



Domestic Architecture and the City Identity: The Historic City of Homs and Its Traditional Courtyard Houses as a Case Study

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Abstract

Architecture manifests invaluable knowledge of people life, culture and achievements. Domestic architecture, in particular, is influenced and shaped by cultural and social aspects of local people as well as by different historical and cultural events occurred during the history of the urban environment, the city. Therefore, this paper aims to explore how the traditional domestic architecture of the historic City of Homs in Syria was shaped and how it characterizes the historic City of Homs differently from other counterpart cities in Syria. The historic City of Homs is located in a very strategic location in the middle of Syria connecting different parts of the country. The city was originally found 280 BC and became a very important Greek and Roman settlement. The domestic architecture of the city is dominated by the use of courtyard houses typology as well as the basaltic stone as a building material. Therefore, this paper will focus on the development of the domestic courtyard houses in the city and how this development was shaped by the influence of the Ottoman Empire, French mandate and local social and cultural aspects. Also, the impact that these factors have on the city identity will be investigated. Historic exploration and a detailed analysis of seven courtyard houses from a different period in the city will inform this discussion about the city image and identity.

Keywords

Courtyard houses • Middle Eastern architecture • City identity • Courtyard elements • Architecture identity • Courtyard development • Homs dwellings • Traditional architecture

1 Introduction

The dwellings and housing typologies play an important role in identifying the city and shaping its architectural identity. The courtyard houses have a particular environmental and social response that characterizes the architecture of the Islamic and Middle Eastern countries. They were developed over the years and witnessed many changes that vary depending on the region, the city as well as the variations in the lifestyle. In some cases, these changes affected the whole building's type; in others, they were limited to building's materials or construction techniques. That said, these houses are in danger owing to urban and population growth, which affects the city identity. Besides, the disappearance of the traditional craftsmen profession is another challenge this housing typology is facing in the present time. Therefore, this paper aims to analyse the cultural factors that helped to shape different typologies of the courtyard houses of Homs, Syria; it will analyse how these courtyard houses adopted the transformation of the social life, as well as, the evolution of the city and its population through the years.

The culture and social lifestyle play an important role in the design of domestic architecture and the way it functions. Petruccioli (2006) describes that the typological process is inherent in the evolution of the Mediterranean Islamic courtyard house. He suggests that the courtyard house started as a small unit and then grew by adding more rooms/units attached to the initial cells, making sure that there is still space indoors (the courtyard) that enables practising open-air activities (Petruccioli 2006). He adds that these partly independent units are used as either guest's house or for extended families (Petruccioli 2006). This paper will be discussing in detail the social and cultural influences that affected the development of courtyard houses in Homs and their role in reflecting the identity of the city. However, while explaining the social impact on the design of the traditional dwellings of the city, it is important to explain the

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social evolution and its impact on the design of its courtyard houses through the historical periods.

2 The Identity of the City of Homs: Historical Background

The City of Homs is located in central Syria on the east bank of the Orontes River. The name in English and French is pronounced as *Homs*; Greek and Latin *Emesa* (Dumper 2007). It is halfway on the link between Aleppo and Damascus, about 200 km to the north of the capital city, Damascus. This location is considered a special topographical position as it lies between the foothills of Al-Nassarah Valley “Wadi Al-Nassarah” and the Lebanese mountains to the south. This location guarantees that it receives the relaxing influences of the Mediterranean Sea and its breeze. Consequently, the climate of the City of Homs is very mild, with a high average of rainfall. However, this location is also the reason for the windy environment that characterizes the city, high-speed wind sometimes.

The buildings in the historic town of Homs are mostly courtyard houses with some public buildings and historic churches and mosques. These buildings were built in sculpted basaltic stones coming from the Al-Wa’ar area in the city western countryside. Even during the Byzantine Empire period, the remained churches within the city centre of Homs are proof that this black basalt was used as a building material since then. Therefore, unlike other cities in Syria, the identity of the City of Homs is linked to the use of local stone of black basalt as a main building material and white limestone to decorate the internal and external facades (Fig. 1). This type of architectural style is called “Ablaq” (Al_Zahravi 2006), and the whole city is coloured by black and white only shaping its particular identity, so it was called throughout history: “*The mother of Black stones*” (Al_Zahravi 2006; Al_Dandashi 2013) (Fig. 2).

After the Byzantine Empire, the Islamic city plan encouraged the narrow streets and building the houses close to each other. Al-Dbyiat (1995) stresses out that the narrow streets enhance the quality of relationships between inhabitants who are part of the same community in the City of Homs. Moreover, Historic neighbourhoods of the city accommodated both Muslims and Christians who were living together; they had different cultural lifestyle which was reflected in the use of spaces of their houses. We can note that almost all buildings in the city centre date back to the Ayyubid and Mamluk periods (between 1262 and 1516). Furthermore, during the Ottoman Empire (1516–1915), the Ottomans only added decorative elements (such as Masharbia window) and did not influence the structural and architectural elements of the house (Raymond 1985). However, the Ottoman has changed the lifestyle of the city

on various levels, which resulted in reshaping the city identity in one way or another as it will be explained in a later section.

This city expansion and transformation during the Ottomans resulted in a function transformation of many traditional dwellings in Homs. Petruccioli (2006) described this type of identity transformation as a natural evolution. For example, few houses in Homs can be considered as great examples that reflect the social transformation introduced during the Ottoman’s period. The function of these houses was changed to either schools or hospitals, to adopt the new requirements of the city expansions; however, the architectural elements of the house remained unchanged. This change of characteristics was due to the development of social, functional and urban requirements (Petruccioli 2006).

The expansion of the city normally causes an increase in traffic into the area, which adds technical, infrastructural problems to the original urban fabric. However, this expansion brought a bigger city that played a major trading role during the Ottoman’s period, resulting in an evolution in the city identity making it a new target for people to find jobs.

Due to people moving from the countryside to the city for work and education, this expansion continued after the Ottomans, and it is noticeable during the French Mandate (1919–1946) in the old parts of the city of Homs. In Homs city centre, the pressure caused by the expansion of the old centre affected the whole urban context, on both technical and social aspects. This resulted in driving many people to change their houses and other buildings by modifying the floor plans, changing the materials used in roofing, or even modifying the openings to adopt the new needs and requirements. For example, the courtyard houses particularly were affected by many modifications over the years, and most of them changed their function more than once. The Dawama’s House can be seen as one of the courtyard houses that reflects this. Its western entrance that opens directly to the courtyard without the use of any corridor could have been added when the building changed its function from residential to educational (Fig. 3). These changes will be analysed in more detail in a later section that studies each case–study house and its transformation process.

In later years after the end of the French Mandate and the independence of Syria, the social life developed, and the whole city’s identity was affected by the global movement of architecture. As a result, in the 1970s with the city expansion and the dramatic increase of housing demands, many courtyard houses were demolished in Homs city centre to be replaced with multiple apartment buildings. These blocks did not have any courtyards. Instead, they had only small balconies and windows on the west facade. This proves that the lifestyle at that time witnessed a huge change and kept evolving to reshape the city identity once again. As a result,

people wanted to live separated from their parents in 2-3-bedroom apartment-style accommodation instead of 5-6-bedroom courtyard houses. Also, in most apartments, they no longer have two separate living room spaces to separate males and females. However, the wealthy conservative people who wanted to keep the gender separation in the apartments built their modern houses with two separate living spaces. These social and cultural changes were results of the influence of the French Mandate and the globalization movement at that time. However, this dramatic transformation caused a radical change in the identity of the city of Homs, as the face of the city and its black and white “Ablaq” architecture started to promptly decline and disappear (Figs. 4 and 5).

3 Courtyard Houses in Homs

3.1 Introduction

The courtyard as a house plan type exists in different areas around the world. At first, this type of development logically took place to protect the inhabitants from outside forces, such as invasion of wild animals (Edwards et al. 2006). The courtyards concept as a plan configuration appeared in the Near East around 7000 BC in Neolithic settlements (Gates 2011).

Although courtyard houses in Syria share similar design features, elements which are relevant in one region may have been considered less important in another. For example, the wind catchers have been seen as an essential element of the courtyard houses, while they are absent in the courtyard houses of Homs. By analysing the courtyard houses in Homs, we can outline the following design principles that have been influenced by the cultural life but also influence the environmental performance of the houses themselves, which are:

- Courtyard
- Liwan
- Openings (Doors and Windows)
- Building Material
- Orientation.

3.2 The Development of Courtyard Houses in Homs

Çatalhöyük, Çayönü and Jericho prehistoric sites are considered as a proof that the courtyard houses were not introduced to the Middle Eastern region, rather than being a result of historical events which led to the evolution of this

typology since 7000 BC (Edwards et al. 2006; Bicakci 1995). However, this typology still has a lot in common with the more recent developments, which indicates the importance of these common features, and that they are still needed despite the cultural and historical growth that happened since then.

