

SUSTAINABILITY OF THE LIBYAN HOUSH IN THE OLD CITY OF TRIPOLI

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Abstract: The ancient city of Tripoli was founded by Phoenicians around 3,000 years ago. As a result of various civilizations taking place, there are architectural and artistic works that constitute a real treasure in the city. The city, located in North Africa, has been serving as a transition between Europe and Africa. During Roman, Islamic States, Ottoman and Principalities period, especially commercial center and rich residences in this center were formed. These residences, which are called "Housh" with traces of the Ottoman and Qaramanli Periods, are buildings shaped around a courtyard.

In fact, these "Housh", which combine the characteristics of the Mediterranean architecture plan with local materials and techniques, have suffered from long-term disuse. Today, lack of financial resources, combined with a lack of historical consciousness, created a different demographic and social structure in the historical city. The primary aim of the thesis is to document the current situation, to examine the sustainability of "Housh" type structures and to develop suggestions for sustainability of the Libyan Housh. based on research on websites, articles, and books, which deals with the idea of knowledge of environmental assessment and personal impressions of the place is good knowledge and we can provide the reader with new information on this subject.

Keywords: heritage, Ottoman, Tripoli, Libyan

استدامة الحوش الليبي في المدينة القديمة طرابلس

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الملخص: تأسست مدينة طرابلس القديمة من قبل الفينيقيين منذ حوالي 3000 سنة. ونتيجة للحضارات المختلفة التي مرت عليها، كان هناك أعمال معمارية وفنية شكلت كنزاً حقيقياً في المدينة. كانت المدينة، الواقعة في شمال إفريقيا، بمثابة انتقال بين أوروبا وإفريقيا. خلال العصر الروماني والدول الإسلامية والعثمانية والإمارات. هذه المساكن التي تسمى "حوش" مع آثار من الفترتين العثمانية والقرمانلية، هي مباني على شكل فناء.

في الواقع، فإن "الحوش"، الذي يجمع بين خصائص خطة الهندسة المعمارية المتوسطة مع المواد والتقنيات المحلية، عانت من الإهمال على المدى الطويل. واليوم، أدى الافتقار إلى الموارد المالية، بالإضافة إلى نقص الوعي التاريخي، إلى خلق بنية سكانية واجتماعية مختلفة في المدينة التاريخية. الهدف الأساسي من هذه الرسالة هو توثيق الوضع الحالي، ودراسة استدامة هياكل أنواع "الأحواش" ووضع اقتراحات لاستدامة الحوش الليبي. بناءً على الأبحاث على المواقع والمقالات والكتب التي تتناول فكرة معرفة التقييم البيئي والانطباعات الشخصية للمكان، تم تقديم هذه المقالة لتزويد القارئ بمعلومات جديدة حول هذا الموضوع.

الكلمات المفتاحية: التراث، العثمانية، طرابلس، ليبيا.

Introduction

Research in the architectural fields of heritage and archeological buildings is one of only a handful few of compositions that did not take its significance in the investigation of architecture. Architecture is indivisible from the way that it eventually attempts to accomplish an interior situation that has a place with the client of various ages. The house is an indispensable piece of our social heritage. This heritage is then again the power that still unites us notwithstanding social burst. Discloses to us how our progenitors figured out how to manage the climatic conditions and nature in this nation or somewhere else. How the structure of the house came to put virtuoso answers for the issues of warmth and cold and residue tempests and Water. How this plan fits in with social customs and religious qualities.

This speculation may not be altogether different from the extent of this examination, which will look at the qualities and elements of the old Libyan house in the ancient city of Tripoli, which portrayed the Ottoman buildings all in all in their diverse ages as imperative in accomplishing the tasteful estimations of architecture and architectural space to the side. Despite the fact that these investigations that manage or think about this architectural style has not yet passed on this vital piece of the architecture and expressions of the human experience directly. In this period rose vocabulary and behaviors of architecture added to the advancement of architectural structure in a solid manner and gave the trademark attributes that react its multifunction (Al-Hamali, 2011).

The issue of research in the approach of the architectural style through the homogeneity and relationship of the components of the house and what the idea of the capacities and natural elements and heritage to boost this old house, and what are the qualities of the architecture in this house, which recognize him in spite of the simplicity of plan.

