

4 Interacting with the Built Environment

Transformation in Settlement Organisation and Concept of Space

Summary 4.1 The Built Environment at the Macro-Scale. – 4.2 Settlement Organisation and Spatial Conventions. – 4.2.1 Transformations in Settlement Layout. – 4.2.1.1 Neolithic Cyprus. – 4.2.1.2 Chalcolithic Cyprus. – 4.2.1.3 Prehistoric Bronze Age Cyprus. – 4.3 Settlement Organisation and Social Convention. – 4.3.1 Transformations in the Settlement Constitutive Elements. – 4.3.1.1 Neolithic Cyprus. – 4.3.1.2 Chalcolithic Cyprus. – 4.3.1.3 Prehistoric Bronze Age Cyprus.

4.1 The Built Environment at the Macro-Scale

“We live and interact in a world that has been modified by the existence of built structures” (Beckwith 2017, 1). In order to come to an understanding of how architectural forms, buildings and settlements contribute to shaping social interaction, it is fundamental to stress that the built environment promotes or inhibits encounters among inhabitants through the placement of walls, streets, buildings, and open spaces (Beckwith 2017; Hillier 1996; Rapoport 1980; 1990). The design and placement of buildings and built forms within a settlement have the ability to influence how social agents interact with each other. In this sense, the built environment constitutes a material arena within which social roles and relationships are shaped and negotiated. Most studies on the analysis of settlement layout are based on the premise that built space is in some way related to the shape of social relations of the inhabitants (cf. Hillier, Hanson 1984;

Souvatzki 2008). Instead, settlements are not only set up according to existing social structures, but also take part in the shaping of identity and social relations (cf. Banning 2010; Fisher 2007; 2009a; 2009b; Furholt 2016). Therefore, it is erroneous to suggest that societies living in settlements organised in a similar manner share common organisation forms by default (on this point, see Düring 2006, 28-30).

In this section, I attempt to understand the complex interrelationships between the built environment and social interaction in the communities of prehistoric Cyprus. The analysis of the prehistoric Cypriot built environment is conducted at a macro-scale by taking into consideration aspects of transformation at the larger settlement level. Spatial and socio-cultural conventions are examined through analysis of settlement design, with attention to buildings, streets, and open spaces in order to evaluate how defined spatial settings may contribute to the formation and reproduction of social identities and economic roles. By examining these constitutive elements of the built environment as possible markers of socio-cultural and economic changes during prehistoric Cyprus, the analysis does not underestimate the potential complexity and diversity of evolutionary patterns, architectural biographies and socio-cultural histories. The outlined framework constitutes a preliminary analytical attempt and aims to contribute to a critical assessment of the role of the built environment in the dynamic transformations of the social, cultural and economic settings of the early communities in Cyprus.

4.2 Settlement Organisation and Spatial Conventions

Reconstructing the developments of settlement formation and transformation is not an easy task. In a simplistic view concerning settlement structure and organisation, large, planned settlements are considered the result of more complex social systems, while smaller, unplanned ones are considered the product of simpler forms of social aggregation (Smith 2007). However, settlements as a concept include a broad spectrum of human agglomerations, ranging from few buildings to larger urban contexts (Düring 2006, 29-30; Banning 2010); furthermore, these are not static, but dynamic forms. Also, it is important to consider that settlement layout not only reflects and reproduces social order, but also shapes identities and social relations (Bourdieu 1977; Giddens 1984; see also Furholt 2016, 1196-7). Therefore, it is always preferable to approach the analysis of settlement organisation in the context of the local settlement system in order to interpret the transformations of settlement organisation and layout from the perspective of the socio-economic trajectories of specific communities (van Dommelen 1997, 270-2). Analysing the way early communities in Cyprus structured themselves and their built

environment, by configuring and constructing well-defined settlement spaces, can provide important insights into the socio-cultural conventions existing and emerging within these communities over the course of prehistoric Cyprus.

4.2.1 Transformations in Settlement Layout

Factors of diverse nature may intervene in shaping and affecting the organisation of settlements and living spaces. These factors can be of physical nature, e.g. the topography of the settled area and of socio-cultural and economic nature, notably social organisation, demographic rate, and cultural conventions, including burial practices and the need to provide space for the dead (Smith 2007; Bose, Malhotra 1963).

Topographic attributes certainly had an important role in defining the organisation of settlement areas among prehistoric communities in Cyprus. Building on a flat plateau or a plain was most presumably easier than building on a steep slope, where the configuration and construction needed to take into account factors such as the right inclination of the structure to avoid instability and collapse, the right orientation so as not to obstruct sun and wind access into the building, the right position on the available space in order to guarantee visibility and easy access to the structure (Steadman 2010; Roberts 2013, 1-14). Building on large plains also provided more possibilities for settlement expansion if compared to environments limited by natural barriers, such as headlands and steep hillsides (see Sneddon 2015). Topographic characteristics may influence the possibility of a settlement organisation, considering not only the built-up areas but also those spaces designed for subsistence activities, including herding and farming.

The irregularity of the terrain does not appear to have discouraged Late Aceramic Neolithic and Ceramic Neolithic communities to build their settlements in topographically prominent positions and headlands, in areas of optimal water and soil resources (Knapp 2013, 122-9; Clarke 2001). The disposition of buildings within these settlements generally does not respond to any organisational plan, with round and/or sub-rectangular structures characterised by diverse orientation, size and design. Far from being in favour of environmental determinism, and setting aside socio-cultural explanations - which will be considered later in this chapter -, we can see that topography played a part in the distribution of buildings within these early settlements. The two Ceramic Neolithic sites of *Sotira-Teppes* (Dikaios 1961) and *Ayios Epiktitos-Vrysi* (Peltenburg 1982) share general attributes in common, including house shape and size (Knapp 2013, 166-7; Peltenburg 1985, 49-50). However, the physical configuration of the two settlements is quite dissimilar. The settlement structure at *Sotira-Teppes* appears more regular than what

has been observed at coeval Ayios Epiktitos-Vrysi. The compressed nature of the Vrysi building clusters perhaps also derives from the limitations imposed by the irregularity of the area and the constriction imposed by artificial or natural hollows (on the natural origin of the hollows, see Mantzourani 2003) used as foundation trenches for building construction (Peltenburg 1978, 56-7). In contrast, the flat plateau where Sotira-Teppes was built constituted a large and more homogenous constructional surface compared to the more irregular top of the headland where Vrysi was erected. We can speculate that the natural characteristics of the Teppes plateau may have facilitated building construction activities and might have contributed to a more regular organisation of the structures within the settlement.

Areas with different topographic characteristics were privileged by Late Chalcolithic and Early Bronze Age communities. The majority of settlements constructed during Early Chalcolithic Cyprus were built on alluvial and coastal plains as well as on gentle slopes; areas that provided good natural resources and space for extended settlements development (Sewell 2012, 27-37). Instead, new relationships with the landscape emerged during Middle Chalcolithic Cyprus (Peltenburg, Bolger, Crewe 2019), as testified by locations in strategic areas, e.g. the site of Soskiou-Laona, constructed on a hilly and remote area, optimal for picrolite procurement. The size of these settlements is, in fact, larger than earlier ones [tab. 4.2]. However, small centres, like hamlets and farmsteads located along river valleys and on spurs, co-existed with these larger villages, especially during the Middle Chalcolithic. The availability of space provided more possibilities for horizontal expansion of settlement spaces, as a consequence of the demographic growth during Middle/Late Chalcolithic Cyprus – as exemplified by the site of Kissonerga-Mosphilia, periods 3A-3B – and during Early Bronze Age Cyprus – as indicated by the case of Marki-Alonia, Phases D-F.

