



Courtyards in Ancient Anatolia: a Discussion of the Architectural Features of Open Spaces from the Neolithic Age to the End of the Bronze Age

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ABSTRACT

This study applies a method that evaluates the use of an architectural element in a specific place and time by referring to a discussion begun by other scholars. In accordance with the definition and classification advanced by this study, the article proposes a re-evaluation of spaces previously identified as courtyards in research and publications regarding the development of Anatolian architecture from the Neolithic Age to historic ages. Courtyards and other open spaces are discussed in this study, and a new classification is suggested to frame the use of courtyards in Ancient Anatolian architecture better.

Key Words: *Ancient Anatolia, Anatolian Architecture, Courtyard.*

1. INTRODUCTION

The focus of the discussion elaborated in this article is centred on a series of scientific studies examining the development of Anatolian architecture from the Neolithic Age to the end of the Bronze Age. The main objective is to question the nature of open spaces defined as courtyards in these previous studies (in particular, excavation reports, published articles, and books).

The paper addresses the subject essentially from an architectural point of view, aiming to highlight the

specific spatial features that enable the identification of a space as a courtyard. The study avoids any interpretative approach aiming to elucidate social and cultural factors; on the contrary, the focus is centred solely on the discussion of the spatial meaning of a specific architectural form and its importance as a regulator element in the composition of ancient Anatolian settlements.

The discourse actually originates from a critical reading of the selected reference material. In general terms, in most of the examined publications, the term courtyard is

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often used in a quite generic way, meaning that nearly every open space is improperly categorised under this definition.

The ultimate goal of the paper is to resolve the ambiguities implied in the very term 'courtyard'. To offer a clear and proper use of the term, the work first proposes a definition for this specific type of space. This study subsequently presents a classification for a variety of open spaces based on their peculiar spatial role inside the organisation of the main structure of which they are a part. Finally, a number of case studies organised according to the set of categories that compound the proposed classification are discussed.

2. THE CONCEPT OF A COURTYARD

Generally speaking, in architectural literature, the term 'courtyard' usually refers to 'an open area surrounded by walls or buildings' [1, 2, 3, 4]. According to this definition, a courtyard is an open spatial element around which the architectural composition is arranged. To further refine this general definition, it is necessary to clearly discuss the relationship between courtyards and the functional features of the spaces around them. In fact, it is according to this relationship that the role of a courtyard can be precisely stated. For example, in the case of a house, the courtyard is a void around which a number of activities (somehow all connected with a domestic function) are arranged. Although some of these activities may migrate into the space of the courtyard and assign a function, any functional feature is resolutely ineffective in identifying the spatial role of the courtyard. The prime spatial role of any courtyard indeed is to enable a system of movements and relationships between the different functional spaces grouped around them. The fact that the courtyard does not change in relation to the functional typology that distinguishes the building in which the courtyard is located stands as an essential and invariant condition for all courtyards. Of course, this system of connections may subtly change in relation to the effective position of the courtyard [5]. The differentiation between inner courtyards and forecourts

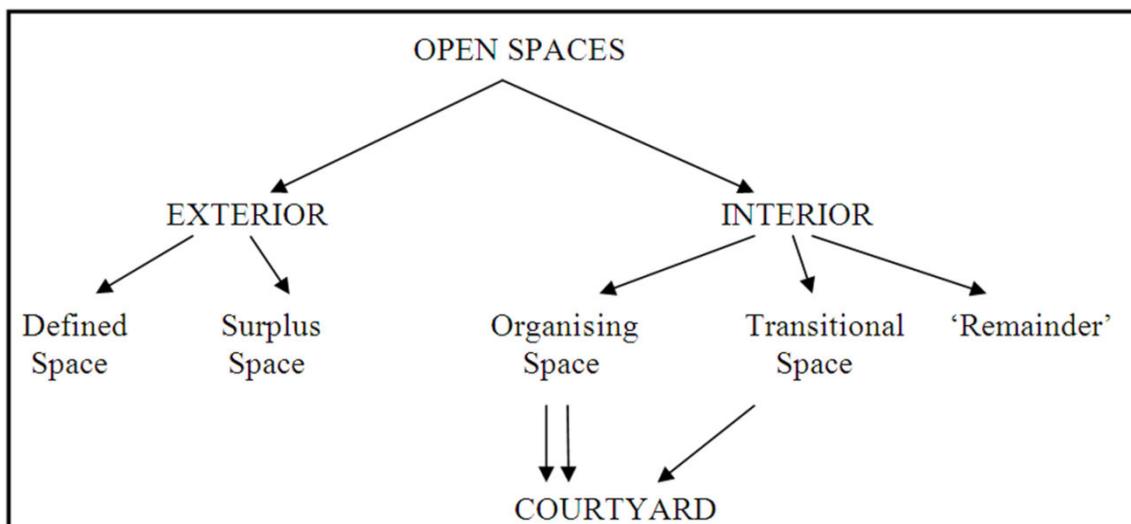
seems to be useful to discuss this point further. An inner courtyard, whether of a simple or complex building, represents the main spatial element located in the centre that organises and provides all the transitions between compounded units. In contrast, a forecourt is an intermediate space that enables the transition between the building (interior) and the environment (exterior) [5]. Differentiating between these two typologies provides an effective clue about the prime features of these types of spaces, namely, their role and location.

3. A NEW CLASSIFICATION FOR OPEN SPACES DEFINED AS COURTYARDS IN PAST ANATOLIAN STUDIES

From an architectural point of view, the location and role in the spatial organisation stand as the prime criteria for defining an open space as a courtyard. Therefore, they become the two main headings for the construction of the proposed classification. Location is the position of the open space, which may be arranged inside or outside of the building with different grades of integration within the general composition. Role defines the tasks performed by the space in terms of connections and the organisation of paths.

