

Housing Practices in Anatolia from the Past to the Present; Traditional Konya Houses

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Abstract

Anatolia has developed as a favorite geography where people have lived with values reflecting the diversity of the housing culture for many years. Konya has a civil and architectural understanding that has come from the past to the present with its characteristics such as being located in the middle of Anatolia, being on trade routes, and harboring a deep-rooted settlement culture. The housing practices of this deep-rooted history are the subject of multifaceted research. Very few of the whitewashed Konya Houses shaped by mudbrick, stone and wooden building materials, mostly using the gray soil around it, have survived to the present day. As a matter of fact, many examples that have been the subject of this research do not exist today. This study examines the formal infrastructure of Konya Houses, which are accepted as Turkish Houses with their simplest elements, through examples.

It employs photographs and drawings as a method to examine selected houses that have both survived and have not survived. A comprehensive literature survey was conducted and architectural information about Konya houses was obtained. It determined the architectural character of them. This study is thus based on versatile architectural determinations.

It concludes that Konya House is characterized as a Turkish House. Today, urban centers and historical textures are being reconstructed with urban transformation models. The transformation of old historical neighborhoods causes the destruction of civil architecture and the loss of urban memory. The paper thus argues that it is important to understand the architecture of traditional houses, as examples of civil architecture. This is one of the most lost heritages, and they need to be recorded to record the urban memory in order to keep it alive for the new generations.

Keywords: Anatolia, Traditional architecture, Turkish House, Housing practices, Konya House.

Introduction

Konya, located in the middle of Anatolia, has been home to many civilizations, starting from Çatalhöyük¹(Url 1, 2003), the second oldest known

¹ Çatalhöyük Neolithic Ancient City is located in Çumra District of Konya Province, 10 km. east of the district, on an area of approximately 14 hectares, in the form of a hill with two mounds of different heights. The taller of the

civilization, as an important agricultural and trade center during the Hittite and Roman periods, as a capital during the Anatolian Seljuks, and as a provincial center during the Ottoman Empire, and has incorporated their cultures.

Therefore, this situation has enabled the city to become an important settlement center in terms of qualified agricultural and industrial dynamics as a similar center of attraction today. As a result, Konya has been a dense transition and settlement area from the past to the present. It has experienced changes in population dynamics as a result of some events in the historical process. Although it was a walled closed city in some periods, it has sometimes taken on an open city identity and still stands out today with its structure that continues to develop (Figures 1, 2).

The city of Konya has a unique civil architecture. Before the Republic, Konya civil architecture consists of houses with courtyards starting from Alaeddin Hill, the oldest mound located in the city center, opening towards the plain, intertwining each other on the east-west axis, and opening to streets with dead-end streets that partially intersect each other. After the proclamation of the Republic, the city of Konya, like all cities, was transformed with a new construction. With the disappearance of the houses that could not find their place in this transformation, the civil architectural texture, which was registered and tried to be preserved, was lost. Before the civil architecture of Konya was transformed, it can be seen from the old type housing textures that the neighborhood, street and neighbor relations were mostly kept alive and were effective in shaping the environment in which they existed.

However, it is seen that the urban fabric and houses in Konya, which form the basis for many studies, have not been preserved and very few traditional houses have survived to the present day. Although in 1982 the old houses of Konya were registered, the best examples from Celile Berk's 1951 study on Konya Houses have disappeared (Karpuz 2003). Today, while housing examples are preserved individually with the restoration works carried out, Mengüç Street, Sille Neighborhood, Bedesten Surroundings, which have been transformed in recent years, appear as good examples preserved on a street and neighborhood basis and on a point basis such as Şükran Neighborhood. However, since this transformation has not been transformed into a residential function, it cannot be said that the civil architectural texture is original. Therefore, a comprehensive study is required with the awareness of transferring civil architectural practices that will shed light on the memory of the city from the past to the present.

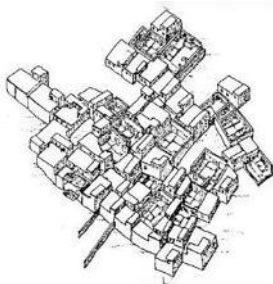


Fig. 1: Çatalhöyük City plan
Source: Url 2, 2023

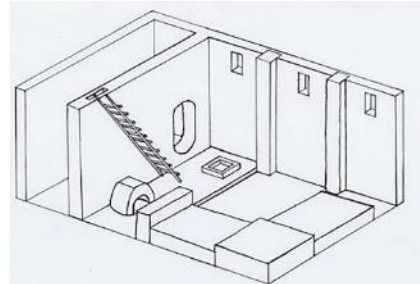


Fig. 2: Çatalhöyük schematic house axonometry
Source: Url 2, 2023

Theoretical Framework

This study focuses on Konya Houses, which are determined as the sample area. In this context, the questions "What are the data that are effective in the formation of houses?" and

two mounds, the Eastern Mound, consists of 18 Neolithic settlement layers dating between 7400 and 6200 BC. These layers contain wall paintings, reliefs, sculptures and other artistic elements symbolizing social organization and the transition to settled life. The West Mound, on the other hand, shows cultural characteristics belonging to the Chalcolithic Period dated between 6,200 and 5,200 BC. With these features, Çatalhöyük is an important proof of the transition from villages to urban life, which has existed in the same geography for more than 2000 years. The adjacent houses in Çatalhöyük, which are entered through rooftops, and the settlement without streets exhibit a singular characteristic. Although other Neolithic sites have been found in the Middle East and Anatolia, the Neolithic city of Çatalhöyük is of exceptional universal value for its unique combination of the size of the remains, the density of the living community, strong artistic and cultural traditions, and continuity over time.

"Are there the effects of geography and culture on house formations?" are sought to be answered based on the ideas of strong theorists.