Middle Bronze Age Cypriot sites are characterised by major variation in the placement of settlements, in areas with diverse topographic and natural characteristics. Alambra-Mouttes was built on the flank of a ridge, on one of the low hills rising above the Mesoria plain (Coleman et al. 1996, 17-18; Sneddon 2015). Not so far from Alambra, Politiko-Troullia was constructed on an alluvial terrace (Falconer, Fall 2013; 2014). The site of Ambelikou-Alteri was placed on a substantial hill on the northwest foothills of the Troodos (Webb, Franke 2013b, 1). Erimi-LtP was located on a hill, characterised by gentle terraces, along the east bank of the Kouris River (Bombardieri 2017, 1-2). Kissonerga-Skalia was constructed on a gentle rise framed on the north and the south by two streams, c. 300 m from the coast in the Paphos area (Crewe, Hill 2012; Crewe 2017, 140-52). In all these sites, topographic attributes do not seem to have influenced the distribution and organisation of settlements much, if compared to earlier Neolithic sites. However, evidence of variability in the configuration and

organisation of buildings in settlement areas characterised by different topographic attributes can be identified at Erimi-*LtP*. Here building units of the Workshop Complex, on the flat plateau on top of the hill, show more consistency in orientation, shape and design than domestic buildings, placed on the slopes of the hill terraces. Certainly, the more regular layout observed in the organisation of the Workshop Complex derives from the fact that the entire structure was built according to a preconceived layout and possibly did not undergo many structural transformations as in domestic buildings. Nevertheless, it should be stressed that building on a large, flat plateau facilitated the configuration and subsequent construction of the Workshop Complex units according to a homogenous plan. As stressed by Sneddon (2015), topography provides only a partial explanation for the settlement's configuration. Geophysical investigations conducted at Alambra have indicated that some areas suitable for domestic construction do not appear to have been built upon, while other locations which do not seem well-suited for residential buildings and domestic activities were used for these purposes, including buildings of Area A. Sneddon concludes that the configuration of inhabited space reflects a spread of social and cultural mechanisms, including land availability, defence, desire for light and ventilation, religious practices, gender relationships, and the keeping of certain animals (2015, 159).

Robb sustains that “practical action originates in cultural logic and reproduces it” (2007, 94). In this study, other lines of examination, which could help to disclose social and cultural aspects connected to settlement organisation strategies, include the analysis of settlement layout through the application of space syntax analysis. This approach is used to infer patterns of social organisation and identify overall trends affecting diverse prehistoric contexts, without underestimating the effect of multiple local agencies, and of individual histories. ‘Space syntax’ is the collective name given to a conceptual framework which can be used to identify, compare and interpret patterns of social configuration within settlements, as exhaustively explained here [box 4.1]. Space syntax techniques include axial line analysis, convex isovist analysis and convex spatial analysis, also known as ‘access analysis’ (cf. Fisher 2007; 2009a; 2014a; 2014b; 2023). Access analysis is of particular interest in archaeological examination, as it provides a framework for studying the social use of spaces, through the analysis of interaction potential (Hillier, Hanson 1984; Hanson 1998). Given the limitation of access analysis to the study of prehistoric contexts (on this point, see Cutting 2003), this approach is used not as a quantitative method but only as a model or a “tool to think with” (Cutting 2003), in order to provide insights into the spatial and social organisation of prehistoric communities in Cyprus.

Box 4.1**Spatial Analysis and the ‘Integrative Approach’ by Fisher**

Spatial analysis, or ‘convex spatial analysis’ (Hillier, Hanson 1984, 143-55; Hanson 1998, 22-38) is a component of space syntax used to examine the relationship between spatial configuration and social interaction within a constructed space. Spatial analysis is described in archaeological research as ‘access analysis’. Access analysis, specifically, is used to record patterns of potential movement in the spatial system analysed and to identify the level of interaction within a certain space (Cutting 2003); therefore, it provides a way to determine which spaces are more apt to host social interactions (Fisher 2007; 2023). This analytical technique involves the representation of built space as a graph and can be applied to the analysis of buildings in order to investigate how each space is integrated with the rest of other spaces in the spatial system, and to study social accessibility and control over materials, people and place (Fisher 2007; 2009a). Access analysis is based on the analysis of two spatial units: convex space, which is the enclosed space bounded on all its sides and often represented by rooms or buildings (Fisher 2009a, 440); and the links between convex spaces, which are represented by entrances and doorways. Access analysis is not only applied as a visual analytical tool, but also as a quantitative analytical technique. Quantitative analysis is conducted by calculating syntactic and topological aspects of the numerical relationship between spaces within the spatial system (Cutting 2003, 5).

Despite the great potential of access analysis for the examination of syntactic and topological properties of the built space, concerns have been raised pertaining to the application of quantitative analysis to prehistoric contexts (Cutting 2003). Typical prehistoric archaeological contexts are unlikely to provide sufficient material to justify the use of access analysis as a quantitative methodology, as exposure may be limited and the definition of spatial units may be problematic. In fact, it is essential to have reasonably complete plans, with clear entry locations to attempt such an application (see also Fisher 2009a, 442). Other scholars have further criticised access analysis, as it fails to consider the symbolic meanings of the built space, and therefore, while the application of this technique may be effective for the analysis of ‘spaces’, it has been argued that it is not suited for studying ‘places’ (Hodder 1991, 39-41; Parker Pearson, Richards 1994, 30).

To address these issues, Fisher (2007; 2009a; 2009b; 2014a; 2014b; 2014c; 2023) developed an integrative approach that combines access analysis with a detailed study of how buildings influence human behaviour and interaction through the non-verbal communication of meanings, which are encoded in fixed and semi-fixed architectural elements as doorways, floors, furnishing and other artefacts, as well as in non-fixed features including the physical and verbal expression of buildings users. By combining theory and analytical methods from a variety of disciplines including sociology, human geography, architecture, planning and environmental psychology, Fisher aims at demonstrating the recursive relationships between human action and interaction and social structure (2009a). A primary goal of the integrative approach is to determine the places in which particular types of social occasions likely occurred and provide insight into the specific nature of those interactions. Access analysis provides a useful starting point and is conducted through the realisation of an access graph [fig. 4.1.1], which provides a visual representation of the relational properties of each space in terms of their access to one another. The second step includes the recording of the properties of fixed and semi-fixed architectural elements to determine the potential of a given space as a venue for social interaction. Isovist and viewshed are then integrated as analytical tools suitable for analysing the visual experience of a place from a particular position. The aim of this integrated approach is to augment the informative potentials of spatial analysis by providing an effective analytical framework with which to examine the meaning encoded in buildings and their constitutive elements, investigating the materiality of the built space and analysing how the built environment configures daily practice, actively facilitating the social interactions through which identities, role and status are reproduced and negotiated (Fisher 2014a, 400).

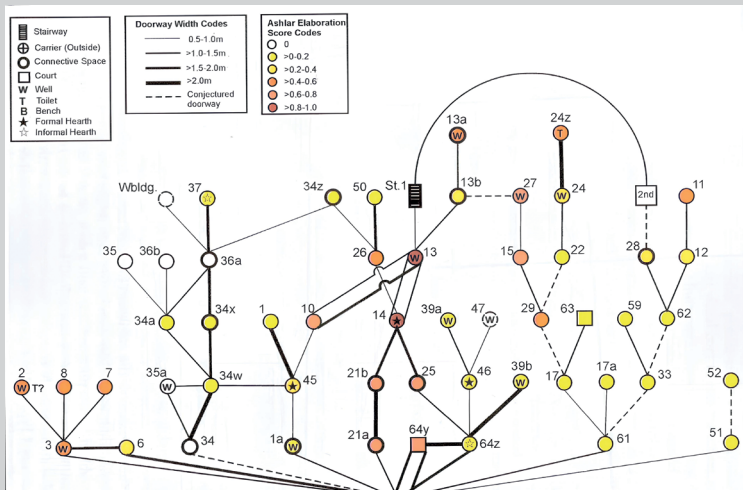


Figure 4.1.1 Example of enhanced access graph (Fisher 2023, fig. 15)

The framework used to analyse the settlement configuration of buildings within prehistoric Cypriot settlements draws on the method first developed by Hillier and Hanson (1984), successively applied to the examination of prehistoric and protohistoric contexts by many scholars (cf. Foster 1989; Banning 2010; Furholt 2016; Fisher 2023). In this examination, buildings will be the focal point of analysis as single structures are easier to study than entire settlements, since open spaces cannot be separated so easily into analytical elements and the richness in differentiation of internal buildings means that they can provide more social information (Hillier, Hanson 1984; Foster 1989).