The open spaces defined as courtyards in past Anatolian studies have been classified as follows. First, two main groups have been defined according to the location of the space either in the exterior or interior of the building. A further differentiation is provided according to the role performed by the space in its location. This differentiation has taken into account the following items: principal or secondary importance within the spatial composition, prime or marginal role in the organisation of paths, and congruent or residual nature. As a result, the first group, 'Exterior', includes two types of spaces: Defined Spaces and Surplus Spaces. The group 'Interior' includes three types of spaces: Organising Space, Transitional Space, and Remainder (Table 1). The following section will discuss each of these spaces in detail.

Table 1. The classification proposed by authors for the open spaces generically called courtyards in past Anatolian studies



3.1. Defined space

The first category under the heading ‘Exterior’ is ‘Defined Spaces’. This category refers to open areas clearly included within the structure of a settlement. These open areas seem to mainly suit public activities. It is possible to find traces of these defined areas since the Neolithic Age. Two sets of examples in relation to Anatolian architecture provide hints about this type of open space, which is suitable for organising the core of

settlements and enabling physical communication among buildings.

The first group comprises examples characterised by the presence of different open spaces. The site of Hacilar VI, which is near Burdur, from the Neolithic Age includes a number of these open spaces; however, their spatial borders are not clear, and they appear as geometrically undefined blank areas [6] (Figure 1).

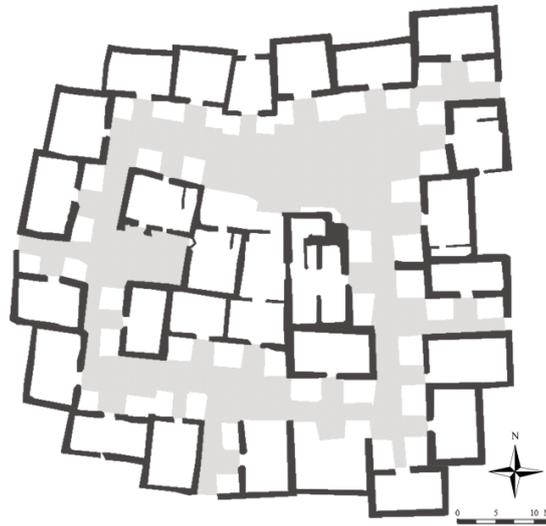


Figure 1. The Neolithic Age Hacilar VI settlement plan (Redrawn by authors from Mellaart [6])

The western and southern parts of the site of Hacilar IIA, from the Early Chalcolithic Age, present open spaces that are part of the entire settlement [6]. According to some scholars, the role of these spaces was to divide the town into different neighbourhoods [7]. It is worth mentioning

that contiguous buildings of one or two storeys with features similar to the ‘megaron’ type because they display a forecourt or a type of front room can be found in the surroundings of the western area [8] (Figure 2).



Figure 2. Early Chalcolithic Age Hacilar IIA settlement plan (Redrawn by authors from Mellaart [6])

The open spaces in the site of Kuruçay VI, which is from the Late Chalcolithic Age, are characterised by regular and clear layouts integrated within the system of the settlement. The spaces mediate the transition between the different gates and secondary streets along which the

entrances of buildings open. In particular, in relation to the EA space (Figure 3), the presence of a regular geometry and the specific location next to the settlement chief’s house (building no. 6) reveal the importance of the space in the context of the settlement [7].

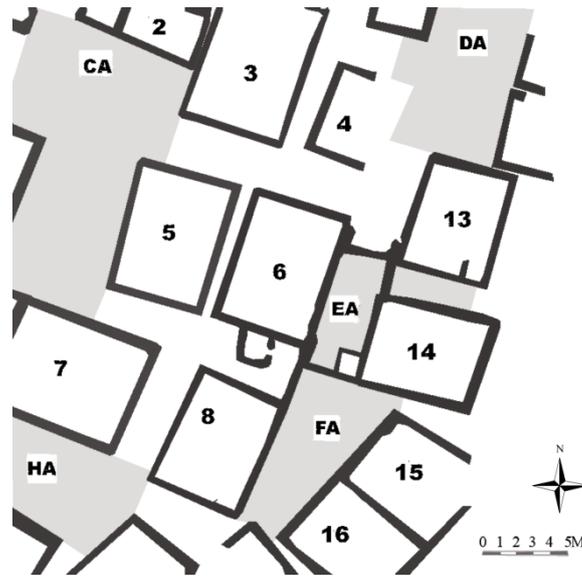


Figure 3. Late Chalcolithic Age Kuruçay VIA settlement plan (Redrawn by authors from Duru [7])

The second group, which is still from the Chalcolithic Age, presents a different layout that is typical of Anatolia; the layout is characterised by a circular form with only one open space located in the centre surrounded by all the buildings [9]. The sites of Hacilar I from the Chalcolithic Age [6] (Figure 4) and Eskişehir Demircihöyük [9] (Figure 5), Pulur Sakyol [10], Antalya Bademağacı [11], and others from the Early Bronze Age present settlements with this type of layout. These

settlements were conceived as a unitary system in which the aggregation of buildings proceeds in separate units but a unique open space core in the centre provides connections among all of the units. According to the interpretation of Özgüç [12], the 'defined open areas' that characterise the settlements can be identified as proto-squares (or, as the Turkish archaeologist refers to them, *meydanlık*).