In later years in the Middle East, the courtyard remained the most critical element and the centre of all Islamic Arabian houses. People continued using it in the city of Homs, similarly to other places in the Mediterranean basin in the form of the classical Roman atrium and Greek house (Edwards et al. 2006). Petruccioli (2006) argues that the continuity of Byzantine culture in the region may be the reason behind the spread of the courtyard house. Moreover, since Homs was part of the Byzantine Empire, it is only possible to assume that it was influenced by it. It is believed that in areas that had been abandoned by the Byzantine Empire, the buildings were reconstructed based on a relatively basic type of houses with one cell (Petruccioli 2006). Therefore, the existence of the courtyard houses has always been part of the city and its social influences. The lifestyle and city identity evolution helped to shape the courtyard house’s elements and features. In addition, the evolution of the city and its wealth evolved this typology to its latest known design in Homs.

As it was explained earlier, the use of the black and white stones has always been part of the city of Homs and its unique identity, since it was a Byzantine city known as “Emessa”. However, the evolution of the city has shaped the buildings and their typologies, not only their architectural elements. With the arrival of Islam to Homs in 632, Muslims adopted the courtyard concept because it suits their religion and their social life, particularly the degree of privacy they were looking for (Semper 1989). Besides, many researchers proposed that the courtyard of an Islamic house represents the Garden of Eden (Campo and AlSayyad 1992; Oliver 2003; Petherbridge 1978). They agree that in the Arab cosmology, the four walls of the courtyard designate the four columns carrying the dome of the sky and the courtyard symbolizes their private piece of sky, so the courtyard has also a cultural dimension. However, in Homs, different religious groups were living together in the same neighbourhood. Furthermore, we can argue that the religious background was not as important as the environment in influencing the courtyard house’s design in Homs particularly. By analysing the case study houses, we can identify two different courtyard houses built by two different religious groups (Muslim and Christian). Both types share the general style and are located in the same neighbourhood: Mehi’sh Mansion and Dawaama House (Fig. 6).

As explained in the earlier section, the typology of the houses was forced to evolve during the Ottoman Empire and the French Mandate. This evolution involved the change of

function of many of these houses. The rapid changes of the city and its growth lead to the need for more hospitals, schools and workspace. Therefore, many of these houses were transformed. However, in many cases, the dates of the transformations are not registered, and therefore, they are difficult to track (Taqtq 1995). Table 1 highlights the functional changes happened in the selected case study houses over the years.

Table 1 gives us an idea of different transformations these houses witnessed in the City of Homs. While most of them kept functioning as residential buildings over the years, others changed their main function based on the owner's decision. Also, some of these houses had to change their function even three times.

These case studies were selected to provide a sample of houses built before and during the Ottoman period in order to allow us to track the Ottoman's influence. However, it was possible to have the plans of only two houses built during the early Mamluk period, while four of the selected houses built during the Ottoman period were selected based on their various sizes (large, medium and small). In addition, one case was selected as it was a house built by a Christian owner during the late Ottoman's period. These variations provide information to track the influence of the tradition, religion and size of the building on its architecture features. Even though a bigger sample could be helpful to provide a more in-depth research, the resources are so limited and not enough data is found about other case studies. Figure 7 shows the location of the selected case study houses on the map.

Changing the function—as mentioned before—led to a real danger of losing the house's identity and affecting its

original environmental performance, especially during the French Mandate. Affecting the identity could be seen clearly in “Basha Al-Hosiny's Mansion”, as it was transformed into a school, then to a workshop (Taqtq 1995). Unfortunately, these changes are not registered in detail, and the dates are unknown. However, it is certain that the central fountain was removed when the house was changed into a school, and the southern unit was changed into toilets; this made it easier for the school to be changed into a candy workshop in later years (Taqtq 1995). Also, the courtyard was helpful as they used it to cool the candy and the roasted nuts in fresh air before selling. However, transforming it into a workshop resulted in using the rooms for cooking, so the steam has caused damage to the spaces (Fig. 8). This new use significantly affected the typology of the house and its features. Nevertheless, this is a living proof of the flexibility that the courtyard typology has to offer. The open private space enabled the workshop to function privately without disrupting the neighbourhood by keeping the noise trapped inside the private space and isolated by the side walls that are a minimum of 1-metre thick.

Additionally, “Abd-Alla Farkouh's House” was transformed into a hospital probably in 1900, and at that time, it is believed that no major changes were done and the typology of the living space remained untouched (Taqtq 1995). All the rooms in the house were used as emergency and surgery rooms until it was used again as a residential building by “Abd-Alla Farkouh” who donated it to the city council of Homs to be opened as a museum after he passes away (Taqtq 1995) Fig. 8. Nevertheless, it is unknown if he was the owner when the building was functioning as a hospital and what the reasons behind changing its function back to

Table 1 Selected case studies of courthouses in Homs and their functional evolution (by the author)

House name	Built-in:	Original use	Transformed	Transformed	Current function
	Dated		1st	2nd	
1 Al-Zahrawi Mansion	1049 (Early Mamluk Sultanate: 1226)	Governor House	Residential	–	Museum
2 Mofeed Al Ameen Mansion	EST: 1250-1517 (late Mamluk Sultanate/early Ottomans)	Governor House	–	–	Owned by the City Council
3 Basha Al-Hosiny's Mansion	1879 (Late Ottoman period)	(Multi-function) - mainly Residential	School	Workshop	Workshop
4 Mehi'sh Mansion	1887 (Late Ottoman period)	Residential	–	–	Residential
5 Abd-Alla Farkouh	1892 ((Late Ottoman period))	Residential	Hospital	Residential	Museum
6 Al-Droby's House	1883 (Late Ottoman period)	Residential	–	–	House
7 Dawama's House	1892 (Late Ottoman period)	Residential	School	–	Empty

Table 2 Case study house: liwan location (by the author)

House name		Dated	Liwan number.		Liwan's location			
			G	1st	N	S	E	W
1	Al-Zahrawi Mansion	1049	1	–	x			
2	Mofeed Al Ameen Masion	1250–1517	–	–				
3	Basha Al-Hosin's Masion	1879	1	–				
4	Mehi'sh Mansion	1887	1	2				x
5	Abd-Alla Farkouh	1892	2	1				
6	Al-Droby's House	1883	3	–	x	x		x
7	Dawama's House	1892	1	1				

residential. However, probably, it happened after the opening of the main hospital in the city. At that time, the records show that no changes were done to the house as the owner took good care of it as he was living alone, so it is believed that he used the rooms as guest's rooms only (Taqtq 1995). This case indicates the flexibility of transforming the house into a hospital with a big number of rooms and open courtyard space that offered internal peaceful garden space for the patients. Therefore, we can conclude that the city evolution and the need of hospitals were welcomed and easily fulfilled by transforming its big houses into hospitals when in need, and they were transformed back when they were no longer required (maybe after the opening of the new hospitals in the city.) (Fig. 9).

Even though many houses were able to aid the city expansion and the requirement for supplementary functional spaces, many of the houses within the city did not change. They remained only residential until the civil war took place in 2011. For example, "Mehi'sh Mansion" and "Al-Droby's House", it is possible that the main residential function of the houses did not change, and they are still owned by families (Taqtq 1995). However, as they are partly demolished and greatly damaged during the war, this opens many possibilities to either demolishing them or reconstructing and transforming them to traditional restaurants after the war, as it will not be economically efficient to reconstruct them for residential use (Fig. 5).

Moreover, these courtyard houses started to disappear, even before the Syrian crisis of 2011. In some cases, the courtyard houses had to be sold in auctions as more than 50 people inherited their grandfather's house. Therefore, they had to sell it in order to distribute its value. In other cases, new owners did not want the house; they were after its land value due to its strategic location in the city historic centre, and therefore, they demolished the courtyard houses. However, few new owners had different visions. They bought these houses in order to turn them into restaurants reconstructing the traditional atmosphere of these houses. Later, as people noticed that this transformation was a good

investment, more houses were saved and preserved, of course with a change of use. The first courtyard house transformed into a restaurant in Homs was around 2000. The new owners of the transformed courtyard houses took real care of them; most were professionally restored, bringing back the old life spirit into the house. This transformation did not affect the house plan, nor the material used, only affected the function and use of space. For example, a house was transformed by an architect from Homs, who aimed to bring back its original features, and it is now called Julia Palace.

When transforming it into restaurants, the courtyard with a fountain in the middle was considered as a perfect space to place the dining tables after transformed. Besides, few tables were placed inside the rooms. In winter, the courtyard was closed by adding a temporary roof; different materials were used to construct this temporary roof from place to another. In most cases, it was textile cover; in other cases, it was glass/framed structure that is removed in summer and placed in winter. In most cases, the basement was transformed into a bar serving different alcoholic drinks to keep it separated from the dining space in the ground floor. The modern social life influences this design consideration in Homs; it also shows respect to people who do not drink alcohol and prefer a calm place to dine along with their families.

As a result of this rapid lifestyle during the difficult conflict time, the courtyard houses in Homs are now endangered and disappearing. This results in real danger of the city losing its original identity, as the black-and-white stones are no longer being used as building materials and all modern attempts to bring these features back had yet failed. It is normal for cities to change its identity over the years, but the Syrian crisis is resulting in severe damage and loss of the courtyard houses; there is a real danger of total disappearance of these houses if the owners and the local policy makers take no action in preserving and bringing them back to life.