Table 4.1 Schematic diagram of spatial syntaxes identified in prehistoric settlements in Cyprus (Hillier, Hanson 1984, 78; Banning 2010, fig. 1). In the column ‘Syntax type’, the black dot represents the building’s space, while the white dot represents the outdoor space. Lines are indicative of the connection between spaces






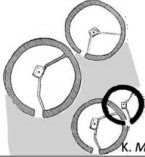

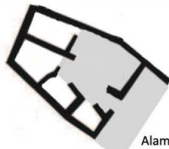


		DISTRIBUTED	NON DISTRIBUTED			
		Syntax Type	Example	Syntax Type	Example	
SYMMETRIC	Z ₁	 Cluster	 Marki-Alonia -Phase A	Z ₂	 Closed cell	 Sotira-Kaminoudhia
	Z ₃	 Clump	 K. Mosphilia - Phase 3			
ASYMMETRIC	Z ₅	 Central space	 Alambra-Mouttes	Z ₄	 Concentric	 Marki-Alonia -Phase D-E

Table 4.2 Spatial attributes recorded in prehistoric Cypriot contexts. Two representative settlements for each study period are included in the analysis

Period	Sites	Size (ha)	Settlement layout	Spatial arrangement	Types of structures	Functional/social differentiation of buildings	Open areas Communal spaces
LAN	Khirokitia-Vouni	2.50	Z1-Z3	Free-standing Adjacent	Circular Monocellular	Functional distinction*	Communal open areas Walls
	Cape Andreas-Kastros	0.17	Z3	Free-standing	Circular Monocellular	No differentiation	Wide passageways
CN	Sotira-Teppes	0.25	Z1 (Phase 1) Z3-Z4 (Phases 2-3)	Free-standing Adjacent	Circular, rectilinear, irregular Monocellular Annexes/ subsidiary structures	No differentiation	Semi-enclosed courtyards Wide passageways
	Ayios Epiktitos-Vrysi	0.50	Z3 (mostly)	Free-standing Adjacent	Circular, rectilinear, irregular Monocellular Annexes	Not present**	Narrow passageways, sometimes blocked Retaining wall Small open-areas
MChal/ LChal	Kissonerga-Mosphilia (Phase 3b)	12.0 c.	Z3	Free-standing	Circular Single- roomed with internal division	Functional and social differentiation	Pathways, paved tracks Settlement organised in sectors
	Lemba-Lakkous	3.0	Z3	Free-standing	Circular Single- roomed with internal division	Functional differentiation	Pathways
EC	Marki-Alonia (Phases D-F)	6.0	Z4-Z5	Compounds	Rectilinear Multi-roomed	No differentiation	Pathways/lanes
	Sotira-Kaminoudhia	1.0 c.	Z2	Agglutinative	Rectilinear, irregular	Possible functional differentiation (Unit 12, Area B)	Pathways
MC	Alambra-Mouttes	6.0 c.	Z4-Z5	Compounds	Rectilinear	Possible functional differentiation? (Building IV)	Street
	Erimi-LtP	1.10 c.	Z3-Z4	Compounds (?)	Rectilinear	Functional differentiation Communal work space segregated from domestic work areas	Communal workshop Communal open areas Passageways Walls

* Cf. Le Brun 1993

** Even if Peltenburg (1982) suggests a social division between buildings of the two sectors of the settlement

Tables 4.1 and 4.2 summarise the results of this analysis [tabs 4.1-2]. In particular, table 4.1 illustrates the five elementary syntaxes identified in the prehistoric settlements analysed, following the idea of Hillier and Hanson (1984) [tab. 4.1]. The five types are classified as 'distributed' when structures are located in space as independent spatial units; 'non distributed' when one unit imposes or controls access to other units; 'symmetric' when the relationship between one space and another is identical with respect to the third space; 'asymmetric' when one space controls access from the other space to some third space (see Hillier, Hanson 1984, 66-81; Banning 2010, 51). The five types of syntax identified include:

1. The 'cluster' syntax: when one monocellular building is loosely clustered in the settlement. No specific settlement layout can be recognised;
2. The 'closed cell' syntax: characteristic of agglutinate settlement layouts;
3. The 'clump' syntax: it comprises buildings connected to an open space or courtyard by a doorway. This pattern type generally creates a non-organised system of passageways among clumps of buildings;
4. The 'concentric' syntax: when, within a building, the access to a room is controlled by the need to pass through another room;
5. The 'central space' syntax: typical of the courtyard house type.

Data deriving from spatial analysis applied to the prehistoric settlements on the island are collected in table 4.2. It is important to stress that resulting data are affected by a number of biases due to the inhomogeneity of the available documentation, as a result of different recording methods, and variability in the size of excavated areas. Nevertheless, this approach can still be helpful for characterising the architecture of buildings and settlements, despite the fragmentary nature of the evidence [tab. 4.2].

4.2.1.1 Neolithic Cyprus

Settlement plans of Neolithic communities in Cyprus appear to be characterised by an agglutinative syntax type, with structures densely packed within the settlement area. Looking at one of the most representative cases - the Late Aceramic Neolithic site of Khirokitia-Vouni -, it is possible to note the agglomerative pattern of the densely built-up area is the result of transformation and super-imposition of structures deriving from an interrupted activity of construction, maintenance and modification of buildings within the settlement. The distribution of building units according to the different sectors (East and West) and the different phases - Phases B and C (in the East sector); Phases I, II, III (in the West sector) - suggests an intensification of construction during the last period of occupation of the settlement. The analysis of the single structures indicates that most of the buildings are organised according to the clump syntax type (Z_3) [tab. 4.1], with clusters of structures organised around an unroofed courtyard where grinding grain and other daily activities were conducted (Le Brun 2001, 115; 2002, 25). If the lack of large, open areas within the domestic space indicates that this part of the settlement was not accommodated to host public gatherings, and that interaction possibly occurred only among restricted groups within the community, the occurrence of an area segregated from the residential units - which was equipped with oval platforms and designed for processing activities - indicates that exchange and interaction at a supra-household level were performed in this portion of the settlement [fig. 4.1]. Additionally, the presence of distinctive structures, characterised by larger size and possibly designed for communal functions, for example Tholos 1A (Dikaios 1953; on this point, see Knapp 2013, 126-7), and the presence of massive wall structures delimiting the site in a southeast to the northwest direction (Le Brun 2001; Le Brun, Daun-Le Brun 2009), indicate a level of interaction among community groups which was possibly fostered and reinforced by cooperation and collaboration in the accomplishment of communal tasks. Despite this communal effort, analysis indicates that at Khirokitia the living space was fragmented, with daily activities mostly conducted within buildings and outdoor areas used only for specific tasks, including the disposal of rubbish (Le Brun, Daun-Le Brun 2003, 56; Clarke, McCartney, Wasse 2007, 120).

More limited evidence from the coeval site of Cape Andreas-Kastros (Le Brun 1981) suggests a less dense settlement layout, with domestic structures scattered in the limited space of the rocky spur. A looser organisation in the arrangement of buildings and open areas characterise the settlement. Structures were free-standing and arranged into groups around external spaces (syntax type Z_1 - Z_3). The occurrence of wide pathways between the buildings indicates a fluid passage and the possibility for interaction in these spaces.

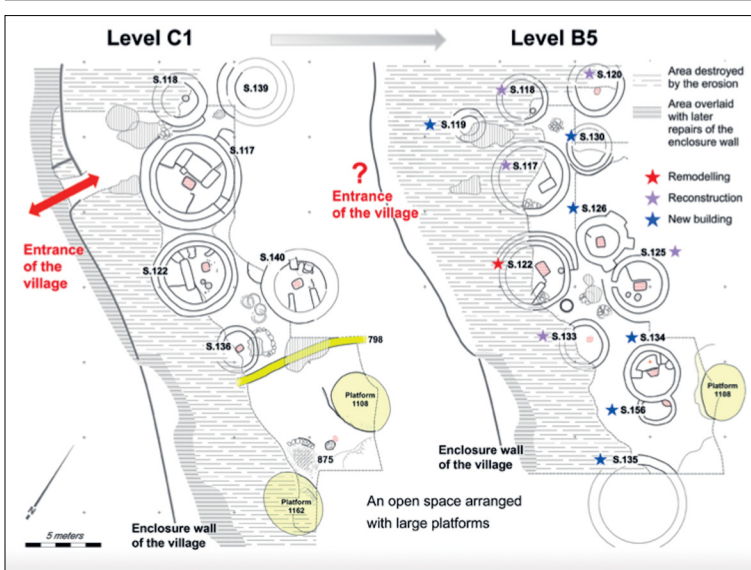


Figure 4.1 Distribution of buildings and open areas at Khirokitia-Vouni. Courtesy of Le Brun

Encounters between inhabitants also occurred in open areas, which were used for domestic activities. These external spaces appear to have been used differently than at Khirokitia. Analysis of architectural structures and residual artefacts indicate that exterior space at Cape Andreas-Kastros complemented interior living areas, therefore daily activities were conducted in both spaces, with little demarcation between them (Clarke 2007c, 120).

