
The tangible and intangible cultural heritage of the traditional houses in the historical area of Jeddah and its relationship to cultural sustainability

Alia Hisham Abulnaja

M.A student at Faculty of Human Science and design – Interior Design and Furniture – King Abdulaziz University

Dr. Donia Mohamad Bettaieb

Department of interior Design and Furniture – King Abdulaziz University

Prof. Dr Hisham Mortada

Department of Architecture - King Abdulaziz University

Abstract:

Purpose: Traditional houses in the Historic District of Jeddah exhibit architectural characteristics that reflect an important aspect of the social practices of the area in various historical contexts. This study aimed to clarify the link between the principles and characteristics of material cultural heritage (architectural characteristics) and a set of social practices, such as celebrations, that took place in the houses of the historical region of Jeddah. Furthermore, the study provided design guidelines for contemporary homes to support the social practices of celebrations in a modern context. These guidelines hope to preserve cultural stock and protect the traditional homes in the historical region of Jeddah from destruction.

Design/methodology/approach: The study used the descriptive-analytical method to characterize and analyse the architectural characteristics and social practices of well-known occasions in the region. Moreover, tangible and intangible heritage was investigated by employing the principles of design to elements of contemporary homes.

The above was discussed within the framework of finding the balance between historical preservation and the revival of originality (remaining relevant to the times).

Findings: The study found that the link between the principles and characteristics of tangible cultural heritage (architectural characteristics) to a set of social practices, such as occasions/celebrations that take place in the houses of the historical region of Jeddah supports the idea of the cultural sustainability of heritage in traditional homes. These findings may benefit heritage experts, designers, and architects by enabling support for the sustainability of these celebratory social practices within a modern context that finds a balance between originality and preservation in the Makkah region.

Originality: Prior studies have addressed the totality of these characteristics in various ways (the elements, cultural, social, and economic dimensions, and by using the scientific method for the study). However, they have not addressed the link between existing design richness and social practices within the framework of cultural sustainability (as was done with this study).

Keywords: Cultural Heritage, The Historical Region of Jeddah, Cultural Sustainability, Spatial Design, Social Practices

1) Introduction

The Kingdom of Saudi Arabia is rich in cultural heritage and is distinguishable from other regions (western, southern, eastern, Hijazi, and Najd etc.) because of its vastness, the diversity of its regions and climate, and the multiplicity of civilizations that have occupied it. Nevertheless, Saudi cities do have architectural elements of traditional buildings that are somewhat similar to neighbouring Arab cities. However, each city uses different architectural methods based on organizational strategy, and their characteristics from the others (Al-Ban, 2016). It could be argued that the buildings in the Historic District of Jeddah are among the most important features of Saudi architectural heritage in the western region of the Kingdom and that they are characterized by a unique architectural style (building materials, formation of architectural elements, decoration, design, etc.) (Agoda Company Pte. Ltd, n.d.). Traditional houses in the region have an artistic richness, high taste level, and ornate decoration due to their connection to the Hijazi environment, the reality of its society, and local traditions. Thus, their form and composition represent one of the most important models of traditional architecture in the region (Telmesani et al., 2009) and represents factors such as the religious and social divisions (imposed to achieve the principle of privacy) and the environmental factor. Furthermore, design elements, such as building materials, economic factors, limited space (Hassan, 2009), and social and cultural factors all influence the formation and composition of traditional houses in the historic Jeddah region. However, these elements still need more in-depth research (jisna Al-Ghamdi and aleujaal, 2018), especially because these homes (both inside and outside) are vessels for celebrations such that private practices are performed at the public level and are thought of as modern social practices inherited from the ancestors.