The inquiry that befuddles the analyst is the reason the occupants of the old city have moved to these lovely places of ancient developments and to go to new houses that modernize them, and to make their old houses utilized as summer houses or utilized as an archeological display or totally surrendered and acquired to their grandkids after them, including what machines to fall Due to upkeep disappointment or not.

The motivation behind this paper is to survey the examination managing recognizing the parts of the architectural style of the old Libyan housh. It is familiar with the most essential auxiliary components of the old Libyan housh in the inward yard and its good and material esteem. Which gives the Libyan housh the manageability of this old notable housh and make it a housh reasonable for lodging consistently.

The study is a selection of the most important sites of the old city of Tripoli Libyan in the Qaramanli era in 1839 and was a sample of the study Housh AL-Qaramanli.

The research study based on research on websites, articles, and books, which deals with the idea of knowledge of environmental assessment and personal impressions of the place is good knowledge and we can provide the reader with new information on this subject.

The Importance of Studying

The importance of this study lies in the architectural analysis of the ancient city of Tripoli and the traditional Libyan Housh(s) in the old city of Tripoli and the possibility of clarifying the elements and the sustainable characteristics.

The basic importance of the study is to determine the internal area of the Libyan Housh and study the inner courtyard and its role in social relations and the sustainability of these Housh(s) and the possibility of achieving the architectural principles that formed these Housh(s) and make them as a special nature at the level of interior design and exterior shape of the Libyan Housh.

Search Problem

The problem of research is how to revive this architectural heritage and how to preserve this legacy from the disappearance, by studying the architectural elements of the Libyan Housh in the old city of Tripoli, and their respective functions to revive this heritage, the emphasis on maintenance and restoration of environmentally friendly materials from the same environment and how to develop these Housh(s) and make them sustainable, which deriving their reference from the criteria stemming from the surrounding conditions and making these Housh(s) livable by their inhabitants by not giving them a chance to abandon their Housh(s) for any reasons.

Research Question

The problem of research in the methodology of the architectural style through the homogeneity and interdependence of the elements of the house and what the nature of the functions and environmental factors and heritage to maximize this old house, and what are the characteristics of the architecture in this house, which distinguish him despite the simplicity of design.

The question that confuses the researcher is why the inhabitants of the old city have migrated to these beautiful houses of ancient civilizations and to go to new houses that modernize them, and to make their old houses used as summer houses or used as an archaeological exhibition or completely abandoned and inherited to their grandchildren after them, including what machines to fall Due to maintenance failure or not.

Objectives of the study

The purpose of this paper is to review the study dealing with the idea of identifying the components of the architectural style of the old Libyan housh. It is acquainted with the most important structural elements of the old Libyan housh in the inner courtyard and its moral and material value. Which gives the Libyan housh the sustainability of this old historic housh and make it a housh suitable for housing at all times.

The limits of the Study

The study is a selection of the most important sites of the old city of Tripoli Libyan in the Ottoman period in 1839 and was a sample of the study Housh AL-Bashawat (Dar AL-Qadi)

Research method

The researcher relied on his field of research and through photographs which had been taken by him and from his visits to the Libyan Housh in the case of the study. The attached pictures in this study, which do not have any reference, are from the researcher's photography. He also reviewed the archives of the Old City of Tripoli and collected his information from other institutions related to restoration and heritage. The study also dealt with articles, studies, books, and the definition of sustainability and how to use them and their different forms to see their spatial details and their relevance to the architectural style.

The Data collection and mapping of the AutoCAD program by a party of Historical Cities Management organization, Department of Technical Affairs, Department of Design and Architectural Studies, Tripoli, Libya. Re-editing, drawing and writing as well as a three-dimensional drawing by researcher Nadir Shembesh 12/11/2017.

Old City of Tripoli

The city of Tripoli is the capital of Libya and its largest city. It is called Tripoli in the West in some terms relative to Tripoli in Lebanon. It is located geographically on a long line 31, 31 east and a width of 11, 21 North in the northwest of Libya. The city overlooks a rocky top overlooking the Mediterranean Sea. The city is located on the shores of the Mediterranean Sea, bordered by the eastern city of Tajoura, west of Janzur city, and south of El Sawani (Tripoli, 2008).

