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Reading House Plans: The Spatial and Architectural Context of a Group of Houses in Ancient Anatolia

Introduction

House plans document the physical living environment of a household inhabited for a particular time in a graphic way and are useful sources for making a spatial reading and reconstruction of a domestic unit. The graphical coding of the architectural layout of a house demonstrates various spatial relationships, shows access and circulation and is informative on the spatial choices and preferences employed to organise the domestic context and its use[1]. Plans, in this respect, can be used to study the ancient domestic culture from a spatial point of view in thematic, conceptual or case-based research agendas. Exemplary in this context are the studies based on the house plans that came from the exceptionally well preserved sites like Olynthos, Priene, Delos, Herculaneum and Pompeii. The excavated and published dwellings of these sites constitute a rich reference sample for the study of domestic architecture found in the other areas of the ancient world. Among the other sites well known for houses are Ephesos and Pergamon. Detailed study and publication are available for the houses excavated at both sites. In many other cases, on the other hand, domestic architecture is represented by few examples, some of which were only briefly excavated and published. These examples have received relatively little attention and study within the field.

In reference to this the paper focuses on a group of houses comprising some previously excavated, relatively little studied and published houses and some recently exposed and reported ones, and brings their plans together to make a spatial reading of the physical context. The sample includes houses from Klazomenai[2], Erythrai[3], Burgaz[4], Kolophon[5] and Knidos[6] (fig. 1). The houses addressed are from the Aegean coast of ancient Anatolia and date to the late Classical or the Hellenistic periods. Though their state of excavation, preservation and documentation vary, they present plans that can be used for making architectural and spatial observations. In this respect, neither the sites nor the houses need to be described individually in terms of historical background, plan or finds; the houses are presented in a thematic framework based on their plans reading in reference to a set of themes and questions. These themes and questions are:

– Site situation: the urban and topographical situation – how was it situated?
– Building access: the extension into the surrounding context – how was it accessed?
– Architectural scheme: the general planning principle – how was it structured?
– Spatial variety: collection of spaces – what types of spaces were brought together?
– Spatial articulation: distinguished spaces – how were spaces individualised?

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[1] House plans are two-dimensional visual documents and can not show social relations, encounters and spatial behaviour; they are most useful for studies concerning typology; cf. P. Allison, Using the Material and Written Sources. Turn of the Millennium Approaches to Roman Domestic Space, AJA 105, 2001, 181–208 esp. 188 f.

[2] F. Özbay, Feride Gül Sektörü Kazıları ve İ.Ö. 4. Yüzyıl Kenti Çalışmaları, in: G. Bakir et.al., 2001 Yılı Klazomenai Kazısı, KST 24/1, 2002 (2003), 205–218 esp. 210–212; Özbay 2004.

[3] E. Akurgal, Anadolu Uygarlıkları (Istanbul 1987) 395; Ç. Özgünel – K. Görkay, 2004 Yılı Erythrai Antik Yerleşimi Arkeolojik Araştırmaları, AST 23, 2005 (2006), 239–248 esp. 243. 247.

[4] N. Tuna, Burgaz Kazıları 2005 Yılı Çalışmaları, KST 28/1, 2006 (2007) 295–322; Gökdemir 2006. More publications will be available for Burgaz where excavation and study continue.

[5] Holland 1944.

[6] Love 1970, 152; Love 1972, 65–68; Love 1973, 103 f.

Reading the House Plans

Site Situation (fig. 2)

Town houses are built into a physical context of topography and urban layout which determine the planning and architecture of a dwelling. The topographical situation is often the key factor in the articulation of the urban layout system, the residential area, the site planning and the situation of an individual dwelling. In regular systems like a grid the residential parcels are often, but not necessarily, divided into equal or similarly sized dwelling lots. This may result in houses looking alike in terms of size, approach, orientation and in some cases also in terms of internal division, like in Olynthos and Priene[7].

Klazomenai is a good example for this type of arrangement. Here the plan of the excavated residential area shows that the domestic units were planned in a grid system and six houses shared a building lot[8]. The houses are almost identical in their size and internal arrangement. They share party walls and are entered from the streets flanking their longer sides. This type of true grid planning, best exemplified in Olynthos, results in uniformity in terms of the area reserved for each house and its orientation. Variation however, can be seen in the internal arrangement, placement and size of the spaces, also exemplified in Olynthos and Priene. In this respect, the residential pattern in Klazomenai demonstrates complete uniformity; the houses here are alike in size, orientation and architectural layout (with only minor differences in room size), indicating identical spatial relationships and patterns of circulation and use[9].