Figure 4. Early Chalcolithic Age Hacilar I settlement plan (Redrawn by authors from Mellaart, [6])

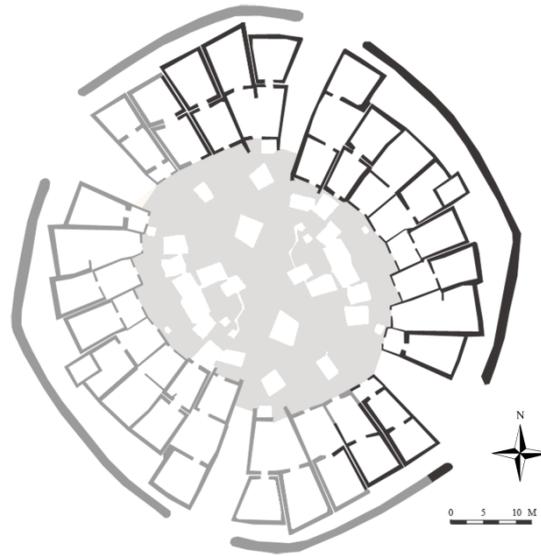


Figure 5. Early Bronze Age Demircihöyük settlement plan (Redrawn by authors from Korfmann [9])

3.2. Surplus space

The second category under the heading ‘Exterior’ is ‘Surplus Space’. The definition refers to undefined, additional or extra spaces that do not play any determinant role in the organisation of public spaces inside a settlement.

The settlements of Aşıklı Höyük, near Aksaray, and Çatalhöyük, in Konya Çumru, which are both from the

Neolithic Age, were characterised by buildings intensively constructed at a close range and consequently by the presence of many open spaces that particularly suit the discussion of ‘surplus spaces’. In the case of Aşıklı Höyük, the studies identify some of the spaces between houses as ‘narrow courtyards’ [13]; however, based on many small pieces of evidence from the excavation, they may be interpreted as garbage dumps or workshops [14, 15] (Figure 6).

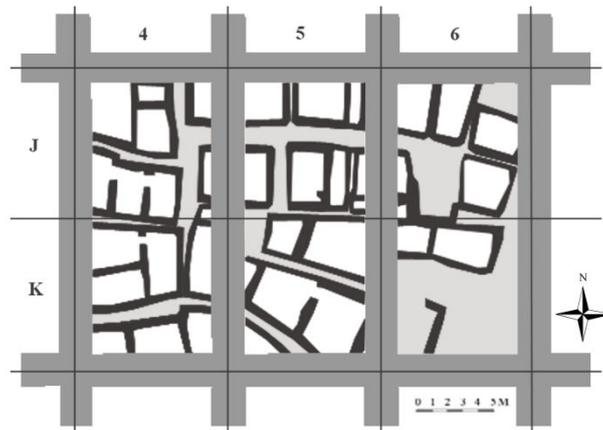


Figure 6. The Neolithic Age Aşıklı Höyük, schematic plan of Trenches J, K (Redrawn by authors from Esin and Harmankaya [13])

Many studies conducted on Çatalhöyük offer better evidence for discussing this type of open space. Levels VI-VII of Çatalhöyük, which are similar to the case of Aşıklı Höyük, where there were no streets no doors opening to the outside, presented holes in terraces that provided access to the houses [16, 17, 18] (Figure 7). In reality, these terraces performed the very task of serving

as open space. On the one hand, on these terraces, the daily activities of the houses took place; on the other hand, due to the absence of proper streets, the terraces had the role of linking the different domestic spaces of the settlement. The terraces in Çatalhöyük indeed were spaces where the public and private borders were interwoven [18].



Figure 7. The Neolithic Age Çatalhöyük VIA settlement plan (Redrawn by authors from Mellaart [16] and Düring [18])

In the case of Çatalhöyük VIA, it is appropriate to consider two important pieces of evidence from the literature on the subject that are supposed to contribute to the identification of open spaces as courtyards. The first piece of evidence concerns only the open spaces located around the neighbourhoods of the settlement. These spaces were surrounded by walls, most likely to provide the interiors of neighbourhoods with a certain protection and to prevent foreigners from entering 'ritually elaborate buildings' located inside of the settlement [18]. However, these open spaces are quite separated by the system of terraces because they stand on a lower level and are connected with them only by means of stepped stairs. The second piece of evidence concerns all the open spaces included in the settlement. According to Mellaart [16], who directed the first excavations at Çatalhöyük, these spaces were mainly used for the gathering of garbage, sanitary reasons, and assuring the passage of air and light. However, Hodder [19], the director of the second excavation, noted that some areas identified by Mellaart as courtyard were actually sheepfolds.

However, these pieces of evidence do not seem to provide a clear interpretation of the nature of those spaces. Considering the particular structure of the settlement, which is characterised by a system of access localised on the roofs of building and an apparent absence of any other direct connection between the interiors and exteriors of buildings, it seems more appropriate to interpret these open areas as undefined,

additional spaces without any specific role within the structure of the settlement, or, according to the classification proposed by this study, exterior surplus spaces.

3.3. Remainder

This category regards spaces located in the interior of a complex. The term 'Remainder' (something left over after other parts have been taken away) is used to identify open areas that have secondary or unspecified roles in the organisation of the inner parts of buildings and are added as residual areas to the general building's organisation (as in the case of backyards, workshops, barns, etc.).

As a matter of fact, the location of an open space in the interior of a building is not sufficient to support the identification of such a space as a courtyard. For example, the open space (well-court) of the temple in the northeast corner of the settlement of Hacilar IIA from the Chalcolithic Age [6] (Figure 2) and the open garden workshop (DP and BK) attached to the first building in Elazığ Tepecik 3c from the Chalcolithic Age [20] (Figure 8) do not play a role in facilitating transition between the spaces or organising relationships between the interior and the exterior despite the fact that they are located inside the buildings. They are simple parts of the buildings, similar to any other room or store unit, and do not play any specific or defined role in the organisation of the system of spaces.