One of the landmarks of the ancient city, founded by the Phoenicians coming from Lebanon about a year ago, is the strategic link between Africa and the northern coast of the Mediterranean Sea.

It is rich in many architectural and artistic monuments that tell the story of the various epochs that the city experienced from the Phoenician era, which called this city the name "Marcoyat" followed by the Carthaginian rulers coming from Carthage during the 6th century BC until 161 BC. Until the year 42 BC, where it was captured by the Romans, who called it "Tripolis" meaning the three cities, and was after them

to rule the Vandal coming from Germany in 455 AD until the year 532 AD, where ruled by the Byzantines until the Muslims opened in 643, by Arab leader "Omar bin al-Aas" (Tantosh, 2010).

Since then, the name of "Eterables" has been known to extend the Arab Islamic rule through its various covenants until 1510, when the Spanish seized the city and ruled it for 20 years and then handed it over to the Knights of St. Jena coming from Malta in 1530 until it was reopened by the Ottomans in 1551, And extended their ruling in two stages, the first to take over the family Qrh Manlleh rule Tripoli in 1711. Until 1835 AD (Time period of study)

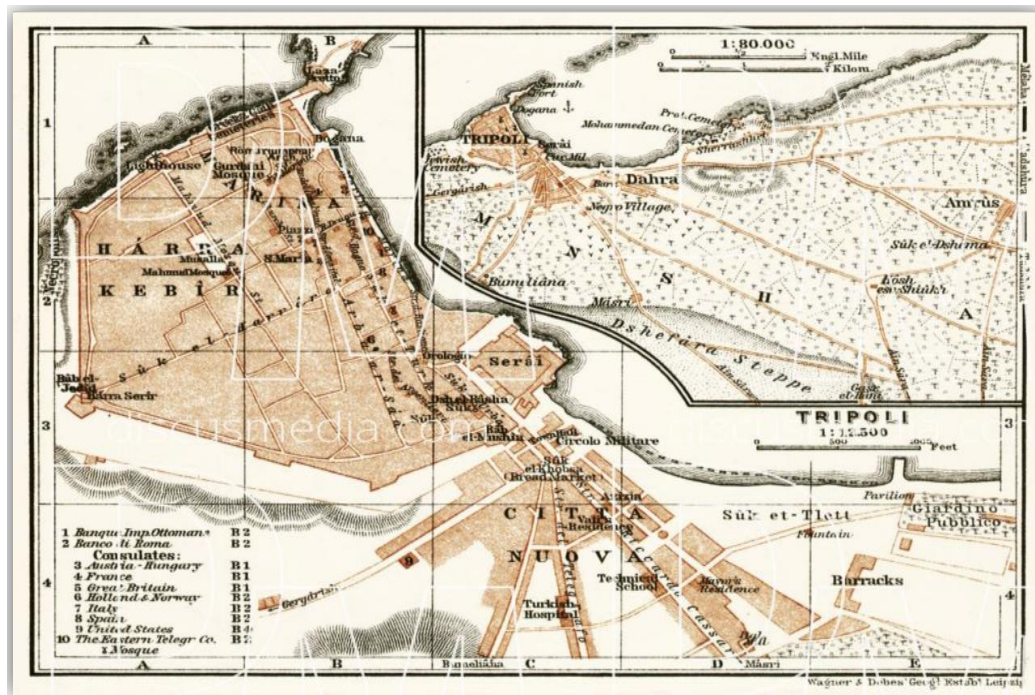


Figure (1) Tripoli city map 1911 (Debes, 2005).

For the Ottomans to return to their rule until 1911. When the country was subjected to Italian occupation until 1943. Then the Allied forces won and Libya became under British administration until 1951. When Libya won the false independence from this administration until the coup of the rule of Gaddafi in 1969. Until the overthrow of the dictatorship and the revolution of the seventeenth of February 2011, and from its history and so far floundering state governments followed the other did not come president elected until this moment (Ghanem, 2010).

It is characterized by the cultural heritage of the city, making it a city Tripoli is blessed with many important historical sites and monuments, although the succession and the accumulation of different civilizations on the city itself has made the character of the ancient city of Tripoli the characteristics of the Arab city of Asia and the style of building cities of the North African Maghreb. It is regrettable that this cultural heritage is wasted by forgetfulness and loss due to neglect in its study, understanding and preservation on him.