A different approach is exemplified in Burgaz. The excavated residential area in the north-eastern sector of the city shows an orthogonal planning dated to the 4th c. which demonstrates a diversity in the size of both the building lots and the dwellings. So far, four houses have been completely cleared in this sector[10]. They differ in size and internal division, but three of them are oriented to and entered from the southwest. Of the four, two are considerably larger, occupying almost twice the amount of land reserved for the remaining two dwellings. All four houses were built as individual units with no party walls as indicated by the narrow alleys in between. The uneven distribution of the building area reserved for each house in Burgaz, as opposed to those in Klazomenai, suggests that the houses were planned to respond to different patterns and complexities of spatial relationships and usage.

Kolophon demonstrates an alternative planning of grouping houses in a single lot. Here the excavated residential sector is composed of three houses sharing party walls. The general layout is neither a grid as in Klazomenai nor orthogonal as in Burgaz. The houses differ in size and internal arrangement but are oriented to the south like in Klazomenai. Two of them are planned more compactly and can be entered from the flanking streets; the house in the middle, on the other hand, was planned with an L-shaped courtyard in order to receive an entrance from the street adjacent to the neighbouring house to the east. The picture emerging from the site situation of the residential area at Kolophon is that the builders preferred to plan their houses in reference to the existing streets and topography and did not insert a more regular scheme. Problems that might have been imposed by the limitations of the site, such as having street access, were solved by adjusting the plans accordingly.

The domestic quarter at Knidos was built on a slope and the houses here are not grouped as clusters but as units arranged on terraced platforms. The two houses excavated at this site are compact and modest with only a few rooms opening onto a narrow hall/courtyard. They are accessed from the streets running parallel to the terraces along their longer facades, which are connected to the stepped streets flanking the houses on

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[7] Olynthos: Cahill 2002; Priene: M. Schede, Die Ruinen von Priene (Berlin 1964) 96–107; Ferla 2005, 180–195.

[8] Parts of five *insulae* and fifteen houses were found in Klazomenai. Each *insula*, measuring 27.60 × 75.40 m, is assumed to have contained six houses: Özbay 2004, 150.

[9] This is not to suggest that the spaces looking alike in all six houses were used for similar activities, but to say that this uniformity indicates a higher possibility of common usage patterns than in the other cases where spatial relationships are very differently constructed. This may lead to formulate different research questions. Artefact studies have already demonstrated that similarly designed and located spaces contained fairly different finds suggesting different room functions; cf. Cahill 2002, 148; P. Allison, Pompeian Households. An Analysis of the Material Culture (Los Angeles 2004).

[10] The parcel allotment of the 5th c. phase shows that there were originally five houses, two of which were later combined to form the large house 1; cf. Gökdemir 2006, 48.

their shorter sides. The plans show that there is some uniformity between the two terraced units in terms of orientation and size. Building small and compact houses on a slope is advantageous in terms of construction ease, economics and safety, and the limits of terracing and the amount of area reserved for building on each terrace often results in houses having a similar plan development, which seems to have been the case also at Knidos. Ephesos, however, is a good contrary example, where a group of opulent and large houses were built on a slope[11].

The least informative house plan in the sample in terms of site situation is the large house at Ertyhrai. The plan does not show any reference to the immediate surroundings, but the fact that there is a window opening in a room located on its north side suggests that at least on this side the house did not share a party wall. The building is oriented to the west, from where it was entered.

Building Access (fig. 3)

The entrance level plans show the spatial order and planning of a dwelling at this level and also how this level extends into the urban context. The architectural manipulation of this extension depends on the topographical situation of the site as well. On a flat land the extension is often straightforward and continuous, provided and controlled by the street door and possibly also by a passage or a vestibule. On a non-flat topography the entryway and the house can either be located on a single terrace and thus the house can extend directly into the street with all the spaces reached from this level, or else the entryway might lead into a house planned with internal elevations which means that the house was built on different terraces (fig. 4). In the latter case the entrance can be found at a different elevation than the ground floor level. A possible candidate for this type of arrangement could have been the terrace houses in Knidos, which were entered from the stepped streets. The plans indicate however that the two excavated houses were built on single terraces with no internal level differences.

Acting as intermediary spaces between the public exterior and the private interior entryways, narrow passages or more spacious vestibules define how the houses extend into the street and define how the households coped with intrusion and privacy[12]. In Burgaz houses 1 and 4 and in Kolophon houses 2 and 3, the street doors opened onto passageways that distanced the courtyard from the street and helped in controlling the outsider traffic in terms of the privacy of the household. In Burgaz houses 2 and 3, in Kolophon house 1, in Erythrai and in all the houses at Klazomenai on the other hand, the entryways gave direct access to the courtyard (fig. 5). The lack of entrance corridors in these houses meant that the courtyards were fully exposed to the street when the doors were opened. Nevertheless, no room was located opposite the street door in all these houses (except in Burgaz house 2 where there is a room opposite the entrance; this room however did not open onto the courtyard) indicating that the visual extension from the street entrance into the house did not coincide with a door or an opening.