Courtyard houses typology in the Middle Eastern region continued to exist for their various uses (protection, functional, or privacy); they share many design features that

remained the same over the years (Semper 1989). Therefore, in order to be able to understand the role of these houses in shaping the city identity, it is important to identify the influence that social aspects and the evolution of the city identity have had on the design features of these houses (e.g. courtyard, liwan, openings, building materials and orientation). The next section, therefore, explores the cultural development of these design features of the courtyard houses in Homs.

3.3 The Cultural Effect on the Architecture Design Principles of the Courtyard Houses in Homs

The courtyard houses in Homs have various architectural elements that made them stand out from their counterparts in the country, and the following section will be devoted to analysing their traditional architectural elements in further details reflecting the social lifestyle influence on the introduction and the development of these elements.

3.3.1 The Courtyard

The courtyard is the most critical element and the centre of all Islamic Arabian houses. As argued earlier, the concept of the courtyard existed in the current Middle East since 7000 BC, and it has endured in the Mediterranean basin in the form of the classical Roman atrium and Greek house. Social, cultural and religious factors have had a significant impact on shaping the courtyard houses in Homs. The need for privacy has had a dominant effect on dividing the interior spaces, designing the external windows and separating family activities from guest spaces within the house. Additionally, the extended family arrangement and the way they used to live together in one house influenced the design of the houses with the possibility of semi-independent units. In many cases (and most of the large houses in Homs), it was possible that some units in the house could function independently yet keeping the strong family ties. For example, Fig. 10 shows the three separate units of Basha Al-Hosin's Mansion. These three units have three different courtyards and function independently. However, the family was living together and sharing a common unit at the heart of the house that maintained the extend family bonds and relations.

Moreover, during the Islamic period, the courtyard house had a sacred significance, as mentioned earlier, as the courtyard symbolizes their private piece of sky (Edwards et al. 2006). Moreover, Gottfried Semper (1989) relates the enclosure of the houses with a southern Mediterranean agricultural society that must struggle to protect themselves from outsiders (Semper 1989). With the arrival of Islam in 632, Muslims adopted the courtyard concept because it

suitied their religion and their social life, particularly the degree of privacy they were looking for (Elabidin 1998).

Culture and social life in the Islamic cities influenced the courtyard houses in many ways. It had a major impact on the spaces, openings and orientation. According to Edwards et al. (2006), the role of courtyard differs from one region to another in the Arab world and Iran (Edwards et al. 2006). Thus, the courtyard plays key functions in the houses of this region, which are as follows:

- Providing division and organizing spaces of the house.
- Enhancing the privacy of some spaces.
- Fusing the spaces and creating architectural units.
- Allowing better circulation and use of space.
- Becoming the interior garden.
- Encouraging enough ventilation.

In addition to the cultural factor, Petruccioli (2006) analysed the general typological process of the courtyard houses in the Middle East in general. His research suggested that orientation and access are the key factors in developing the courtyard houses of the region. Analysing the exterior and interior windows in the courtyard houses in Homs, we find that this rule is followed in most of the case study houses where they had a southern exposure, and the first floor was in most cases opened to the courtyard from the south allowing maximum daylight to enter the rooms.

The courtyards that were shaped by social and cultural influences have also an environmental impact which varies based on the geometry and the number of courtyards in the house. The Islamic social life, which required women to be separated from men, affected the housing architecture; men and women had separate halls within the house. Each hall had its separate entrance, but both were opened directly onto the courtyard via a covered space called the liwan. These two living spaces are called: Haramlik for women, and Salamlik for men.

However, the use of the courtyard space was always considered the heart of the house; a space was always used for entertaining guests, parties and holding events in summer. Furthermore, with the evolution of the city and its cultural life, as mentioned earlier, few houses were transformed into schools, and the courtyard house played an important role as the interior yard. Whereas, when the courtyard house was transformed into a workshop, its courtyard became the workshop interior yard as explained before. Finally, with the latest evolution of this typology, when the courtyard house started to form a new identity to be considered by the new generation as a "traditional restaurant" rather than a "residential space", the courtyard became the heart of the restaurant and its biggest dining and entertaining space. This points out the flexibility the

courtyard had to offer throughout the years. However, it also concludes that recently, the new generation of Homs, who have never experienced living in a courtyard house, only sees it as a dining space. This means the identity of the courtyard house has now dramatically changed in a way that affects the city's identity as well by referring to these houses as the city's traditional restaurants instead of houses.

3.3.2 Liwan

The liwan is considered one of the most important elements in the traditional courtyard houses influenced by Islamic culture. In addition to culture, it was strongly affected by the orientation of the house, and thus, its location and structure differ between different cities. However, in most courtyard houses in Homs, two living space units can be found connected through a liwan that is open directly to the courtyard. This space has three steps above the courtyard level to keep it dry.

As in some cases, one liwan is enough; in other cases, where the houses are big, three liwans were integrated. For example, in Homs, the remained courtyard houses have more than one liwan; in general, courtyard houses in Homs have two liwans: the main liwan is facing the north in order to avoid the southern sun in summer and get a shaded space to sit in the afternoon, while the second liwan is generally located in the upper floor facing south, to allow the maximum southern sun to help to keep the space warm in winter. Logically, this space is used in winter and abandoned in summer as it will be extremely hot. Moreover, the number of these liwans differs based on the climate requirements and the size of the house.

Analysing the case study houses in Homs, support this theory as this orientation is strongly applied in "Abd-Alla Farkouh's House" and "Al-Droubi's House". However, this typical arrangement was not followed in "Mehi'sh's Mansion", as the liwan is facing east. Also, we note that the liwan disappeared in "Basha Al-Hosny's Mansion", and instead, it has a shaded corridor located in the eastern part of the courtyard in the ground floor. This variation is due to the variation in size and the number of courtyards (Figs. 11, 12, 13 and 14).

The original use of the liwan until the start of the French Mandate in 1918 was strict as a shaded living area. However, with the great evolution in social life, some houses were turned into schools or cultural centres. In these cases, those liwans were used as a stage opened to the courtyard adding few chairs and tables in the courtyard around the fountain and holding concerts, poetry sessions or any other cultural activities. This type of transformation continued after the French Mandate until recently as people were slowly less interested in the literature, so these houses started to be transformed to restaurants in the late 90s early 2000 as explained before (Table 2).

3.3.3 Openings (Doors and Windows)

- The windows

In traditional architecture, in general, the windows as architectural elements were very influenced by culture. Therefore, the exterior windows were built small and above the eye level to make sure the people on the streets cannot see the interior of the houses. However, interior windows were made larger and opened on the courtyard providing proper light and air/ventilation quality for the rooms. Similar to Homs, this rule was followed in all traditional houses in other cities.

In the traditional courtyard houses in Homs, the windows can be classified into two types: (external and internal). The type is located on the external façade of the house with a simple design. This resulted in having the courtyard houses described as a house that is inward looking, and the closed (almost) solid exterior brought further contribution to the identity of the city as "*The mother of Black stones*". The courtyard windows are much larger than the exterior and are styled and provided with some ornaments in some houses. In Homs, they were arched and decorated with white limestone (Fig. 15). At the base of the courtyard, other small and arched windows with no decorations can be seen; these windows enrich the overall design of the internal courtyard facades as well as provide light and ventilation to the basement floor, which was mostly used for storage.

One of the very significant window styles that is very common in Home's Traditional Courtyard houses is "Al-Mashrabiya" window. This type of window was very common, not only in Syria but in the whole region because of the high level of privacy that it offers, in addition to controlling the light and solar radiation, reducing the glare and allowing ventilation into the house spaces. Even though the Islamic courtyard houses existed in Homs years before the Ottoman Empire, Elabidin (1998) argues that "Al-Mashrabiya" windows were not very common in Syria (not only in Homs) before the Ottomans. For example, Al-Zahrawi House was built in 1049 by "*Ali Bin Al_Afdal Al_Azhari*" according to a big stone on its interior façade. This house consists of two units; one was built during the "Mamluk Empire" period, whereas the other part was built in the "Ottoman Empire" period. And only the Ottoman' section had the Mashrabiya.

Al-Mashrabiya (or Al-Mashrabiya) is the Arabic name given to a style of projecting window with engraved wooden latticework placed in the first and second floors of a building. It is typically used in all sorts of houses, even in public buildings (Elabidin 1998). This element is considered a very important aspect of privacy and very essential to cover exterior windows because it provides a good view of the

street by the family from the inside without being exposed to the public (Edwards et al. 2006). It represents an important element that was designed in response to the cultural lifestyle and lined to the identity of the courtyard houses in the region. In a male-dominated society where houses were designed based on gender separation, preserving the family's women's privacy was very important. Still, it was also important to keep women able to observe the activities in the neighbourhood. Therefore, the Mashrabiya came as a perfect solution and one of the most favourable styles during the Ottoman's period (Elabidin 1998). However, it is said that Mashrabiya was the ornament of wealthy people because they cost a lot of time and money to be produced (Elabidin 1998).