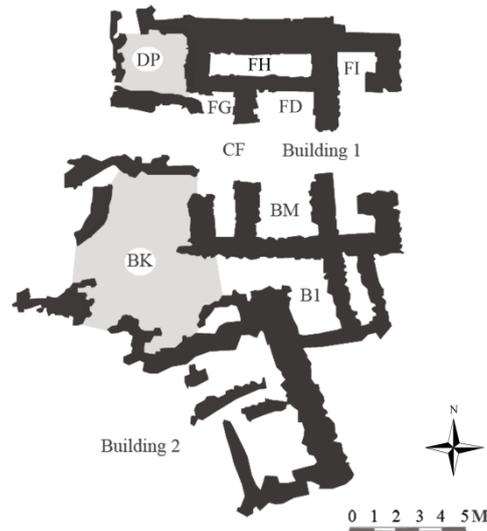


Figure 8. Late Chalcolithic Age Tepecik 3c, settlement plans of the 1st and 2nd Buildings (Redrawn by authors from Esin [20])

3.4. Transitional space

This other category related to the interior of buildings refers to areas that enable transition between buildings and the outside. They are located between buildings (interior) and streets (exterior) and play the role of intermediate spaces. Under these conditions, for example, a forecourt may be interpreted as a transitional space unless it plays a role in organising rooms or other spaces. In the time interval examined by the present study, it is possible to identify two typologies of building in Anatolia in which courtyards may be interpreted only as transitional spaces. The first is the ‘megaron type’ from Western Anatolia, and the second comprises a closed unit together with an attached courtyard belonging to Central Anatolia.

The ‘megaron type’ includes examples of courtyards used as transitional spaces between the interior and the exterior. They are characterised by an area (a megaron forecourt) that is a covered mediation space located in front of the main room and defined by the presence of two lateral walls that are continuations of the building’s main rooms. Examples of ‘megaron-type’ courtyards from Western Anatolia (Denizli Beycesultan [21], Antalya Karataş Semayük [8], and Troya I [22] dated from the Late Chalcolithic to the Early Bronze Age (Figure 9) are generally characterised by the presence of a single spatial unit defined as the megaron. In some cases, however, a number of these units appear organised together in more complex arrangements (Kültepe, Troya IIg and Külliüoba) [23].

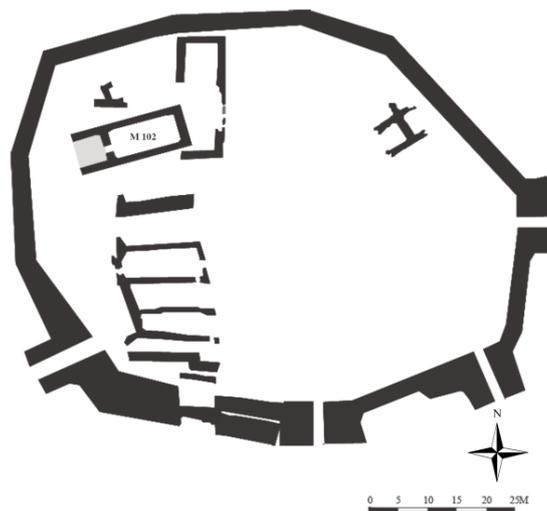


Figure 9. Early Bronze Age Troya I settlement plan (Redrawn by authors from Korfmann and Mannsperger [22])

The second typology represents a specific template for buildings with courtyards in Central Anatolia. It is formed by a main spatial arrangement characterised by

two adjacent rooms facing a courtyard whose width matches the frontal width of the rooms. This

configuration generally appears in two-storey structures, where the main living unit (accessible from the courtyard by means of a ladder) is located upstairs and the lower level is intended as a storage unit. The most important

examples of this typology are found in structures belonging to Karum-Kaniş and the Hittite settlement of Boğazköy [8, 12, 24] (Figure 10).

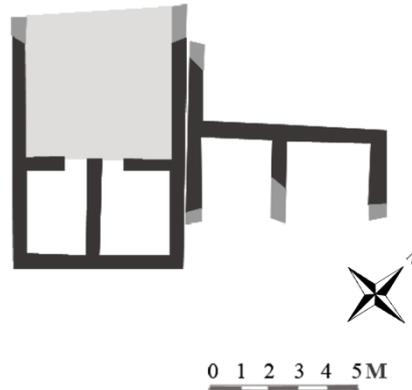


Figure 10. Karum Kaniş II housing plans (Redrawn by authors from Naumann [8])

As has been proved by many examples, this two-room building type with a courtyard could be expanded by the addition of one or more new rooms without modifying the main layout. Level X of the Mersin site includes a courtyard attached to a main space formed by two large

and two small rooms [25] (Figure 11). Similar examples appear in the Middle Bronze Age levels of Boğazköy [26]. In the lower town of this same settlement, it is possible to find houses with a similar courtyard layout.

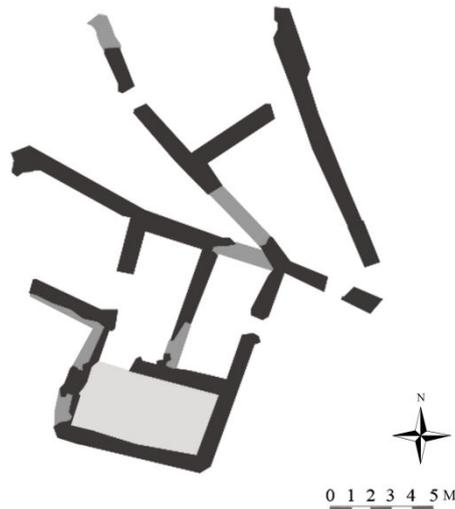


Figure 11. The Bronze Age Mersin Yumuktepe X-IX housing plans (Redrawn by authors from Garstang [25])

In Alacahöyük II and III, a dwelling organisation with no more than a two-room unit as the main pattern in the design has been found, although the courtyards have similar spatial meaning (Figure 12). The rooms that form a covered living space are no longer connected with the courtyard in a systematic way [27], but the courtyard continues to play the role of an intermediate area, a

transitional space between the streets and the living space.

