

# A Chronological Study on the Changing and Vanishing Form and Concept of Courtyard Houses in the Near East

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*Abstract*-Large scale growth of modern urbanization caused a new trend in architecture and building in urban and architecture activities which currently gained global importance of confusing implications in architectural forms. Consequently, this growth dramatically brought an end to the courtyard houses in the Near East. The paper searches different traditional courtyard housing types, as it seeks to analyze them within typological changes. The hot arid Near Eastern region is taken as the case study of this paper, because this region witnessed considerable development in sophisticated forms and concepts of courtyard houses in its history.

The paper will study the different architectural elements (Riwaq, Liwan and Fountain) of the courtyard house as important forces in the formation of traditional housing layout and as the concept of family and role of women in the society; with relation to the juxtaposition of public, semi-public, semi-private, and private domains to the seclusion of women and family social needs. The paper will evaluate, by illustration, the changing and transforming forms of courtyards in the Near East as a result of technological changes and emerging of new architectural trends that brought an end to the courtyard. Thus, the conceptual evolution of courtyard forms will be studied typologically in chronological analysis manner. Furthermore, the paper will discuss the reasons lies behind the gradual end of courtyard houses. Finally, guidelines will be derived, on the basis of courtyard concept, for future considerations in the design of houses in Near Eastern regions.

*Keywords*-Traditional housing elements; Courtyard houses; Indigenous housing typology; Privacy; and Architectural design guidelines.

## I. INTRODUCTION

The Near East comprises a geographical and life support features, and particularly climate-sensitive region which help create or exacerbate existing sociopolitical tensions through history. The Near East region was always liable to various invaders who settled and left their physical imprints in the region, especially in building forms and concepts. The region is climatically stressed by extremes of heat, arid and semi-arid climates, and rapid population growth. However, the physiological comfort in hot arid climate buildings and streets had to be adapted to summer and winter conditions in form

and concept of courtyard type. The courtyard dwelling unit forms the basic component of the arid region settlement. The orientation of it, its building materials, and its harmonious repetition with neighboring structures establishes the concept of “mahalle” (quarter). The public open spaces the “Meydan” (Square), the “Mushat” (Pedestrian) network are simply defined by the organic layout of the basic component of courtyard houses.

The courtyards, known as the micro-climate modifier (in the Near East), is a popular characteristic of Near Eastern houses in urban areas. According to Zein Alabidin, M [1] courtyard housing dates back to the beginning of the third millennium before Common Era when it appeared in the buildings of Bilad al-Sham (Fertile Crescent) and those of the region between the two rivers Tigris and Euphrates (Figure 1). Near Eastern nomads made use of the concept of a courtyard (Figure 2) during their travels and stay in the desert. They set up their tents around a central space, which provided shelter and security to their cattle. With the development of Arab-Islamic architecture, the courtyard became an essential typological element. It is likely that the previous nomadic desert lifestyle of nomads had a strong influence on their



Figure 1: Near East Region [2]



Figure 2: The basic concept and form of courtyard settlement [5]

permanent houses. The courtyard therefore fulfils a deep-rooted need for an open living area. The potential of this indigenous planning and building concepts have been not only neglected but replaced by western types and methods that are often inappropriate to local conditions and needs.

This paper will present the changing types, which started from tent form and concept, that brought the flourish of courtyard type as prevailing and dominant concept throughout the Near East region till today. The most sophisticated form of courtyard coexisted with different architectural elements (rooted to different ethnic and cultural background) until they became indispensable elements of the courtyard house, in the region, which later on vanished with the courtyard itself. Consequently, the vanishing forms of courtyard houses will be also presented in a chronological study. This study will bring this chronological evolution into the concept of “the rise and fall of courtyard house type”. Finally, this paper will derive design guidelines based on the courtyard’s concept for future considerations in designing Near Eastern houses that will then give the appropriate form of Near Eastern settlement.

## II. THE DEVELOPMENT OF COURTYARD FORMS AND CONCEPTS IN THE NEAR EAST

The indigenous methods of shelter design and construction are evident in rural villages, the traditional city quarters and more recent in squatter settlements [3]. They reflect a region’s accumulated expertise on how to build appropriately to the local social, economic, environmental and cultural conditions. The indigenous Near Eastern houses are (all related to courtyard concept and forms) varied in form, construction and

materials from one region to another according to a number of factors such as geographical location of settlements and differences in ethnic and cultural backgrounds [4]. Tent and dome houses are distinguished from others by their structure and form. Other house types are classified according to the type of enclosed and semi-enclosed living space. Therefore, there is a rich diversity in building types in the Near East; they can vary according to the region and people’s lifestyles as well. However, two main lifestyles generate a major difference of construction and dwelling: nomadic (non-sedentary) and sedentary (rural and urban).

The nomadic depends on pastures as a daily economic activity; it requires constant migration from one place to another in search of pastures and water. These populations are called “Bedouins” and usually live under a tent. They can change geographic locations with their families and groups (usually tribes) along the Euphrates and Tigris rivers, and throughout the interior plain of the Fertile Crescent desert. On the other hand, the sedentary lifestyle usually linked to cities and the countryside. The types of houses in a city or the countryside also differ according to the geographic location. But there are still some clear differences between the traditional city house and the traditional country house. However, the courtyard is valid in all cases but with differences in forms, spatial use-concepts, and existence and number of architectural elements that take place in the courtyard.