UNESCO defined celebrations, and the cultural values they represent, as one of the most important social practices of intangible cultural heritage. In turn, they help to promote social cohesion and growth and can facilitate necessary identity preservation activities (Throsby and Petetskaya, 2021). Thus, modern social practices can be considered part of cultural heritage, and we must delve into them if we consider these social practices closely related to a particular group's thoughts and perceptions of the world, how these are understood, and their memories and history (*Evaluation of the Normative Activities of the UNESCO Culture Sector, Part I: 2003 Convention for the Safeguarding of the Intangible Cultural Heritage*, 2013). Throughout history and currently, the city of Jeddah has witnessed a variety of economic, social, and cultural factors that facilitated rapid urban growth (Al-Sahli, 2020). However, even so, Jeddah is an example of a living historical city, in which heritage has been rehabilitated, renewed, and developed with the growth of the region (Badawy and Shehata, 2018). In other words, it has tangible and intangible cultural capital (SCTA, 2013). In particular, its intangible cultural heritage has importance and impact on society, and after the UNESCO agreement was issued in (2003 AD), the Kingdom of Saudi Arabia joined the International Center for the Preservation and Restoration of Cultural Heritage (IRCOM), which is affiliated with one of the international governmental and private centres of UNESCO in (1999 AD). The strategies of Vision (2030) included culture receiving the title of 'change industry' from the Ministry of Culture. Furthermore, the Ministry of Culture launched its main aspirations and an initiative to devote itself to culture for lifestyle, culture for the growth of the economy, and finally, to culture for enhancing Saudi Arabia's international position (*General / Saudi newspapers*, 2021). Thus, making this study's focus on preserving the culture of our society, according to its specialization and creativity, all the more relevant.

Research problem: The traditional houses in the historical region of Jeddah are characterized by architectural characteristics that reflect an important aspect of the social practices of the region during various historical contexts. Thus, this study aims to link the existing design richness to a set of social practices, within the framework of targeting cultural sustainability, by using a descriptive-analytical method.

Objectives of the study:

- The study investigates and clarifies the linking principles and characteristics of the material cultural heritage (architectural characteristics) to a set of social practices from celebrations/occasions that take place in the houses of the historical region of Jeddah.
- The study provides design guidelines, similar to those of traditional houses in the historical area of Jeddah, for contemporary homes to support these social practices (celebrations/occasions) and, ultimately, preserve cultural stock and protect it from extinction.

Research questions:

- 1) What are the most important social practices (celebrations) that were practised inside the traditional homes in historical Jeddah?
- 2) What are the design considerations of the traditional houses in the historical area of Jeddah that supported these social practices?
- 3) Which of these characteristics is the most important and can be considered as constant points of reference to supporting the cultural sustainability of heritage in traditional homes on the tangible and intangible levels at the same time?

Significance of study: the results of this study may benefit heritage experts, but will especially benefit designers and architects by enabling them to support the sustainability of these social practices. It provides a framework by which they can consider the requirements to balance originality (remaining relevant) and the design richness/significance of the traditional homes in the Makkah region.

Terminology of study:

- **Traditional house/(s):** a house built and designed since antiquity from local materials and raw materials by the region's members. Its shape, size, area, components and function are dependent on the economic level of families (Moustafa, 2014)

- **Practice:** several beliefs, perceptions, and values formed by a group of individuals to interact and define the form of relationships between them from a socio-cultural perspective. From a social science perspective, practice is an analytical framework through which people form ways within diverse groups, through the cultural atmosphere in which they reside, and clarify these based on identity and personal traits, which show cultural forms (Al-Kandari, 2019).

- **Celebrations:** (celebratory occasions) are a gathering of a group of individuals to practice either social or religious rituals, including adornment, singing, dancing, and entertainment. Over time, the religious has transformed into the social, thus representing people's rituals for expressing their culture. Culture consists of a group of customs, traditions, codes of conduct, laws, stories, and languages (Ali Sabah Salman and Abbas Ali Ajil, 2020)

- **Cultural sustainability:** the concept of cultural sustainability exists from the narrow concept of arts and heritage, to the broad concept of culture as a way of life and a network of meanings that appear in wide ranges. Some also view it as the fourth pillar of sustainability, while others consider it actions, and a means of achieving sustainable social, economic, or environmental goals (Soini & Birkeland, 2014).