The Central Anatolian dwelling types generally differ from the Western Anatolian megaron type inasmuch that their courtyards are not simply transitional spaces but also house open workshop with stoves and fireplaces.

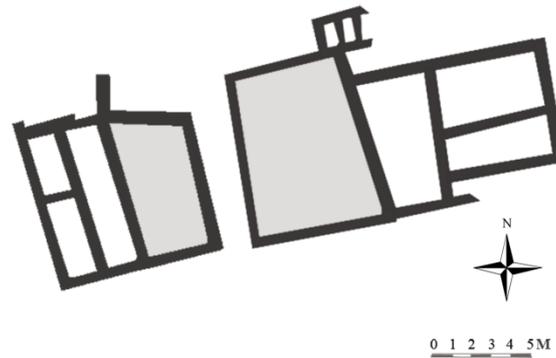


Figure 12. The Bronze Age Alacahöyük III housing plans (Redrawn by authors from Koşay and Akok [27])

3.5. Organising space

The last of the categories related to the interior of buildings, ‘organising space’, refers to the features of a proper inner courtyard, or an ‘interior’ spatial element with the function of organising and coordinating connections between the different spaces of a building. It is an effective spatial element in the general layout of a building because the arrangement and the mutual disposition of all the rooms depend on it. Moreover, the presence of this type of courtyard at the centre of a building is essential for directly reaching all the units and rooms and establishing a transition area between the exterior and interior of the building.

Three different types of ‘organising spaces’ are found in Anatolia in a time interval that ranges from the Neolithic Age to the end of the Bronze Age. The first type comprises a scheme in which a single row of rooms is arranged around a courtyard, which represents the very core of the building. Although this typology has a

Mesopotamian origin, several examples in Anatolia display similar arrangements, which is not surprising given that these Anatolian settlements were supposedly strongly influenced by the Mesopotamian Obeyd and Uruk civilisations during the Chalcolithic Age [28, 29, 30]. The first example of this type was found in Mersin Yumuktepe XVI [25, 31] and is called the ‘residence of the chief’. It is characterised by a typology that dates back the Mesopotamian period and a defined tripartite plan (covered unit, courtyard and covered unit) [28] (Figure 13). Inside this frame, other examples are worth mentioning. In particular, those of Malatya Değirmetepe [32] and Şanlıurfa Hassek Höyük V [33, 34] stand out because the excavation team report indicates the presence of a covered space (hall) in the middle of the place instead of a courtyard (Figure 14), similar to the Buildings in the Obeyd and Uruk settlements in Mesopotamia [35]. A similar case appears in Malatya Arslantepe VIA, where a bipartite planned house [29], a reduced type of tripartite form, has been found [30].

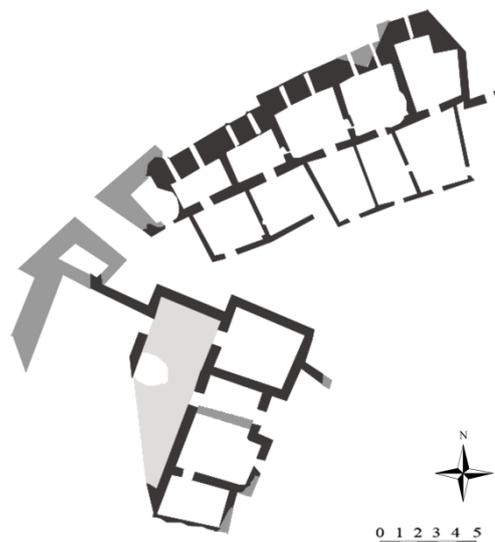


Figure 13. Mersin Yumuktepe XVI settlement plan (Redrawn by authors from Garstang [25])

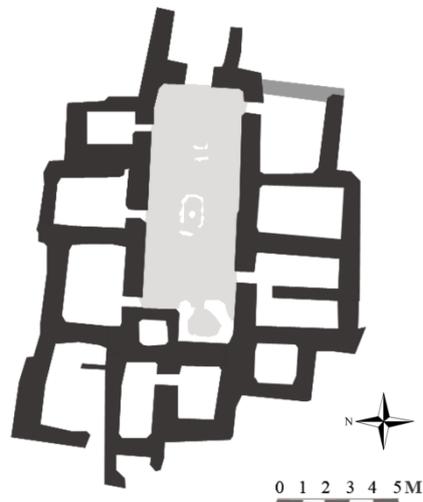


Figure 14. Malatya Değirmentepe VII, the plan of a House (Redrawn by authors from Esin and Harmankaya [32])

The second type is found in the Ankara Ahlatlıbel Mansion [36] and Kayseri Kültepe Warsama Palace [37]. A more complex aggregation of rooms gathers around a

courtyard, forming a compact unit. Two or three rows of rooms are placed around the courtyard, which is located in the centre; hence, the central courtyard is directly connected only to the rooms in the first row (Figure 15, 16).