Architectural Scheme (fig. 6)

Dwellings are designed according to certain architectural schemes, the most common being the courtyard plan. A courtyard is a useful domestic space in both environmental and architectural terms. It provides light, air and ventilation and at the same time generates the plan and determines the pattern of movement within the house. As an airy space receiving daylight, it is also a suitable area to be used for work and production. A courtyard is actually a multi-functional space serving as a circulation, light and activity zone. According to its location in the dwelling, a courtyard can impose and regulate different spatial conditions and relations. In the case of a centrally located single courtyard for example, all the rooms are entered from this area, a scheme which elevates the courtyard to an activity, traffic and surveillance zone. If the courtyard is placed in front, at the back or on one side, then the planning of the house changes accordingly, so that some areas

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[11]   C. Lang-Auinger, Hanghaus 1 in Ephesos. Der Baubefund, FiE 8, 3 (Vienna 1996); F. Krinzinger (ed.), Das Hanghaus 2 von Ephesos. Studien zu Baugeschichte und Chronologie (Vienna 2002); C. Lang-Auinger (ed.), Hanghaus 1 in Ephesos. Funde und Ausstattung, FiE 8, 4 (Vienna 2003); H. Thür, Hanghaus 2 in Ephesos. Die Wohneinheit 4. Baubefund – Ausstattung – Funde, FiE 8, 6 (Vienna 2005).

[12]   Nevett 1999, 69 f., in reference to houses at Olynthos.

or spaces can be distanced and separated and that indirect and sequential access and alternative circulation patterns can be created.

The architectural scheme in all the six houses at Klazomenai, in Kolophon houses 1 and 3 and in Burgaz houses 1 and 4 for example, generates from a centrally placed courtyard, which provided access to the rooms located around it. In these houses the courtyard absorbed all the traffic and was an area of circulation. The total area given for the courtyards in the houses in Klazomenai is almost equal to that of the closed areas, indicating that the courtyard was seen as a prominent domestic space, an activity zone. In the modest houses 2 and 3 in Burgaz on the other hand, the courtyard was placed on one side of the dwelling and was designed as a linear space. In these houses the courtyards occupied a considerably large amount of area as well and it is more likely that they were used for various domestic tasks and compensated for the lack of rooms compared to the larger houses with more.

Functional zoning, movement, and privacy can be regulated more comfortably by increasing the number of courtyards and thereby planning the house in reference to two spatial focuses for which Erythrai is a good example. In this house there are two adjacent courtyards divided by a wall, and the rooms in both sections are located only on two sides of the courtyard, thus providing ample open space in between. In this double courtyard scheme the rear part of the house was separated from the front by the dividing wall, thus turning this back area into a totally private zone. The doors providing access to the courtyards are not axially aligned, providing a further control against visual penetration.

The architectural scheme could be developed to create circulation routes for connecting/ separating different areas, especially in larger houses like house 1 at Burgaz. In this house, a lengthy route linked the rooms located at the south end of the courtyard with the entrance and two narrow hallways along the route directed and regulated the approach. The two rooms located at the corners of the south end of the house are the furthest in the order of approach from the entrance and thus the most private in terms of accessibility and visual exposure.

Spatial Variety (fig. 7)

Houses include different types of spaces. Some spaces for example are preceded by rooms in front, or linked to the neighbouring spaces to form a group. Some are larger than the remaining spaces and others are placed further away from the street doors. Plans show us these relative spatial situations: whether spaces are open, closed, semi-closed, interrelated, distanced, small or large in relation to each other. In the houses at Kolophon, Klazomenai, Burgaz and Knidos, a number of rooms are grouped and linked in order to create suites. Some of the rooms in these suites are not entered directly from the courtyards but from the preceding semi-closed or closed rooms acting as vestibules. The scheme of connecting a larger space to smaller neighbouring rooms on one side and to a semi-open space at front is a familiar model seen in ancient Greek domestic architecture and was also used in the houses at both Klazomenai and Kolophon[13]. In these houses the semi-open space which acted as a vestibule for the room behind also functioned as an intermediary area, distancing the back room from the entrance and the courtyard, thus imposing a ceremonial approach. The use of intermediary rooms or areas between two spaces creates sequence and hierarchy and indicates the prominence of the distanced ›back space‹ in term of its use, privacy and symbolic value (fig. 8). In the houses at Klazomenai this scheme is more elaborate, with columns that adorned and emphasised the spatial and functional importance of the semi-open vestibules.