This type of windows has many styles: the unique one is extruded from the walls and looks like a box attached to the exterior or interior walls, and another style is a flat lattice-work placed on a flat normal window. The first style was not a very common element in Homs city, unlike Damascus and Aleppo, where it was used intensively (Atassi 1969). The reason behind this is not clear, but maybe as mentioned before, and some houses were built before Ottomans, and possibly, unlike other cities, the builders in Homs did not find it necessary to change the style they used to build; also, they may did not have the required skill, while the second style (flat latticework) was often used possibly because it was easier to produce and attach to a previously built window. In addition to using it in the exterior, they used it to cover some interior windows opened to the courtyard (Figs. 16 and 17).

Moreover, as no courtyard houses were built during the French Mandate, there is no clear proof that the French influenced the design of the windows of the traditional courtyard houses in Homs. Moreover, people started building the multi-flats apartments with small balconies adopting the western style as it is and ignoring the style of the window used in the traditional courtyard houses; as a result, the Mashrabiya disappeared in modern buildings in the city. In addition to the cultural aspect, it is claimed that these traditional windows are considered to have good environmental performance as a shading element that also purifies the air from dust as possible, enhancing the thermal comfort inside the houses. Comparing the windows (located in both interior and exterior facades) in the seven selected cases in Homs and analysing them gives us a clear idea that they follow different systems. As we can see clearly that most of the houses are attached to other houses from three sides, including the north façade (Fig. 17), whereas two of the case studies (Basha Al-Hosiny's Mansion and Mehi'sh Mansion) have their exterior windows placed significantly in the northern side because it is open to the street. It is important to mention that among four case studies located on a corner with two facades facing the street, Basha Al-Hosiny's

Mansion is the only case study house with many exterior windows on both the ground and upper floors (Fig. 17). This could be related to the background of the person who built this house. It is believed that it was built in 1878 by a Turkish man called "Mostafa Basha AL-Hosiny Al Turkmani" who came to settle in Homs in the Ottoman's period, and that he has some power and was working in the government (Taqtaq 1995). Therefore, the architecture of this house could be influenced by the Turkish Courtyard House, as these houses tend to have more windows in the exterior facades than Arabian Courtyard Houses built in the same period (Elabidin 1998). Also, as we already mentioned earlier, the Mashrabiya was introduced by Ottomans. In this case study, the flat type of Mashrabiya was used to cover the exterior windows in order to ensure a high level of privacy without blocking the exterior views.

On the other hand, "Mehi'sh Mansion" is the only case study that is almost closed to the outside (having only the large windows in the northern façade as mentioned earlier) (Fig. 18). Although the records show that this house was built in 1887 by a Christian doctor called "Mehi'sh", still this did not influence the window sizes or shapes for this house. This draw attention that religion was not the only factor influencing closing exterior facades, and the cultural aspect was more important for the residents of Homs.

In other cases, with the transformation of the houses, many courtyard houses altered their windows. The reasons for altering these openings differ according to the owner's needs and requirements. For instance, during the French Mandate period (1918–1946), the intense privacy is no longer considered the main concern as before, as France influenced the residents of Syria to become less conservative, and some families modified the windows to allow more sun and daylight inside the rooms. Nonetheless, in many cases, these modifications are considered harmful to the vernacular building because it was changing the typology itself. That said, none of the analysed case study houses in Homs show a sign of window medication during the French Mandate as explained before.

- The doors

In addition to windows, doors were highly influenced by the Islamic culture; not only in Homs, but in the whole region (Edwards et al. 2006). The relatively small, modest exterior door was important at that time to make the neighbourhood have a modest style despite the financial status of the owners (Elabidin 1998).

The entrance is a key feature in courtyard houses in Homs, and its design has changed through history. Before Ottomans, and during the "Mamluk Empire", the main entrance of the courtyard house in Homs had a narrow



Fig. 1 Syria Map—Homs Location

straight corridor with double doors (one at each end), while the typical style of the entrance for houses built during the Ottoman Empire has a narrow winding corridor shaping a corner before entering the main courtyard; this is called “Majaz”. It is assumed that Ottomans built their house’s entrance in this style to provide a level of security while they lived in Homs to protect themselves from been attacked. By observing this style in Homs, we can find this corner-shaped entrance technique used only in few case studies. For example, in Al-Zahrawi Mansion, the left part was built in the Mamluk Empire, and the entrance is straight and narrow, and the right part was built in the Ottoman Empire, and the entrance has a corner (Fig. 19).

The cornered entrance “Majaz” is not very common in traditional houses in Homs (Elabidin 1998); the reason behind this is related to the period where those houses were built as the majority of traditional houses of Homs existed

before the Ottoman Empire. We can deduce that this entrance “Majaz” was influenced by the culture and it was designed to show a blank wall once the exterior door is opened to ensure a high level of privacy; this was clearly inspired by the castle entrance which adds a security reason behind this design; this style is very common in both Roman and Islamic castles for protection against attacks by limiting the space in front of the door to disable the enemy’s attempt in braking in. Moreover, from an environmental point of view, it is commonly believed that this shaded entrance typology played a role in cooling the air and purifying it from dust before entering the courtyard.

3.3.4 Building Material

As mentioned earlier throughout this paper, the building material that is unique to Homs old town architecture is black basalt for the main building structure and the white

Fig. 2 A photo of one of the buildings in the city centre of Homs. *Source* Historical Archives of the City of Homs.)

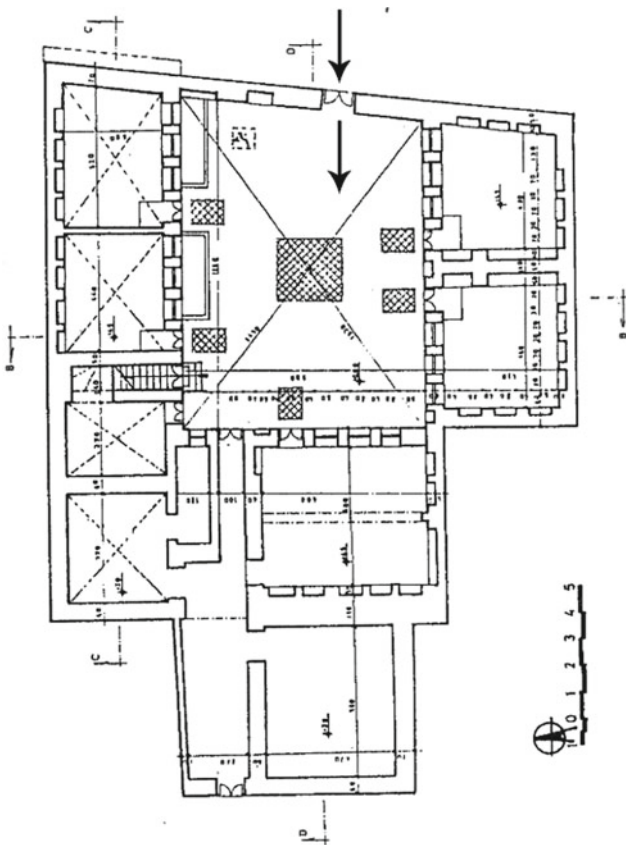


Fig. 3 Dawama House—Ground Floor Plan—shows the direct opening to the entrance (Taftaq 1995)

limestone for decoration. Besides the importance of creating the identity of the city and its architectural style “Ablaq” (Al_Zahrawi 2006), the use of this building material can be considered sustainable due to its availability in the areas surrounding Homs. In addition to that, there is a general belief that most of the stones used in building the houses during the Islamic period were recycled stones from the previous demolished buildings that were built before them during the Byzantine period, or using the stones from the city walls after the city started expanding outside its historic walls (Al_Dandashi 2013; Al_Zahrawi 2006).

Moreover, in addition to the unique appearance of the material used in building these courtyard houses, it is important to note the thermal mass capacity of the black basalt that could have a huge impact in creating a balanced built environment in the courtyard house and reduce the heat transfer. However, this remains a hypothesis and it must be examined, and future research should provide supportive evidence on this matter.

3.3.5 Building Orientation

Building orientation is very important to the Islamic architecture, as it is required to consider the direction of Mecca when praying. Because people do their prayer in their houses as well, houses are preferred to have the walls, in general, orientated facing south or south-east.