Figure 15. Ankara Ahlatlıbel Mansion (Redrawn by authors from Koşay [36] and Naumann [8])

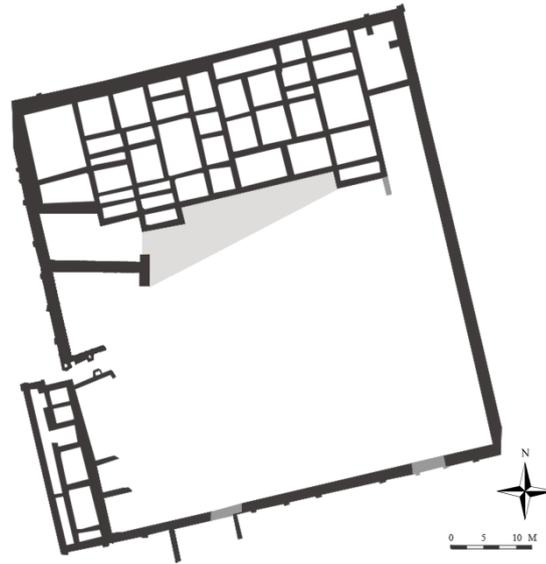


Figure 16. Kayseri Kültepe Warsama Palace (Redrawn by authors from Özgüç [37])

The third type is an organising space element that connects several independent building units differently than the other two types; it organises them in a complex way. The first analysed example of this design type in Anatolia is represented by the ‘grid-plan houses’ in Çayönü III that date to the Neolithic Age. The definition of ‘grid-plan houses’ comes from the foundation level of

the building, which clearly displays this particular layout. Two independent units gather around a courtyard tiled with stone and located at the centre. The first of these grid planned units serves as a main living space, whereas the second unit, located at the other end of the courtyard, is used as a workshop and depot [38, 39] (Figure 17).

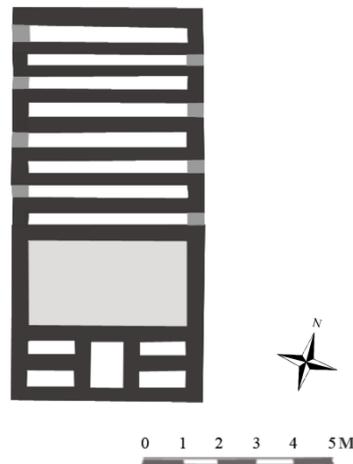


Figure 17. The Neolithic Age Çayönü III, Grid-plan houses (Redrawn by authors from Schirmer [38])

Despite having different dimensional and structural features, Norşuntepe VI [40] and Troya IIc in the Early Bronze Age [41, 8] and the Hittite Palaces [8, 27, 42, 43] in the Late Bronze Age present the same spatial organisation. In all these settlements, the organisation of independent units characterised by different functions around a courtyard is the means of forming palace unity.

In the Hittite palace architecture, the independent units of the building are continuously connected by colonnades located around the courtyard (Figure 18). To establish a visual continuation between the colonnade and the courtyard, pillars are placed against the walls in the areas where the courtyard is restricted by walls instead of columns [27].

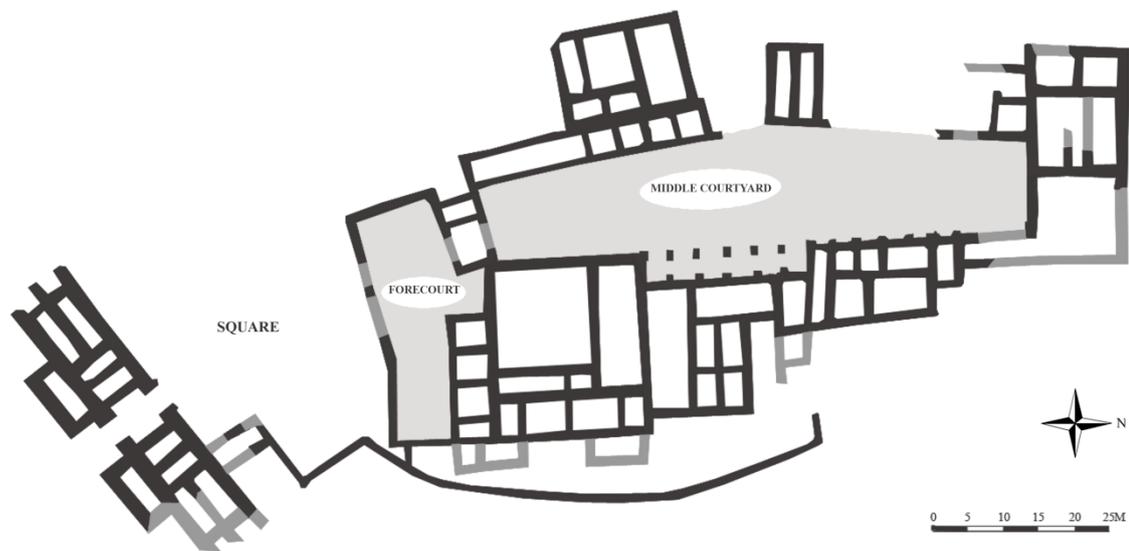


Figure 18. Alacahöyük II Temple-Palace plan (Redrawn by authors from Koşay and Akok [27])

The Hittite Temples, which are situated in Boğazköy [44, 42] and Kuşaklı-Sarissa [45, 46], have been built with a similar approach. The central courtyard with the rest of the building spaces (warehouse, service units, and the holy part) organised around it is a blueprint of the same layout. Although there is a courtyard in the centre, the plan is not introverted; rather, it is extroverted. Light comes directly through windows and the roof and not from the courtyard [47]. Self-organised groups of rooms are connected to the courtyard by means of a number of entrances. The aggregation of different units that are independent but at the same time connected by means of colonnades around a courtyard simply proves the similarity between the temple architecture and the palace architecture.

Some examples of houses from Mid-Bronze Aegean Central Anatolia show similar features in terms of spatial

organisation. The two-room core with a courtyard previously mentioned in the part devoted to describe 'transitional' spaces displays some similarities in some situations, for example, when some other parts, such as workshops, cellars, warehouses, and depots, are added to the core. Karum-Kaniş I [12] and Boğazköy Lower Town, in the 4th Layer [26], are examples of this type (Figure 19, 20). R. Naumann [8] noticed that, although the service units of the house are located around the courtyard, the courtyard is not the main unit for the building's spatial organisation because the main living unit has its own internal order. Nevertheless, the courtyard is still the element that connects and organises domestic and service units, with a central role in the main spatial organisation of the building.