A combination of grouped rooms (suites) and spatial connectors (intermediary spaces) are seen in more developed architectural schemes such as in house 1 at Burgaz or in the houses at Kolophon and Klazomenai where there are both interconnected rooms and intermediary spaces that make these houses more complex in terms of architectural configuration, spatial relationships and patterns of use.

Exemplary in Erythrai and Knidos in terms of spatial variety is the room size. In both houses two neighbouring rooms which occupy one end of the house, are immediately distinguished by their size in comparison to the other rooms. They are much larger and spacious than the remaining spaces and opened onto the preceding areas in front. In houses 2 and 3 at Burgaz, likewise, the large and rectangular rooms adjacent to the

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[13] Called *prostas*, this plan type is best exemplified at Priene; cf. Ferla 2005. For a brief overview of ancient Greek house plans, Nevett 1999, 22–26.

courtyards dominate the plans. Such large rooms could be arranged to accommodate different usage zones. They are more appropriately sized to be utilised as multi-functional spaces and are suitable for gathering purposes.

Spatial Articulation (fig. 9)

In terms of graphic illustration, plans are capable of showing floor and wall articulations, such as pavements, raised levels, floor depressions, *in situ* floor arrangements, columns, windows and niches that make a space different from another one. These spatial attributes can be informative about the room use and types of activity. In Klazomenai columns were used to adorn and distinguish the semi-open spaces looking into the courtyards. This arrangement is informative of the significance of this columned porch in both functional and representational terms.

The two large rooms in the house at Knidos and the courtyard in house 3 at Burgaz had a series of wall niches, usable for storage and display. A raised stone platform in the courtyard of house 4 at Burgaz is a special arrangement, presumably reserved for an activity that took place in this part of the courtyard. The central areas of both courtyards in the house at Erythrai were paved by stone and thus received a much stronger and durable base suitable for display or work.

The large room opening onto the smaller courtyard at Erythrai had a stone installation, possibly a hearth, placed right in the centre of the room. The positioning of the hearth corresponds to the idea of the space being used as an οἴκος, as a family gathering room. In at least two houses at Kolophon the remains of stone installations in the columned porches opening onto the courtyards seem to have functioned as hearths and thus distinguish these areas as spaces allocated for activities that required heat.

Ancient Greek houses were built with few openings, and spaces often received indirect light only from the courtyard. Activities that required light therefore could be performed more comfortably in the courtyard or its vicinity in comparison to the rooms that did not open onto the courtyard and in which natural lighting and ventilation were problematic. Presence of a window increases the comfort of a room and hence may contribute to extend its use in a functional and temporal sense. Rooms with windows therefore can be regarded as distinguished spaces. The opening on the north wall of the large room with the hearth in Erythrai is an example for this. This is a space distinguished not only by its size and hearth but also by its window, which indicates that this space received extra natural light and perhaps also had a view.

Conclusion

This paper is a preliminary study of the architectural context of a group of houses found in ancient Anatolia and looks at their plans. Taken as graphically organised documents, the plans are used to illustrate the architecturally traceable spatial preferences and applications employed by the households to organise the room distribution, domestic activity and movement in their houses. This is regarded as a useful start for tracking basic spatial relationships and architectural features which may help in understanding the patterns and trends indicative of usage. A study of this nature evidently offers information of a certain type and has limitations. It is for instance not capable of illustrating various socially or economically operative and influential factors that shaped or modified the domestic setting or the refined wall decoration found in the house at Knidos.[14] Reading house plans is actually a way of drawing a picture of the architectural context into which further literary and archaeological knowledge, data and discussion can be fruitfully inserted. Graphically enriched plans, such as those showing the distribution of artefacts found *in situ* are capable of presenting a more comprehensive contextual information concerning the dynamics of household activities.

Conclusions concerning the brief study presented in this paper can be listed as such:

– Plans show that the residential layout in neighbouring cities such as Klazomenai and Kolophon or in distant but contemporary cities like Burgaz may display on the one hand a different approach in terms of parcel allotment and site planning of the residential areas and on the other hand some recurring spatial situations despite this difference.

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[14] LOVE 1970, 152; LOVE 1972, 65; LOVE 1973, 104 f.

– Plans illustrate the topographical adaptations and related accessibility options, both physically and visually, which are taken into consideration in planning the houses. Such factors are actually helpful in privacy studies. A direct access or a more indirect one from intermediary spaces such as entrance passages into a private context or having elevations inside a building helps to distance, group or isolate spaces horizontally or vertically and therefore have implications on regulating movement and controlling privacy. Shifting doorway alignments as exemplified in Erythrai or by not placing rooms opposite the street entrances as in Klazomenai and Burgaz are, on the other hand, examples of how gaze and visual privacy can be controlled or eliminated by means of architectural measures.