It is thought that housing culture and housing practices have been carried out according to certain, defined, or meaningful measures from the past to the present. In this framework, theorists have made various interpretations of traditional housing, starting from the most primitive societies to the present day.

In this context, Rapoport's (1969) "House Form and Culture" provides enlightening information on this issue. According to Rapoport (1969), houses are shaped not only by physical characteristics but also by cultural, social and psychological factors. In this sense, he supports the argument that factors such as cultural context, community values, traditions and lifestyles are influential in housing design. Rapoport (1969) emphasizes climate, cultural and social factors rather than geography in the formation of existing dwellings. The emphasis here is on the idea that the formation of housing is a process that is shaped not only by changes in physical characteristics, but also by the changing needs and values of society.

From this point of view, it is possible to say that the formal differences seen in dwellings have developed with a complex phenomenon that cannot be based on a single concept. According to Rapoport (1969), the importance of the way in which the environmental and psychological effects of people from very different societies affect housing. It is argued that a house is not just a shelter, but can have a complex layout. Culture has a strong role to play in shaping the house. Therefore, it is mentioned that it is not only the functional transformation that constitutes the reasons for this difference seen in dwellings, but also the cultural environment to which it belongs.

If providing shelter is the passive function of the house, its positive purpose is to create the most suitable environment for a people's way of life: in other words, a social unit of space (Rapoport 1969). From this point of view, the idea that socio-cultural factors are more effective than environment in shaping the house develops. From this perspective, it is possible to say that context, form, climatic conditions, construction methods and (local) materials come after cultural data in the shaping of houses.

Another work is Carel Bertram's "Imagining the Turkish House-Collective Visions of Home". According to Bertram (2008), houses in Turkey are shaped in a structure that represents a common style. Although the study focuses on the house and space, unlike sociology, art and architectural history, it includes house readings from literary texts of the period. Bertram (2008) says that identity of the Turkish house was actively present in the daily life of Ottoman urban life, but that it did not survive in the Republican period. Bertram (2008) is also interested in the parts of the Turkish house, the formal identity of each part that constitutes it and gives it the identity of a house.

Review of Literature

Turkish houses have been studied extensively. Among them, Eldem (1987) stand out. His book "Turkish Houses III Ottoman Period" using 1500 house surveys is the largest study on Turkish houses. Eldem's typology study is one of the most important sources utilized in terms of the fact that the houses he examined and surveyed for his typology study are the infrastructure of the data belonging to the plan types of all Turkish houses in general.

Berk (1951), examines the adaptation of the Turkish house seen in Konya to modern life according to the conditions of the day. The study, which includes detailed surveys of Konya houses, is one of the important studies in terms of providing information about the houses and housing textures that have disappeared today.

Kuban (1995) defines the development, history and morphology of local housing traditions, which he defines as "House with Hayat". He evaluates and discusses the house from an aesthetic point of view with the behaviors that local users bring to the house.

Bektaş (2007), shows the plan types of the Turkish house and the principles of divisibility of these plans. At the same time, he conveys the styles and the periods that the Turkish house has gone through. In this sense, the various sources and drawings he used while

mentioning the plan types enabled the units and building materials of the Turkish house to be conveyed in detail.

Similarly, Günay (1981) discusses the formation of Safranbolu houses, the characteristics of the region, its history and life under the title of Factors, the methods according to which the forms are created under the title of Forms - Methods, and the results of the changing life in the home life under the title of Changing the Way of Living. On the other hand, Küçükerman (1973), focuses on the rooms associated with tents in the historical context. He offers a thorough outline of equipment used in the house in a general context and general information about Turkish house architecture in Anatolia is also given.

Küçükerman (1988), discusses the origins of the concept of the Turkish House. He describes the rooms, the formal background of the rooms and their fittings in detail. Similarly, Yürekli (1979) describes the sample field study and offers deep insights into the organization of the immediate environment, the general function of the floors of the house, the organization of the spatial elements, and the structure of the Turkish house in self-formed traditional type housing textures. Başgelen (1988), offers a good collection of photographs of the city of Konya from the past. Overall, these studies show the complexity of the Turkish houses.

Research Methodology

This study examines the Konya houses produced in traditional style from the past to the present. The data of this study is the civil architecture, which has been lost the most in cities that have been destroyed due to natural disasters (such as earthquakes, floods) or re-planned with urban transformations.

It examines the housing practices of the city of Konya from the past to the present in a systematic manner. It employs a case study method. The oldest settlement Çatalhöyük established on a flat area in the middle of Anatolia was chosen as the case study. The dwellings are on the surfaces adjacent to the foot of Gevale Mountain, and the fact that there has been a cultural change as well as a context-specific change in the same region, even in the same climatic conditions, could be noted in this case study.

The data gathered included plans, sections and photographs of the houses obtained by examining previous studies on the original Turkish house and Konya house.

Case Study: The City of Konya

Historical Background; Urban Continuity and Diversity

The city of Konya started to expand from the Inner Castle and its surroundings from the first year of its foundation, and then continued to develop by adding neighborhoods (Kuban 1968). Even though the city has shown an expansion towards the plain starting from Alaeddin Hill before the Republic, the urban fabric has developed on the east-west axis, from the centers that are important for Konya, such as the historical bazaar (bedesten) and Mevlana tomb front, from the eastern axis to the western axis extending to Meram vineyards. Afterwards, the traditional fabric was formed with the neighborhoods, dead-end streets and houses that developed in the context of the Turkish-Islamic synthesis, which were added to the pattern formed around the inner castle. At this point, it is known that the houses with courtyards opening to the streets with dead-end streets that cut each other are the most common houses in the traditional pattern. As a matter of fact, these houses establish their first connection with the street with high courtyard walls and wooden doors on it, or sometimes with a surface of the house. These houses, which are generally found in the fabric, are built as houses with earthen roofs rising on stone foundation walls, houses with hedgehog eaves, mudbrick, as well as examples built with different building materials take their place in these variations, and formally different scaled structures are also included in this classification. In fact, all this diversity is also mentioned for the houses that have survived or not survived as cultural heritage built by societies living with cultural codes from the past, and the architecture that emerges in it is actually based on the cultural infrastructure of a multifaceted social diversity. Therefore, this typology, which is understood to reflect cultural continuity, to be shaped by a defined spatial organization by making architectural readings, and which is described as the Konya

