in sacred architecture, emphasized the representative character of the house (Lang 1996, 112). Ornamented fragments of furniture-legs demonstrate the changing customs associated with common meals during the Archaic period. These objects belong to a new item of furniture, the couch. Adopted from the Near East, the practice of lying on *klinai* instead of sitting became common during the Archaic period and is also well-documented in Archaic vase painting (Fehr 1971; Murray 1990).

## Conclusions

From the end of the Early Iron Age onward a greater differentiation of settlements and houses, with new settlement- and house-types, can be identified. In the Archaic period the range of ground plans common to the Early Iron Age developed in such a way that simple features became more complex. The multiple-room house emerged, which followed the same ground plan within a single settlement and showed a greater desire for standardization. The number of rooms within houses increased, creating the preconditions required for a re-arrangement of the household. The multi-functional, one-room house was replaced by a house with several mono-functional rooms. The increased number of rooms in this new arrangement may be indicative of a change in family organization.

These transformations were regionally different. In northern Greece settlement-plans and house-types developed in the opposite direction from those in southern Greece: the settlement structure was altered from a complex to a simpler layout. In southern Greece settlement density increased; while in the northern region the settlements with agglomerated houses were replaced by detached houses. In houses in the north, the functional complexity generated by many rooms was given up in favour of a few, multi-functional, rooms. The changes in northern Greece may indicate a change in socioeconomic structure accompanying a return to large, few-room houses.

In this contribution I have tried to offer some thoughts on the archaeology of Archaic houses through a detailed analysis of their ground-plans. However, physical parameters are only one side of the coin. The other side is the fact that changes within the household need not necessarily have had any effect on the architecture. Hence it is important to consider the archaeological formation processes of household deposits in such an analysis. In order to do this, more reliable information must be gained: the inventory of the houses must be considered as an important source of information for the social structure within a house. Methodical activity-zone



analysis would help to provide some hints of alterations to communal life within the house. Such analysis is also necessary in order to aid in identifying the social status of its inhabitants. Similarly, recurrent use of the same house-type does not necessarily signify social equality. As already mentioned, hierarchies could have been expressed in very different ways. Even if such evidence is not yet available, the progressive transformation of a ground plan over time is nevertheless a very interesting indication of a structural shift within the family and in its social affairs (Lang 2002, 274–299).

Changes in internal family structure can be recognized through the modification of a multi-functional one- or two-room house to create a multiple-room house, the introduction of an integral transitional area that allowed functions to be distributed over different areas of the house, and by providing separate access to individual rooms. This was the beginning of a new and more individualistic approach to life, since the residents within the house had more rooms, each of which could be reached separately. At the same time, the family's relationship to the outer world was altered by enclosing the house with high walls so that accidental contact with passers-by was no longer possible.

The house and its inhabitants, as the smallest social unit of a society, formed a microcosm that was simultaneously networked with its neighbors and the whole settlement as a macrocosm (Lang, in press). There is a strong interdependence between the two, so that the analysis of houses offers us only one side of a complex phenomenon with various dynamics. In the Archaic period, the buildings acquired different characters expressed in ground-plans which were specific to their functions. Buildings that were not for private purposes, but for political-administrative and sacred functions were constructed (for example, *tholoi* and temples respectively). The differentiation of private and public architecture had begun. Ground plans soon became standardized making it possible for anyone—even a modern archaeologist—to identify the intended function of a structure simply by looking at it. Thus a building became a symbol, and this was the beginning of the codification of Greek architecture. The changes in domestic architecture are a further clue with respect to the new, fundamentally different structures of family and society in Archaic Greece that are also reflected in well-known examples of sculpture and vase-paintings. But that is the topic of another paper.

#### Notes

1. I would like to express my thanks to K. Haswell, B. Ault, and L. Nevett for their proofreading.

2. Cf. Kiderlen (1995) and Mazarakis Ainian (1997b), where classifications are often based on a single ground plan.



3. Notable exceptions are the more general older studies such as Rider (1916) or Oelmann (1927). The first detailed analysis of the architectural features of ancient houses came with the excavation of Olynthus, begun in 1929 by D. M. Robinson.

4. A first attempt to study this material was made by Weickert (1929). His focus on sacred buildings was due to the lack of excavated Archaic houses. See also the more general comments in Jeffery 1976, Snodgrass 1980, and Morris 1998.

5. It should be noted that in spite of this observation, historical data about Zagora are completely lacking.

6. Rooms 19 and 22/23 (Figs. 2.2a,b) are often seen as comprising a ruler's dwelling (e.g., Mazarakis Ainian 1997b, 171–175). This interpretation is based on the size of the rooms, the benches with *pithoi*, the hearth, and the orientation towards the temple, although the latter was built in the sixth century, long after abandonment of Zagora at the end of the eighth century. Such a reading does not entirely convince me: there are other rooms of the same size with benches and fragments of *pithoi* and other rooms facing to the south. A more detailed consideration of the matter is necessary, for which there is unfortunately no space here.

7. To treat access relationships as social relationships constitutes a simplification of a complex social system (which also integrates factors such as policy and economy, ideology and religion, and climate and resources; Samson 1990a, 10–11; Brown 1990, 103). However, patterns of access need to be explained: the fact is that a fundamental change of spatial and access arrangements occurred from the Early Iron Age to the Archaic period.

8. Although recent studies have shown that gender division within Classical houses was not quite as restrictive as was once believed (Nevett 1995; Goldberg 1999).

9. For Athens, see Kavvadias and Kawerau 1906, 120; Brann 1962, 110–111; and Baziotopoulou-Valavani 1994, 45–54. For Corinth, see Williams and Fisher 1971, 7; 1979, 125–128.

10. However, in recent years new studies have questioned the legitimacy of these time-honored beliefs (Leach 1999, 194–196).

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