

Revival of Traditional Architecture in Old Cities - Aleppo, the oldest inhabited city in the world as an example

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Abstract: The term “Sustainability” is undoubtedly not innovative or new; it is an idea that has been implemented and expressed in the traditional architecture of several regions in the world through the harmony between buildings, the surrounding environment and the good utilization of natural recourses, which has evolved throughout the years through trial and error. At a certain point, city centers such as Aleppo turned into active places for tourism, trade and economics, and a lot of people relocated to modern housing at the west side of the city, hence there was a need to develop traditional houses and their facilities in a way that corresponds to modern life style. This paper examines a case study of a traditional house that goes back to the eighteenth century, which was converted into a well-appointed hotel that allows its guests to relive the past in a modern context. It also studies the traditional housing’s social and psychological perspective, as well as its architecture and functionality that had been influenced by the customs and traditions of the city. Additionally, this paper aims to enrich the universal practice of restoring heritage and traditions as a form of sustainability in traditional architecture, and illustrates the compound correlation between man and environment as a result of the modern evolution of societies, hence portraying sustainability in its various forms.

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1. The evolution of houses

1.1 Homo sapiens period

The first organisms –in which human developed from- have resided in the open instead of shelters and natural caves. Occasionally, organisms have moved towards these shelters motivated by natural instinct rather than a comprehensive understanding of the security and warmth that these shelters offer. Homo sapiens have quickly realized the significance of natural caves and inhabited the parts closer to light and ground level, without daring to go to the deepest, darkest depths. After time, Homo sapiens have started transforming these caves by dividing spaces with walls made of branches and leather, introducing stoves and developing terraces. Baring in mind that the most advanced step has taken place when Humans have decided to no longer rely on natural shelters and establish their own man-made houses which have provided the potential to reside in various environmental conditions (Mellars & Stringer, 1980).

1.2 Paleolithic Period

During the Paleolithic Period, residences consisted of simple huts made of stones, branches and leather. They were built in areas that provided an abundant supply of food and fish such as riversides, seashores and coastlines. Large stones –which supported these houses- had been found in several

locations, while other less-resistant building materials, especially leather, had been buried throughout the years. One of the oldest evidences of these stone pillars is 1.8 millions year-old, with a circular diameter of 4m, and comes from Garba, located in Melka Kunture region, a group of large transferred stones was found, referring to a 1.4 million year-old house (rewrite - Citation). Syria has also offered one of the leading evidences of the earliest housing; in Latamneh village next to Al Assi River, large stones were found that had been moved from a nearby quarry and used to support a 0.5 million-year-old house on the riverside (Gradstein et al., 2004).

In Europe, other forms of Paleolithic Period buildings have been found. The oldest is the Arago Cave in Tautavel France, where stones used to pave the cave floor date back to 400,000/500,000 B.C (Hominidés, 2015). In Terra Amata, Nice, France, 15.8m x 6.4 m Oval huts were found (Henry, 2010). They were set into the ground at a shallow depth, with one entrance for each hut, walls supported by wooden columns with a diameter of 7cm and a central column that supports the roof. Primitive stoves and other varying traces have layered on top of each other for 300, 000 years, forming 21 archeological skins, which helped maintain the original form of the huts, which indicates that these huts dates back to the same group

of humans (Ibid). Inside Lazaret Cave, eastern suburbs of Nice, another type of building structure was found that goes back 150,000 years. The 10m x 5.3m house was supported by an organized form of columns and stones, and had two small primitive stoves, a terrace, and a large number of stone utensils and bones that belong to the developed Homo erectus (Moheisen, 1982).

1.3 New era

2000 years ago, Roman architect and author Vitruvius, set down the first notable architectural research, where he identified three elements of a well-designed building; firmness, commodity, and delight. Firmness is the building's physical strength that secured structural unity and integrity (Abdeen, 2014). Commodity refers to the building's functionality based on the space arrangement and mechanical systems. Finally, Delight describes the aesthetic quality of a building achieved by its style, proportions and visual elements. Hence, one can affirm that in order for a building to serve as true architecture, it has to provide humans with these three elements (Ibid). 2000 years later, architects at the present time still believe in these elements even though their mission has become more complex and challenging.