house, consists of the building stock that has survived from the past to the present day to the extent that it can survive or that has been recorded in the past. However, considering that in the formal structuring of planned cities, a planning is made in accordance with the direction of development of the city, it has not been possible for the traditional buildings in the city center or in the surrounding neighborhoods, in unprotected areas, which have not been preserved or have not been found worthy of preservation, to reach the present day. In this context, since the evaluation was made according to the first use of the houses that were used as traditional houses in the past, recorded as plan schemes or evolved into different functions even though they have survived to the present day, a reading was made on the examples that were houses, and large-scale ones such as mansions were not included in the evaluation. It should be noted that this study is not in a multifaceted classification, but in general, it is handled with an understanding that exemplifies the houses solved as Turkish Houses.

From this point of view, in traditional houses shaped by cultural codes from the past, even if the building material obtained from a widespread hinterland changes, there are no visible changes in the number of storeys and shaping in the plan scheme. In certain neighborhoods, such as in front of the tomb (around Mevlana tomb), where the housing texture shaped on a neighborhood basis is dense, the traditional understanding has continued to be maintained. A large single or double winged door opening to the part used as a road accesses at this point, the high *hayat*/courtyard wall. In this housing pattern, which is generally shaped on the flat plain, the use of storeys has developed in a similar way in this type, and forms of spatial organization have been provided with the orientation of functions and appropriate garden use. In addition to the traditional dwellings of the city, which developed in a plain area, there are also settlements in sloping areas where older settlement forms are seen, where there is a floor or level use below the ground floor level. In this settlement form, there is a formation that allows for the terrain conditions. As an example, in neighborhoods identified with the Neolithic Age, such as the Sille Neighborhood in the Selçuklu district of Konya city, the spatial organizations seen in the houses built were solved with a "slope/level" with a sloping formation due to being at the foot of the Gevale mountain and were built in accordance with the fabric with mostly stone building material obtained from the region (Figure 3, 4).



Fig. 3: Sille overview
Source: Author



Fig. 4: Konya house courtyard/hayat gate
Source: Author

Development of Housing Practices in the City of Konya

In this context, it is clear that although the city of Konya has undergone many changes/transformations in the historical process, it still stands out as an important urban focus due to its openness to development and change. Konya, which has been a center of attraction in Anatolia due to its location on important trade routes from the past to the present, was also an important provincial center during the Seljuk and Ottoman Empire. It has seen Crusader armies and Mongol cavalry in its past, sometimes burned, sometimes destroyed, but it has never lost its identity as a city (Sözen, 1971). In summary, Konya has come to the forefront with its characteristics such as being located in the center of Anatolia, being on trade routes, and harboring a deep-rooted settlement culture. It has an infrastructure from the past that forms its

identity in the urban memory. The fact that it has been an important agricultural and trade center starting from the Hittite and Roman periods, a capital city during the Anatolian Seljuks, and a provincial center during the Ottoman Empire has enabled it to become an important settlement center in terms of qualified agricultural and industrial dynamics. Konya, which is such a dense transition and settlement area, continues to develop today with its structure, which has taken on the identity of a walled closed city in some periods and an open city in others, with the changes in population dynamics as a result of the events mentioned in the historical process (Figure 5).

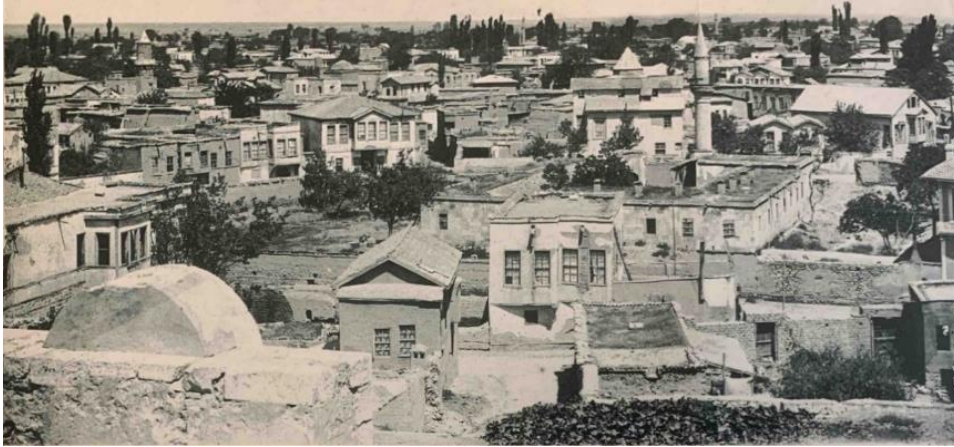


Fig. 5: Panorama of Konya at the beginning of the 20th century
Source: Başgelen 1998, p. 16