- **Cultural ecology:** refers to the story of civilization and culture as a necessary basis for the transition of society to a truly sustainable environment (Soini and Birkeland, 2014).

2) Literature Review:

2.1 Architecture between tangible and intangible heritage

The development of architecture reflects an important aspect of the development of societies, especially at the cultural and social levels. It embodies society's ideas as an urban product that shapes the present, the past, and the future, and meets the needs of the individual through the use of architectural symbols, shapes and solutions (Ghirbal, 2021). Cultural heritage represents civilization, history, and people's identity. Furthermore, it bridges our ancestors to material evidence as a symbol of civilizational communication and is evidence of what humans have achieved throughout history ('abulaylah and Al-Barqawi, 2019). Thus, many find this historical evidence a source of pride for their national identity. This is thought to better quality of life, increase social participation, and empower societies (Torrieri et al., 2020). Accordingly, one might say that cultural heritage reflects the vibrant memory of each individual in society, and results in a perceived special cultural identity by the general public (Aslan et al., 2018). Moreover, cultural heritage is classified into tangible and intangible heritage. Buildings, archaeological sites, inscriptions, museums, and historical centres are known as fixed material heritage.

This fixed material heritage is considered one of the most important material sources for explaining individuals' social activities, and their social lives and its development (Avrami et al., 2019). Moreover, artefacts engravings, tablets, drawings, and others are known as movable tangible heritage, and can also include documentary heritage such as blueprints and prints that convey an image of the intellectual development of a particular society ('abulaylah & Al-Barqawi, 2019). Intangible heritage is made up of customs and traditions inherited from our ancestors that are passed down to future generations. This includes oral traditions, performing arts, social practices, rituals, ceremonial occasions, knowledge, and practices related to nature and the universe, or knowledge and skills associated with the production of traditional craft industries. Thus, the importance of intangible cultural heritage is related to the preservation of cultural diversity, whether it is traditional and contemporary at the same time, or collective heritage (expressive forms), representative heritage, or dependent on groups (*Evaluation of the Normative Activities of the UNESCO Culture Sector, Part I: 2003 Convention for the Safeguarding of the Intangible Cultural Heritage*, 2013). Therefore, architectural and interior design is an important area of study as it combines tangible and intangible cultural heritage. This enables the understanding of complex architectural realities and analyses aspects of social and cultural ties to generate concepts that reflect a sense of belonging, promotes the preservation of the privacy of the local architectural environment, and reflects and expresses its identity.

2.2 Characteristics of the traditional houses in the historical area of Jeddah

The longitudinal extension of the residential buildings in the historical area of Jeddah was widespread due to the prosperity of the city and its dense population (Al-Ban, 2016). They consist of several floors, the maximum of which is five. The walls' decrease from the bottom to the top, making the building lightweight. At the end of the building, there are prominent edges that form the ceiling beams. On the upper floors, there are slots for placing the Roushan or windows, which are similar to the Roushan (Al-Ban, 2016). The houses were built from the remnants of coral rocks, and the Al-Tiklil wood was supported by a certain technique that made the weight of the house equal in all corners. This enabled the multi-story rise multi that lasted several years. Special local raw materials, such as Kashour stone, were used for the construction of the houses (Al-Manqabi stone). Kashour stone is coral limestone (mined from the Red Sea coast and the Ruwais beach) but often Raffadi (marine stone) was used as an alternative (Bagasi and Calautit, 2020). The exteriors were made up of either one or two external differing facades and very rarely one might find a house with three facades (Al-Amoudi, 2018). The facades are interspersed with many rafters, the presence of which forms a longitudinal line on the building, visually linking the lower and upper parts of it.

Al-Roushan is an important architectural element for the people of Hejaz as it provides ventilation as well as shading (Farsi, 2014). It is used internally to diffuse the sun's rays and promote air-flow which keeps the house cool especially in summer (Sabry and Dwidar, 2015). Further, Roushan provides privacy for the women of the household, thus, allowing them to contemplate the outside and observe (Al-Ban, 2016).