In addition to the cultural factor, Petruccioli (2006) analysed the general typological process of the courtyard

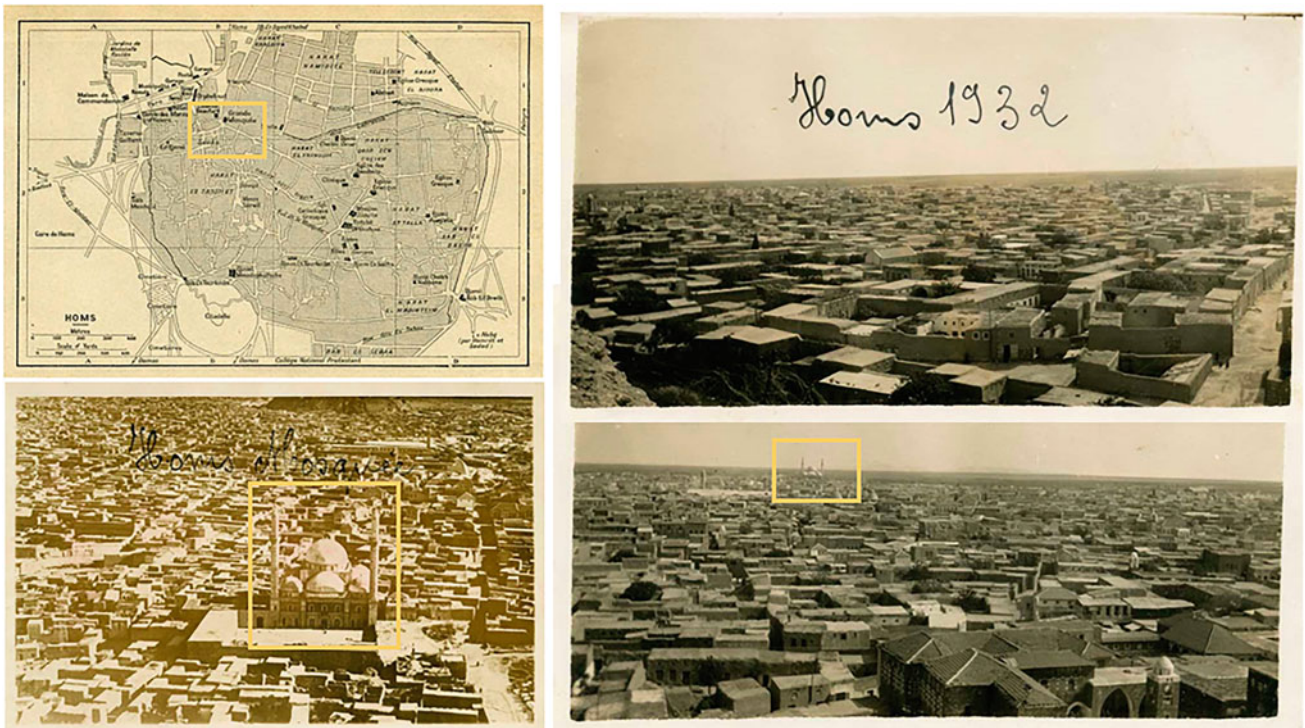


Fig. 4 Postcards from the historical archives of the city shows the courtyard houses in the centre of Homs. These photos are dated back to 1932 (Highlighted is the main mosque of Homs). *Source* Historical Archives of the City of Homs.)



Fig. 5 A photo of Homs main mosque (Ebin Al Walid) in the late 80 s. The photo shows the disappearance of the courtyard houses and highlights the new modern blocks. *Source* Historical Archives of the City of Homs.)

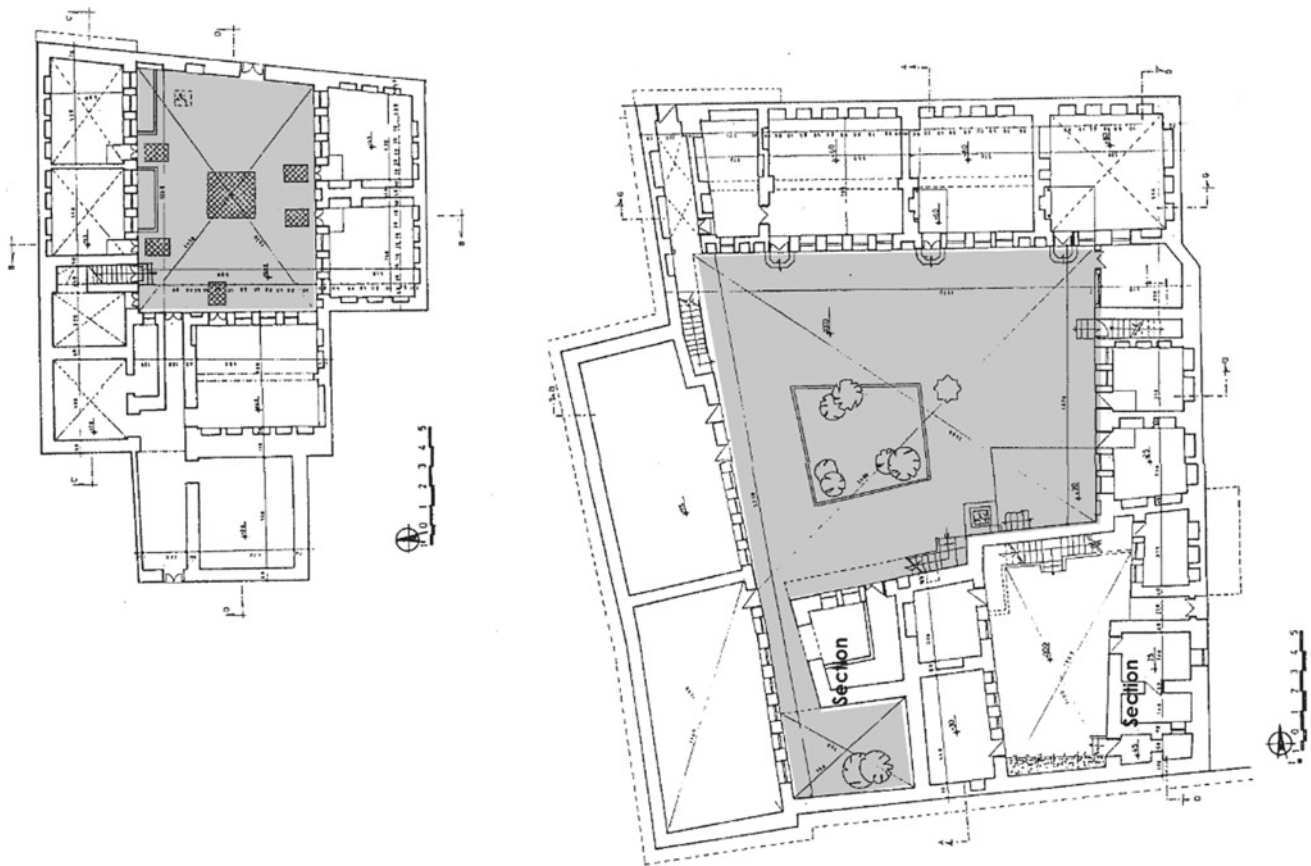


Fig. 6 To the left Dawama's House, Ground and First Floor Plans (Taqtaq 1995). To the right Mehi'sh Mansion, Ground Floor Plan (Taqtaq 1995)

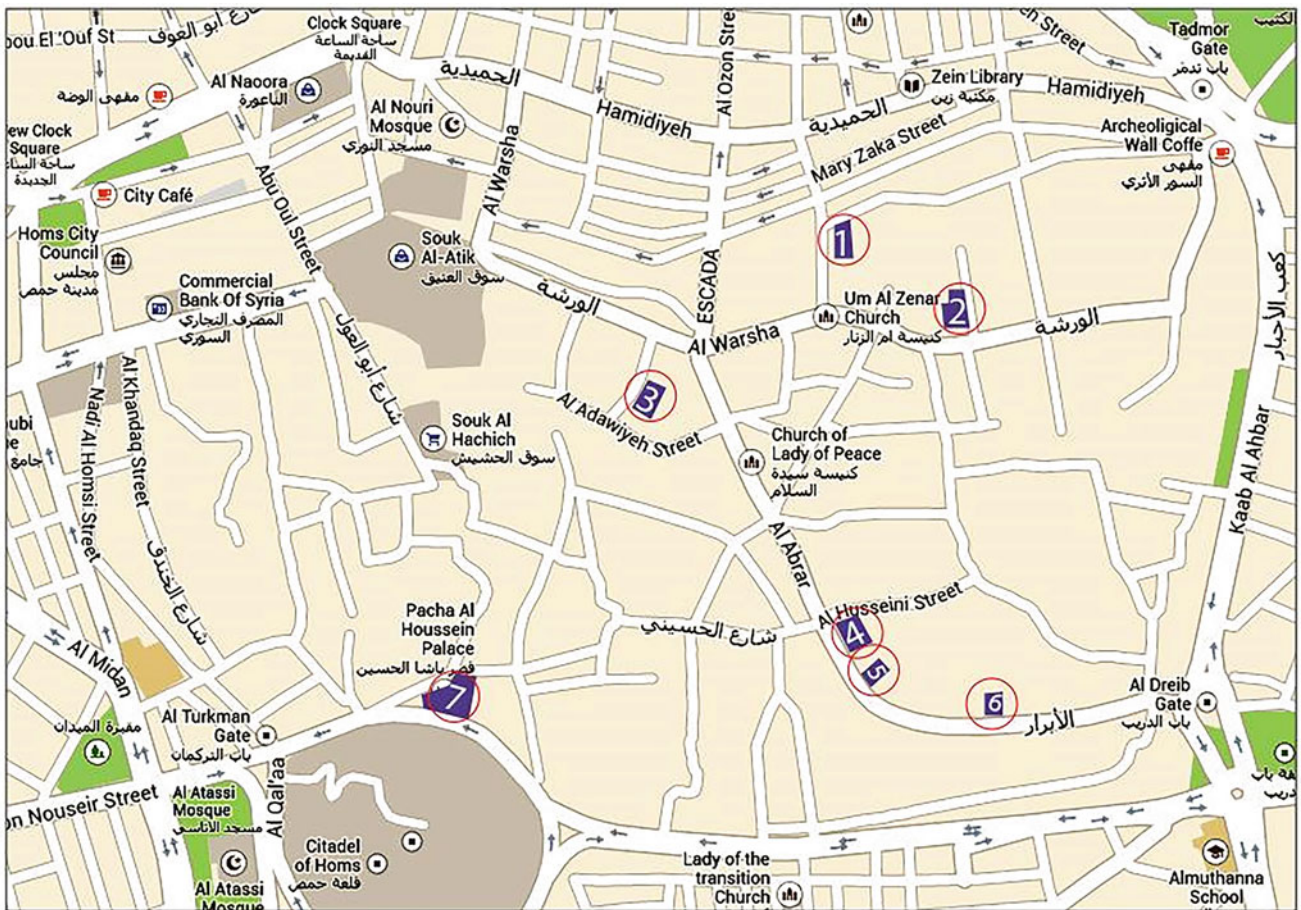
houses in the Middle East and suggested that orientation and access are two key factors in developing the courtyard houses within the region. He suggests that the structure is orientated to allow the highest amount of natural light, which in the Mediterranean basin should be south and south-western exposure. Since orienting the building is more related to the site requirements than to the building itself, this rule is more adhered in rural areas than in towns as there is more free space, unlike the dense cities. By analysing the exterior and interior windows in the courtyard houses in Homs, we find that this rule is followed in most of our case study houses where they had a southern exposure and the first floor was in most cases opened to the courtyard from the south allowing maximum daylight.