### A. Non-and-semi-Sedentary Types

The desert plain in the Near East is the natural domain of nomadic and semi-nomads where sheep graze last until the beginning of summer. Thus when water became scarce the shepherds lead their flocks into the cultivated plains. Therefore, two different house types were developed; the tent as mobile type and mud-house with cupola as semi-settled type.

1) *The Tent*: Tent is the cultural heritage of the nomadic Bedouin tribes exists only in the desert and semi-desert areas, where there is low rainfall, and social relations are on a tribal base, with a lot of movement, and communication through travel. The tent construction neatly fills the need for seasonal movements. The nomads whose main source of livelihood is sheep and goats, have developed this simple structure by using materials available to them over thousands of years [3]. The wall on the less prevailing winds is left open during the day to provide shaded area which constitutes the first form of Riwaq concept (Figure 3). Thus the enclosure is protected from wind and dust hazards by wall hung on the three sides. They are usually one family tent and, by setting up reed mats, their interior is divided into two areas, men’s and women’s. Each of these areas contains a fire pit, one for coffee making and the other for cooking (Figure 3). People sleep on mattresses laid on carpets on the ground. Daytime use of the interior space shows the remarkable

character of a Bedouin's concept of living space. By opening the entire length of one wall, people enjoy the shaded open space, and in the way surrounding exterior areas becomes a part of the living and working space, and that fits well into the Bedouin way of living.

Tents are used for multiple purposes; they can be of different sizes, according to assigned function or use having separated section for guests. Some other tents are small used for household activities, including the kitchen and cooking. Thus, the one family's tents are grouped around open space for family gathering which is overlooked by the open sides of these tents. This well defined space and the tent open side were the crude forms of courtyard and its Riwaqs in the sedentary house forms (Figures 2 & 4).

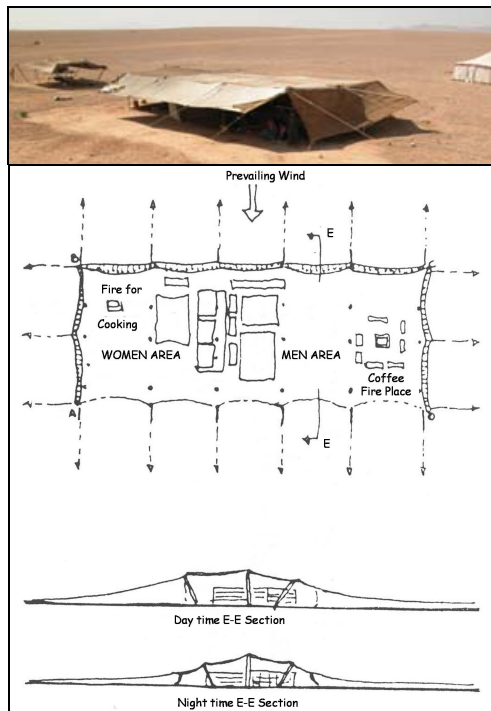


Figure 3: Typical Bedouin Tent [5]



Figure 4: The potential crude form of Riwaq [5]

2) *Dome House/ House with Cupola*: The dome/cupola construction is widely used in the northern part of Syria and in Harran plain in southern Turkey. This region of the Near East is where clay and considerable water are available for the construction of this house type. This type is seen in an area of more settled rural form of living (with Bedouin background) linger with agricultural activities of small villages or near small towns that act as centers of the Bedouin tribes.

However, when wood is available, flat roofs are seen (Figure 5). Sometimes a mixed complex with flat and dome types exist side by side in the same house unit. But as the mixture of tent, cupola and flat roofed mud-house is also seen in figure 6. In summer, the living area is being outside under the tent facing the courtyard. This concept of tent roofing became a Riwaq in the developed urban courtyard.

The factor of functioning distribution is even more advanced in the examples of Figure 5. In this Figure, the activities are distributed as: storage, animal places, and the kitchen which is a new development compared with the kitchen of tent in figure 3. However, all these activities (in figure 5) take place under the cupola' while the main living area is being under a flat roof. As a result a mud wall surrounds the whole complex gives privacy to the tenants.

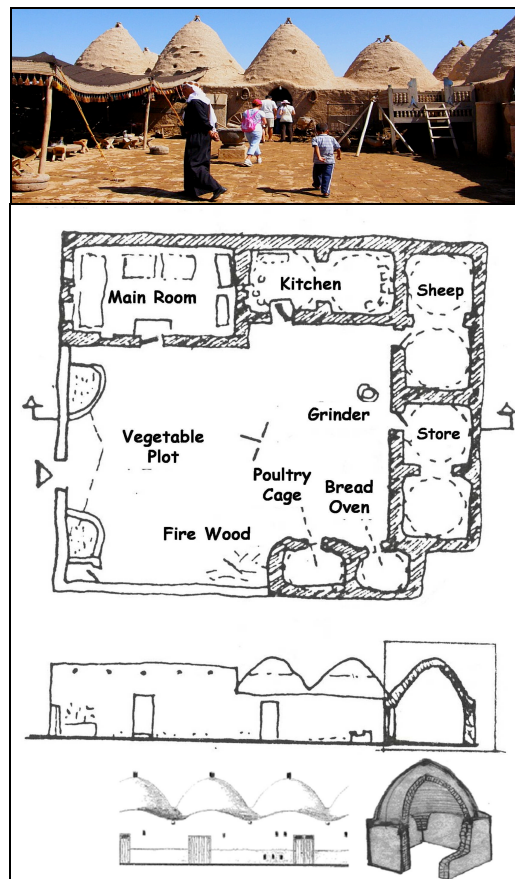


Figure 5: Dome house/ House with cupola [5]