‘Qolal of water’ made of earthenware is usually placed inside the Roushan (Sabry and Dwidar, 2015) and ancient cities all over the world constituted the lasting legacy of their ancestors by reflecting their culture and traditions in these materials (Thirumaran and Kiruthiga, 2018).

2.2.1 Roles/division of traditional houses in the historic area of Jeddah

A- The ground floor has a main wooden door ‘Al-Zukak’ that leads to the main entrance and is called the ‘Dehliz’. The ground floor contains ‘Almaqead’, which is an area within the house for welcoming guests or is used as an office (Rayes, 2018). The ground floor is usually used by the men of the house and guests and the main entrance is the space that separates the public and private spaces of the house (Batterjee, 2010).

B- The first floor is also usually used by women, and is where they receive visitors and guests. The Majlis are always on the front of the house because they contain the Roushan, which overlooks the main street (Batterjee, 2010), and next to the sitting rooms there is a room called the ‘Moukher’. Its area is smaller than the Majlis, where the tea and ‘Samovar’ tools are stored. Further, between the Majlis rooms and the ‘Moukher’ there is a room called the ‘Saffa’ with some furniture (Maghribi, 1982).

C- The remaining floors (two or three levels) are used as the home space for the people of the house. It generally consists of three to five multifunctional rooms used for living and sleeping. The living room is the largest room and is located on the side of the front of the house (Rayes, 2018). There is typically a bench called ‘Al, Dukka’, near the Roshan from inside the Majlis, that is used to watch passers-by without being seen.

D- Kitchens, called ‘Al-Markab’, are located at the back of the houses and have a cupboard for storing utensils called “Al Namila”. Toilets, called “Bett Alma”, are connected to the other multi-purpose rooms (Rayes, 2018), called “Al-Mubait”. Often, servants sleep in these rooms (Maghrebi, 1982).

E- The surface is a space divided by high wall partitions that, sometimes, have small openings made of wooden screens. This provides privacy for both the people living in the house and also neighbours. In the summer, it is used for sleeping and part of the roof collects rain that flows into large tanks located under the entrance—‘Al-Dahliz’. (Rayes, 2018).

F- Each floor contains a water house and tanks used to store items such as rugs, bedsheets, sleeping mats, and others. Usually, more than one family lives in a house, where the remaining floors are separated by a large door. There is a small window for light and air, and usually a gas lamp (Tank) is placed on the window at night near the main stairs. There is also a cupboard to store old items. The last floor’s staircase contains ‘Al-Daghisi’—a cupboard for storing coal (Manna, 2011). In summation, these traditional houses in the historical area of Jeddah are divided into three main parts, according to the principle of privacy. They consist of a public part for visitors, the ground floor, and a semi-public part, which revolves around the spaces for family and female visitors who are often on the first floor of the house, and a private part that is usually entirely isolated from visitors. This family only area is located on the upper floors (Al-Ban, 2016).

2.3 Social practices in the context of targeting cultural sustainability

UNESCO has clarified intangible cultural heritage as all living expressions inherited from our ancestors, transmitted from generation to generation, and included a number of customs and traditions, knowledge, celebrations, oral traditions, performing arts, and practices related to nature and traditional crafts. (*UNESCO - Proclamation of the Masterpieces of the Oral and Intangible Heritage of Humanity (2001-2005)*, n.d.). Considering these various expressive forms of cultural heritage, the focus of this study will be on celebrations as an important sub-category of intangible cultural heritage. The celebrations in the city of Jeddah, which have taken place several times a year since antiquity, are related to religious occasions, family visits, and eating special foods. That being said, some social celebrations have disappeared, for several reasons, while others are ongoing. Here, it is worth noting that what distinguishes the traditional houses in the historical area of Jeddah from the non-traditional ones is that social celebrations emerged from them. These celebrations are represented by occasions that have been preserved, for the most part, until today (Al-Sahli, 2020). This study will be investigating the following occasions:

According to (Diab, 2003) the celebration of Eid al-Adha exists as women's gatherings inside large houses to celebrate while boys gather outside and wander between neighbourhoods to make the people feel safe due to the absence of most of the region's men during the Hajj season. However, during Eid al-Fitr, the Majlis room is cleaned to receive the men, and Eid sweets are placed on special plates while a sprinkle of rose water or lemon perfume is prepared when the beginning of Eid is announced. Women do the preparations for the Eid breakfast which consisted of cheese and various types of bread, such as the Chrik. This meal was called 'Al-Tatima'.

People would also wear Eid clothes and go to the Eid prayer. Visits were made for coffee, tea, dessert, and sometimes dinner, and the door house was left open to receive visitors when afternoon prayer ended. Women of the family gathered the children to play games in the yard. In the modern context, families gather in parks and entertainment centres, and artistic heritage shows are put up. There are designated places, such as halls, restaurants, or hotels, that host families to celebrate the occasion. (Al-Sahli, 2020). On Hijri New Year, people celebrate by drinking milk in the morning period while lunch is devoted to eating ‘Mukhliya’ It means the leaves of the mallow. Afternoon prayer is followed by drinking almond coffee and family visits are made to congratulate the New Year (Al-Sahli, 2020), and ‘Ashura’ is celebrated by the people. Further, on the tenth day of the month of Muharram, after fasting the day before or after, a dessert called ‘Ashouriya’ is served (saeid Al-Ghamdi, 2007). On the last days of the month of Sha’ban people celebrate with their families and friends in the last week of the month (Attioui, 2016), and gatherings take place either inside the house or outside in public places. For Ramadan, a special lunch or dinner is held to celebrate the advent of the month. People buy Ramadan foodstuffs, new furniture, hospitality supplies, clothes such as ‘Galabiya’, bedsheets, and new prayer rugs (Al-Sahli, 2020). When the holy month of Ramadan begins, it is customary to restore and renovate mosques, including paintings and interior furniture. Women clean the houses, carpets are returned on the eve of Eid to receive the guests, families exchange congratulations, and windows are opened to hear Ramadan songs (Diab, 2003). During this month, shopping activity takes place at night as most things close after the afternoon prayer and only open after the evening prayer.

Ramadan tables are famous for speciality foods such as soup of ‘Al-habb’, ‘Sambousek’ (Maghrebi, 1982), ‘Lahhouh’, ‘Khashaf’ and ‘Muhallabia’. Sweets and drinks such as ‘Sobia’, ‘Qamar al-Din’ are also served. In the evenings women usually prepare for Suhoor while men spend their time (after Tarawih prayers) in cafes or the private seats of well-known homes (Al-Sahli, 2020). Finally, the month of Ramadan has spiritual manifestations, as it is the month of worship, and so the practice of performing ‘Umrah’ takes place throughout the month, breakfast meals spread throughout the city, and the voices of reciters rise in mosques (Al-Sahli, 2020).

3.) Design/methodology/approach:

This study used a qualitative approach to analyse traditional houses in Historic Jeddah, and the most important socio-cultural practices and celebrations of the people who occupy these houses. The study’s spatial boundaries focused on the historical region of Jeddah located in the western region of the Kingdom of Saudi Arabia, and its temporal boundaries in the year (2021 AD).

