Morphology of Islamic Traditional Iraqi Courtyard House Toward Holistic Islamic Approach in New Residential Development in Iraq

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Abstract

The traditional Iraqi house represents the ideal living style of its occupants. Its exceptional form has been designed to respond to the Islamic social and cultural needs of the house residents. The people behaviors have magnificently shaped the architecture identity of Iraq. By the time, the dilemma of traditional courtyards house appeared in the 20th century after numerous consequences causing the terrifying disappearance of this monument. Not only the lack of understanding the Islamic function of this traditional house but also the new modern designs of housing have been missing the identity of Iraq architecture. The urgent demand is to investigate the remaining cases of traditional courtyards house, and its function as Islamic space to emerge to the new housing applications in Iraq. Additionally, this study is focusing on the way that the courtyards house function and embrace certain Islamic elements that could be utilized to the new modern houses. Therefore, a morphological study has been carried out with the intention of analyzing the planning form and physical characteristics of two traditional Iraqi dwellings. The study has gone some way toward understanding that the courtyard house in Iraq does hold meaningful Islamic principles that implemented in its design physically and in its form. Accordingly, it empathizes the main reason that this kind of houses has been ideal is that it flourished from people culture and necessities over the years. The result of this study enhances the architecture design of the current and future worldwide Muslims houses into more expressive manners.

Keywords: *Traditional Iraqi courtyard house, Islamic approach, Morphological study, Socio-Cultural needs*

1. Introduction

In general, a house is a humanistic concept that socially and physically corresponds to and more concerns about than the idea of design form and physical determinacy [1]. The home idea was related and associated with many areas such as security, safety, comfort, and passion. It is the center of human life, more related to the memory, feeling, interaction and context than the size or the form itself. In Arabic, the home term definition is the shelter that one might spend the night in. The house in Arab culture comes from the need of security: it is the place that the family spends the late-night hours safely [1].

Meanwhile, the house is a place where a person can relax and rest his body, and enjoy the rightful worldly delight [2]. It provides the residents with privacy, protection, and security; they also do worship, learn and teach the message of Islam. He further reiterates that the house in Islam has the potential to take the role of education and training center with the association of the society and individuals. It is a microcosm of the culture of Islam, civilization, individuals and the families; therefore, the

Islam seeks to create a place for better living and a better person.

In Islamic architecture, both the residential unit and the environment are magnificently shaped and influenced by the impact of the Islamic culture [3]. This notion is supported in the Qur'an and Sunnah (the intimate presence of the prophet Mohammed), which described precisely the way of living

appropriately as Muslim and the situation of housing and residence [4]–[6].

It is implied that valuable cities with traditional and cultural heritage, are having a significant influence on people culture and the social life. From the urban standpoint, the historical characteristics of the cities have progressive values that represent the global aspects and their physiological affect people daily social life. The public and private domains required in Muslims cities [7]. The commercial areas are separated from the residential one, and the last one turns its back to the public areas. This situation can be seen in Iraqi cities especially the historical, traditional zones. Those zones and districts traditionally are divided into a dead end and narrow alleys; people live there as one family in secure private neighborhood [8]. Nonetheless, the social value was the main reason in the city division such as alleys, public spaces, private and praying zone. Within the centrality; how the city design is based on, is where all the building directed to the center of the city with the grand mosque in the middle [9]–[10]. The ritual consideration is the most important in the city system form. Religious and ritual are everyday activates for Iraqis, therefore; the architecture form of the city represents the Islamic principles in buildings design and environments [7].

2. Problem Statement

The majority of architects and designers seem to fail to provide the proper house that satisfies dwellers in term of religion and social demands or the climate. They adept the western form design as a "closed house" that it did not respond to people needs. The separation between tradition and design occurred negatively on the housing design [11], [12]. Furthermore, social issues appeared in the contemporary house led to having social intense between neighbors [12]. This paper aims to understand the idea behind the design of the Iraqi Traditional House which makes it socially and culturally accepted between Iraqis.

3. Research Methodology

This research explores two case study of two different Iraqi traditional courtyards houses. The cases were selected to represent a sample of the early construction development of housing in Iraq. This type of methodology can provide such informative analysis which can explore certain factors within limited samples. A qualitative research can provide such an excellent opportunity to study a particular phenomenon intensively in wide range study area [13]. The implications of the theory can help to find the related case study to be physically observed and carefully examined which leads to further elaboration [14].

The data collection method employed in this study involves a morphological study. Two main factors selected to exploring the case studies which are form and space arrangement, accessibility, and transitional space. Moreover, examining those components could help for better understanding of the planning design of the selected samples that also involving drawings investigation. The drawings are a part of studying the overall form and spatial organization of planning designs. 3d Max and AutoCAD have been included to illustrate the figures of the case studies and to measure the utilized factors.