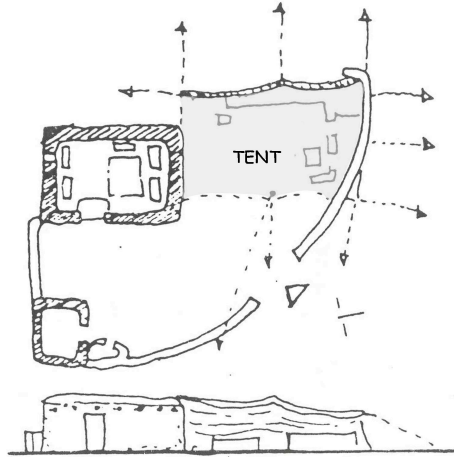


Figure 6: Combined form of tent, dome and courtyard [5]

The house with cupola has a central court surrounded by rooms, surmounted by vaults (Figure 5). The household usually gathers in this courtyard. It is the first multi-functional courtyard type used as a central area for living and plantation, while its areas on the sides used for bread oven fire wood in addition to the separate kitchen and in some cases a toilet is seen. So, the more developed rural form has brought more separation of activities on actual plan, which has a defined entrance. The houses that can still be seen today are 40 or 50 years old, but this typology is much older, and dates from the dawn of time.

#### B. Sedentary (Rural and Urban) Types

This group of houses is composed of rectangular house, Liwan, Riwaq and crude courtyard types. Generally each house is enclosed either by walls or buildings to secure privacy of women's household works. Massive complex of buildings and walls improve the micro-climate of settled areas and shelter people from the sun, wind and dusts.

1) *Rectangular/Basic House*: This is the most basic typology and the most elementary type of house. It is constituted with four walls, made with stone or mud, and earth roofing bind joists and beams, and posts were inside arches (Figure 7). It is plainly the most basic original and traditional Near Eastern home. Two main variations of this home can be found: the one unit house, quite common in rural environment;

and a multiple unit basic house, found in the urban fabric of towns and villages.

The one unit house consists of a large rectangular room, shaped by thick walls and posts; this room is usually quite large and offers good living space. The inside spaces organized to answer the various needs of its inhabitants: sleeping area, storage area, and animal shelter. From the outside, it is perceived as a square or rectangular massive, monolithic unit, usually in harmony with the environment.

The multiple unit house is quite similar to the one unit house, but it is constituted of a several cubicle rooms rather than one, and are lined up on a plot of land. Rooms usually open onto the outside through a door and a few windows, but these rooms seldom connect with each other. The front door usually opens onto an open flat space, where most of the domestic life takes place. This open flat space is the first potential space to form a courtyard.

The absence of surrounding wall in mountainous areas is common feature of leveling on the slopes and the mountainous people understanding for privacy. Whereas in the urban areas, the front space is surrounded by several buildings and walls which create an enclosure needed for privacy reasons. Thus, the first courtyard concept appeared with this type in urban areas. The origins of this type of house are quite ancient: it was built until the early 20th century.

2) *House with Riwaq*: The Arabic word "Riwaq" is translated as gallery, loggia or portico [6] and [3]. This might give an impression of element in Roman or Italian house (Arch and column series). Such architectural features of these elements implies the down and source of these buildings in the Near East.

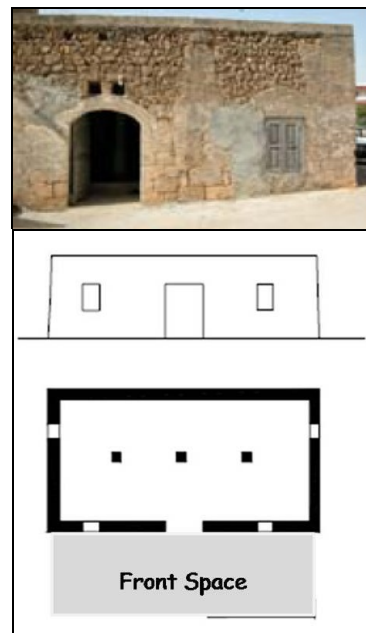


Figure 7: Basic/Rectangular House [5]

The word Riwaq, used here, refers to a crude type of space which is open to the outside through a series of supports. In principle, the riwaq house is an extension of the rectangular/basic house (Figure 8). However, the Riwaq serves as an open entrance space, as an extension of the interior space, and as connecting space for individual rooms which are combined into a single unit. Another important function of the Riwaq is to provide a shaded space as an outdoor living and working area for the family. The most frequent orientation is north, but the location can sometimes decide otherwise. The house with Riwaq is mainly used for household purposes. It not only provides shade to protect from direct sunlight during the summer, but also protects the house from pouring rains. It is also a privileged place for resting and relaxing after work. This typology usually has two storeys.

The house with riwaq is mainly used for household purposes. The main room is behind the riwaq, in a central position. The side rooms fulfill other domestic needs: sleeping, cooking, etc. In rural environment, the ground floor is used to shelter animals and to store tools.