The Ceramic Neolithic settlements of Sotira-Teppes and Ayios Epiktitos-Vrysi show a compact distribution of buildings, similar to the layout observed at Khirokitia. A closer look at the structures indicates that the clustered spatial pattern which characterises these two sites is the consequence of a progressive expansion of the inhabited areas, with a super-imposition of constructions during the main phases of occupation of the two settlements. The first phase of occupation at Sotira-Teppes (Phase 1) is characterised by monocellular free-standing structures (mostly Z_1 and Z_3 syntax types) [fig. 4.2a], which were thinly spread over the plateau where the settlement was built (Knapp 2013, 165). The habitational pattern in the subsequent Phases 2 and 3 (according to the relative chronology proposed by Stanley Price 1979) changed significantly with the construction of new buildings and the addition of annexes and subsidiary structures to the previously existing constructions [fig. 4.2: b-c]. The incorporation of these subsidiary structures, e.g. in Houses 1 and 7, transformed the syntax of buildings

from clumped (Z_3) to concentric (Z_4), contributing to the increasing compartmentalisation of the domestic building space (Bolger 2003, 28-9) and the creation of more private areas not directly accessible from the outside. Certain groups of structures were arranged around open spaces or courtyards (e.g. House 31.A, 34.A; see Dikaios 1961, pls 35, 37) where domestic activities were conducted. The layout of these courtyard areas, which were constructed with narrow entranceways, may suggest that the access to these spaces was controlled and possibly regulated by household members. More possibilities for encounters and interaction were provided by the wide passageways occurring between the cluster of buildings (Knapp 2013, 165).

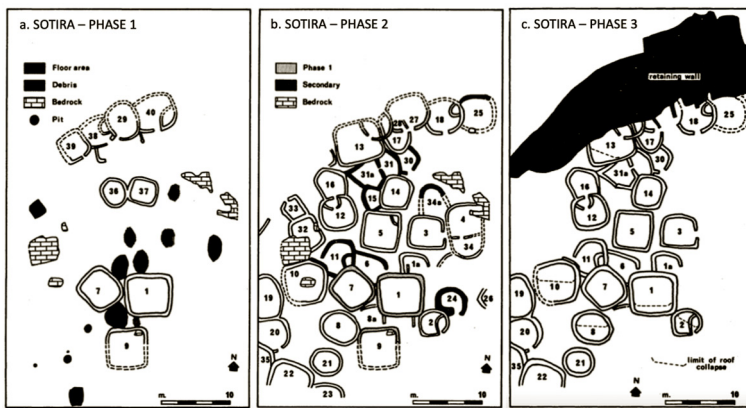


Figure 4.2 Distribution of buildings at Sotira-Teppes during the three different occupation phases.
© Stanley-Price 1979

At Ayios Epiktitos-Vrysi, buildings were constructed within deep hollows carved into the calcareous bedrock floor (Peltenburg 1982; 2003). Given the limitation imposed by these semi-subterranean foundations, buildings were transformed by super-imposition of structures one on top of another in a column-like arrangement (Knapp 2013, 167-8; Peltenburg 1982, 25; 2003, 102-3). The space syntax which characterises the buildings within the settlement is only apparently similar to the type of organisation observed at Sotira-Teppes Phases 2-3. At Ayios Epiktitos-Vrysi, the settlement appears to be divided into two distinct sectors, the northern and the southern, which were separated by a central ridge given by the natural top of the headland where the site was built [fig. 4.3]. Buildings within each of these sectors were clustered around two narrow passageways (Passage A and B), which possibly constituted *loci* of interaction between individuals living in the concomitant structures. The occurrence of pavings denotes communal

attention for these passages (Peltenburg 1985); however, their narrow width may suggest that forms of exchanges and interaction were possible only among restricted groups. In some cases, these passageways were blocked by installations like fireplaces and querns (see Peltenburg 1982, 37). Peltenburg (1985) proposed to interpret these installations as preventive against erosion. However, at a more speculative level, the blocking of these passageways could be potentially seen also as a form of control and appropriation of the available space, in the process of progressive expansion of some households (e.g. Building 2A-2B) at the expense of others (see Frankel, Webb 2006b). The placement of installations on these passageways could have possibly curtailed and limited the communication routes between sectors of the settlement, hence activating processes of spatial negotiation between household groups. If we admit this hypothesis, we can postulate that this process of re-articulation and transformation of space and community through time was part of the social structure of Vrysi (Papaconstantinou 2002). We might argue that this social structure subsisted in the acts of dynamic collaboration, consensus and negotiation among members of the communities across generations (De Marrais 2016; Hodder 2012; Kay 2020).

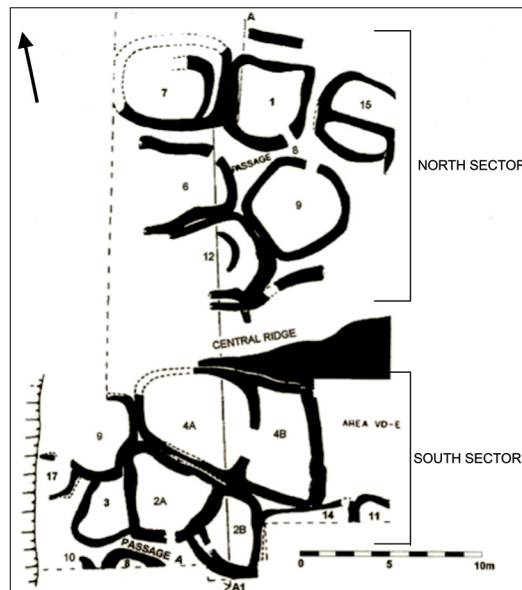


Figure 4.3
Distribution of buildings
at Ayios Epiktitos-Vrysi.
© Peltenbur 1982

In more general terms, during the entire Neolithic Cyprus, buildings lack consistency in shape, size and orientation. No marked distinction emerges in buildings construction, although functional differentiation among structures has been recorded at Late Aceramic Neolithic Khirokitia, where buildings with larger sizes and a diverse arrangement of internal space have been identified (e.g. S.148; Le Brun, Daune-Le Brun 2003). Inconsistency in building content and average floor areas at Ayios Epiktitos-Vrysi suggested asymmetric social relations between the northern and southern sectors of the settlement (Peltenburg 1985, 55-62; 1993, 10-11); however, Papaconstantinou (2002, 38-44) recently observed that despite in quantitative terms the North sector appears to be much richer in comparison to the South, in qualitative terms, the picture change and differences are eliminated, hence suggesting that no marked social differentiation occurred at the settlement and that both sectors had the same access to all types of artefacts (see also Knapp 2013, 168-9). Open areas were almost exclusively used by single households, as evidenced at Cape Andreas-Kastros, and more rarely mechanisms of facilities sharing were in place. Even when communal open areas are attested, as at Khirokitia, it appears that their functions are limited to a restricted number of activities. As consequence, we can suggest that the interaction potential of open areas during this phase remains limited. More possibilities for the establishment of cooperative forms of labour derive from the construction of public works, *in primis* walls. This evidence led Le Brun (2002, 25) to suggest forms of cooperative planning at Khirokitia by a society sufficiently structured and capable of assembling the necessary labour to accomplish such a plan. However, as further discussed in § 4.2.1.1, it is important to be cautious of assuming that such public works were necessarily conducted at the level of the whole community (Banning 2010).

4.2.1.2 Chalcolithic Cyprus

During the Chalcolithic period, the overall settlement organisation is that of flat sites with dispersed free-standing buildings separated by paths, passageways and open areas (Papaconstantinou 2013, 130-1). Scanty evidence from Early Chalcolithic semi-subterranean settlement and their patchy floor plans (Bolger 2003, 29) make difficult the examination of their spatial arrangements. Better evidence and more extended site plans derive from Middle/Late Chalcolithic settlements, in particular Kissonerga-Mosphilia and Lemba-Lakkous, which will be analysed in this section.