This study presents the light to explore the distinctive features of the local architecture in the ancient city of Tripoli. In this study we analyze the architectural model of the old Libyan house, which contributed to the maximum adaptation of the surrounding environment data for enjoyment and adaptation.

The Phoenician covenant (During The 6th)

The rule of the Romans Islamic conquest

The Wondrous Covenant

Islamic conquest

The reign of the Knights of St. John

The First Ottoman Period (1711- 1551)

Period of the Qarmanian Dynasty (1711 - 1835)

The Second Ottoman Period (1835-1911)

The Ottoman-ruled it until the Italian occupation in (1912 - 1942)

The role of British (1943-1951)

The role of King Idris (1952 - 1969)

The Period of the rule of Gaddafi (1969 - 2011)

The present period after the revolution of 17/12/2011.



Figure (2) shows an old map of the city of Tripoli in 1923 (Cowderly, 2011).

Traditional Libyan House

That human beings need shelter and his quest for rest and stability was one of the reasons that called for Humanity to the formation and creativity of architecture within the formations of space began mono and simple and extended. To be complex and complex and with the process of spatial creation of the dwelling, man sought to choose formations The human life has evolved with the development of civilizations throughout the ages. The basic principle of the formation of the house remains the access to security, comfort and internal balance. As a human being has discovered that starting into the interior of his home is the appropriate approach to his needs and necessities. His goal and goals from the dwelling to the comfortable accommodation. From this approach, man created the idea of the monsters, the courtyard or the inner courtyard to represent the universe (Almogherabi, 2012).

The Great Universe: It is the world around him with his qualities raised on the four original bodies.
The Small Universe: It is the one that includes the open dish, which is the roof of that specific heavenly space.

Here, it is clear that the traditional Libyan house, where it appears "as an internal structure exposed to the corridors sometimes and surrounded by walls surrounding walls and spaces are linked to the courtyard is closely related architecture, the courtyard had only one entrance and then form a place resembling the Umayyad (parachute) in one of the staff or in the back of the yard to settle Under which he and his family, and then built a room overlooking the courtyard to live in and then built the rest of the rooms attached to each other and overlooking the courtyard and continue to increase the family and the need for additional rooms that are built next to the rooms and here the courtyard became surrounded by rooms and buildings that are increasing to surround him from all sides in most Sometimes, the dwelling e Shelter and space that protect human beings from climatic factors and provide them with their needs and necessities. The housing has emerged in its various forms to represent a situation that reflects the human desire to settle and fight against environmental influences and assets for the stage of full stability of the construction of safe housing (Engineers, 2016).

The idea of the formation of the residential space passed through stages that led to the crystallization and emergence of a moment from the space of the caves and caves to the space of one room and access to the space complex and multiple assets to form an area with the courtyard and include environmental treatments, whether social or religious as follows:

- 1- The construction of an external wall that limits the area of the enclosure to form a private ownership structure in the old Libyan house, As in the following figure (3):

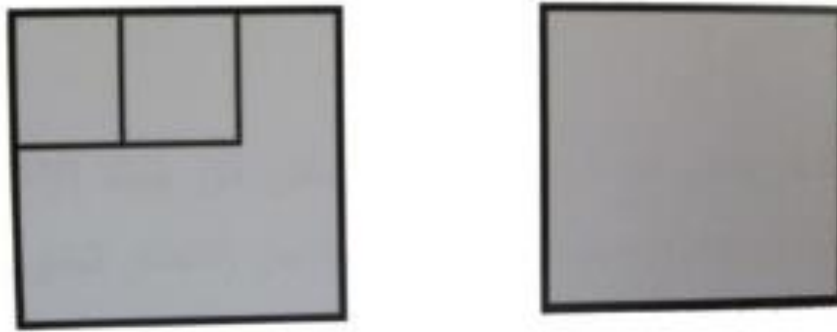


Figure (3) The construction of an external wall (Adeema, 2015)

- 2- The expansion of spaces around the outer frame of the property boundaries in the old Libyan house, as in the following figure (4):