The typical urban form of Riwaq is repeated in the second floor of the house and a courtyard take place with the ground level Riwaq where a fountain and plantation now can take place in this courtyard (Figure 9). This type of architecture is very presence throughout the history of Near East. The gallery is a very useful element of the house, guaranteeing excellent temperature regulation in extreme weather. It is difficult to date the origins of this typology, but it is most probably a very ancient technique, used since the dawn of time, and common until the late 19th century. But it existed in all courtyard houses of urban Near East.

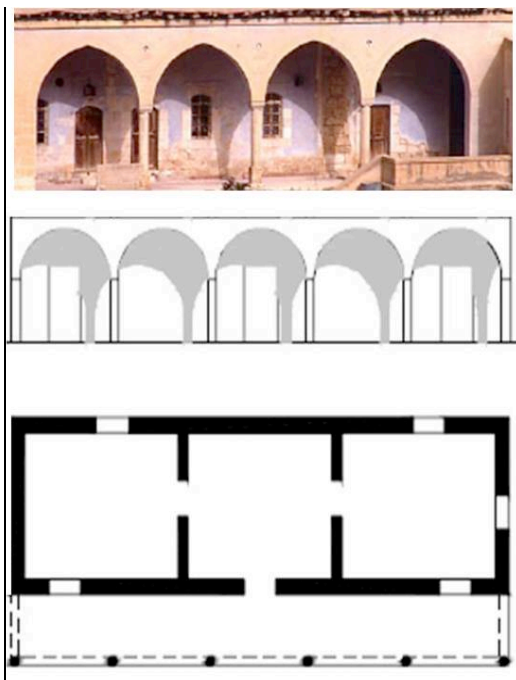


Figure 8: House with Riwaq [5]

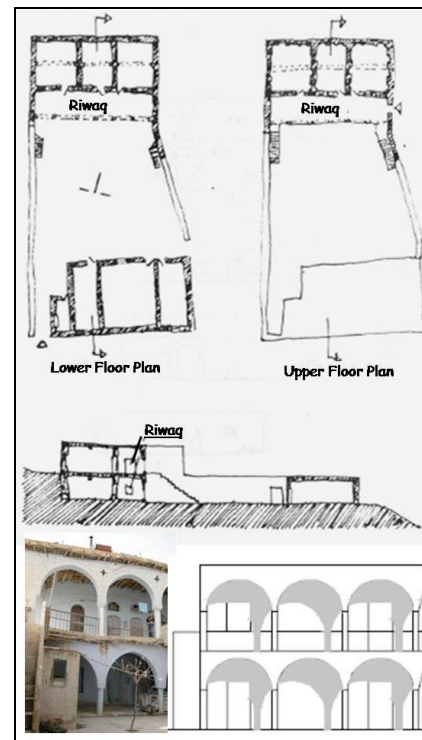


Figure 9: Developed Riwaq House [5]

3) *House with Liwan/Aivan:* The Liwan is a central space formed by a very large arch: it plays a central role in the organization and distribution of the various rooms and the house. This central space is in open-air on one side, and is flanked with two rooms (Figure 10). Beyond its role as central area, the Liwan is a place to rest and relax. The term “Liwan” is originally Persian derived from Persian word “Aivan” which originally meant open space, and it is mostly found in houses with courtyards, as in main inland urban centers of Lebanon, Syria, Iraq, Iran, and southern Turkey, where a very high level of urbanization and sophisticated social relations exist that are presented in a very sophisticated form of a courtyard house (Figure 12); and as well as in a few rural houses with/without court. The Liwan has been traced back to the long history of Persia 3000-2800 B.C. [3]. Whereas Badaway, A. [7] discerns that probably from the fourth century A.D., the Liwan and Riwaq are often found in numerous caravansaries throughout the Middle East. But this is not the case for houses still standing today: they date back to the 18th century up to the end of the 19th century.

Some simple rural forms of Liwan are found in some rural mountain areas specially in and near inland cities (Figure 10), but its function (the Liwan) differs from those of the urban forms that it is open into the outside and serves as an entrance hall and outside living two rooms.

The courtyard with its elements (in arid Near Eastern urban houses) reduce sun radiation and reduce aridity/dryness: sometimes two Liwans, one facing the north to provide shade in the courtyard in summer, the other oriented

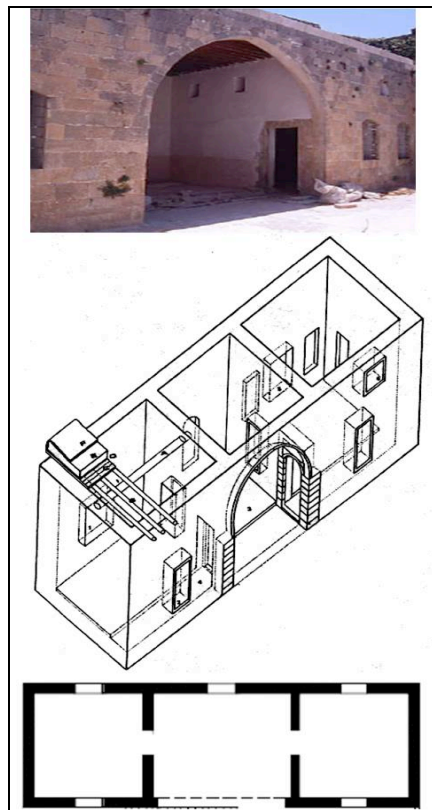


Figure 10: Liwan space [5]