Kissonerga-Mosphilia, the largest and long-lived settlement of Middle Chalcolithic Cyprus, was constructed with a more organised layout than earlier Neolithic settlements. Evidence pertaining to the first

occupation phases is too limited to confirm if the site was planned and organised in different sectors from the very outset of its lifecycle. The following occupation Period 3A, which is dated to the middle/late 4th millennium BC, is characterised by a pattern of sequential construction of free-standing buildings separated occasionally by pathways. Structures were organised in two distinct areas: the Main Area, characterised by rectilinear buildings of small size, and the Upper Terrace, with circular buildings showing internal segmentation. Despite the differentiation in shape and construction among buildings of the two sectors, all the structures appear to have been displaced in the settlement space according to the clump syntax (Z_3), with clusters of buildings sharing an open courtyard. The organisation and construction of circular buildings in the Upper Terrace and the appearance of private storage areas (Peltenburg et al. 1998b, 242-3) suggested trends toward the development of property rights (Knapp 2013, 209) and an emerging social differentiation among groups living in the two sectors of the settlement (Peltenburg et al. 1998b, 242-3). In the subsequent Period 3B, the settlement space was renovated by a significant construction programme, which transformed completely the earlier layout. The construction of new buildings is conducted following a coordinated, pre-planned project (Papaconstantinou 2013, 131). Settlement expansion is attested by the construction of new buildings in the Main Area, displaced into two separate sectors: the upper and the lower. What is significant is that during this phase there is an increasing differentiation between buildings of the settlement. This is exemplified by the circular structures of the Ceremonial Area, which show larger sizes compared to other buildings of the settlement and were constructed with calcarenite blocks brought up from the coastal area (Peltenburg et al. 1998a, pl. 5.1). The new buildings edified in the Main Area also show consistency in the orientation, with the entrance-way towards the south (see § 3.1.2.1). These data support the idea that *Kissonerga-Mosphila* was a centrally-organised settlement. The spatial arrangement of buildings become more standardised (Thomas 2005b) with indoor spaces segmented by partition ridges and by different floor types. However, no substantial changes appear in the general layout of the structures. No annexes or subsidiary constructions are added to the main buildings, so that the passage between the communal, outdoor space to the private, indoor space is fluid and regulated by the occurrence of enclosing doors. The organisation of settlement space during successive Period 4 is indicative of a system of social relations different from the previous occupation phase. Public works, including paved tracks or enclosure walls which characterise the settlement during earlier Period 3, no longer occurred (Papaconstantinou 2013, 133). Similarly, ovens were no longer placed outdoors, suggesting that processing activities were conducted preferentially indoors. This is indicative of a less sharing and interactive social environment [fig. 4.4].

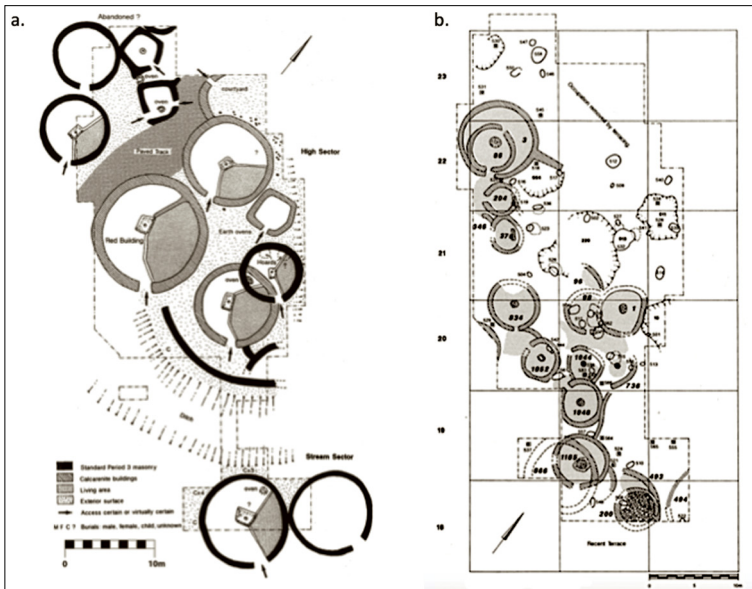


Figure 4.4 Distribution of buildings at Kissonerga-Mosphilia. a) period 3B; b) period 4. Peltenburg et al. 1998a, figs 31, 39

Similar evidence, attesting a transformed configuration of the settlement space compared to what was observed in the Neolithic period, has been identified at Lemba-Lakkous. Here the inhabited space was organised into two different areas (I and II) with a rather dense arrangement of buildings [fig. 4.5]. In both the two periods identified at the settlement (Peltenburg et al. 1985; see also Knapp 2013, Appendix), the spatial syntax of single structures resembles the organisation observed at Kissonerga-Mosphilia, with monocellular buildings, internally segmented, associated to open courtyards (syntax Z_3), which suggests a fluid interaction among community members. Fixtures and depositional evidence within buildings indicate a functional differentiation of the structures, which appear to serve complementary rather than identical functions (Papaconstantinou 2013, 136-7). Buildings of Period 2 are generally larger than the previous Period 1, however, no substantial changes in the spatial distribution of structures and open areas can be traced between the two periods of occupation in the settlement. In contrast to what was observed at Kissonerga-Mosphilia, no evidence of marked differentiation in construction techniques and organisation of buildings within the settlement can be identified, with the exception of Building 1-Period 2, which is characterised by larger size and a richer material assemblage (e.g. the

well-known 'Lemba Lady', a nearly 40 cm tall, fiddle-shaped, limestone female figurine; cf. Peltenburg et al. 1985, 35-6, fig. 55).

A closer look at the spatial configuration of individual structures within Chalcolithic settlements indicates a process of progressive segmentation of the internal building space, which was achieved through the addition of partition ridges, the application of different floor types and a more consistent arrangement of spaces and activities areas within buildings (Peltenburg 1998, 233-60). It is important to stress that this process of increasing segmentation, which may be indicative of a process of emerging social complexity (Bolger 2003, 29-31), does not necessarily correspond to a process of increasing privacy and control of the building internal space, as demonstrated by the lack of more private rooms/spaces within the monocellular circular buildings of these Chalcolithic settlements. Doors allowed direct entry into the building's interior space, thus reducing the possibility of household segregation. The fluid relationship and interaction which appear to occur in this built and social environment are also indicated by the fact that household groups did make no effort to detach their houses from their neighbours, for example with the addition of entry rooms or courtyards. Instead, courtyards and open spaces were *loci* of shared and communal activities. An exception is constituted by the identified separation of buildings into distinct areas at Middle Chalcolithic Souskiou-*Laona* during Period 2, which "denotes the establishment of new boundaries where integration was previously paramount, perhaps an attempt at 'distancing strategies' used by household-based communities to overcome the social risk and uncertainties of initial integration" (Bolger et al. 2019, 333).

The picture that emerges from a pivotal spatial analysis is of Chalcolithic Cypriot settlements as places of encounter and interaction rather than competition and contestation. It is generally assumed that manipulation of space to provide privacy allows individuals authority over belongings and self (Steadman 2000; 2011). In the specific case of Chalcolithic Cypriot settlements and communities, the lack of spatial segregation and the limited privacy within buildings and between households should not be considered as an indication of limited material possession by social groups, but might possibly suggest that mechanism of solidarity and sense of community were in place, and that this guaranteed a balanced relationship among inhabitants and helped to the maintenance of social control (Bolger et al. 2019, 328-30), at least until the Middle Chalcolithic period.

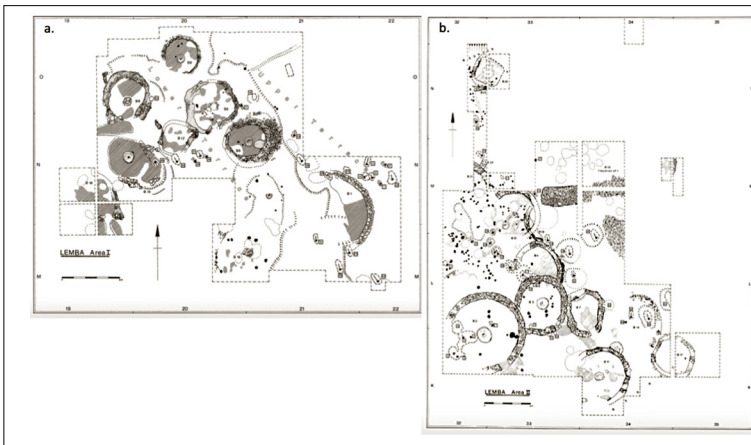


Figure 4.5 Distribution of buildings at Lemba-Lakkous. a) Area I; b) Area II. © Peltenbur 1985, figs 10, 22