Figure 19. Boğazköy Lower Town, 4th Layer (Redrawn by authors from Aktüre [24])

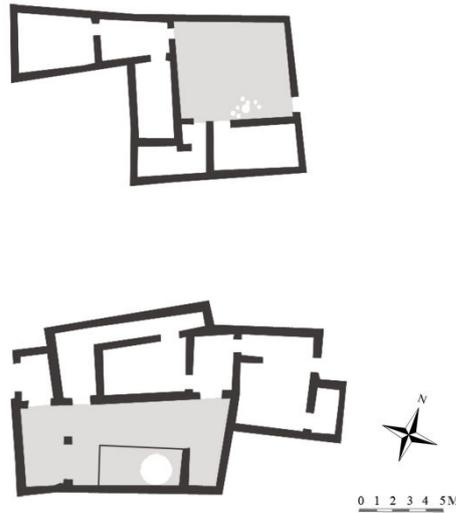


Figure 20. Karum Kanis I housing plans (Redrawn by authors from Özgüç [12])

4. CONCLUSIONS – COURTYARDS IN ANCIENT ANATOLIAN ARCHITECTURE

As is clear from the previous accounts, the publications evaluated in this article often employ the term courtyard improperly. In certain cases, for example, the term loses its specific definition because nearly all open areas located in a settlement are defined as courtyards.

Based on the classification drafted in this study, the definition of a courtyard does not fit the open areas called ‘Defined Space’ and ‘Surplus Space’ under the heading ‘Exterior’ and ‘Remainder’ under the heading ‘Interior’ because of their spatial role and location.

Only two of the categories (Organising Space and Transitional Space) refer directly and unequivocally to the type of space that can be defined as a courtyard. Among those defined as ‘Transitional Spaces’, the megaron type and two-room forecourt both represent a type of core-type courtyard. These open spaces fit the definition of a courtyard because they function as an intermediate space between the interior and the exterior of the building. Under the definition of ‘Organising Space’, three different forms of courtyards have been observed during the reference period in Anatolian architecture. The first form appears in the Obeyd and Uruk periods of Anatolian settlements closely connected with the Mesopotamian culture area. These settlement courtyards, located in the interior of buildings, are the main unit of spatial organisation. The second form appears in Ahlatlıbel and Kültepe as a unique design that can be detected in a few examples. Finally, the third form represents a common solution both for monumental and residential architecture during the monitored historical period. Although the third form is not a real inner courtyard, this type of open space displays a clear role in organising spaces and linking them within the whole system. These courtyards stand as cultural continuations in Anatolia, thereby becoming traditional forms

characterising the local layouts of buildings. This tradition lasted for an extended period; until recently, the courtyard was still the common feature of domestic typologies in Central Anatolian rural areas, which display similar forms and designs for cultural and geographical reasons.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

REFERENCES

- [1] Jones, F. H., “The Concise Dictionary of Architecture”, *Crisp Publications*, Los Angeles, 90, (1990).
- [2] Curl, J. S., “Oxford Dictionary of Architecture”, *University Press, Oxford*, 175, (1999).
- [3] Sözen, M., Tanyeli, U., “Sanat Kavram ve Terimleri Sözlüğü”, *Remzi Kitabevi*, İstanbul, 31, (1999).
- [4] Keister, D., “Courtyards – Intimate Outdoor Spaces”, *Gibbs Smith*, Salt Lake City, 3, (2005).
- [5] Arseven, C. E., “Sanat Ansiklopedisi”, *MEB Yayınları*, 131-132, (1983).
- [6] Mellaart, J., “Excavations at Hacilar”, *The British Institute of Archaeology at Ankara*, Edinburgh, 11, 34, 35, 77, fig.9, fig.19, fig.35, (1970).
- [7] Duru, R., “Kuruçay Höyük I”, *Türk Tarih Kurumu*, Ankara, 9, 16, 22, pl.32, (1994).
- [8] Naumann, R., “Eski Anadolu Mimarlığı”, *Türk Tarih Kurumu*, Ankara, 363, 371, 380-384, 398, 399, 406-413, fig.438, fig.503, (1985).