3.1 Study Sample

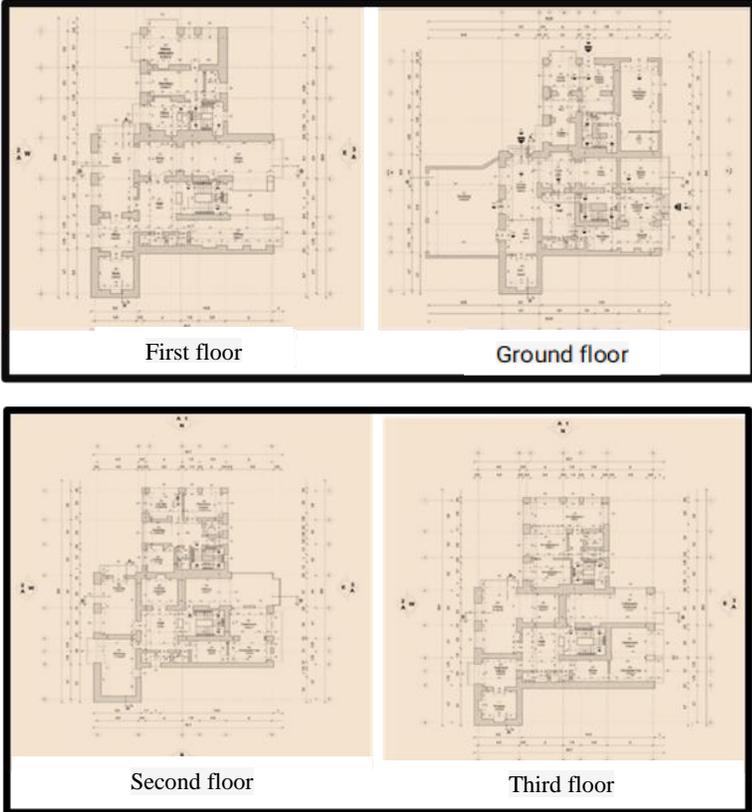
The study analysed the visual characteristics and architectural structure of historic houses. Two traditional houses of Historic Jeddah were focused on. Further, a group of mayors of the old districts of Jeddah, and some elderly people who lived in the houses were interviewed. Their ages ranged from, approximately, seventy years old and above. Moreover, some grandchildren and the heirs to the houses were also interviewed. Lastly, interviews with architectural and heritage specialists of the region were also conducted.

The two houses that were chosen for the study are called ‘Beit Baeshen’ and ‘Beit Nour Wali’.

Both are large and are traditional houses in which social events occurred, however, they are situated in different neighbourhoods and have different characteristics, as shown in table 1.

Table (1):

Photographs	History of the home	Name of the house / location / neighbourhood
 <p>Picture (1): Beit Baeshen Source: Bait Baeshen reveals the secrets of two centuries of Jeddah's history - Al-Madina (al-madina.com)</p>  <p>Picture (2): Beit Baeshen Source: Photographed by the researcher</p>	<p>There are historical discrepancies between the reasons for the naming of the "The Al-Mazloun Quarter" neighbourhood. Some sources believe it was named after a shrine attributed to Afif al-Din al-Mazloun, while others believe it was named in honour of the oppressed Sheikh Abdul Karim al-Barzanji al-Madani, who was killed by the Ottoman government in the year (932 AH) at the beginning of the Ottoman era. 'Al, Shafi'i Mosque', latest expansions were built during the Ottoman era and Omar Ibn Al-Khattab's reign. However, the houses were constructed in the Fatimids era (Sadiq Diab, 2004). This means the house was built around 225 years ago in approximately 1273 AH. The house was owned by the merchant Sheikh Muhammad Salih Baeshen and was recently restored with the support of the Tourism and Antiquities Authority (1834 AD). The original house is located on the northeastern side of the neighbourhood, while the newer section, which has five floors and was built 155 years ago, is located on the northwestern side (al-Hamid & mohammed, 2014).</p>	<p>Beit Baeshen / Al Mazloun Quarter</p>

House plan		
 <p style="text-align: center;">Figure 3: Plans of Beit Baeshen Source: Dr Maha Baeshen</p>		
 <p>Picture (3): Noor Wali's house. Source: (Attia, 2021)</p>	<p>Picture three depicts one of the oldest existing traditional houses in the region. The house is about (150) years old and was purchased in (1365 AH) in an auction. Its ownership was transferred from Beit Ashour to Sheikh Abdul Qadir Nour Wali. What distinguishes it from other homes in the area is that water is emptied from outside. Further, it is one of the tallest homes in the neighbourhood as well. <i>(Nuruli House. The most beautiful historical houses of Jeddah were ignored by the trust and neglected by the heirs, n.d.).</i></p>	<p>Noor Wali House/ Al-Yaman neighbourhood</p>
House plan		