4.2.1.3 Prehistoric Bronze Age Cyprus

Settlements of the Prehistoric Bronze Age Cyprus are characterised by a layout renewed by the introduction of rectangular architecture. Villages of Early Bronze Age Cyprus show a complete transformation, not only of the architectural form, but also of all the basic settings of the habitational units, including the spatial arrangement of rooms and installations. The anatomy of this development is well-represented by *Marki-Alonia*, which, with its 500 years of occupation, from the early stages of the Bronze Age to its final abandonment at the beginning of the Middle Cypriot period, provides one of the best examples of Prehistoric Bronze Age architecture. What can be observed in *Marki-Alonia* is the gradual change of building layout, from simpler structure plans during the first occupation phases (space syntax Z_1) to more elaborated compounds, characterised by rooms connected by a courtyard, according to a central space syntax (Z_c) [fig. 4.6]. This transformation in the spatial arrangement is viewed as the result of the gradual aggregation of household groups, following demographic growth during the Early Bronze Age period (Knapp 2008, 123). While the configuration of buildings within the settlement during the main phases of expansion (Phases D-G) appears to have responded to an agglutinative layout, without an organisational principle, the in-depth analysis of the spatial arrangement of single structures suggested how buildings were organised in compounds, with rooms arranged around an enclosed courtyard (Frankel, Webb 2006a; Webb 2009). All compounds were entered through the courtyard, either directly from open space

or a public access route or, via a private passageway, as observed in Compounds 6 and 29 (Frankel, Webb 2006a, 311-15). In most cases, the interior rooms followed one another, achieving greater privacy with more depth of access (Frankel, Webb 2006b). The greater emphasis on private space is correlative with changes in socio-economic organisation, and possibly with an increasing possession by individual households which desired to better control their own personal space (Steadman 2010). Foster, in her study of Iron Age buildings in Orkney (1989) observed a correlation between the development of the concept of 'authority over personal belongings' and an increase in boundary control and limits on access, illustrated by the number of architectural segmentation among buildings within the settlement. Developments in the arrangement of the settlement architectural organisation at Marki-Alonia may be identified in the appearance of defined lanes and streets during Phase D (EC I-II), and in the different configuration of open areas and courtyards, which contributed to transforming interaction potential within settlement areas and promoted new forms of space negotiation (Frankel, Webb 2006a, 313-15; 2006b, 287-302). However, the complete lack of building orientation persisted in the settlement until the last phases of occupation, suggesting a lack of centralised decisions and large-scale planning (2006b) [fig. 4.6].

An agglutinative layout (Z_2) characterises the settlement structure of Sotira-Kaminoudhia and in particular of Area A, the largest of the three plots investigated at the site (Swiny, Rapp, Herscher 2003) [fig. 4.7]. Here, structures do not respond to the courtyard model but are clustered one against the other with no consideration for access routes and open areas. In contrast to what observed at Marki-Alonia, where no marked differentiation between buildings has been evidenced, at Sotira-Kaminoudhia, Unit 12 of Area B and Units 2 and 21 of Area C have been indicated as a non-domestic space. Unit 12, in particular, is characterised by a more elaborated architectural plan, whose entrance is marked by a wide doorway, the presence of unique installations, including a large platform with two saddle querns, and the occurrence of striking materials on its floor, notably a carefully planned female burial. All of this evidence indicates that this complex may have served ceremonial rather than domestic purposes (Swiny 2008, 49-50). At Middle Bronze Age Alambra-Mouttes, structures investigated by Coleman et al. (1996) indicate a more standardised building layout, according to the model of the courtyard house (Z_5). The apparently more organised arrangement of compounds and the more formal layout of the settlement can derive from the less stratified architectural evidence compared to those analysed at Marki-Alonia (Webb 2009). No marked evidence of differentiation can be inferred from the record of the seven structures investigated at Alambra-Mouttes. The only exception is constituted by Building IV, which possibly served communal purposes given its spacious



Figure 4.6 Distribution of buildings during the different occupation phases at Marki-Alonia

size and the large dimension of the hearth within one of its rooms. An organised pattern, with structures and open areas aligned according to east-west oriented passageways, appears to characterise also Middle Bronze Age Politiko-Troullia; however, further data are needed to better define the internal arrangement of buildings within the two areas investigated at the settlement, *Troullia-East* and *Troullia-West* (see Falconer, Fall 2013; 2014).



Figure 4.7 Distribution of building in the three plots investigated at Sotira-Kaminoudhia. © Swiny et al. 2003

The analysis of settlement structure at Middle Bronze Age Erimi-*LtP* provides new evidence to investigate the evolution of forms of organisation at the end of Prehistoric Bronze Age Cyprus, and to examine the manner in which spatial layout was used to define social settings. Archaeological data revealed that the settlement was organised in two distinct areas: the productive area of the settlement - the Workshop Complex - on top of the hill and the domestic area, on the lower terraces, separated from each other by open spaces and characterised by diverse forms of buildings organisation (Bombardieri 2017, 27-8). The Workshop Complex was constructed with a regular layout, with buildings aligned according to a street system, whereas in the proposed domestic area, the organisation of buildings and open areas is less regular and more similar to the clustered arrangement of Early Bronze Age contexts (fig. 4.8). Buildings of the domestic area were arranged in groups around an open courtyard (Z_3) or constructed according to the central space syntax (Z_3). Despite the differences in the spatial layout between buildings of the Workshop Complex and buildings

4.3 Settlement Organisation and Social Convention

4.3.1 Transformations in the Settlement Constitutive Elements

A closer analysis of the constitutive elements of settlements, including the examination of the internal arrangement of buildings within the broader picture of the community – rather than the individual household – structure, and the organisation of public works – such as streets, walls and open areas – may provide additional data to further examine social settings within prehistoric communities of the island.

4.3.1.1 Neolithic Cyprus

During Neolithic Cyprus, evidence of public works, despite limited, indicates a level of cooperation among groups of the settlement which possibly involved supra-household organisation strategies. The first supporting evidence for this assumption is represented by the massive wall structure at the Aceramic Neolithic Khirokitia. In the early reconstruction by Dikaios (1953), this feature was interpreted as the main road dividing the two sectors of the settlement, and only later Le Brun (1994, 15-26) proved it was a wall with possible defensive functions. It is more plausible that the wall served to mark out the settlement circuit, preserving the social cohesion among inhabitants (Knapp 2013, 126-7); however, it is further conceivable that the protection from potential external pressure – which we may suppose was guaranteed by this wall – helped to reinforce inhabitants' sense of security, hence possibly contributing to strengthening the community identity (Maisels 2010, 81-138). Le Brun interprets the occurrence of these wall structures as evidence of communal involvement in the settlement planning, construction and maintenance (2002, 25). The accomplishment of this work certainly involved a degree of communal decision-making and cooperative labour. However, it is possible that the scale of this cooperation was smaller than the whole community, and that households or groups of households living concomitant to the wall were responsible for construction and maintenance tasks (see Banning 2010). If this is true, we can speculate that this commitment was not conducted without practical advantages, comprising easier and more direct access to the settlement gateways. The existence of supra-household forms of organisation, possibly involving associations of nuclear families, is advocated by Le Brun (2002) and supported by the spatial organisation of houses around small courtyards as spaces for shared domestic activities (see § 4.1.1), but also by the possible articulation of gateways around the settlement wall (this is only hypothesised since only one access point has been identified to date), which possibly demarcated territorial subdivisions

creating different segments or membership groups within the community. Data from Cape Andreas-*Kastros* suggest different forms of organisation. Evidence for public works is limited to large streets and mud-plastered open areas; the latter were reserved for domestic activities and spread beyond the limit of a single household. These open areas seem to have been at the centre of everyday life, as they contained a large number of features and installations – while inner buildings were almost empty of furniture (Le Brun 1975) –, suggesting that a large number of activities were conducted in these outdoor spaces. The arrangement of these open areas can suggest more fluid mechanisms of sharing and cooperation among members of the small settlement of Cape Andreas-*Kastros*, and a less enclosed organisation of the built and social space compared to the more structured organisation observed in the larger community living at Khirokitia.

Ceramic Neolithic Sotira-*Teppes* and Ayios Epiktitos-*Vrysi* represented two other examples, which attest to the variegated sketch of the social and spatial organisation of Neolithic Cyprus. While evidence of public areas in these two settlements is confined to streets and courtyards, which were mostly used by individual households, evidence of the internal arrangement of buildings can reveal aspects of the social organisation of household groups within the settlement. The analysis of hearths at Sotira-*Teppes* indicates that each structure was furnished with fire installation, an essential requirement for domestic activities. However, examination of stratigraphic evidence (Dikaios 1961; Stanley Price 1979; see also Peltenburg 1978, fig. 4) indicates that during occupation level III, a few buildings – e.g. Houses 16, 18, 24, 25, 28, 31 – lack fire installations. If we take for granted that these structures had domestic functions, we have to hypothesise that family groups living and using these spaces had necessarily to share hearth structures with other household groups owning this facility (Kay 2020). These data – although in need of further and more complete evaluation – could represent preliminary evidence of the appearance of association between community groups, supporting the idea that Neolithic communities were not only formed by relatively autonomous households, but that intermediate forms of organisation between households and the local community were possibly in place (Düring, Marciniak 2005). In this regard, Ayios Epiktitos-*Vrysi* returned a different picture. Here all units are hearth-equipped, suggesting a socio-economic division of one family per house. In this case, we can suggest that mechanisms of cooperation between households were certainly occurring; however, no clear indicators can be traced in the spatial and architectural record (Peltenburg 2003).