Researchers from Austin State School of Architecture believe that an Architect should not only follow the client's requirements, budget, and legal regulations, but should also be mindful of the great, honorable purpose of human culture (Chen, 1999). Dr. Julie Burchill; an Australian researcher and artist, concludes that Architecture should never be perceived as a source of profit, but as a foundation of social and humanitarian growth. In one of her papers, Dr. Burchill states that true Architecture affects people positively, but the ugly truth is that many buildings fail to achieve that, and are a pure example of profit-making business (Ibid).

2.1 The definition of architecture

One of the most excellent definitions of architecture is the one quoted by Marcelino Oreja, former EU Commissioner for Cultural Affairs (Chen, 1999), which states that architecture is about an idea that goes beyond ideal assemblage of construction elements. A similar definition can be inferred by the quote of Eoin O Cofaigh, an Irish architect (Ibid): "Architecture is about environmental quality, about human scale, about the appropriate use of building materials and structure. It is about (1) social appropriateness; spaces that support people working or living together or being alone, and which foster and give meaning to people's tasks and activities, (2) ecological and functional appropriateness; long-life, sustainable materials, low energy consumption and flexibility of use, (3) economic appropriateness; value for money in a cost-conscious age, (4) aesthetic

appropriateness; proportion of form and line, solid and void, silhouette and (5) cultural expression; respect for a city or landscape context and a vision of the future or an expression of respect for the past."

For instance, Hitler (Ibid) has always wanted to establish a solid, powerful nation, and ensured that statues and monuments within buildings would serve this particular purpose.

2.2 The architect's role

Architecture is built data, and it is an architect's job to translate this data and re-construct it into tangible structures. In fact, the most crucial phase of building design is the transformation of data into an idea, where architect's decisions will directly influence the form, representation and functionality of a building. At this stage, most of the information is not definitive; however, it should intertwine with one another to make great Architecture. Most of the architects believe that each space has its own personal characteristics, which the architect has to respect and take into consideration when turning this space into useful, meaningful Architecture.

We can conclude that true Architecture is the one that not only serves as a beautiful piece of art or a profitable project, but also a tool to elevate social intelligence and contribute to people's needs. This research sheds light on traditional residential architecture, specifically in Aleppo city in Syria, which is considered a true model of environmental architecture, how it respects the social context, its sustainability, and remodeling so it would serve other activities.

Although a building's form has a direct influence on its inhabitants, one cannot fully rely on that. For instance, as beautiful as the Pantheon is, one cannot live there in the modern world. Many architects believe that excellent building designs are those that meet the daily, ordinary needs of people.

3. The evolution of home in Arab cities

Home is the secure space, and each individual was born, has lived, eaten, slept, gotten sick, played, worked and watched a lot of family members and beloved ones get buried within one urban frame, which they comprehend. Since many traditional residences are buried under modern houses where all activities take place, it is almost impossible to dig out traces of historic architecture, leaving architects no choice other than to observe traditional architecture that exist in the modern world.

Economic changes have hit the Arab world due to trade, oil and several factors, and have resulted in a cultural evolution, which in return has created a remarkable transformation on the elements of urban development of cities. For instance, the evolution of the Arab cities vividly appears by the transformation of residential units into communities that encompass

bazars, Madrasas, Bimaristans, and a lot of newly introduced terms. One of the first murals discovered in Syria depicts a multistory building that goes back to around 1000 A.D., which totally conforms to the urban pattern of Syria nowadays. Figure (1) below shows a 2,600 year-old mural found in Umayyad Mosque, Damascus, Syria.



Figure 1. A 2,600 year-old mural in Umayyad Mosque, Damascus, Syria.

3.1 Architectural preservation situation in Arab cities

Human experience has proven throughout the years to push all boundaries of knowledge and imagination and seek innovative, creative solutions; however, an instinctive understanding of what home is will always remain consistent, whether or not this understanding is supported by a proven theory. Hence, the study of residential architecture has become a subject of interest to architects, urban planners, archeologists, anthropologists, and the revival of traditional architecture has floated to surface due to popular demand.

At the moment, countless discussions take place during architectural conferences in the Arab world that encourage the preservation and redevelopment of urban and architectural heritage with regards to the needs and behavior of today's world, especially that people nowadays understand the pros and cons of modern architecture.

Moreover, during the past few decades, as a result to cultural changes, urban heritage has become a representation of people's identity and belonging, which has led the governments to pay more attention to urban inheritance. The study of traditional residential architecture in the Arab region should set off with the known –present day- going back to the unknown – the past- through research and investigation, in order to achieve solutions and hypotheses that would support the reformation of traditional architecture.