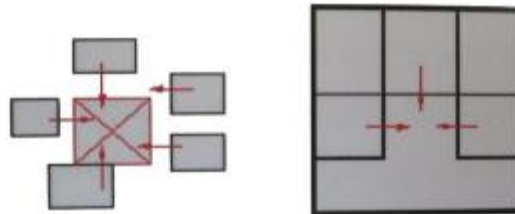


Figure (4) The expansion of spaces around the outer frame (Adeema, 2015)

- 3- The appearance of the inner courtyard of the house to be the main source in the composition of space and to surround it with the rest of the space from all sides, as in the following figure (5):

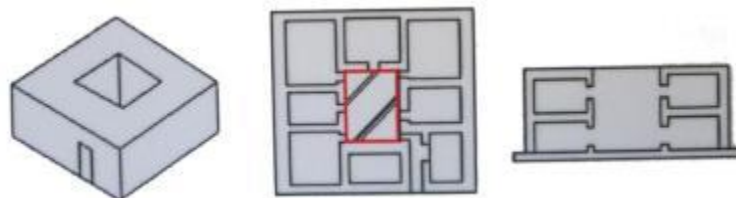


Figure (5) The appearance of the inner courtyard (Adeema, 2015)

The concept of the courtyard lies within two frameworks, the first is the central space around which the different spaces are surround, and the second is the area adjacent to the property that is for the use of the inhabitants of the building adjacent to the courtyard, whether that building was residential, commercial or industrial". Often, the courtyard is defined as "a courtyard, a sahn or a square, or what has widened in front of the house.

The courtyard is a main feature of the Arab and Islamic buildings of different types, such as the buildings of houses, palaces and public buildings such as mosques, palaces and others. As the courtyard

provides a central (often central) area within the buildings of all types and functions to be the main source of space, as in the following figure (6):



Figure (6) The courtyard

Thus we see that Arab and Islamic construction has been able to find new and vital solutions to the function of the functionality on which the appearance and shape of the architectural city was built, which is deliberately and deliberately formed in conscious simplicity and on the basis of known traditional influences.

Environmental objectives of the courtyard: They are four main elements (ventilation, lighting, solarization, noise insulation). The courtyard is an architectural element that deals with the problems of the environment with great success, and the courtyard acts as a regulator of the temperature inside the building day and night through the distribution of convection inside the building to give the building more air conditioning and a sense of comfort inside the building, as in the following figure (7):



Figure (7) Environmental objectives of the courtyard

Factors Affecting the Design of the Libyan House

- A. Climatic Factors: The old engineer dealt with the introduction of processes such as the courtyard so that the house can earn a pure and cool air to protect it from the warm atmosphere. It offers a shaded place through a long time and there are several elements that contributed to the climatic treatment (the fountain, the air, the vents).
- B. The Religious Factor: Islam has been brought down as a religion and a state to please man in his life and afterlife, and has thus created for this purpose a suitable vessel for the individual and the nation

of the perfect model of the house and the neighborhood, so that the first provides a guarantee of intimacy and decency, and the second gives independence and familiarity together. Thus, the house of Islam was taken up as a place where the living spaces were opened to one area of ventilation and the light represented in the courtyard.

- C. The Social Factors: The average living situation in Libya, especially in Tripoli, we note that there was not a large proportion of the rich who are well-known among the Libyans, there was the rich class of owners of industries and crafts and clerics close to the Ottoman rulers. The difference in the citizen living and economic life in the Ottoman era is due to the imposition of taxes and royalties on citizens and excessive living.
- D. The main factor in the design of the house is to achieve separation so that the separation between the men and women guests and the people of the house, and separated from the public street with the achievement of full privacy.
- E. Economic Factors: that the house takes a possible less space for the family and gives them a sufficient space to carry out all activities under architecturally appropriate conditions, and the possible lowest cost, and makes access between the corners of the house quickly and easily.