– Plans demonstrate the prominence of certain spaces such as courtyards in terms of providing environmental comfort and a spacious and lit area usable for various activities, distributing human traffic and generating spatial segregation or solidarity. Presence of spaces to which all the members of the household have equal access (and to which they have equal rights as well), such as a central court or hall or inversely, the presence of spaces to which access was interrupted, both physically and visually such as the case in Erythrai are readable from plans. In the sample offered here for example, the spatial solidarity seems to have been the case in only two houses at Burgaz (houses 3 and 4); despite the central courtyard scheme not all the rooms were reached from the courtyards in the remaining houses in the sample. Thus, the central courtyard scheme that actually provides access to all the rooms around it was modified in many examples in order to have at least one space moved away from the direct reach of the courtyard.

– Plans show that in-between areas, the intermediary spaces such as the semi-open spaces or narrow hallways are not infrequently used. The presence of such spatial connectors seems to have been desired irrespective of the size and the internal arrangement of the dwellings. This is perhaps due to the fact that such spaces could have had a multi-functional use; apart from accommodating certain activities, they could also distance the rooms in the back, for which they, at the same time, functioned as vestibules.

– Plans show where necessary surfaces were treated in architectural terms. Wall articulations in the form of niches or protrusions that might have functioned as display and storage areas were probably most useful in small houses with only a few rooms. Floor articulations in the form of special pavements as seen in both courtyards in the house at Erythrai or as raised platforms found in the courtyard of house 2 at Burgaz likewise indicate a preference for allocating a certain spot to perform or sustain certain activities. For production activities paved areas are for example easier to sweep, wash and maintain as clean areas. They also provide a durable, flat and stable surface suitable to use as a base for displaying various decorative items.

In short, house plans show the architectural environment of a household and reflect the spatial situations and relationships tailored by that household. Their merit lies in the fact that the spatial situations and architectural articulations which they illustrate can trigger asking new and different questions and call for using different types of data, analysis and interpretation. Plans drawn with as much contextual information as possible have a notable potential in presenting a comprehensive spatial framework which can be exploited in various directions in both archaeological and interdisciplinary frameworks and also by non-archaeologists. If we agree that all activities and encounters take place in space it becomes relevant to have, foremost, a spatial understanding of the architectural context that accommodates and generates various social, economical and behavioural dynamics and interactions. Reading house plans serves to make an introduction into this matrix of relationships.

List of Bibliographical Abbreviations

The citation follows guidelines of the German Archaeological Institute <www.dainst.org> (16.01.2009) and those of the Austrian Archaeological Institute <www.oeai.at/publik/autoren.html> (16.01.2009).

Cahill 2002   N. Cahill, Household and City Organization at Olynthos (New Haven 2002).
Ferla 2005   K. Ferla, Priene ²(Cambridge 2005).
Holland 1944   L. B. Holland, Kolophon, Hesperia 13, 1944, 24–73.
Love 1970   I. C. Love, A Preliminary Report of the Excavations at Knidos, 1969, AJA 74, 1970, 149–155.
Love 1972   I. C. Love, A Preliminary Report of the Excavations at Knidos, 1970, AJA 76, 1972, 61–76.
Love 1973   I. C. Love, Excavations at Knidos 1971, TAD 20/2, 1973, 97–142.
Nevett 1999   L. Nevett, House and Society in the Ancient Greek World (Cambridge 1999).
Özbay 2004   F. Özbay, The History and Archaeology of Klazomenai in the Fourth Century BC and the Settlement at Chyton, in: A. Moustaka et. al. (eds.), Klazomenai, Teos and Abdera. Metropoleis and Colony. Proceedings of the International Symposium Held at the Archaeological Museum of Abdera, 20–21 October 2001 (Thessaloniki 2004) 133–159.

Sources of Illustrations

Burgaz: after Ö. Gökdemir, The Classical Period Houses in Burgaz. An Archaeological and Architectural Overview (M.A. Thesis, Middle East Technical University Ankara 2006) 89–92 figs. 5–8; 95 fig. 11.
Erythrai: after E. Akurgal, Anadolu Uygarlıkları (Istanbul 1987) 395 fig. 317a.
Klazomenai: after Özbay 2004, 150 fig. 22.
Knidos: after Love 1973, 122 fig. 41.
Kolophon: after Holland 1944, pl. 11.