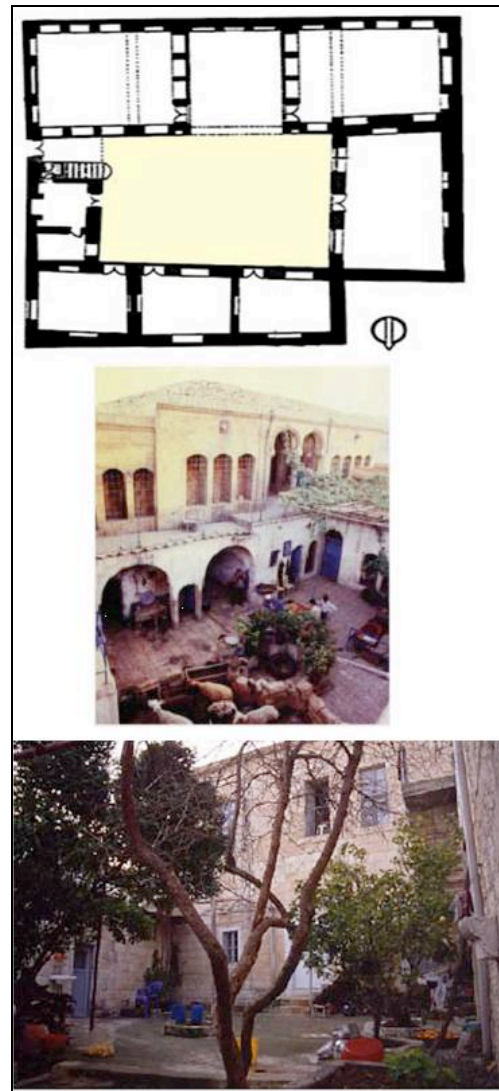


Figure 11: Rural Courtyard House [5]

to the south, receives solar radiation during winter (Figure 12). In both season the Liwans (as a courtyard element) are used as living space, food preparation, eating, seating, playing, sleeping, family gathering, and circulation between two rooms in summer and winter (Figures 12 & 13).

4) *Rural House with Court*: This type of house is characterized by a layout of rooms built around the court, all of which are variable in size and geometry. This typology is found in all traditional village or rural environments: it is a simple model adapting to the environment and answering the social and professional needs of a rural population (Figure 11). This type of house can be used by two social groups: simple farmers and wealthy owners.

The court is a place where one enjoys both winter sun and open air. In the center of the courthouse, a fountain, trees and flowers beds are found. When a microclimate is present, the Liwan is built south and opens north. The first floor is reached through outside staircase. Generally, the bedrooms take place in the first floor. The house is divided into a high winter section and a ground summer section. Several agriculture activities can be practiced in this house or annex stables, storage rooms or barns for crops. This typology is generally found in the historical heart of traditional villages. It is a typical and often repeated, juxtaposed model. These houses date back to the creation of the villages and small urban centers in the Near East. Most of these houses still visible today date back to the 18th-century.

### III. THE COURTYARD HOUSE

The courtyard hose is the most developed form of indigenous housing architecture in the Near East. The courtyard is called “Hayat” (in Turkish) means ‘Life’ or “Baraha” (in Arabic) means “Comfort”. It is the most important family place in the Near East. Doubtless, “Hayat” or “Baraha” is also the microclimate modifier house-element. Therefore, all daily activities, practiced by the family, take place in this space. Hence, it is functionally a flexible spatial element which can be used to accommodate different uses, such as; a playground for children, a garden, a place for family gathering, food preparing, vegetation, washing and drying clothes, a place for animal care and husbandry (Figures 13), a house circulation area, a welcoming entrance, a place for weddings and other ritual activities (Figure 13), a place for carpet weaving, and sleeping (Figure 11).

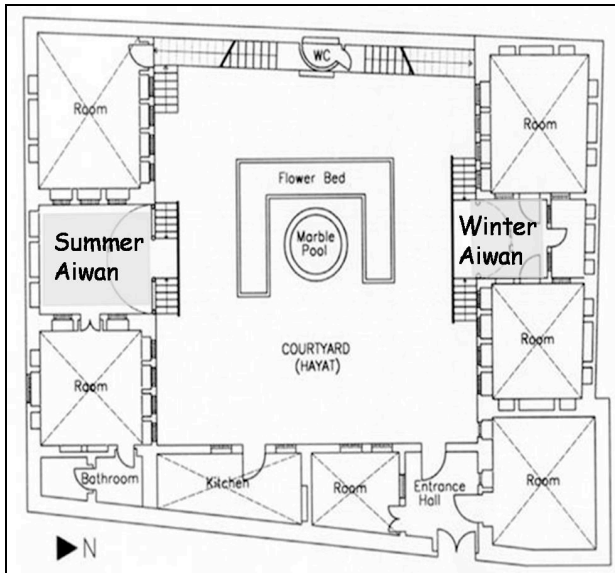


Figure 12: Layout of urban house in Urfa with two Liwans [8]

Associated to this house we generally find: a summer living space (*liwan*) about two levels high, oriented North, the central fountain and trees within the Courtyard (Figure 14). The traditional house has multiple uses (Figure 13): comfort and resting; protection and security; protection of the women's intimacy and the customs of its inhabitants; and entertaining guests. All these factors have determined the concept of the traditional house. The main concept is: open on the inside, closed to the outside. The inside of the houses organized around the main court, which accesses the various surrounding rooms. Floors are accessed by side staircases. The court house is built to provide good thermal comfort. A central fountain, a few trees and a Liwan help maintain a cool temperature (Figure 14). Today, the original urban fabric is still somewhat preserved, but the oldest houses date back to the Ayyubide period. Others are from the Mameluke period, and most are recent, from the Ottoman period.