In fact, the ancient Libyan home built for more than 500 years has become a unique architectural institution in line with oriental architecture in terms of appearance and content. Houses are not just rigid architectural structures, but they are loaded with many indicators and artistic and architectural features. Architecture is a major part of the culture of any country and its heritage. It has close links to the environment and geography that surrounds it. It derives its general character and features. Building materials are also derived from materials available in the environment according to that area's nature. The study of the prevailing architectural patterns in a place is an important factor in the study of the nature and history of this place, while the changes in buildings and forms of architecture are an indicator of the social and economic changes in society. The Tripoli Libyan Housh was also distinguished in terms of building materials used, clay, bricks, wood, stones, marble, plaster, colors and Arabic inscriptions in most walls, windows, ceilings, and floors, where the destination of Arab and foreign tourists as a tourist destination. Examples of these old houses are (Housh AL-Qaramanli) (Al-Lafi, 2009).

Housh AL-Qaramanli

General location: One of Tripoli's oldest monuments in Libya is one of the finest and most brilliant buildings of Islamic architecture. It was built in the Qaramanli era and it was the capital of Tripoli in 1839 it was used in the construction of the Arab and Islamic art. It is located in the old city ' The interior of the courtyard is open to the sky. The building consists of two floors. It considered as one of the most brilliant Islamic styles. It consists of many different types, elements and architectural decorations for the living of the family. The building area is 472 square meters for each floor.

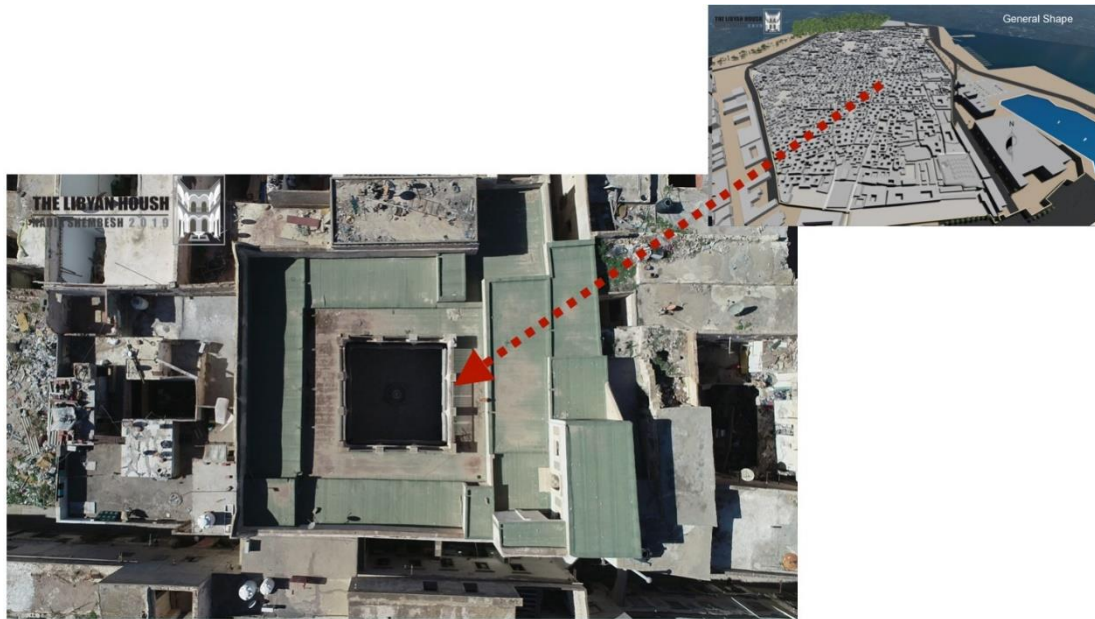


Figure (8) General location of the Housh AL-Qaramanli

The Current Housh Situation: The Qaramanli Housh is one of the few houses in the old city that has been preserved periodically and continuously, which made the age of its architectural elements longer. In view of the architectural and artistic characteristics in the formation of this Housh, the distribution of spaces around the roofless courtyard.

The elements of division in the Arabic Housh it's different from one housh to another depending on the size of the housh or the geographical area in it, it is possible that these elements are not common in different the Arabic Housh are as follows:

The entrance: which is often a corridor that is winding or broken leading to the dish and often opens a door to the Council, and the importance of its form is that it isolates the decision on the street, the person standing at the door or inside the Council to do anything It provides privacy and even leaving the door open makes the air flow to the house from the street, and as shown in figure (9) they are recently refurbished and it's in good condition (Zubaydah, 2002).