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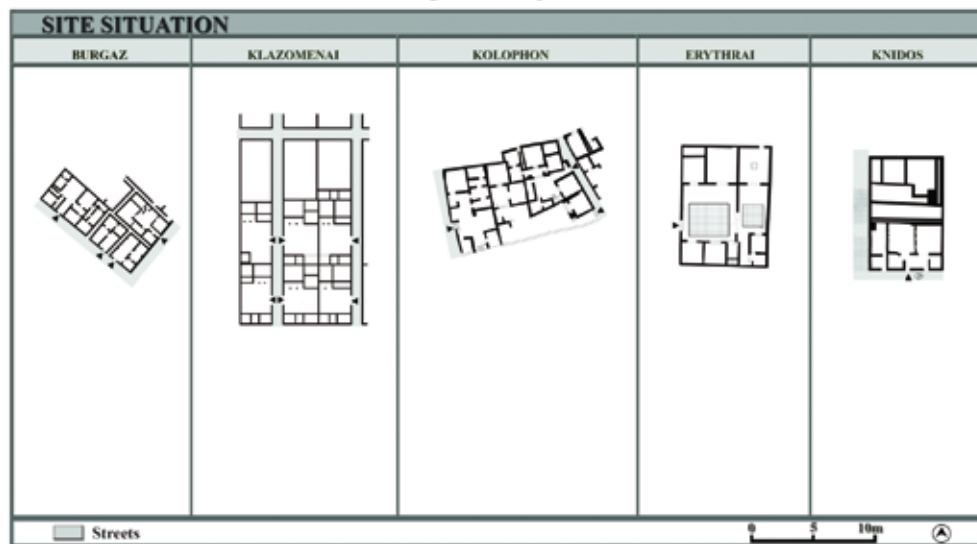
Fig.1: House plans

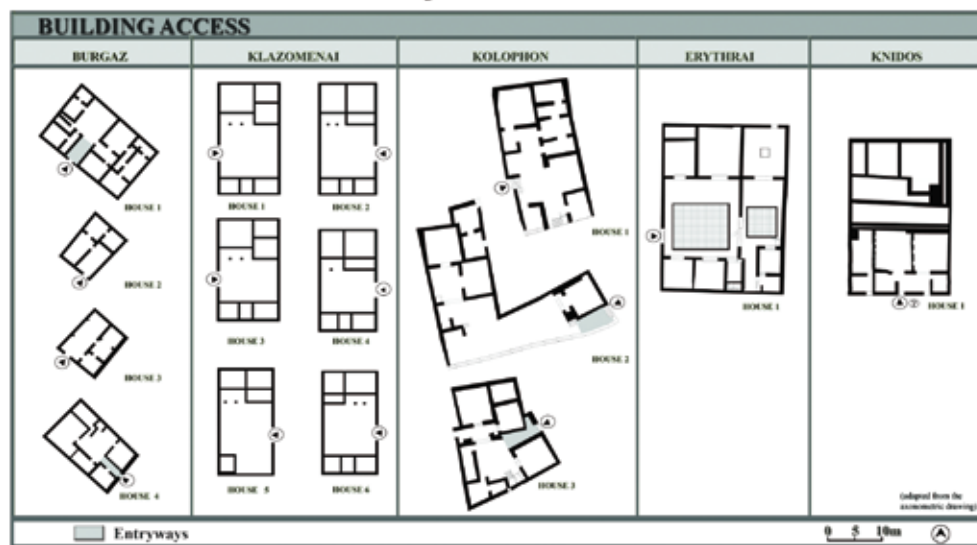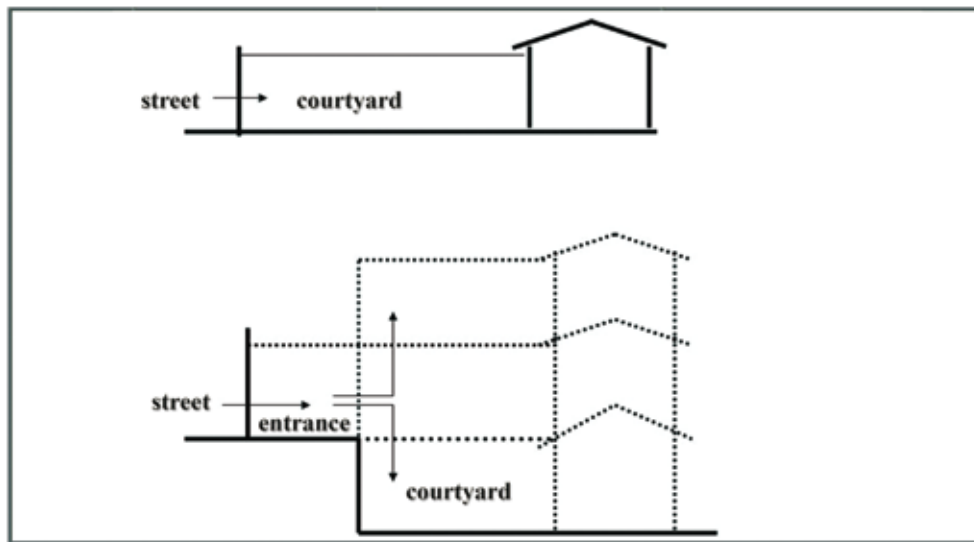Fig. 2: Site situation