Modernization movement started in the 1830s in the Ottoman period. The first railway lines built by the British and then the Anatolian Railway lines established through German banks in 1889, led to changes in transportation between cities (Özyüksel, 1988; Ortaylı, 2006; Karkar, 1964). In 1892, the idea of transferring the railway line from Izmit to Ankara to Konya caused the first radical change in the city of Konya (Figure 6). As a matter of fact, the Anatolian Railway Company obtained the concession of the railway line in 1893 and established the Eskisehir-Konya company and put it into service three and a half years later (Özyüksel, 1988; Rathmann, 1982). After the line first reached Akşehir and Ilgın, it was extended to the center of Konya in 1896, thus establishing a railway line reaching the city center. The extension of the Anatolian railway line to Konya city center provided the city with a secondary human-intensive focus such as the train station after the historical city center. At this point, not only the transportation of people between cities, but also the transfer of manufactured goods, grain produced in the Konya plain to metropolitan cities such as the capital Istanbul, and the arrival of machinery such as agricultural tools from there became easier. This led to a series of economic developments in the city, which in turn affected the urban transportation system (Yılmaz, 2018). In addition to the transportation network that connects cities such as railways, urban transportation has continued to develop with new roads within the city. Undoubtedly, since the traditional street pattern in the city could not provide much opportunity for this development, it has undergone island or region-based changes, and the traditional housing fabric has not gone beyond those that can be preserved on a point basis. However, as a different building typology in this region, there are houses/residences designed differently from Konya houses. These houses, which are generally inhabited by non-Muslims as users, are not considered within the scope of traditional Konya Houses. These people have made changes in the functions of their houses in accordance with their own culture and identity, and have caused the emergence of both plan and façade differences. The general characteristic of the houses, which have basic design differences such as the inclusion of the toilet function in the house in addition to the courtyard-*hayat* space in the detached house, opening windows and balconies to the street, are the houses built by non-Muslims.



Fig. 6: Panorama from the train station

Source: II. Abdulhamit Han photograph albums (Url 3, 2023)

Starting from the 1900s when the train station was built as a secondary focus mentioned above, on the main artery reaching from the train station to the monument; it is seen that the houses that differentiate the development of the city were built on the Station street with its name at that time, and different typologies emerged on the street that connects the street, which today bears the name of Mimar Muzaffer, to the Station. It is known that the houses built especially on this street were the houses built by the Maronite community (Maronites), who were Catholic Christians during the Ottoman period, especially at the beginning of the twentieth century, and that they built their own houses in the vicinity of the French church in the inner castle in the city of Konya in the previous years (around 1901). Therefore, since the houses belonging to the "Maronites" were developed as belonging to different cultural backgrounds, these houses are out of the characteristic Konya Houses. In fact, Maronites from Lebanon, one of the Muslim-majority Arab countries, built houses on both sides of Mimar Muzaffer Street and Station Street, and this area was later called Arapoğlu Neighborhood. There are buildings belonging to Yusuf Şar, one of the most well-known Maronites, who traded in Konya until the first years of the Republic, and the lawyer Arapoğlu Kosti, as well as many buildings belonging to other Maronites (Güzel 2008; Odabaşı 1998; Çelik 2019). However, within the scope of this study, the traditional typologies of Konya Houses, which are the first civil architecture seen in the city of Konya, were mentioned, and the houses belonging to non-Muslims and Maronites were excluded from the scope (Figure 7).




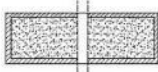
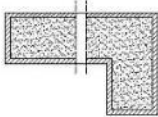
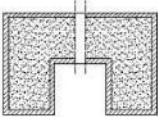

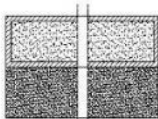
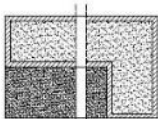
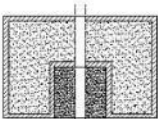
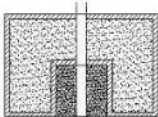
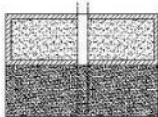
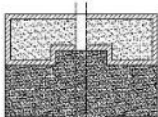
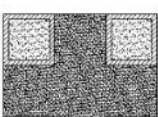
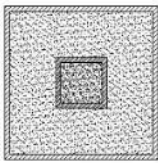
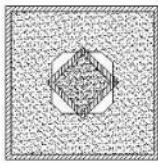
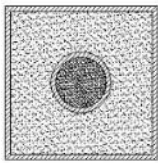
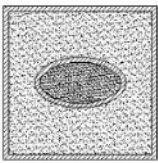
Fig. 7: Panorama of old Konya (On the right Yusuf Şar mansion, later used as a municipality building)
Source: Author's private collection

After all these developments, it is seen that the city, with its present face, continues to develop with the opening of new constructions and new roads, and with parcel-based or island-based transformations. Chronologically, as a result of the zoning activities since the beginning of the Republican period, it is known that the historical texture of Konya has not remained unaffected except for those that have been preserved. Among the registered or unregistered houses (Karpuz 2009) worth preserving on a point-by-point basis, where transformations are still continuing today; Abdullah Dede House (second half of the XIX. century), Araboğlu Kosti House (1912), Bayraktar House (1920-1930), Burhanzadeler House (1880-1883), Cimcimler Mansion (late XIX. century), Koyunoğlu House (late XIX. century), Dr. Nevzat Önkal House (Konya Chamber of Architects) (early XX. century), Ragıp Anadol House (early XX. century), Sinanlar House (late XIX. century), Writers' Union House (1930), Sarıgüzel House, Haffaflar House, traditional houses in the Şükran neighborhood that have been restored and preserved, rebuilt or moved, houses and shops on Mengüç Street that have been restored and rebuilt on a parcel basis, and preserved textures and facades such as the Sille neighborhood and Bedesten.

The Type of Traditional House in Central Anatolia; Konya Houses

If we look at Konya Houses from a broad perspective, the houses built from the brown earth of the city located in the middle of Anatolia are shaped in several ways in terms of plan. Due to the fact that the area is very large and generally slope-free except for the Sille neighborhood, the use of gardens and barns within the house is also intensely seen by the house owners who are engaged in agriculture and animal husbandry. Parallel to the size of the area, the plan diversity of the Turkish House is seen in many forms with the plan fiction in Anatolia, the house type with and without a living room, the house type with a *mabeyin*, and the house types with an inner table/throne, and later, especially in the XVII. century, it was seen that the houses underwent changes (Table 1). This change, which is seen especially in single-storey plan types, is seen in the integration of the *hayat*/courtyard and the ground floor, turning into a two-room type with *mabeyin*, where the ground floor is reserved for winter use and the upper floor for summer use, and the flat earthen roof continues / is maintained unchanged. This synthesized space allows for the integrated use of the courtyard or *hayat* with the ground level, so that in the summer months, as long as the season permits, it is seen that the domestic functions are reflected in the outdoor area together with the level to which the courtyard/*hayat* use is connected. It is seen that the upper floor is shaped in a more suitable way for winter use, and that the staircase is integrated into the room, the boardroom or the room (Ivkovska 2018).