4. Case study of Shashoor's House

This case of Iraqi traditional courtyard house located in the capital Baghdad in the center of Iraq, and it belongs to Shashoor's and his family. The house is within an adjacent city texture that surrounded by multiple houses [15].

4.1 Form and Space Arrangement

The house is irregular in shape with a central square-shaped courtyard. It is three-story height that includes basement floor, ground and first. The size of the unit is approximately 30 x 30 meters. Spaces organized evenly around the central courtyard where all the rooms are looking directly onto it. Figure 1 demonstrates the exterior of the unit that is irregular because of the surroundings.
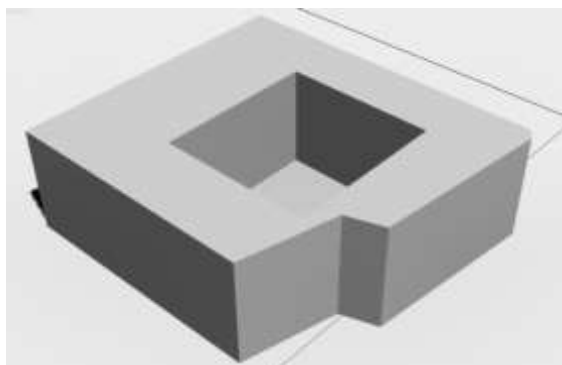

Figure 1: Shashoor's house, the 3d form of the house.
Source: Author

No many windows are opening on the street, except for the highest level that has decorated with few Shanasheel (wooden lattice windows) for exploring the street. Figure 2 showing a section in Shashoor's house and explores the different levels of the traditional house. In the section, it can be noticed the space arrangements and the distribution of the rooms around the central courtyard, besides the windows opening that all directed toward the house interior. Moreover, figure 3 shows an adjacent context of a cluster of traditional houses. The clusters of the windows are designed not to overlook on nearby house. Most of the opening starts from the first floor. Although houses are placed close to each other, the windows were designed properly to not violate the privacy
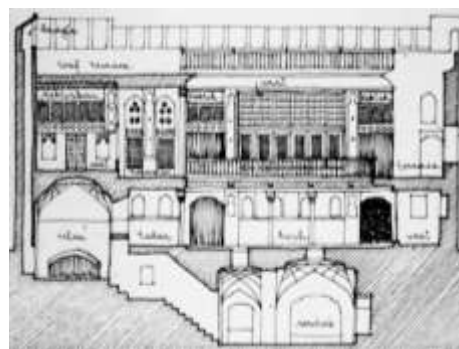

Figure 2: A section in Shasoor's house
Source: Author

4.2 Accessibility and Entrance

The following part explains the main accesses of the house. There is only one entrance that located on the north side of the house. The door opened on a rectangular and linear room that is the waiting room. This room is considered a transitional space between the public space (street) and the private space (house), which contains another door on the other side. That door leads to the courtyard zone where all the family activities located. Figure 4 shows the drawing of the house with the main entrance. The primary function of the transitional room is to separate between the family and the guests as considered a buffer space.

Figure 3: Physical observation, wooden lattice windows *(Shanasheel)*, adjacent context
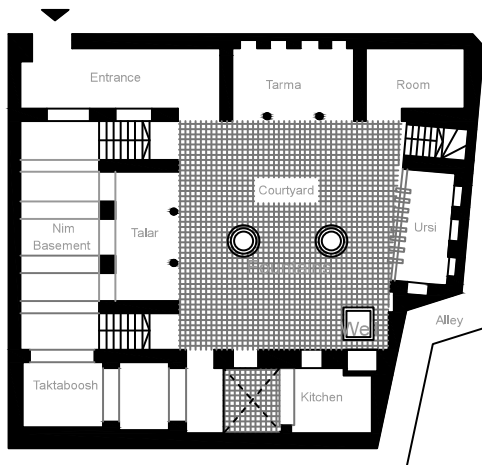**Source:** Author

Figure 4: Ground floor plan of Shashoor's house showing the main entrance and the transitional space
Source: Author

5. Case Study of a Traditional Courtyrd's House in Babylon

This traditional house is in Hilla (Babylon) district, it belongs to Mr. Murad. The house is three-story height, basement, ground and first floor [15]. The house has only one courtyard. Figure 5 demonstrates the 3d form of the house.
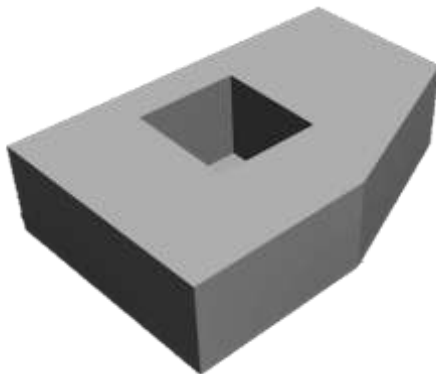