Fig. 3: Building access

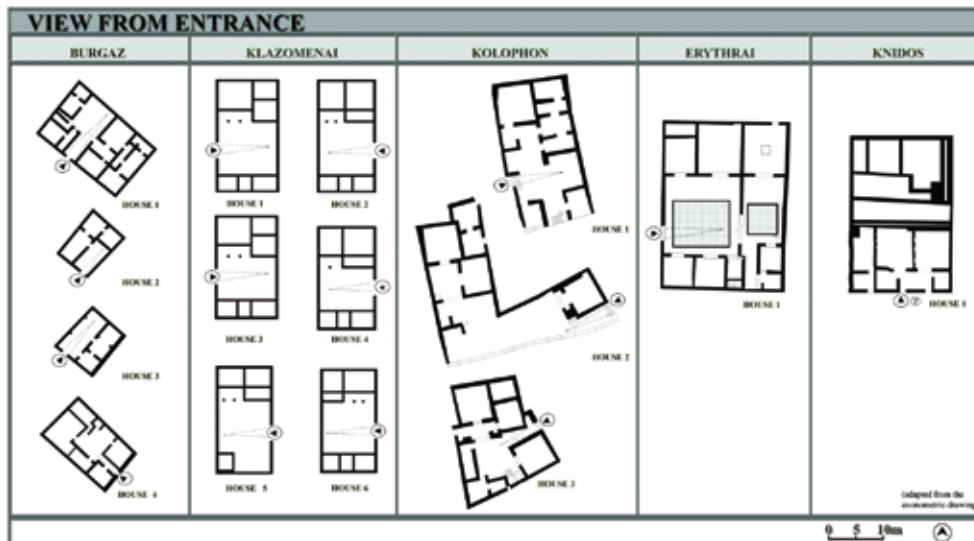Fig. 4: Accessibility from the street

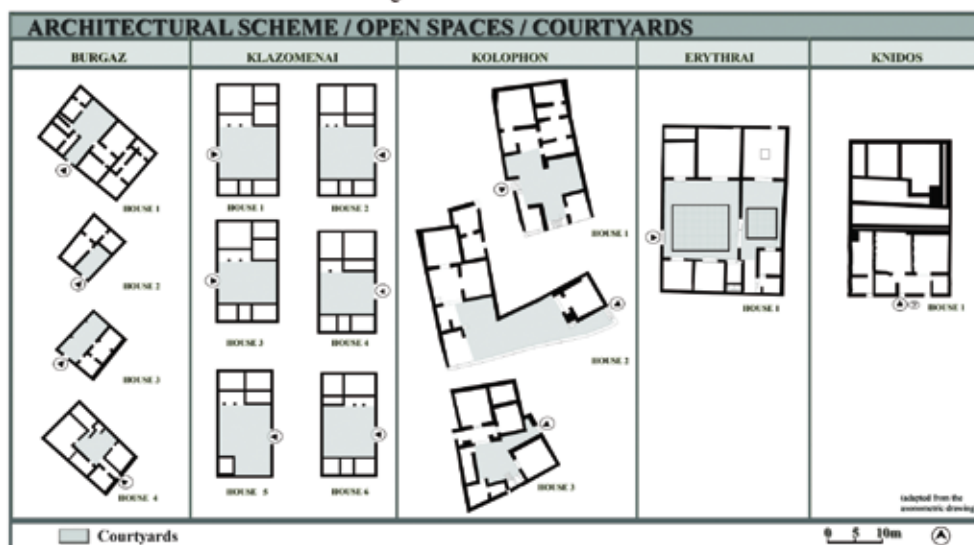

Fig. 5: View from entrance

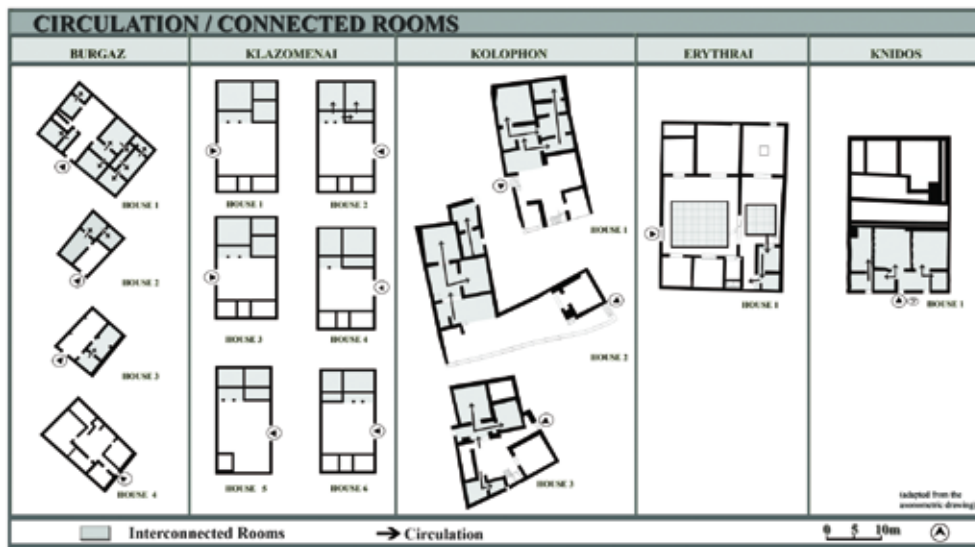