Table 1: Turkish houses plan types
Source: Redraw from Küçükerman, 1988

NO	CLASSIFICATION ACCORDING TO SOFA TYPE	TYPE 1	TYPE 2	TYPE 3	TYPE 4
1	WITHOUT SOFA				
2	EXTERNAL SOFA				
3	INTERNAL SOFA				
4	CENTRAL SOFA				
1	TURKISH HOUSES PLAN TYPES			KÜÇÜKERMAN 1988	

Moreover, it is seen that traditional Konya Houses are generally built as one-storey and two-storey in all types. At this point, the street walls on the outer surface of the ground floor and the facade of the house facing north were generally kept closed or small windows were opened, especially if the house was facing the street. The window sizes on the surfaces inside the *hayat*/courtyard were made the same as the window sizes and closed with iron or wooden cages. On the upper floors, the number and dimensions of the windows were made to sufficiently illuminate the space where they are located, and the window arrangement was positioned according to the dimensions of the space, facing the road, courtyard or garden. It is seen that the projections on the first floor of the Traditional Konya Houses are dominating the space in three directions, orientation to the landscape, room width and cedar depth, and are made by passing under them with struts or flat beams. In general, the rooms of these houses in the traditional texture vary between three and a half meters in width, five meters in length and two meters seventy-five centimeters to two meters ninety centimeters in height. In addition, the directions of the rooms are preferred in accordance with the seasonal use of the rooms, so if it is used as summer and winter, the summer room was built with plenty of windows on the north-facing surface (Berk 1951:130, 134-135, 142) (Table 2).

Table 2: Features of plans and sections of Konya House
Source: Author

NO	PLAN AND SECTION FEATURES OF KONYA HOUSE	TRADITIONAL KONYA HOUSE			
1	STREET AND HOUSE RELATIONSHIP VARIATION (ALTERNATIVE HOUSE TYPES)				
2	TRADITIONAL KONYA HOUSE PLAN (TYPOLOGY)	1. SERVICES SPACES (BARN, WC, KITCHEN) 2. CLOSED SPACES (COVERED AREA SEMI COVERED AREA) 3. OPEN AIR SPACES (HAYAT / COURTYARD) 4. GARDEN 5. HARICIYE (ROOM)			
3	LOCATION OF HOUSE GARDEN-HAYAT VARIATION (ALTERNATIVE PLAN TYPES)				
4	KONYA HOUSE MIDDLE SOFA MAINROOM-SOFA RELATIONSHIP				
5	INTERSTOREY DIFFERENCE OF FUNCTION RELATIONSHIP BETWEEN STREET, HAYAT HOUSE				

Konya Houses in the traditional housing fabric are generally read through two plan types that show the formal characteristics of the house with *hayat* and the house with sofa. The houses with life have developed in a typology formed by people belonging to conservative family life with modest incomes in the traditional structure, without being affected by external conditions and understanding. As a matter of fact, these plan types also differentiate within themselves and show different but repetitive characteristics. Therefore, single-storey, two-storey and houses with *mabeyin*, which were built as houses with hayati, are the most common characteristic houses. In this context, the hayati or courtyard (the word towel, which is thought to be a combination of the words hayati and courtyard in the local language, is also used), which is seen in the traditional fabric, is generally seen in the foreground as the place where life takes place, but it is limited by large walls connected to the large door opening to the street. At this point, within the framework of the privacy of family life, a ground floor life shaped by hayati, courtyard or inner garden has been constructed. This space is important as a multifunctional area where the ground floor of the house is framed with irregularly shaped stones on the floor, surrounded by high walls that serve to restrict itself from the outside, a double or single winged wooden door opening to the outside, the walls or parts of the house and the area where the garden is accessed. The use of this area is intense in the summer season. In this area, fruit or non-fruit trees are usually planted for shade (Berk, 1951; Turgut, 2003) (Table 2).

In the Konya House, there are places such as a water well, a pump, a small pool, a tandoor roof, a covering or kitchen niche, a barn, a cellar, a haystack in the *hayati* entered through the street door. The main house, which constitutes the main space, consists of a storage area/basement called *izbe*, *mabeyin* and rooms. The *izbe* space, which is the basement floor for

storage purposes located under any room of the house, is actually equivalent to the spaces used for woodshed and cellar. As a matter of fact, due to the effect of the climate in Konya, one enters the house through a space called *mabeyin*, which is used as a sofa in the plan type with inner *sofa/tahtaboşlu* plan type, which is generally preferred later on. *Mabeyin* houses are generally single-story two-room houses. These rooms are entered through a space in the center of the house. This suggests that the *mabeyin* type was shaped for the preservation of cold air in terms of climate before the transition to the sofa type house. In some plan types, this space, which forms the entrance and hall part of the house, is accessed from the courtyard / *hayat*. Therefore, it is seen that it is generally used as a transitional space rather than a living space since it provides transition from the *mabeyin* to the rooms. However, with the introduction of the cedar to the *mabeyin*, which has the characteristics of a large-sized sofa, this transitional space becomes the most used living space, especially in the summer months (Berk, 1951; Eldem, 1968) (Table 2).