- [9] Korfmann, M., "Demircihüyük", Band I, Philipp von Zabern, Mainz am Rhein, 190, 193, 217, 222-241, (1985).
- [10] Koşay, H.Z., "Keban Project Pulur Excavations 1968-1970" *Middle East Technical University Keban Project*, Ankara, 36, (1976).
- [11] Duru, R., "Bademağacı 1999", 22. Kazı Sonuçları Toplantısı, *Kültür Bakanlığı Anıtlar ve Müzeler Genel Müdürlüğü*, Ankara, 97-104, (2000).
- [12] Özgüç, T., "Kültepe-Kaniş I", *Türk Tarih Kurumu Basımevi*, Ankara, 7, 42, 43, fig.14-16, (1959).
- [13] Esin, U., Harmankaya, S., "Aşıklı", Neolithic in Turkey, *Arkeoloji ve Sanat Yayınları*, İstanbul, 115-132, fig.3, (1999).
- [14] Esin, U., "Akeramik Neolitik Evrede Aşıklı Höyük", XI. Türk Tarih Kongresi, Ankara, 29-38, (1994).
- [15] Esin, U., "1998 Aşıklı Höyük Kurtarma Kazısı Raporu", 21. Kazı Sonuçları Toplantısı, Ankara, 71-80, (2000).
- [16] Mellaart, J., "Çatal Hüyük: A Neolithic Town in Anatolia", *Thames and Hudson*, London, 61, 68, fig.11, (1967).
- [17] Hodder, I., Cessford, C., "Daily Practice and Social Memory at Çatalhöyük", *American Antiquity*, 69(1): 17-40, (2004).
- [18] Düring, B., "Social Dimensions in the Architecture of Çatalhöyük", *Anatolian Studies*, 51: 1-18, (2001).
- [19] Hodder, I., "Çatalhöyük", *Arkeoatlas*, 1: 97, (2002).
- [20] Esin, U., "Tepecik Kazısı 1974", *Türk Tarih Kurumu*, Ankara, 85, pl.69, (1982).
- [21] Lloyd, S., Mellaart, J., "Beycesultan", Vol I, *The British Institute of Archaeology at Ankara*, London, 24-26, (1962).
- [22] Korfmann, M., Mannesperger, D., "Troia – Homer, Ilias und die Folgen", Band A, *Arkeoloji ve Sanat Yayınları*, İstanbul, 30, 33, 39, (1992).
- [23] Efe, T., "Küllüoba 1998 Yılı Kazısı", 21. Kazı Sonuçları Toplantısı, *Kültür Bakanlığı Anıtlar ve Müzeler Genel Müdürlüğü*, Ankara, 117-128, (2000).
- [24] Aktüre, S., "Anadolu'da Bronz Çağı Kentleri", *Tarih Vakfı Yurt Yayınları*, İstanbul, 132, 138, fig.45, (1994).
- [25] Garstang, J., "Prehistoric Mersin", *Clarendon*, Oxford, 133, 213, fig.79, fig.128, (1953).
- [26] Neve, P., "Hitit Krallığının Başkenti Hattuşa'da Konut", *Tarihten Günümüze Anadolu'da Konut ve Yerleşme, Türkiye Ekonomik ve Toplumsal Tarih Vakfı*, İstanbul, 99-115, (1996).
- [27] Koşay, H.Z., Akok, M., "Alacahöyük Kazısı – 1940-1948'deki Çalışmalar", *Türk Tarih Kurumu*, Ankara, 12-17, pl.78, pl.91, pl.93, (1966).
- [28] Schoop, U.D., "Das Anatolische Chalkolithikum", Verlag Bernhard Albert Greiner, *Remshalden*, 98-99, (2005).
- [29] Frangipane, M., "Non-Uruk Developments and Uruk-Linked Features on the Northern Borders of Greater Mesopotamia", *Artefacts of Complexity: Tracking the Uruk in the Near East*, *University Press, Cambridge*, 123-148, (2004).
- [30] Kohlmeyer, K., "Späturukzeitliche Wohn- und Verwaltungsbauten: Ein Vergleich zwischen Habuba-Süd und Anatolien", *Çağlar Boyunca Anadolu'da Yerleşim ve Konut Uluslararası Sempozyumu, 5-7 Haziran 1996, Eskiçağ Bilimleri Enstitüsü*, İstanbul, 267-280, (1999).
- [31] Garstang, J., "Mersin Kazısı", *Türk Tarih Kurumu*, Ankara, 5, (1947).
- [32] Esin, U., "Harmankaya, S., Değirmen-tepe (Malatya) Kurtarma Kazısı", IX. Kazı Sonuçları Toplantısı *Kültür ve Turizm Bakanlığı*, Ankara, 79-115, (1987).
- [33] Behm-Blacke, M.R., "Hasek Hoyuk 1983", VI. *Kazı Sonuçları Toplantısı*, İzmir, 181-190, (1984).
- [34] Behm-Blacke, M., "Hasek Höyük", *Arkeoatlas*, 2: 27-29, (2003).
- [35] Roaf, M., "Cultural Atlas of Mesopotamia and the Ancient Near East", New York, 54-56, 66, (1990).
- [36] Koşay, H.Z., "Ahlatlıbel Hafriyatı", *Türk Tarih, Arkeoloji ve Etnografya Dergisi*, II: 3-12, (1934).
- [37] Özgüç, T., "Kültepe – Kaniş/Neşa Sarayları ve Mabetheri", *Türk Tarih Kurumu*, Ankara, 67, Pl.2, (1999).
- [38] Schirmer, W., "Zur Ausbildung der Bautypen des Çayönü Tepesi", IX. *Türk Tarih Kongresi*, Ankara, 41-47, pl.6b, (1986).
- [39] Özdoğan, M., "Kulübeden Konuta: Mimarlıkta İlkler", *Tarihten Günümüze Anadolu'da Konut ve Yerleşme, Türkiye Ekonomik ve Toplumsal Tarih Vakfı*, 19-30, (1996).
- [40] Hauptmann, H., "Kalkolitik Çağdan İlk Tunç Çağının Bitimine Kadar Norşuntepe'de Yerleşme'nin Gelişimi", VIII. *Türk Tarih Kongresi*, Ankara, 55-63, (1979).
- [41] Dörpfeld, W., "Troja und Ilion – Ergebnisse der Ausgrabungen in den Vorhistorischen und Historischen Schichten von Ilion 1870-1894", Athen, 81-82, (1902).

- [42] Schirmer, W., “Hitit Mimarlığı”, *Arkeoloji ve Sanat Yayınları*, İstanbul, 16-20, (1982).
- [43] Özgüç, T., “Maşat Höyük Kazıları ve Çevresindeki Araştırmalar”, *Türk Tarih Kurumu Basımevi*, Ankara, 3-13, (1978).
- [44] Neve, P., “Tanrılar ve Tapınaklar Kenti Hattuşa”, *Anadolu Araştırmaları*, 12: 21-40, (1990).
- [45] Müller-Karpe, A., “Kuşaklı 1998 Yılı 6. Kazı Çalışmaları Hakkında Ön Rapor”, *XXI. Kazı Sonuçları Toplantısı*, Ankara, 309-319, (2000).
- [46] Müller-Karpe, A., “Kuşaklı-Sarissa”, *Arkeoatlas*, 1: 140-141, (2002).
- [47] Darga, A.M., “Hitit Mimarlığı I – Yapı Sanatı”, *İ.Ü. Edebiyat Fakültesi*, İstanbul, 168, (1985).