4 Discussion and Conclusion

In conclusion, the courtyard houses of Homs played an important role in shaping the architectural identity of the city. At the same time, these courtyard houses evolved to respond to the city evolution and its needs thought-out its

historic changes. The courtyard as an architectural element showed great flexibility adopting the need for transformation, by becoming school yard's, hospital's waiting rooms, workshop space, or even restaurant's dining room. While the identity of Homs as a city is recognized by its unique architecture, the social development of the city played an important role in forming and shaping the evolution of this significant architecture. The city's population growth within was not the only reason that drove people to expand their houses. Most of these expansions can be caused by the emergence of new requirements, or by the change of the buildings function. As a result of these expansions, many problems appeared. New standards and services were required in time, which led to influencing the social life as well and people realized that they could replace the houses with bigger modern blocks.

As a result, in the centre of Homs, the courtyard houses started to disappear dramatically, even before the Syrian crisis in 2011. This was due to the social evolution and not only the city growth and the need for building spaces. The disappearance of the traditional architecture of the city resulted in slowly losing its title "the mother of the black



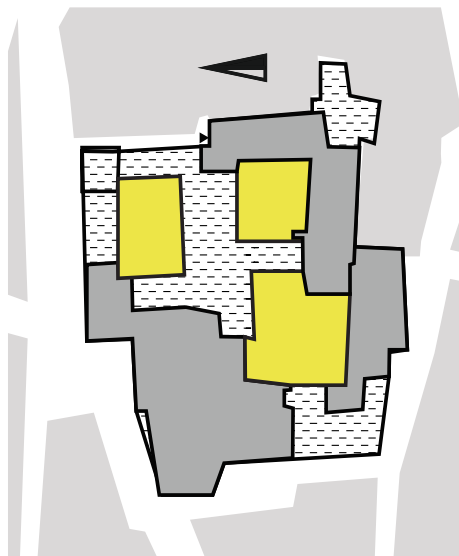
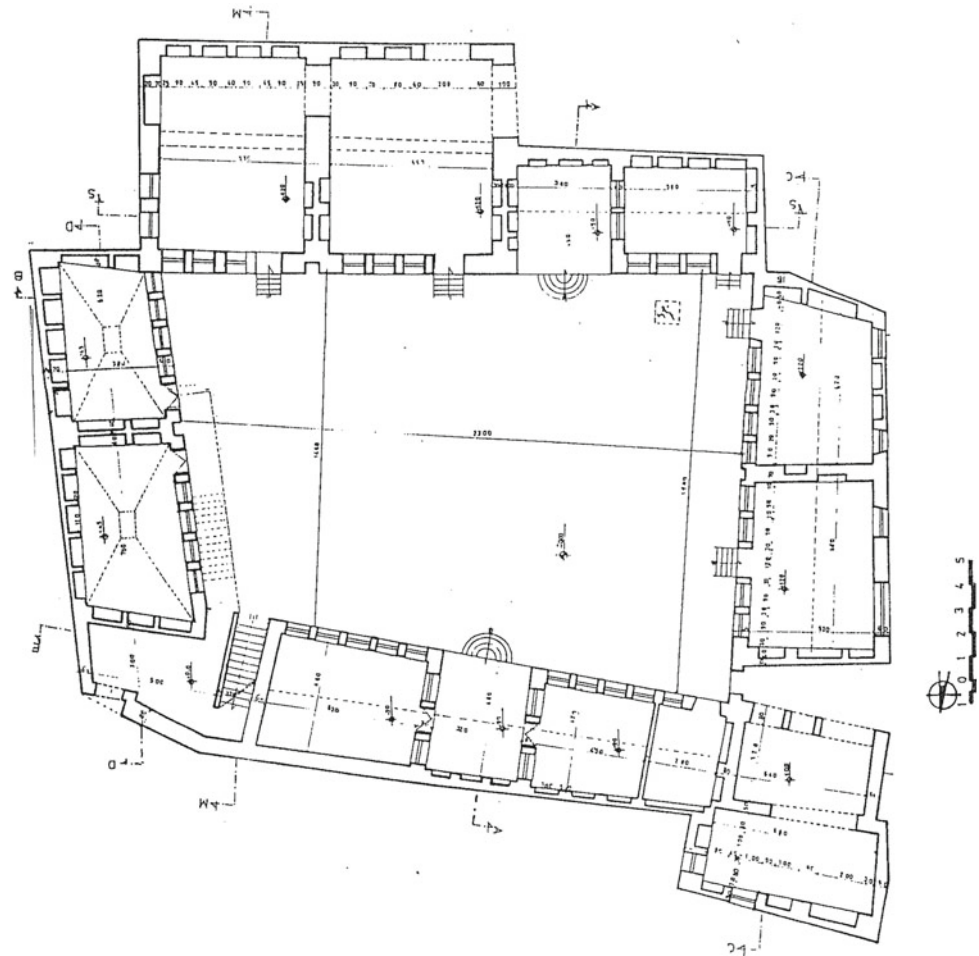
- | | |
|-----------------------------|------------------------------|
| 1- Al_Zahrawi Mansion | 5- Al-Droby's House |
| 2- Mofeed Al_Ameen's House | 6- Dawama's House |
| 3- Abd-Alla Farkouh's House | 7- Basha Al-Hosiny's Mansion |
| 4- Mehi'sh Mansion | |

Fig. 7 Case study houses location in Homs (Google Map highlighted by the author)



Fig. 8 Basha Al_Hosiny's Mansion, Homs. Source Historical Achieves of the City of Homs.)

Fig. 9 Abd-Alla Farkouh House_ Ground Floor (Taqtq 1995)



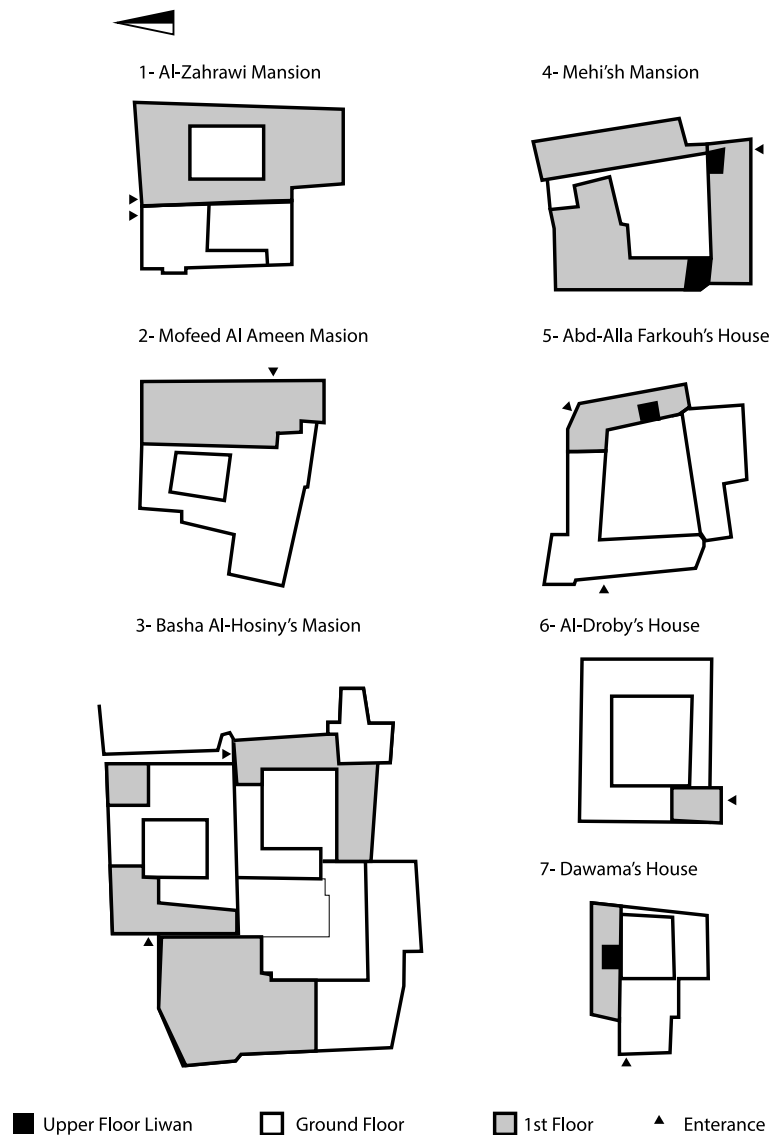
◀ Entrance ■ 2nd floor ▨ 1st floor ■ Courtyard