Figure 14: A typical urban courtyard house in the Near East [5]

#### IV. THE DECLINE AND VANISH OF COURTYARD FORM AND CONCEPT

The Near East entered the modern age at the beginning of the nineteenth century with two market characteristics in its urban pattern: a large proportion of town dwellers and a concentration of population in inland towns and cities. Accordingly new house types had to come over the existing ones for the new needs.

##### A. Houses with Minimal Courtyard

Just before the 20<sup>th</sup> century, two new types of habitation inspired directly by the old town, came into existing with a minimal courtyard.

1) *House with Minimal Lateral Court*: This house is one of the first erected along this model before 1900. The regard lots are generally small (about 100 m<sup>2</sup>) with a sort of standardization of ancient model (Figure 15). The courtyard occupies roughly 30% of the lot of the lot surface area [9]. A staircase gives access to the first floor and the greater number of openings to the streets with windows in the ground floor and balcony in the upper floor are the characteristics feature of this house (Figure 15). The fascia construction has permitted to place two units back-to-back. This type of habitation is found in most of the houses of the new town section from the beginning of the 20<sup>th</sup> century as the most common type of popular residence. It remained current also during the French and British mandates time. The traditional courtyard has been diminished (in size, form and function) and placed in the corner of the house. The courtyard, here, has lost its meaning and became an open space for lighting the rooms of the house. The rush to urban centers increased land values in urban areas where the new comers from rural areas, culturally, lacked the urban concepts, form and meaning of the sophisticated features of urban courtyard. On the other hand, modern movement and concept eliminated the so-called tradition in all concepts of life. Therefore, the more one had to be modern the more he has to be away from tradition, and so on the form and concept of courtyard started to vanish.



Figure 13: Food preparing, drying and occasional activities in courtyards [5]

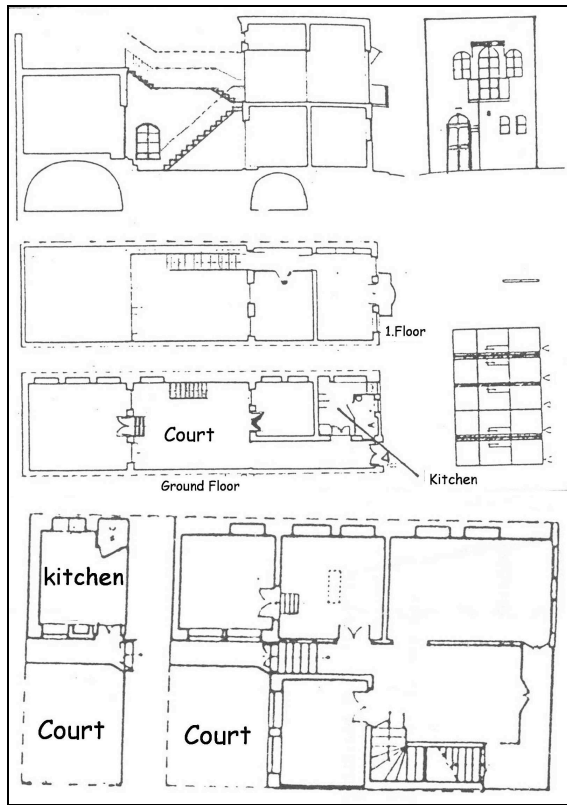


Figure 15: House with Minimal Lateral Court [9]

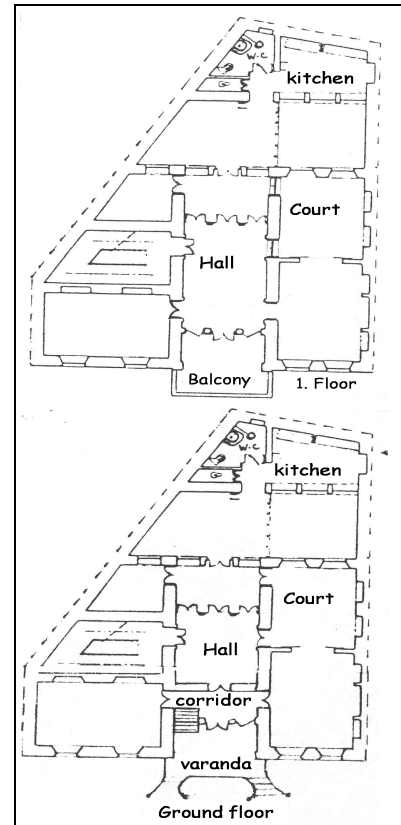


Figure 16: Khayat House [9]

2) *Khayat House*: This type is distinguished from the previous type by its multi-storey construction and by its very spare courtyard which serves only for lighting and ventilation. The over elevated ground floor is accessible from the street by a monumental double wings stair way reaching a landing-veranda open to the street, and connected via door to a crossed corridor which accesses rooms and a hall, then the dining room and kitchen. The minimal court space is reached through the hall and overlooked by a room and kitchen. An interior staircase from the corridor leads to the first floor (Figure 16) where the same arrangement exists but with a balcony open to street. The balcony plays, to some extent, the role of Liwan. But since the orientation of the house is dictated by the shape of the lot with respect to street, this claim is dubious. Nevertheless the construction of this type lasted until the late of 1950s [10].