Figure 5: Morphological analyses, 3d form
Source: Author

5.1 Form and Space Arrangement

The exterior has a clean façade as well as the courtyard form. The size of the unit is 30x45 meters. All rooms are taking place around the courtyard from all sides. The exterior shape of the house resulted from the location of the house. It is placed in adjacent context, the organic planning of the city shaped its exterior. The ground floor built for the family; whereas the first floor is for the guest. However, the basement floor is used during the hot days as it stays cool during the day. Unlike the first case, the house form is rectangular; the courtyard space is considerably smaller and located more toward the left edge of the house.

Figure 6 demonstrates the exterior design of the traditional house. The heights of the windows are above the passers level. The ground floor has no projections on the street. The most apparent element is the wooden lattice windows shanasheel that does not violet the neighbor's privacy. Most of the houses are in one level in heights. The ceiling fence is surroundings each house.

Figure 6: Physical observation, the exterior design of a typical courtyard Iraqi house.
Source: Author

5.2 Accessibility and Entrance

The distribution of the room is equally surrounding the courtyard space since there is only one courtyard in the house. All the house activates are taking place in one courtyard which the house can be adjusted and the use of the rooms changes when is needed to occupy the visitors. It is a new concept to find such a form with no division inside the house, however; the first floor might be used to welcome the guests. The same concept is in the entrance of the house, which is one from the south side with transition space leads to the center of the house courtyard. The house has inward and outward looking where the ground and the basement floor are on the courtyard and the first on both street and courtyard, and second on the street only. Figure 7 shows the architecture drawing of the ground floor level, the entrance is on the south right side.
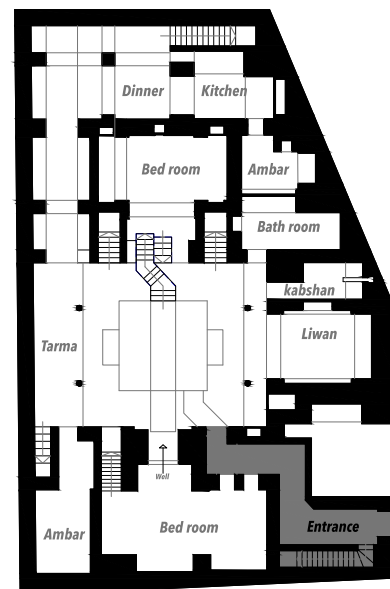

Figure 7: Morphological analyses, accessibility and entrance
Source: Author

6. Results and Discussion

The analysis of both cases revealed the characteristics of the Iraqi Traditional Courtyard's house which is mainly focusing on the spaces distribution and movement inside the house and its form. It

can empathize that both cases showed apparent enclosure of the house's design as they both facing the courtyard space. All the houses' spaces are looking directly on the courtyard. Whereas the first case study showed a square 3d form of the house, the second case has a linear form.

It can be concluded from the 3d analysis of the two case studies that the overall form of the houses in Iraq is a simple shape. The geometrical form of the houses is rectangle or square, and various in sizes, the Heights of the houses are various but not more than three-story height. The outline of the exterior is following the fabric design of the city and mostly irregular in shape. Both cases obtained a central courtyard space for the family activities. However, the second house has a flexible space arrangement that utilized according to the need.

Although the traditional Iraqi courtyard house has an inward form on which is on the courtyard space, it has few opening on the outside. The windows are various from small to large one depending on the function of the room. Shanasheel (wooden lattice window) for the decoration purpose and ventilation. The entrances are not facing each other. Alleys are narrow and empty from an opening of ground floor level. The organic context of the city has a significant influence on the exterior of the house; however, the limitation of the opening toward the street resulted from the privacy need of the residence. Also, both units showed that majority of houses in Iraq adopted not more than three-story height units which are mainly to respect the privacy of the neighbors from being violated. For the same reason, no windows or balconies were adopted.

7. Conclusion

The study has gone some way toward understanding that the courtyard house in Iraq does hold essential Islamic principles that implemented in its design physically and in its form. Accordingly, it empathizes the main reason that this kind of houses has been ideal is that it was flourished from people culture and necessities over the years. The result of this study enhances the architecture design of the current and future worldwide Muslims houses into more expressive manners.

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