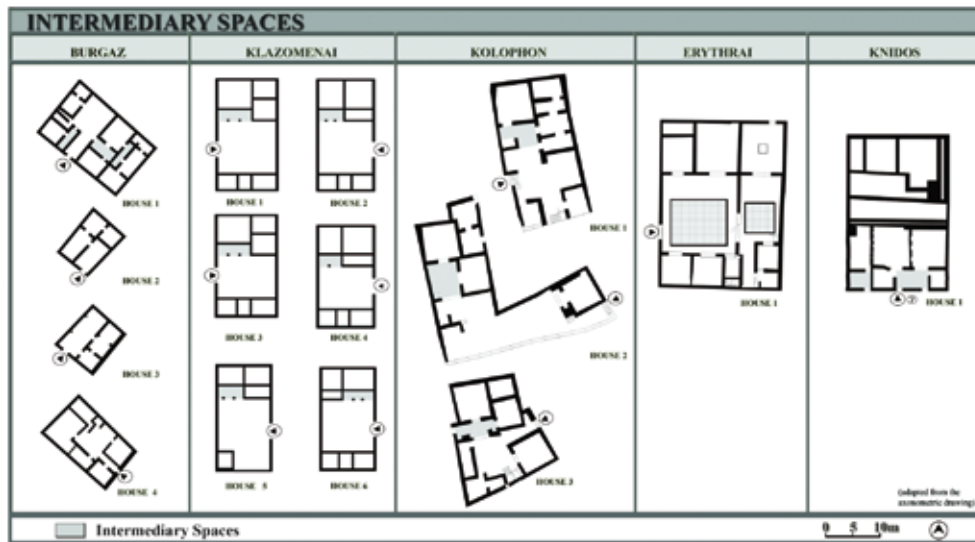

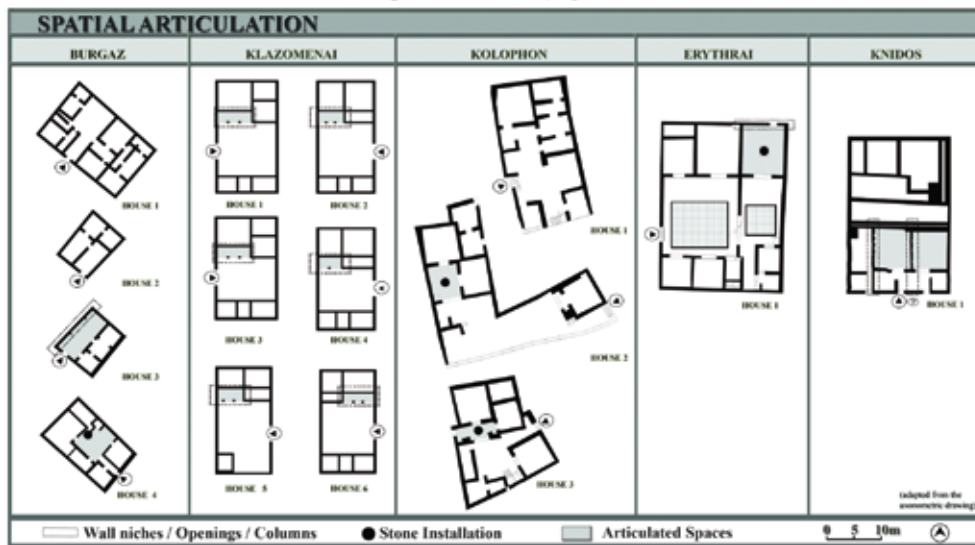Fig. 6: Architectural scheme

Fig. 7: Interconnected rooms and circulation

Fig. 8: Intermediary spaces

Fig. 9: Spatial articulation