A lot of researches have thoroughly discussed a breakdown of the environmental, religious and social factors that had influenced the form of traditional architecture in the Arab region, hence this paper will refrain from restating what had been agreed upon before.

This research will shed light on one of the traditional residences in Aleppo, Syria, as it is one of the oldest cities in the world, and how the architecture of this particular space was revived during the last decade to serve the modern needs of society. Figure (2) shows a residential building model in Aleppo city, Syria.

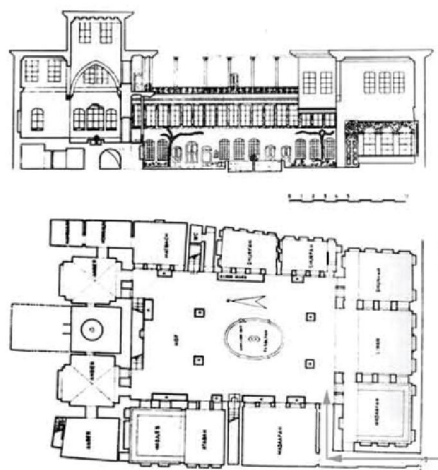


Figure 2. Building's Model in Aleppo; Ajog bash house, 1875 (Ministry of tourism, 1995).

But before discussing Dar Zamaraya, the case study of this research, one must acknowledge the significance of architects, craftsmen and constructors who have brought this legacy to life. As mentioned earlier, architecture has always been a reflection of humans' culture and civilization, hence the form of a building represents the society in which it exists and its various qualities. Following are the different work categories that come together in the process of building construction:

- Creative work (Design and Planning)
- Technical work (Engineering)
- Managerial work (budget studies, timetables, etc.)
- Handicraft (builders, carpenters, plumbers...etc.)
- Labor work (concrete...etc.)

Each of these categories contributes to the final product, and should work side by side to create a great work that would enhance the cultural development of society. Each of these categories contributes to the final product, and should work side by side to create a great work that would enhance the cultural development of society.

3.2 Case study

The most distinguished feature of our case study Dar Zamaraya, is the great impact of local traditions, which kept the form of the building and its style entirely distinct from building in neighboring cities.

One would presume that the Ottoman dominance over several Arab states would have unified the main structure of a residential space, but that is not the case. Other than the addition of ornaments and minor details, the design of the traditional house in Aleppo remained the same.

3.2.1 architectural description of the house

The windows in the house are protruded, caged by wooden frames –Mashrabuyas-, allowing the residents of the house to see people outside, which represents openness to the outside world. The vertical extension of the building and its various facilities such as spacious halls, courtyards, Liwans, Mandaras, are traits of the Ottoman Architecture. This building style was directly linked to the emerging aristocratic families in the region, with its exceptional central courtyard, often decorated by plants and a medial water fountain, and the vaulted Liwan that overlooks the courtyard. The north-oriented Liwan was used as a guesthouse especially during summer.

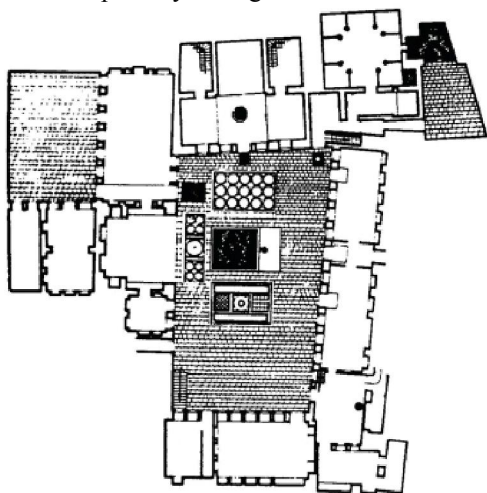


Figure. 3 A floor plan of Dar Zamaraya (Ministry of tourism, 1995).

Another characteristic of Dar Zamaraya is the vaulted underground floor, which was a common element of most of the traditional architecture in Syria and was used as a storage room during winter and a haven during summer. In one of his researches, Jean Claude David (Abdeen, 2010) has categorized the houses of Aleppo according to the size of their central courtyards: the larger the courtyard, the more noble the family that lives in the house is. Percentages varied between 34% up to 83%.