In summary, one of the leading small-scale house groups of traditional Konya Houses are the Houses with *hayat*. Houses with *hayat* have grown in plan by changing over time and within the scope of need, and have developed in different forms to adapt to the developing roads and parcels of the city (Berk, 1951). Based on the determinations in the studies carried out in this context, it is seen that traditional Konya Houses are shaped in similar ways, regardless of the different forms of *hayat* and street connection, and are produced in the same architectural understanding and structure form (Berk, 1951). Even if the *hayat* is actually used as a transitional space between the street and the house, one cannot enter the house without passing from the *hayat* to the front courtyard covered with irregular stones. At this point, the *hayat* or courtyard section is separated from the street pattern, which establishes its connection with the city, by means of its high walls. The use of the front garden/*hayat*/courtyard together with the equipment of the house on the ground floor is an indispensable area of use for the house owners, especially in the summer months. The use of the *hayat*/courtyard is seen in Konya Houses in several ways. At this point, depending on the location of the house, it is shaped in several ways in relation to the external environment/street. However, limiting it with a high wall to form the privacy area of the homeowners, thus, the formation that will ensure use at all times of the day is seen in almost all houses. It is said that what makes the difference in the formation of the house is the way in which the inward-oriented plan shapes relate to the *hayat* / courtyard rather than the street pattern, since there are rooms / sofas facing the *hayat*. In this context, the formation is generally seen in three different ways. Accordingly, single-storey, two-storey and types with *mabeyin* are commonly observed in traditional Konya Houses. In single-storey plan types, the ground floor is raised by one, one and a half or two meters to form a hut underneath, and the use of the lower floor is integrated with the hut and kitchen areas. Raising the house off the ground was done on stone foundations to provide a solid foundation for the mudbrick walls and to protect them from moisture and dampness. However, the height of the houses that have survived to the present day is no longer legible due to the change in the surrounding street pattern and the rise of the roads. Unlike the two-storey types, the ground floor and the *hayat*/courtyard floor are located together, and it is seen that the ground floor has an additional function. At this point, it was observed that one or two living spaces were built on the ground floor as well as warehouses, stables and storage units compared to the single-storey ones. The staircase to the upper floor is either inside the house or separately with a wooden staircase from the outside (Figure 8, 9, 10, 11).

Houses with a *mabeyin* have the simplest solution in this configuration, with a single storey and two rooms. In fact, it can be thought that *hayat* and the *mabeyin* are also used as a space here, and that they are built in a way that passes through each other, thus providing climatic control in the inner rooms in climatic conditions. In fact, when this type is considered as a transitional form to houses with sofas, it is mentioned that the *mabeyin* has both a lower floor and an upper floor use. In the traditional Konya house typology, it is seen that the houses with sofas, which emerged when small house forms transitioned to large house forms, were built to serve the extended family and the upper wealthy class in large vineyards or gardens. Because these houses, which have large areas in terms of vineyard or garden use, are inhabited

by families with upper income status living in the neighborhoods around Mevlana tomb. However, in the future, as a result of the division among family members as a result of the death of the parents, the houses and the vineyards or gardens on which they were located were divided and sold. These houses, which changed hands, fell into disrepair, were bought by people who were not from the neighborhood, were not used, and in time they were demolished (Berk, 1951) (Figures 12, 13)



Fig. 8: Saim Sakaoğlu House neighborhood
Source: Author (09.03.2009)



Fig. 9: Saim Sakaoğlu House neighborhood
Source: Author (09.03.2009)



Fig. 10: Hacı Fettah neighborhood
Source: Author (12.05.2016)



Fig. 11: Şükran neighborhood
Source: Author (12.05.2016)

It is seen that the houses with *sofa*, which are seen as different from the houses with *hayat*, were built larger than the plan structure of the houses with *hayat*, and differed in terms of the variety of users. As a matter of fact, it is known that the houses with *sofa* have a larger vineyard/garden or a larger plot of land than the houses with *hayat*. It is thought that factors such as the changing economic structure of the owners and belonging to the privileged upper income group are the reasons for the plan and volumetric differences of the houses with *sofa*. In the houses with *sofa*, the *mabeyin* has been transformed into a space extending along the building along the entrance axis. Depending on the time of construction, the staircase is located opposite the entrance door or on the side. In the form of a plan in which rooms are placed on the three sides of the hall, a plan type, also called *karnıyarık*, was obtained. In this plan type, summer and winter use is generally possible, allowing the use of more than one crowded family (Eldem, 1968). In terms of plan, houses with *sofa*, unlike houses with *mabeyins*, it is seen that the position of the sofa is in the direction of the entrance and that it is built along the house in a way that allows the other rooms to open to it. The exterior staircase is enclosed within the sofa, and the building material is again made of wood. In addition to this, there are rooms next to/opposite to the sofa so as to open to the sofa. At this point, it is seen that the houses were built the same or close to the same, but the room sizes, floors and/or height differences of the rooms added to the building varied. The single-storey houses with a single-storey courtyard are accessed by a path from the garden, and this path, which connects to the house, extends along

the garden to the garden gate. There are two or three staircases that are accessed through a two or three-step staircase built to overcome the *subasman* or foundation level. These spaces are usually connected to the courtyard and/or garden and include the exterior, summer room, kitchen and pantry. Two-storey houses consist of houses with larger gardens, apart from the house, which has an area of approximately 150-200 square meters, which constitutes the main structure, there are also various spaces in the garden. There are similar spaces, *sofa* and rooms on the ground floor and the first floor, the height of which often differs from the first floor. On the ground floor, the exterior space is resolved with a passage area independent or connected to the house.