4.3.1.2 Chalcolithic Cyprus

In a broader perspective, Middle and Late Chalcolithic Cyprus represent a moment of transformation in the concept and organisation of buildings and settlements. As it has already been discussed in § 4.1.1.2, the analysis of the settlement's layout suggests a more structured arrangement of the built and social environment. Evidence deriving from *Kissonerga-Mosphilia*, *Lemba-Lakkous*, *Soskiou-Laona*, *Erimi-Pamboula* and *Chlorakas-Palloures* indicates that, in contrast to what was observed at *Sotira-Teppes*, communities were structured as independent self-sufficient households – as suggested by the fact that each building was furnished with the essential equipment for the conduction of domestic activities –, and that interaction at the supra-household level was occurring in other extra-domestic spaces, including streets and shared courtyards (see § 4.2.2). The lack of less accessible and more isolated spaces within buildings suggests a high level of interaction and cooperation among household groups, not only in the construction and maintenance of the inhabited space, including its public structures (paved tracks, walls, communal buildings), but also in the conduction of socio-cultural and productive activities (Peltenburg et al. 1998b, 249).

Whitin this social environment, evidence of social differentiation is represented by functional and social distinctive buildings. The most representative example of this process is attested at *Kissonerga-Mosphilia* (Period 3b), in the Ceremonial Area, which constituted a separate sector within the layout of the settlement. This area, accessible through a wide paved track, characterised by large buildings constructed of non-local calcarenite blocks, may be indicative of an “ascendant social minority” (Peltenburg et al. 1998b, 248) of groups within the community that wished to distinguish themselves (Papaconstantinou 2013, 133).

An important aspect to characterise the spatial and social configuration of Middle/Late Chalcolithic Cyprus is represented by the consistent segmentation of internal building spaces, primarily identified at *Kissonera-Mosphilia* and *Lemba-Lakkous* but additionally observed at the coeval settlements of *Souskiou-Laona*, *Erimi-Pamboula*, *Chlorakas-Palloures* (Peltenburg 2014, 256-7). Although this specific aspect concerns the structuration and organisation of single buildings and not of the entire settlement spaces, it has been included in the present discussion because the identified consistency in building configuration has significant implications not only at the individual household scale, but mostly at the larger communal level.

Emphasising the importance of internal building partition and the recurrent yet not uniform construction pattern of these Chalcolithic contexts does not have the scope to flatten the individuality of buildings' histories and settlement-diversified trajectories. The purpose

here is to stress the social importance of the existence of communal construction norms, which were certainly individually and contextually re-adapted and re-interpreted. These norms, I argue, become progressively more attested over the course of Middle Bronze Age Cyprus in the process of 'domestication of space' (Steadman 2010; Banning, Chazan 2006), when dwellings were considered not only shelters but also symbols, thus used to communicate social identity and statuses. As discussed by Klinkenberg (2022), the emergence and diffusion of a standard built form was the expression of communal cohesion, and even when differentiation in size and elaboration occurred – e.g. the Ceremonial Area at *Kissonerga-Mosphilia* –, this diversity was expressed within these socially acceptable norms; such mechanism was important to the maintenance of social balance within these Chalcolithic communities (Klinkenberg 2022; Bolger et al. 2019, 328-30; Peltenburg 1998a, 237-40), and possibly enabled the development of collective decision-making structure, by limiting competition and promoting forms of cooperation beyond the level of the individual household (Bolger et al. 2019, 330-2).

4.3.1.3 Prehistoric Bronze Age Cyprus

In the excavated rural villages of Early Bronze Age Cyprus, the lack of street plans and the clustered distribution of buildings suggest that individual households and groups provided the necessary labour for building construction, encouraging the idea of a household organisation, based on an even distribution of products and goods (Peltenburg 1996, 27; Knapp 2008). The lack of social distinction is also reflected in the lack of special-purpose buildings, with the only exception of Unit 12 in Area B at *Sotira-Kaminoudhia*, which attest to the occurrence of spaces designed for ritual or ceremonial functions (Swiny 2008).

A closer look at the stratigraphic evidence available from *Marki-Alonia* suggests a community in progressive transformation. During the earlier phases of occupation, courtyards were routinely used as outdoor working spaces by mutually dependent and closely related households (Frankel, Webb 2006a, 311-13) indicating a high level of social and economic cooperation between groups within the community. However, from Phase C onwards, a new social system emerged, based on a more complex negotiation of available territories and increased household privacy, as indicated by the decreasing size and importance of courtyards, the introduction of controlled access routes and of private entry passages, and the development of single-entry non-courtyard house (Frankel, Webb 2006b, 299-302). As anticipated in § 4.1.1.3, this increasing control over settlement spaces exerted by household groups within the whole community reflects transformations within the household-based system. If, on one

side, a process of increasing privacy occurred over the course of settlement and community life history, on the other, contextual analysis of individual compounds reveals that in Phases E and F there is a progressive loss of fire installations within some of the compounds of the settlement, which may be indicative of mechanisms of affiliation between compounds and households [tab. 4.3]. For example, Compound 7 - one with a longer lifecycle - is autonomous during earlier occupation Phases C-D, but possibly loses this independence when the hearth is removed during successive Phases E-F. We may suggest that domestic activities, like food processing, were no longer conducted within this compound, and that people living here necessarily relied on concomitant compounds' facilities. This possibly encouraged dynamics of cooperation within and between households. We may propose that the use of shared facilities and space could have been an additional basis for the kind of face-to-face interactions; this possibly contributed to the creation of particular forms of aggregation at the supra-household level (Düring, Marciniak 2005; Fisher 2014b, 202-5; Keith 2003; see also Sneddon 2015). Similar trajectories have been also identified in Compound 14. It is further possible that during Phases E-F, Compound 7 acquired other functions, and was used as space for supra-household activities. Other compounds built in the later Phases E-F-G (e.g. 20, 21, 22) were never furnished with a fire installation, possibly suggesting that the dynamic of affiliation and cooperation between households, or of compounds' functional distinction were progressively more diffused in the settlement.

At Sotira-Kaminoudhia, evidence for communal/public works is constituted by the narrow alleyways (nos 30-3, 37-42) which provided the access to different units of the settlement. Considering that there is no organic settlement layout at Sotira, which may suggest supra-household spatial organisation, it is possible to infer that these alleys were constructed and maintained by those groups living nearby and using these open spaces more frequently. Apart from streets, there is a lack of large, open, publicly accessible spaces that could be used for spontaneous gatherings or planned social occasions. However, the diverse spatial setting observed in Area B implies that forms of communal-based organisation were possibly in place at the settlement. Here, a wide and straight street - Unit 13 (the width varies from a minimum of 1.70 m to a maximum of 2.50 m; cf. Swiny, Rapp, Herscher 2003, 37) - determined the alignment of one of the most prominent spaces investigated at the site, the Unit 12 complex, which consisted of an unclosed unroofed area which may have been used for ceremonial activities (see § 4.2.3; Swiny 2008, 48-50). The occurrence of such an area, characterised by a more structured plan and by a more elaborated architectural form and construction than the domestic buildings of Area A, may indicate that this space served as a context for social interaction and aggregation at the supra-household level.

Table 4.3 Occurrence of fire installations within the compounds at Marki-Alonia during Phases D-E-F-G

Compound no.	Phase D	Phase E	Phase F	Phase G
6	**	***	***	**
7	*	-	-	**
8	*	**	**	R
9	*	*		R
11	*			R
12	-	-	-	-
13	*	*	*	-
14	*	-	-	R
15	*	*	*	R
16	-			R
17	*			R
18	-	*	*	-
19		*	*	-
20		-	-	-
21		-	-	-
22		-	-	-
23			*	*
24			*	-
25			-	-
26			-	-
27			*	*
28			-	-
29				****

Key:

- * fire installation (hearths/oven);
- absence of fire installations;
- R ruin

The examination of settlements' constitutive elements of Middle Bronze Age contexts indicates a progressive transformation in the use and concept of built space, which reflects marked changes in the configuration of households and communities. Manning (2019, 99-130) affirms that changes towards the emergence of complex societies on the island did not occur in a vacuum, but appeared progressively during Early and Middle Bronze Age Cyprus. The more evident outcome of the increasing complexity in the organisation of communities and built spaces is constituted by the construction of forts - e.g. Nitovikla fortress - at the very outset of Late Bronze Age Cyprus, which materialise the desire to control movement and interaction throughout a larger and more monumental appropriation of

space (Fisher 2014b, 201). However, indicators of progressive social and spatial transformation are already evident in the arrangement of Middle Bronze Age settlements (see Webb, Knapp 2021).