Dar Zamaraya was built using various stones found nearby the city, with their different colors and shapes. Wood, marble and gold ornaments were used to create the beautiful flooring of the courtyard, its fountain and the walls of the house. A long, narrow alley leads to Dar Zamaraya which is located in the city center of Aleppo. The first element that one

encounters is the Doorway that only allows for one person to pass through it; this style of doors was popular in the traditional architecture in the Arab world, and was made out of one large wooden piece covered by a layer of zinc. One passes by a dark, narrow hallway that leads to the spacious courtyard, enhanced by trees and rare plants.

Once at the courtyard, one can see the Liwan, and guest halls that are decorated by wooden ornaments and carvings on the walls that are used to hold gas lanterns and candles. As for furniture, all rooms have shelves carved within the walls on top of the doors. These shelves are used to store blankets and carpets. On the first floor, one finds a small veranda that overlooks the central courtyards and is used for laundry drying purposes. The kitchen includes a fire stove, chimney, food storage room, and attic. The upper floors extend horizontally by balconies that are open to the public alleys and shops. The large roof garden has also a couple of rooms that are used for storage purposes.

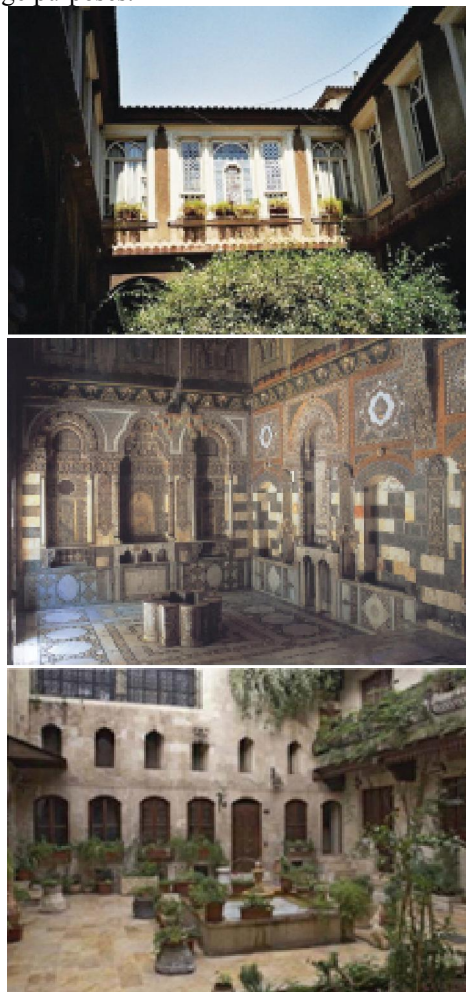


Figure. 4 Great craftsmanship inside the house (Authors, 2014).

Due to the urgent need for accommodation in Aleppo, and the restrictions and challenges that investors face when proposing new hotel designs, Dar Zamaraya was transformed into a 4-star hotel that is open to tourists from all over the world to enjoy the old city and its architecture, and is now called Dar Martini Zamaraya. The hotel now has 22 guestrooms, two restaurants and a gallery. The courtyard is often used as a night restaurant/pub due to its private settings.



Figure. 5 Urban planning of Aleppo and Site Plan of Dar Zamaraya (Ministry of tourism, 1995)