Again, in a similar configuration, there are spaces belonging to the same function such as covering (cookhouse), cellar, haystack, woodshed, log house, barn, carriage house, *izbe* (basement). In front of the house there is a *hayat* (gizzard), a stove/tandoor, a water well, a pump, a stone pool in front of the pump, a latrine and a latrine well about 7 meters away from the house, a summer part of the chicken coop and a winter part in the barn (Turgut, 2003). Another plan type is the house with *tahtaboş*, which can be seen as a single or two-storey house. *Tahtaboş* is used as a passage area in front of the house, where the entrance of the house opens and there is a staircase leading to the upper floor. The kitchen of the house is located opposite or next to the house, there is a stove with a chimney adjacent to the wall, there is a floor tandoor next to it, there is a water well and a water pump connected to it in the corner of the small garden close to the house, the latrine is separate, close to the house and in an invisible corner (Turgut, 2003). When we make a simple classification, it is seen that three different plan types influence and develop each other. Therefore, it can be said that the organization of space in houses with *sofa* is shaped with similar characteristics and a few changing understandings. In addition to this, there are spatial equipment elements that will provide various function variations in the *sofa / mabeyins* and rooms, and these equipment vary according to the functioning of the room or the financial situation of the owner of the house. In this context, it is seen that even if the exterior is simple, there is a rich variety of spatial use in terms of interior space. There are no specialized rooms other than the rooms with a main function, and the rooms are shaped according to the needs. Considering that the traditional Konya Houses also have the plan type and functioning of the Turkish House, it is seen that similar equipment shape the spaces in a similar way.



Fig. 12: Urban Transformation in relation to traditional housing, Çaybaşı Neighborhood
Source: Author (09.03.2009)



Fig. 13: Urban Transformation in relation to traditional housing, Hacı Fettah Neighborhood
Source: Author (12.05.2016)

As in other types of houses, the building material is stone on the foundation, mudbrick on top, and the roof is finished with a flat earthen roof and spiked eaves. While the stone material is generally used at a height of 0.50-0.60 meters above the ground level, in some Greek and Armenian settlements it is used entirely on the ground floor. Stone material was also used as a floor material in places such as courtyards, gizzards and stables, where Sille or Gödene stone was generally used. In the latrines, it is observed that marble material was also used in addition to Sille or Gödene stone. The mudbrick material was used in various sizes, generally

in full and half sizes, or mother and lamb sizes in local parlance. The mudbrick named "mother" is 0.25 x 0.25 x 0.10 m or 0.27 x 0.27 x 0.10 m and the mudbrick named "lamb" is 0.25 x 0.125 x 0.10 m or 0.27 x 0.14 x 0.10 m. It was observed that the wall masonry was laid in the form of two main and one lamb adobe bricks or one main and one lamb adobe brick. Generally, if the maintenance of mudbrick houses, the soil (black according to local terminology) plaster on the surface is not renewed frequently or the polish on it is not done, it causes the strength of the mudbrick material used in the masonry wall to decrease due to natural reasons. The fact that adobe houses start to wear out starting from the upper parts, especially in houses with worn roofs, rain and snow accelerate this wear (Odabaşı, 1998). Wood is a common building material used in different places in traditional Konya houses. However, depending on the material supply and place of use; poplar, juniper, willow and rarely pine and tar wood were used. Wooden material was used as binding beams in mudbrick and stone walls, as the main carrier and plaster holding intermediate laths in bonded walls. It was used in floors, ceiling coverings, all joinery, window cages and bay windows. Juniper was used extensively in wall beams and cargas timber buildings, while poplar, a cheaper material, was generally used for the upper cover. Willow wood is generally used as uprights, pine is used in all joinery, and tar wood is used extensively in stairs and floor coverings. Poplar and willow were mostly used in wooden cages. Brick material is seen in a limited number of houses under the spiked roofs. The use of tiles is as intense as earth roofs. However, it is seen that tiles are used for the protection of flat roofs and eaves of the walls, on sloping roofs and as a covering material. Iron material is generally used in doors and windows, railings, as well as being used as a building material, binding and clamping material (Sözen & Dülgerler, 1979).

It is observed that the flooring of the houses was made in a similar way. Depending on the material of the flooring, timbers placed at certain intervals (in the form of rounding), thinly cut tree branches called *pardı* or straw according to economic power, and reed as the third layer are laid on top. A fourth layer of a thorny grass called *kındıra*, which grows locally in Konya and its surroundings and is 50 to 70 cm tall, is laid on top. The purpose of laying this layer is to cover the *makat* (locally called *pahaz*), which will be laid on the top layer, with mud made of soil passed through a fine sieve or plaster with straw. If the last layer is to be laid with an earthen roof, the *makat* is covered with a kind of magenta or purple clay called *çorak*. This clay soil is extracted from the vicinity of *Sille-Tatköy* and used, and when this clay soil is not available, soil impregnated with saturated salt water is laid. A hard surface is obtained by compacting it with *loğ* (local name *yuvak*) stone. The flat or earthen roof is sloped and the rainwater is transferred to the garden or courtyard through the sprinklers (Sözen & Dülgerler, 1979). Before entering the winter months, the weeds growing on the roofs are removed, that is, the soil is made barren; It is aimed to tighten the soil on the roof, to provide a kind of insulation in order to reduce the water permeability of the soil on it. It is also necessary to clean the gargoyles that allow the water to flow out. The wooden shovels and soil used for this purpose are used to clean the water and snow accumulated on the roof (Odabaşı, 1998).

The walls of the rooms are shaped with spatial equipment such as niches, *ağzıaçık*, cupboards, closets according to the condition and function of the room. The *ağzıaçık* may have names such as open cupboard niches or, in the local language, *takçagöz* and *tembel deliği*. Although spatial fittings are often designed together or alone in the space, *ağzıaçık*s are usually small in size, do not have lids and are made by combining them with other fittings with their structure consisting of shelves (Turgut, 2003). Closets are one of the most demanding accessories that require depth. For this reason, it is seen that they are constructed as a combined spatial equipment on the interior walls, on the opening surface of the room door, on a level, under the bench or on the bench (Turgut, 2003) (Figures 14, 15).