#### B. Houses Without Courtyard

By the end of the 19<sup>th</sup> century, and the beginning of the 20<sup>th</sup> century, new types of popular and small habitations came into being on lots of lesser dimensions as buildings several floors with long corridor but without courtyard.

1) *Homs House with Corridor*: This house type emerged when a number of Christian families moved to Near Eastern towns, by 1868 and on, with the start of European

investment in the Ottoman Empire. These people have had their lodging constructed according to a model different from the so-called traditional (existing). The new habitation, as the off spring of the new urbanism, is the expression of the people's desire to occidentalize and modernize their ways of life. This house type is intended to be used as permanent residences: the rooms both on the ground and upper levels are aligned along arched gallery open to a large hall (Figure 17). These rooms, accessible by a central corridor, are the prototype of new bourgeois house in main business urban centers of the Near East.

The Homsi house has a vast space for garden, where at the rear side of the building a separated Liwan with a large alcove open to this garden and oriented to North. Along the axis of the Liwan there is a marble pool with water jet. This separated Liwan plays its role in summertime, overnight and pass time. The courtyard seems to be replaced by the surrounding garden.

2) *House with Terrace*: This house is somewhat the synthesis of the House with Minimal Lateral Court and Khayat types. It is constructed on a very small lot of land (50 m<sup>2</sup>). This type has neither an interior courtyard nor a corridor. The house is composed of three floors inhabited by a single family. It seems possible to consider the central space where the stairs



are located as an extreme reduction of the so-called interior courtyard. The ground floor has one room, a kitchen, two toilets, imbedded sink and a cellar (Figure 18). The first floor is connected to the street by a small balcony and a staircase with steps. It is thought that it replaced the corridor of the previous type. A very small court takes place in this floor, but with its very small size, it seems to be used for lighting and a landing area to reach a small room. This form brought the end to the courtyard.

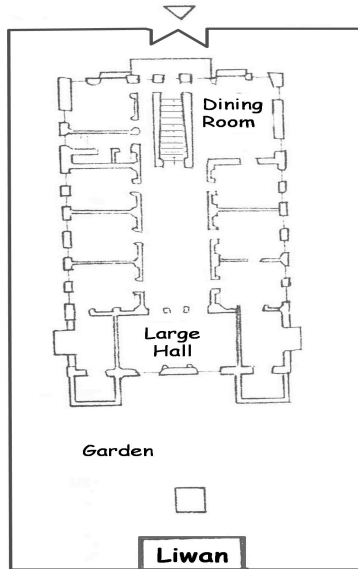


Figure 17: Homs House Type [9]

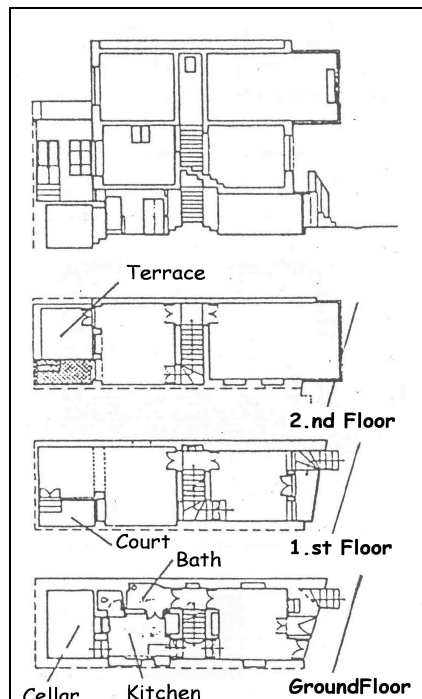


Figure 18: House with Terrace [9]

The second floor has two bed rooms located at the both sides of the stairways, and a small terrace (Figure 18). The terrace plays the role of the courtyard (of the traditional type), whereas the balcony plays the role of the Riwaq especially when it is covered with kiosks.

## V. CONTEMPORARY HOUSE FORMS AND THE VANISH OF COURTYARD HOUSE

The Near East, in modern time, has experienced rapid growth in construction activities informs of dwelling and industrial buildings, to meet with the rapid growth of population in urban areas. From 1960s to present Near Eastern countries looked at European physical standards, building models and organizational frameworks. Thus, design and building systems were imported from European countries. Some countries adopted western and others Eastern European models in their housing provision. As a result, prefabricated system and concrete blocks played important role in housing construction to provide maximum number of house units in a short time to house the urban growth.

The plan and design of modern house type is imposed mainly in the prefabricated or concrete systems supplied with lift. In this type there are more storey compared with the traditional case. A direct effect from European design is seen on the plans; even balconies are not evident in most of the cases (Figure 19). The housing unit area is about 100 m<sup>2</sup>. The plan is composed of entrance from staircase or elevator reached circulation area of the staircase, a welcoming corridor, kitchen, toilet and bathroom are lighted by O.T.Ss through small windows. In this house form, we realize the absence of everything related to traditional form and concept.