Fig. 10 Basha Al-Hosin's Mansion: three courtyards and three separate units (by author)

stones" (Al_Zahrawi 2006). It is worth mentioning that these traditional courtyard houses are not protected by the city council, nor registered as listed historic buildings. Furthermore, there is no current or previous law that protects them from being demolished by city developers or city planners. Nevertheless, only in the late 90s, few business owners had a different vision of bringing back to the city's original identity and thought about embracing it instead of letting it disappear, by turning its traditional houses into traditional restaurants. In early 2000, the city council started a movement trying to encourage developers to bring back the face of the city and its original architectural identity, which is embraced by the Ablaq Architectural style using black and white stones. However, this movement was not successful; many modern buildings came in black and white using faux stones that are human made in poor industrial technique, as a cladding material for the new buildings, a strategy that failed in matching the original features of the city (Fig. 20).

Despite the city council's attempts to bring its identity back, the remaining traditional houses are still endangered, and the architectural identity of the city is still declining.

Fig. 11 Liwans in the upper floor (the seven case study houses) (by the author)



However, there is still hope of saving what is left of its traditional houses, or at least to use them as learning reference to inspire the modern architecture of Homs and maybe evolve the typology and take it to its next natural step.

The strong architectural identity of the city of Homs is declining and seriously threatened of disappearing after the war. However, the people are aiming to come back to rebuild their houses, but there is no clear plan or policies on how this is going to contribute to the city's identity and the process of its regeneration. Therefore, it is recommended to take advantage of this current stage of uncertainty to build a solid base for future regeneration that fits the city evolution and brings its identity back to life on both architectural and social levels.

Thus, this article is the first step to understand the significance of these courtyard houses to the city identity. Therefore, future research should focus on continuing this

effort and exploring strategies that could help policy makers, people and business owners understand how this architecture typology can evolve in light of social and economic changes that the country is facing without losing their values. This can attract more studies on preservation and conservation strategies for this architecture as also analytical studies of its environmental characteristics and performance in order to learn from these houses and inform future expansion and reconstruction of the city, especially after the sever destruction happened in Homs due to the conflict. These studies would be invaluable for the post-war reconstruction process in order to achieve culturally routed and environmentally accepted architecture built upon good understanding of the city tangible and intangible heritage and how this architecture and heritage can continue contributing to the city development and identity.

Fig. 12 Liwans in the ground floor (the seven case study houses)
(by the author)

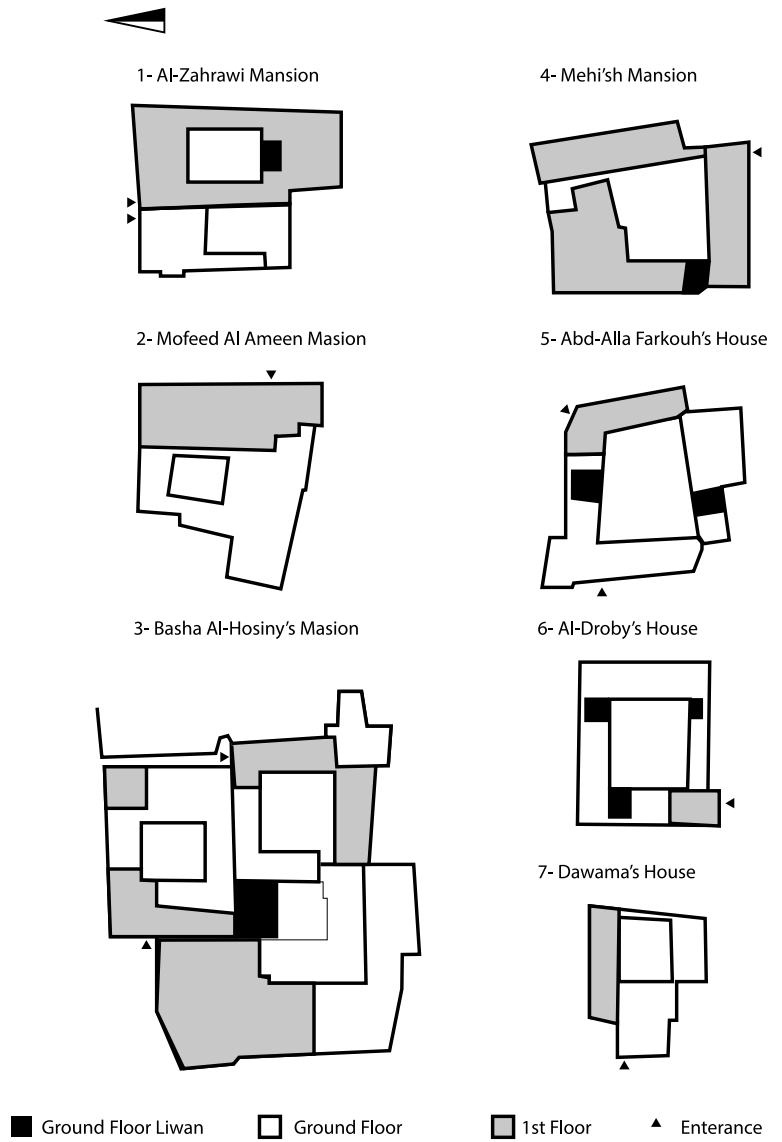


Fig. 13 A Liwan in Al Yafi's House (Al Dandashi 2013)



Fig. 14 Mehiesh House, Homs, Syria. A section and an elevation show the exterior and interior windows (Taqtaq 1995)

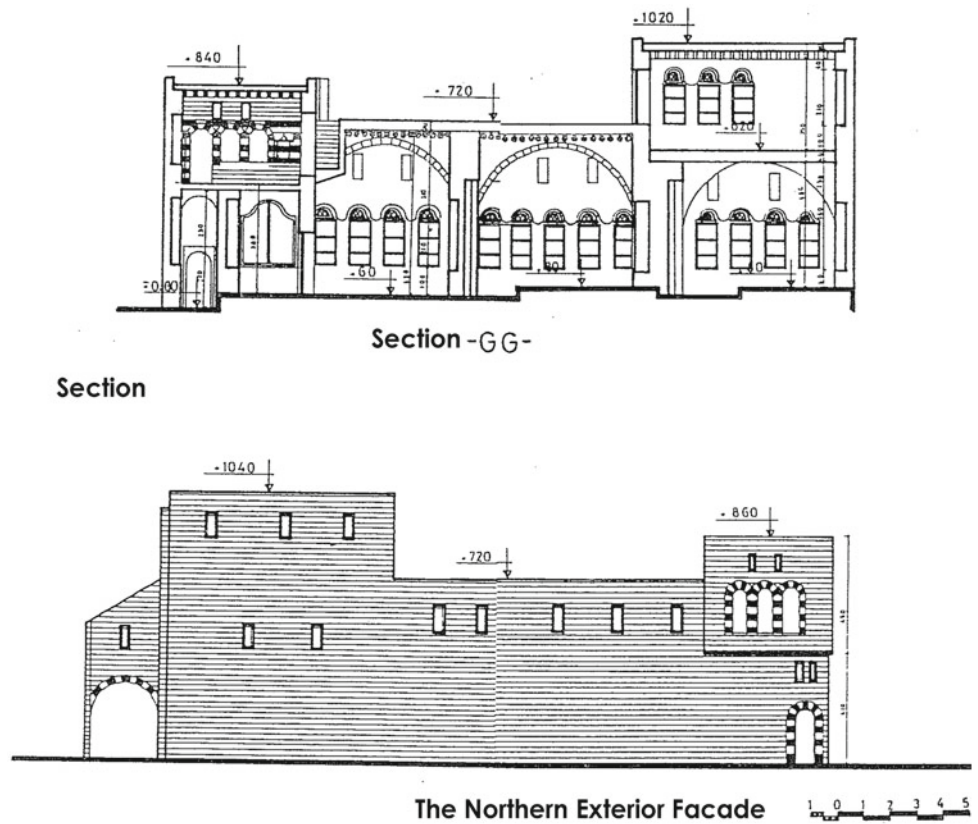




Fig. 15 Courtyard windows in Homs

Fig. 16 Windows latticework in Homs Courtyard house: (Al Dandashi 2013)



Fig. 17 Mostafa Al Housiny
Northern and Eastern Façades
(Taqtaq 1995)