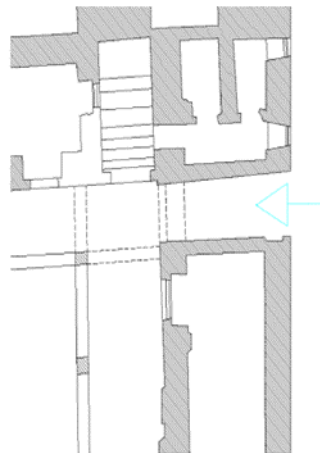


Figure (9) The form of the Entrance

Stairs: It is located on one side of the entrance of the housh, which connects between the ground floor and the first floor is closed, and as shown in figure (10) the condition of the stairs is good with some avalanches for the outer coating layer only, and this is possible due to the paint type and various weather factors.

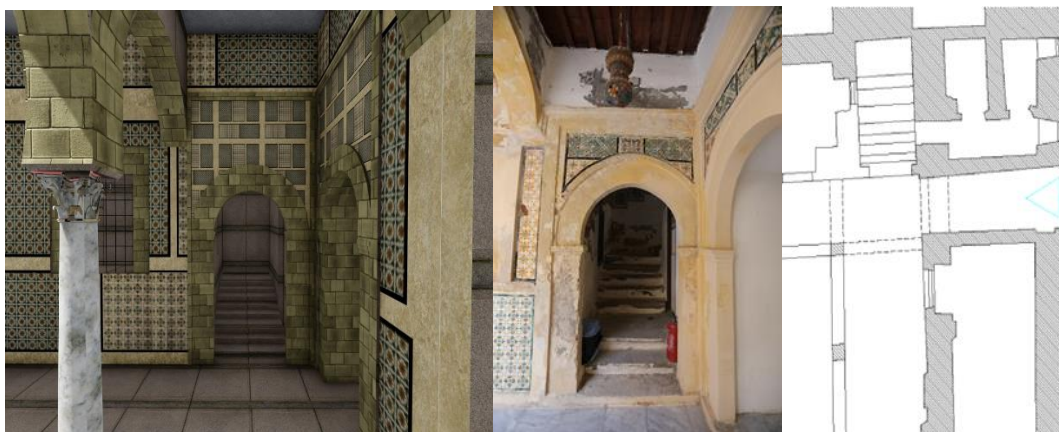


Figure (20) The form of Stairs

The gallery: It is located on one side of the entrance of the house, which connects between the ground floor and the first floor and has a handrail of iron or woodwork is installed in the pillars courtyard and as shown in figure (11) they are in good condition.



Figure (31) The form of The gallery

The Arch: The arch and the architectural element is curved in the form of a circle based on the points of focus, Muslims have developed this, there have been many types and many shapes and decorations to add to the Islamic architecture dimensions and brilliant architectural features have been used in the arch of Islamic homes for two main reasons:

The constructional area to increase the bearing strength of the roof and distribute the main loads. A decorative architectural area to give the beauty of shape and style. By looking at the figure (12), the arches are in good structural condition with the need for some light restoration and painting layer (Hashem, 1999).



Figure (42) The form of the arches

The Courtyard: This inner courtyard is intertwined in many times the fountain or a room that is stitched with ponds of flowers, plants, and trees. It is surrounded by the main rooms in the house, and there can be more than one courtyard in the house. Components of the courtyard, and as shown in figure (13) the aerial picture of the courtyard, it is missing some of the plants that give it better view (Atmansuri, 2010).



Figure (53) The form of the Courtyard

Flooring: Where the floors in the Arabic Housh received special attention, it has mastered the architecture of the implementation of the stones or the marble covered and kneaded according to the different importance of places and rooms were focus more in the ground and rooms. The focus was more on the floor of the dish, where often these floors are a brilliant painting as shown in figure (14)



Figure (64) The form of Flooring (Khatib, 2010)

The Roofs: Is a process of decorating the roofs with wooden beams and the related pillar with some cabinets or furniture that is located in the Housh as in figure (15).



Figure (75) The form of the Roofs

Iwan (Sitting Room): A hall surrounded by a triangular wall, open by the door completely from the fourth and overlooking the open dish, and a gallery, perhaps contacted the halls and rooms according to various construction function and it has decorations on the walls as shown in figure (16) (Adeema, 2015).