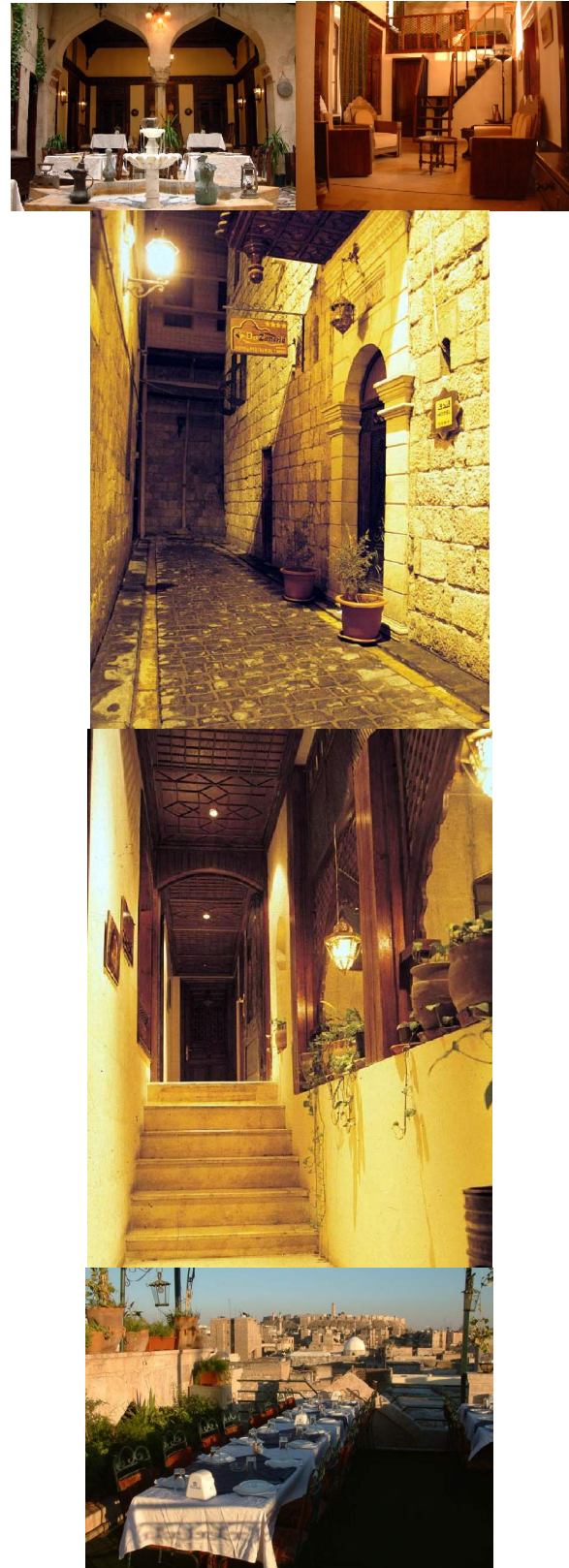


Figure. 6 Photos of the 4-star hotel that was renovated in 2007 (Authors, 2007).



Figure. 7 Details and ornamentation inspired by traditional architecture (Authors, 2014).

The following photos show Aleppo during wartime where Dar Zamaraya has suffered from destruction and deletion of most of its heritage, which keeps one wandering why international organizations have not interfered to keep a great inheritance from vanishing.



Figure. 9 Destruction of Dar Zamaraya due to the war in Syria (Authors, 2014).

4. Conclusions

The revival of traditional architecture in the Arab World is every architect and sociologist responsibility as its strong, sustainable structure has proven to adapt to and withstand environmental and social changes throughout the years. Visual elements of traditional

architecture such as ornamentations should be revisited and incorporated within modern architecture and design as a visual heritage for new generations to experience and study. Modern building materials have cause structure to look and feel the same no matter how different their uses are, hence one should take a step back and examine traditional architecture in order to reintroduce an individual identity for each building. Several related studies take place nowadays in large cities such as Moscow, Dubai, and Krakow, where architects and urban designers are returning to traditional architecture and examining it to come up with solutions that make most use of it within our modern world today. As mentioned earlier, international organizations must come together to lay down regulations and penalize criminals to protect the heritage of many countries that are exposed now to war and destruction such as Syria, Iraq and Afghanistan for the welfare of coming generations.

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References

1. Moheisen, S. (1982). "Prehistoric Ages", Damascus: Damascus University Publications, P: 475-492 (Available in Arabic).
2. Mellars, P. and Stringer, C. (1980). The Human Revolution; Behavioral and Biological Perspectives on the Origins of Modern Humans. Edinburgh University Press, P. 10.
3. Gradstein, F. M., Ogg, James G., and Smith, A. Gilbert (2004). A Geologic Time Scale. Cambridge University Press, Cambridge, ISBN 0-521-78142-6.
4. Hominidés (2015). Caune de l'Arago - Tautavel - Pyrénées-Orientales. Online: <http://www.hominides.com/html/lieux/caune-de-l-arago-tautavel.php> (Accessed march, 2015).
5. Henry (2010). La Grande Histoire des premiers hommes européens, Odile Jacob, Paris.
6. العمارة في العشرة الكتب في تروفيوس - جامعة منشورات دمشق - 2014-327-يسار عابدين د. دمشق.
7. العمارة عن الحديث فلنبدأ ، شين ، اوتول 1999
8. www.sbpost.ie/leisure/Arts-C.../barometer.html.