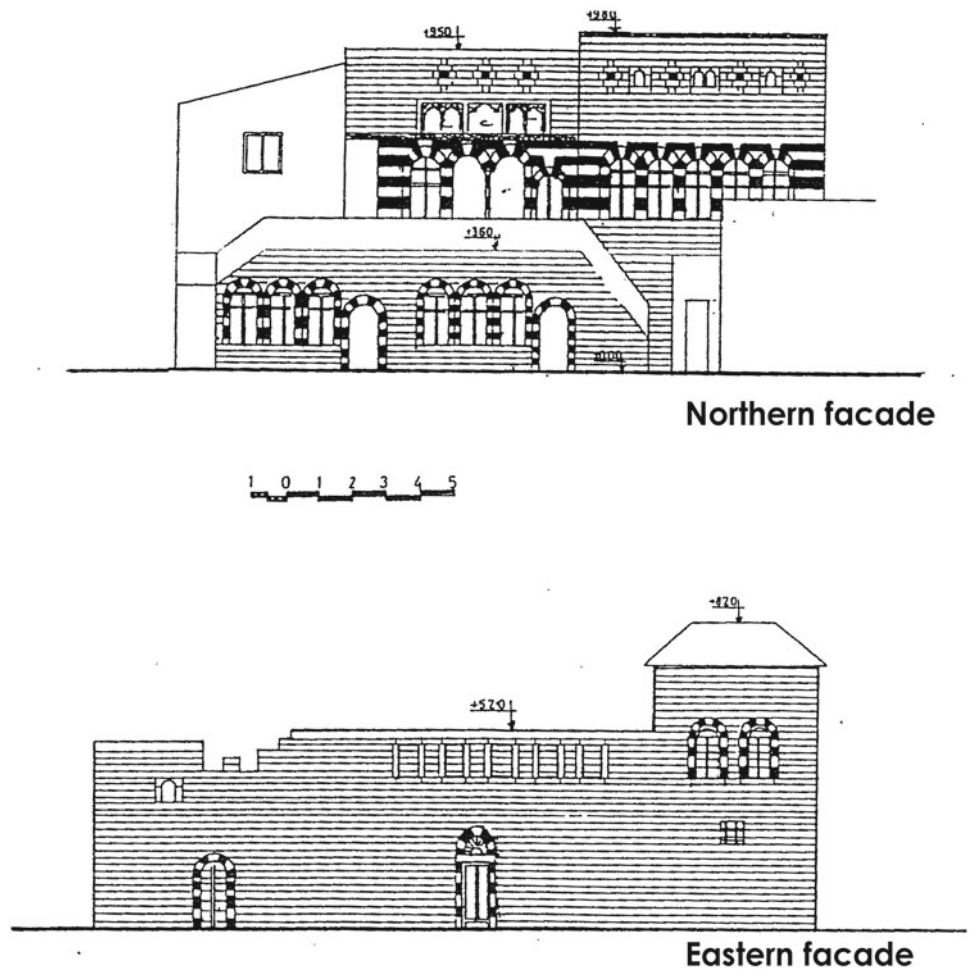


Fig. 18 Mehi'sh Mansion
Section the Northern Façade
(Taqtaq 1995)

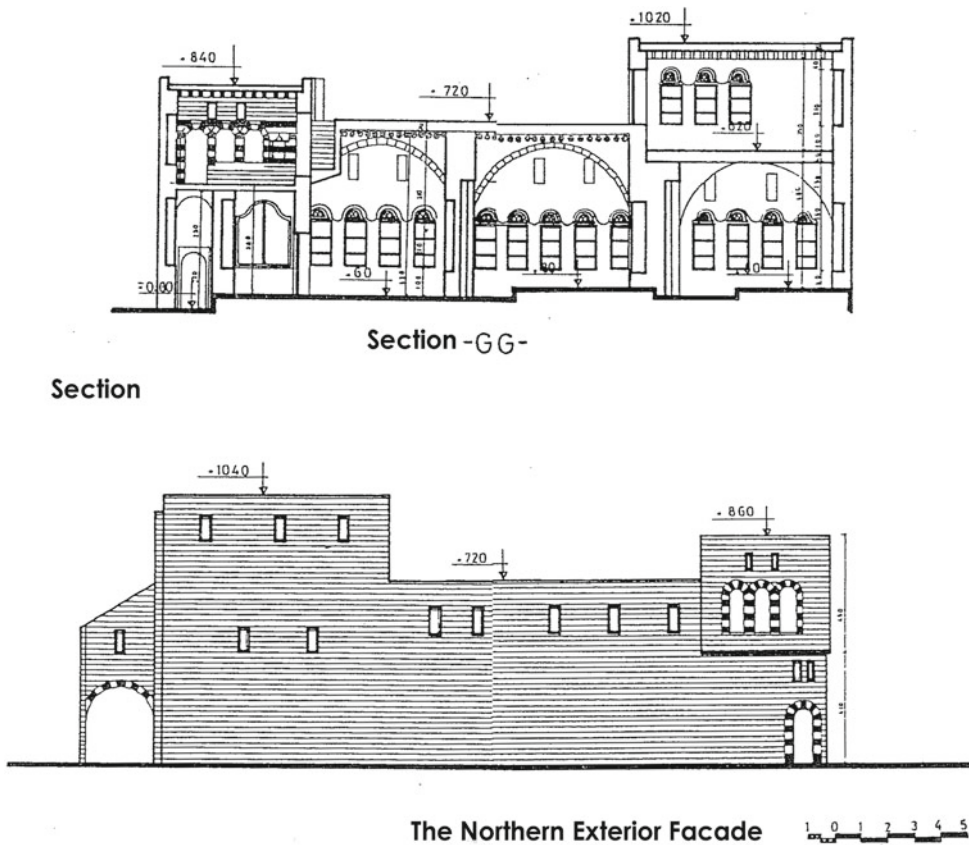


Fig. 19 Main entrances in all case study houses (by the author)

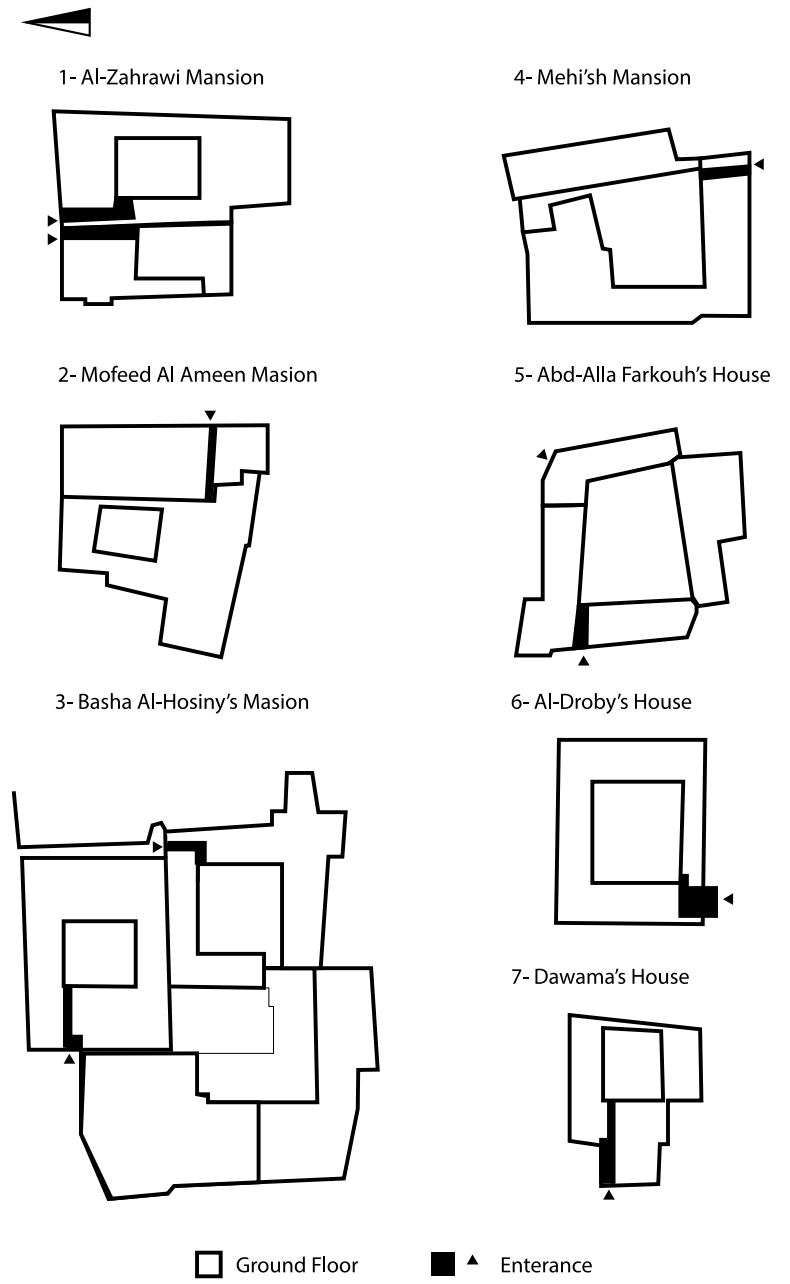




Fig. 20 Attempts to using the Ablaq architecture and apply black and white stones in modern buildings (by the author)

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