The first evidence of change is represented by the emergence of more organic settlement plans, which appear to be attested both in the domestic Area A at *Alambra-Mouttes*, at *Politiko-Troullia* and in the productive and domestic space at *Erimi-LtP*. With the exception of *Alambra*, in the other two contexts buildings are aligned and organised according to a system of passageways/lanes which constitutes evidence of the existence of a road system connecting buildings and areas within these two settlements. We may consider this coordinated arrangement as an indicator of preconceived planning and it is suggested to be one of the prominent aspects of spatial configuration at the supra-household level and a possible indicator of the occurrence of a coordinating authority (Fisher 2014b, 191-5; Garfinkel 2006, 103-11). In the case of *Erimi*, the organised layout, especially evident in the more extensively investigated Workshop Complex, can be the result of a corporate strategy, where the tasks and surveillances are distributed according to expertise, enabling the continuity to undertake large-scale projects (Amadio 2017, ch. 8; see also Paz 2012, 423; Chesson 2003). This is also demonstrated by the big effort in the construction of the entire settlement, with buildings carved into the bedrock floor and aligned according to the northwest/southeast axis (see Chapter 2).

The second indicator of transformation is constituted by the different use of open areas, which acquire an extra-household dimension thus becoming spaces of interaction and exchange, but also places of negotiation and possible contestation (Fisher 2014b; Stanley et al. 2013). While evidence from the latest phases of occupation at *Mariki-Alonia* reveals a shift of domestic activities from the exterior areas to the interior, more private spaces, the record of Middle Bronze Age Cyprus attests instead to the renovated prominence of open areas as *loci* of aggregation and shared activity. The two more representative cases of this shift are *Politiko-Troullia* and *Erimi-LtP*, where open areas appear to be the core of economic production and social interaction, as well as “potential locales for socially significant behaviours” (Falconer, Fall 2014, 176; see also Bombardieri 2013; 2017, 353-62). In the Workshop Complex at *Erimi-LtP*, open spaces were planned and constructed in direct relation to the main passageways running east/west. The fact that these open areas were not limited and enclosed by fixed structures such as walls and doorways implies that these spaces were designed to be accessible by anyone. The occurrence of working installations and shared facilities both at *Troullia* and in the productive and domestic contexts at *Erimi-LtP* may suggest that communal working activities were conducted in these open spaces, indicating cooperation and coordination in the conduction of daily tasks. The face-to-face interaction, encouraged by communal activities, is likely to have

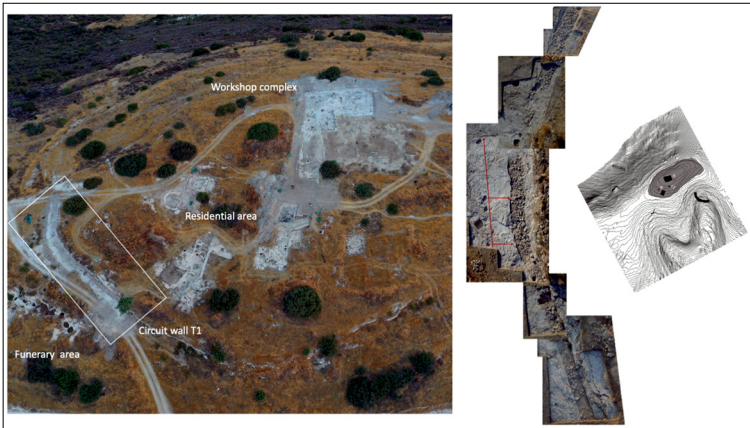


Figure 4.9 Circuit wall T1 at Erimi-LtP

reinforced mechanisms of solidarity and possibly contributed to shaping and strengthening social identity (Keith 2003; Fisher 2014b, 201). The large size and the particular assemblage in the southern courtyard of *Troullia-West*, including plank figurine fragments and large faunal evidence, have led to hypothesise the use of this area for corporate feasting, as aggregative events at supra-household, communal level (Falconer, Fall 2014, 176). We can imagine how similar trajectories could have occurred also in productive Area B at *Kissonerga-Skalia* (Crewe, Hill 2012, 233-4) and in the industrial workshops at *Amelikou-Aletri* (Webb, Frankel 2013b, 201-25), possibly suggesting that open work areas could have constituted the most prominent places of aggregation, interaction and exchange during Middle Bronze Age Cyprus (Webb, Knapp 2021). Sharing facilities, collaborating in the accomplishment of work tasks and participating in communal events could not have failed to reinforce social cohesion and develop a sense of community and possibly attachment to the place (Keith 2003).

The analysis of transformations in use and concept of courtyards and open spaces in Middle Bronze Age settlements is strictly connected to another important architectural, social and economic change, represented by the appearance of workplaces segregated from spaces of production at a domestic scale. As sustained by Bombardieri (2013, 93-9; 2017, 356-7), this spatial transformation has important socio-economic implications and indicates a transition from a household-based subsistence economy to a more developed socio-economic system, where there is evidence of supra-household production and communal decision-making. The case of *Erimi-LtP*, characterised by the segregation between the productive and the residential

area, well represents the transition from domestic courtyards used as informal work spaces – as exemplified by courtyards at Marki-Alonia and Alambra-Mouttes (Bombardieri 2013, 92-4; Webb, Knapp 2021) – to the establishment of a formal workshop, based on semi-specialised productions. The existence of these distinct spaces at Erimi-LtP is indicative of the emergence of areas with specific functions, the domestic and the productive. These two areas of the settlement are characterised by different spatial organisation and architectural elaboration, as evinced by the more regular alignment of buildings in the Workshop Complex and the use of more elaborated dressed thresholds. The introduction of monolithic thresholds indicates both the increasing need to secure products within the workshop units and to physically create a filter to control access within these enclosed spaces and through which to activate mechanisms of inclusion/exclusion. This segregation between productive and domestic areas also characterises the settlements of Ambelikou-Aletri (Webb, Frankel 2013b, 221-3) and Kissonerga-Skalia (Crewe, Hill 2012; Crewe 2013; 2014), suggesting that forms of cooperation, interaction, planning and production beyond the level of the household were in place during Middle Bronze Age Cyprus (Crewe 2017).

Preliminary analysis from the residential area at Erimi-LtP seems to indicate that domestic units were not always equipped with fire installations, suggesting that households were not necessarily autonomous but possibly organised in cooperative forms, as also hypothesised for the community living at Marki-Alonia during the latest Phases E-H. Data from coeval settlements are too limited to confirm if this dynamic is occurring at a broader scale in other contexts of the island.

The described picture demonstrates that forms of aggregation beyond the level of kin groups were emerging over the course of Prehistoric Bronze Age Cyprus, possibly facilitated by the creation of new spaces of social interaction such as communal open areas and workplaces. These larger aggregations may have functioned as “cooperative enterprises of communities of practices” (Webb, Knapp 2021), which, if on one side provided the necessary workforce for the accomplishment of supra-household and more specialised forms of production, on the other possibly determined dynamics of inclusion and exclusion, perhaps raising the potential for internal tension and conflict (Fisher 2014b, 205; Shin 2009, 434).

In this regard, further evidence of transformation is represented by the appearance of circuit walls, as observed at Erimi-LtP and Kissonerga-Skalia. The circuit wall at Erimi-LtP (T1) is a massive structure of c. 2.0 m in width, which delimits the settlement on its southwest side, where the hill slopes are less steep. The entire structure was built on a foundation trench cut into the bedrock floor [fig. 4.9]. Although the upper-standing structures are not preserved anymore, we can suggest that this massive structure was

standing out against the surrounding environment (Bombardieri 2016; 2019). The circuit wall identified in Area G at Kissonerga-Skalia (Wall 68/407) is a sinuous structure which shows a construction technique similar to the one observed at Erimi. The wall was built by digging a wide foundation trench cutting pre-Bronze Age deposits, into which rubble was then dumped (Crewe 2014, 144; 2017). What is proposed here is to interpret these enclosing walls not just as military and defensive structures, but also as means to control movement and access within the settlement (Fisher 2014b, 201). They possibly materialised the boundary of the community, thus permitting those who lived within them to identify themselves in contrast to the surrounding natural, built and social environment. Walls possibly participated in the construction and reinforcement of roles, statuses and identities of these transformative pre-urban communities.

Although not all of these transformations took place at every site, nor did they occur simultaneously throughout the island, the making of these renovated built environments over the course of Middle Bronze Age Cyprus and their use in daily practices embodies the gradual emergence of new forms of social representation and of cultural, economic and political identities, which anticipate the emergence of the more complex spatial and social structure of the Late Bronze Age urban centres of the island (Webb, Knapp 2021).