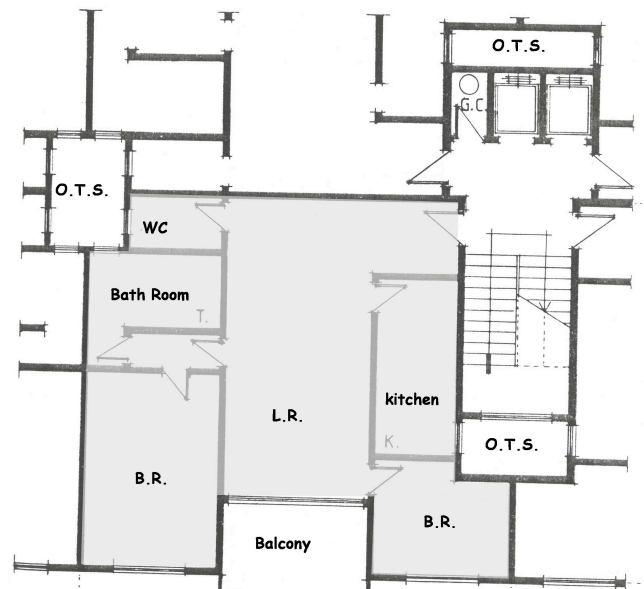


Figure 19: Modern/contemporary house type [11]

Generally, the number of inner courtyards in the traditional Near Eastern house differs; the more luxurious the house, the greater the number of families living in it: some very big traditional houses have 2 or 3 courtyards. This is just an opposite to the modern concept of multi-family tenement building in which the more number of families living in a building indicates the low quality of the building and the low income of the families.

## VI. CONCLUSION AND DERIVED GUIDELINES

This chronological and typological study was an approach that allowed us to read, understand, and then learn from history. Lewcock, R. [12] stresses on the capability of this approach as a useful tool for shaping our future built environment. He says:

“At any given time the man-made world is inevitably the measure we use to determine the direction of change. Whatever we may think of it, the world around us provides the basis for decisions about the future. We are keenly aware of its deficiencies, but not always so aware of its strengths. From time to time it is wise to pause and consider whether when we change something, we consider what we might be losing. The corollary to this is to look back to see whether what we lost yesterday might, with little effort, be regained” [12].

This paper is an attempt for studying the chronological evolution of built form and concept in Near East. Thus this study could be an instrumental tool to learn from the architecture of the past, trying to understand the space-form languages characteristics of the locality and build on them is one way to respond with sensitivity to the existing world and one way of providing reassuring continuities in a world of frequently irrational, accelerating changes.

Fourteen house types were identified in this study among which the courtyard type was the traditional type which was the most remarkable, developed and prevailing in the Near East; and it has been used in urban and rural Near East till the end of the 19th century. This type is based on a central plan with inward solution. It provides the houses with a comfortable internal environment, providing calm and air during the long hot dry weather. Within the courtyard, women were able to move freely without any fear of being seen by the neighbors.

We can say that using an approach that takes into consideration the types of the past might be of great value. It can produce conceptual tools and make architectural language richer. It is important to realize that the continuity is not linear. The architect should search for the truth and not be distracted by illusion. This requires a total vision of the environment and not just partial solution to its problem at every scale. Because, the values of a city are associated with its capacity to regenerate itself in forms that permit its citizens to identify a

line of continuity between past, present and future. The courtyard (with its shading elements) concepts are considered as an indispensable open space element in Near East. It is the most important family place in the region. It is the “Hayat” (Life) and the “Baraha” (Comfort), where all daily activities of female and children take place.

However, for future considerations, design principles derived from traditional forms and concepts are urgently needed for better and peaceful living in the Near East at both building environment and house architecture levels. For building environment the followings are needed to be considered:

- Proper solar orientation is required to provide maximum shade and minimum heat gain.
- Compactness in form and layout to minimize sun exposure and allow buildings to shade on another.
- Narrow winding pedestrian street network to minimize solar radiation, reduce effects of stormy and dusty winds and create shade areas throughout the day.
- Hierarchical order of privacy from public thoroughfare through cul-de-sac to private home zone.

For house level (for single and apartment) an architectural element must be:

- Open to sky to provide cultural issues of privacy, function and meaning.
- Designed for solar radiation and wind, and as excellent thermal regulator.
- Have floor that draw heat from the surrounding areas and re-emit it to open sky during the night.
- Enclosed outdoor space of sanctuary and privacy.
- As a sink, collecting the cool and flow it down during the night.
- Allow light to penetrate the house.
- Viable to plants and trees for food supply and wind filtration purposes.
- Viable to accommodate cultural and ritual occasions, family gathering, and provide privacy for women.

Water is another important element in hot arid Near East. It is originally used for different purposes, such as, climate modifier, irrigation, visual and sound elements for relaxation. Therefore, water element must be designed for the same purposes to provide and ecological sustainable living environment.

Far from being relics, these indigenous buildings building tradition both in urban and rural areas should be studied from a number of aspects: in aesthetic terms: the sense of scale and proportion, vistas, and the juxtaposition of open and closed spaces; in climatically functional terms: the shading living zone, the beneficial air movement generated by street layout and courtyard planning and the construction materials with high capacity; or more fundamentally in terms of socio-economic organization with lively and sociable communities operating with economic efficiency.

Last but not the least, spaces, buildings, and construction techniques must be subject to adapt climatic, social, economic and technological changes through time periods of daily, seasonally and long term. Doubtless, there are many things to be learned from indigenous and traditional settlements in the Near East region for the sake of providing peaceful and livable environments.

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