Figure (86) The form of the sitting room

Decorations: An architectural element that appeared in the Islamic era in many Muslim homes. This decoration has been developed throughout the ages and civilizations. Many species and shapes of different types as in figure (17).

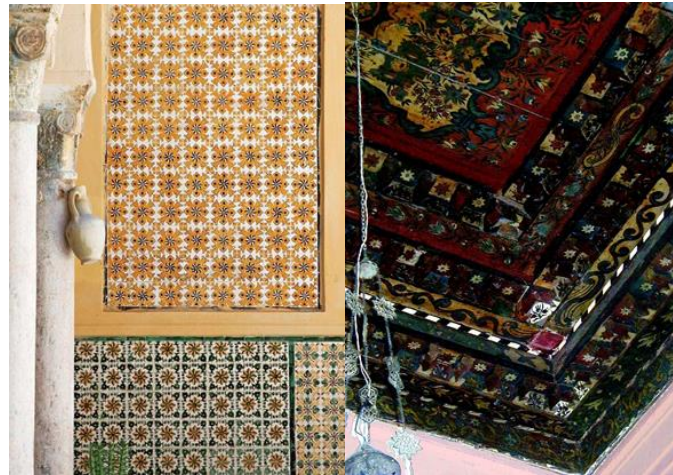


Figure (97) The form of Decorations (Antiquities, 2013)

Results and discussion

There are three methods which combined and melted with each other just to form a distinctive part of this historic city. The local environmental influence is the art of Andalusian Morocco and finally the Turkish-Ottoman influence. The local environment has been an important factor for the evolution of the visual aspects of the historical era and the logical expression of the country's religious, social and political conditions.

The heritage of architecture has shown many treatments at the general level of urban design and architectural design, which have formed successful solutions that have contributed to the creation of a livable environment benefiting from natural energy. Traditional architecture has provided solutions to climatic problems facing the communities in which they have emerged, harmonized with them and overcome their acute environmental influences. It has proven that these traditional technological methods are rarely expensive either in terms of material creation or use of energy to operate them, as well as being comprehensible and understood by their users.

Each civilized and cultural entity works to develop a distinctive urban environment related to that civilization or culture, which conforms to the beliefs, methods of living in this entity. There is no urban environment to contain distinctive architectural characteristics that express a particular heritage.

The fine art of decoration and architecture in the city of Tripoli has fully coincided with the nature of the country's climate in terms of light and extreme heat in most of the seasons of the year, one of these solutions were embodied in white color, that painted by the walls of the city of both side the external one and the internal one, while the other one was the small size of windows, and the space between the buildings it can be considered as a single object, which reflects the shadows that contributed greatly to lowering the temperature and give a comfortable feeling.

Urban communication is very important for the successive generations in the cultural entity of any human being. The most important goal of this urban approach is to obtain an authentic and reliable

present, which represents honor and respect, as well as it based on a strong foundation which derived from the past. In addition, there is a kind of sense to make a connection between the past and future of this civilized entity Nations and the other entities.

Conclusion

Through our review of the characteristics of the housh, we can deduce a set of social, economic and urban values that have accompanied a path that has been shaped by history and developed by its inhabitants, and which has never been as alien to its surroundings as it was to the culture of its society. , Beauty and utility, durability and economy, ego and community. Values were based on cultural, social and environmental heritage, their interaction with other civilizations and techniques was always conscious.

The structure of this housh clearly reflects the beautiful social organization of the family home. Parents, children and grandchildren have social systems that are based on customs and traditions inherited from Sharia and custom. The father and mother of the "grandparents" in this house the role of senior management, which manages the affairs of the house and the distribution of tasks and differences and bears full responsibility for each member of this family in terms of life and future.

Unfortunately, modern social culture has destroyed many traditional buildings and replaced them with new buildings that have nothing to do with the social environment and because of this new alternative culture and the abandonment of these homes to homes and lack of regular maintenance, but unfortunately due to negligence and lack of maintenance began to decrease and decrease because of the partial and total collapse of many of them. I started to reduce these houses because of the partial and complete collapse of many of them.

This is a quick summary of the set of values that we missed in the plans of our cities and our contemporary homes and we still miss when designing any new housing project implemented by the popular or private sector.

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