Fig. 14: Interior facade equipment elements, a house from Çaybaşı Neighborhood
Source: Author (09.03.2009)



Fig. 15: Interior facade equipment elements, a house from Hacı Fettah Neighborhood
Source: Author (12.05.2016)

The kitchen (*matbah*, *aşdamı* or *örtme*) is located on the ground floor of the house, integrated with the hayat/courtyard, under the house or outside, with a mudbrick wall on three sides and a wooden door on one side. It is a space used by the women of the house for cooking, including the stove function, which is shaped according to the economic power of the owner of the house. If the stoves are made of stone or adobe, they are usually forty or fifty centimeters high. The bottom of the stove is empty for lighting a fire, and there is space on the sides to put the embers of wood or coal. At various points in the wall there are niches, alcoves or built-in cupboards for storage. The kitchens, which are rarely associated with a water well and more often with the pump in *hayat*, are also associated with storage areas called *izbe*, where winter food is stored. The *izbe*, located in the basement of the house, is a windowless and dark space where crops from the garden are stored and where winter food can be kept intact, cool in summer and warm in winter. This area is generally located under the ground level of the half floor, which is a kind of basement with stone walls and compacted soil floor. There are also spaces such as woodsheds integrated with this space (Berk, 1951).

A barn, *ahırsekisi* or haystack is a space underneath or near the house where small and large cattle are kept for the owners' mounts and/or to meet the needs of the household, and where their food, hay, is stored. The area designated as the stable bench is a forty- or fifty-centimeters high space surrounded by a low wall, forty or fifty centimeters above the ground, located inside the stable. The barn function is also observed in the simplest one-room form of the houses with living quarters. This type of house with a single room and a barn is also called houses with *ahırsekisi*. It is stated that people with poor financial situation stayed here (Berk 1951).

Evaluation

Every Konya House, whether small or large, of whatever shape or type, with the aforementioned plans, has developed in a spatial fiction of its own, as desired by the owner, who is the user of the house. Its connection with its surroundings is separated by high and massive walls, and it shows a holism with its harem, exterior, *izbe*, vineyard or garden. This typical characteristic is also considered as a Turkish House (Berk, 1951).

In the light of all this information, the Konya House appears in a situation where it has developed in a feature that bears the characteristics of the Turkish House, the traditional house types it covers are the subject of research, there are houses that have survived to the present day, but many of them have been demolished. The city of Konya stands out with its formal infrastructure due to its location in the central part of Anatolia, where many cultures are shaped. Very few of the whitewashed Konya Houses shaped by mudbrick, stone and wooden building materials, mostly using the gray soil around it, have survived to the present day. As a matter of fact, many examples that were the subject of this study do not exist today.

Moreover, when it was foreseen that the study was formed within the scope of the article, some information specific to the formation was combined and conveyed in a general

expression. In addition, analysis tables were created by interpreting the plans, facades and photographs obtained with the literature information in the study, and an original interpretation was gained at this point.

Konya civil architecture is effective in shaping an environment where neighborhood, street and neighborly relations existed before it was transformed. Because it is seen that Konya Houses interact with each other with a high level of neighborhood relationship in the texture it creates with its surroundings. As a matter of fact, the transformation of old historical neighborhoods causes the destruction of civil architecture and the loss of urban memory. Because by changing the historical texture of the region through deterioration, change or transformation, new forms of construction that are independent of the texture of the past are proposed and cannot appeal to the people of the region. Civil architecture examples, which are among the most important of the lost heritage, are tried to be introduced in order to understand the civil architecture of Konya today and to keep the lost urban memory alive in new generations.

Conclusion

Konya House has an important place among the dwellings showing the characteristics of Turkish House. Konya, being in the central part of Anatolia, has a housing culture shaped by many civilizations and has a certain cultural infrastructure. From this point of view, the old Konya House continues to be the center of attention both in terms of plan and facade characteristics. Konya Houses, which are earthen or whitewashed houses where mudbrick, stone and wood building materials are used together, can still be preserved today, albeit partially on a single or neighborhood basis. Today, examples of civil architecture in the transformed areas of the changing city are still abandoned and condemned to disappear, disappear or be demolished. Although the number of residences and neighborhoods that have been registered, taken under protection and restored has increased in the process, it cannot be said that traditional civil architecture has been preserved in Konya.

It is seen that the change in the growth axis of the city after the 1980s and the strengthening of the northern axis had an impact on the areas transformed in the city center and especially on the dense textures of Konya civil architecture in the 1990s. As a matter of fact, the first large-scale transformation started with the migration of the locals living in these textures to the newly built areas. The locals of Konya abandoned their old neighborhoods and preferred to go to the gated communities in the newly transformed areas, leaving their old houses behind. Therefore, the region started to lose its charm and emerged as an unqualified urban area with the identity of a transit area. In the following period, due to the migration from the surrounding districts of Konya city, cultural and social change has occurred, although there has not been a physical rupture with the partial settlement of old houses. At this point, it should be mentioned that migration from the surrounding provinces is effective due to the increasing labor force with the expansion of Konya city to a wide hinterland, developing industry. In the following process, the city of Konya was also affected by the migration that emerged due to the war in Syria, and Syrian refugees settled in Konya old houses. This situation caused the civil architecture not to be preserved. Neglected houses and houses that were about to collapse within the texture were subjected to urban transformation. In addition, new buildings and/or restoration works have been carried out and different functions have been assigned to the newly built old houses. In this context, the old Konya houses, which have been registered and preserved, have also lost their function as a result of the change of function when restored.

As a result, the traditional Konya House has continued to develop as detached houses with specific stylistic and spatial organizations until the apartmentization process. However, as parcel or island-based transformations continue today, the houses are gradually disappearing. Considering the great importance and importance of Konya Houses, which constitute an example of traditional Turkish House studies today, it is important to preserve the houses that have survived to the present day and transfer them to future generations. They are disappearing today due to neglect, indifference or transformation, and the houses that can be recorded can no longer be found.

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