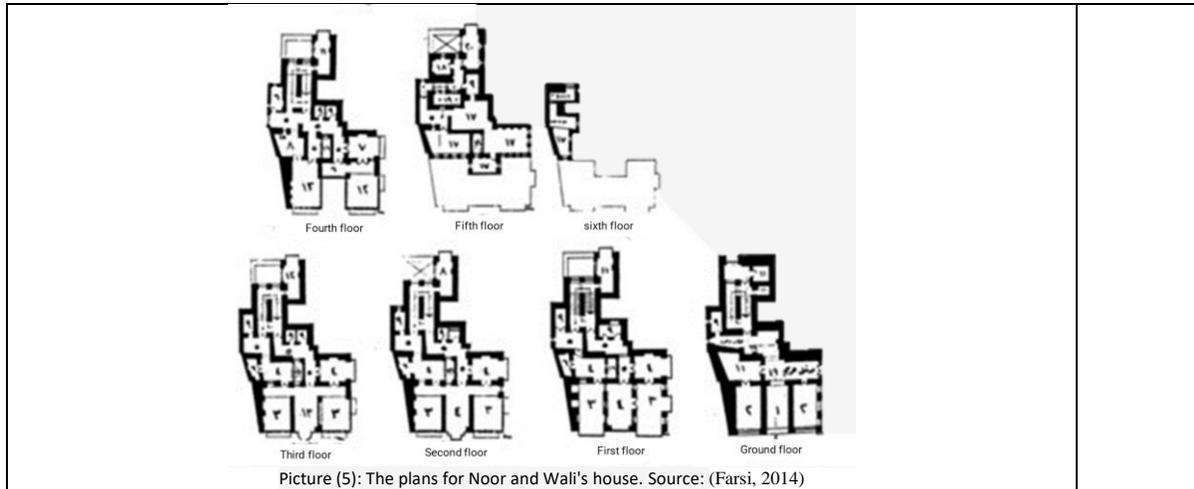


Table (1): Definition of sample houses.

3.1 Observing the visual characteristics, and analysing the architectural structure of Beit Baeshen and Beit Nour Wali

The houses chosen for this study are some of the largest houses in the historical area of Jeddah. Homes in the area generally differ based on location (the neighbourhood), and the cultural standing of the family that presides therein. The architectural elements of most of these houses form the social and economic dimensions (urban fabric) of the city (Telmesani et al., 2009).

- Two tools of analysis were relied on for this study—direct and indirect observation. Direct observation was employed through field visits, and indirect observation by gathering references such as old photographs and plans of the houses.

1- For field visits (direct observation), the following steps were followed:

Houses had to meet the following criteria:

Firstly, houses had to be located in starkly different neighbourhoods, based on socio-economic and socio-cultural factors. Next, the building had to be standing, have house plans and photographs of the building elements such as facades and interior spaces. Lastly, there had to be the possibility of meeting the people who lived there and knew the history of the home.

2- indirect observation (photographs and plans):

Considerations and design characteristics have been studied through:

First, photographs and plans of the homes were scoured. This included paying special attention to the facades and roles, the interior design, external characteristics of the facade, the building as a whole, and explaining the foundations.

Second, determining the architectural program.

Third, extracting the common characteristics of the sample of houses at the

level of architectural design.

-Interviews

Interviews were used to gather information on the houses and the neighbourhood. The interviews varied depending on the subjects' circumstances, some were conducted remotely, via zoom, while others were in person. In total, 12 people were interviewed, three of whom were district mayors. Further, four of the interviewees' knew people from the period of the traditional home or had of them through grandparents. Another four were interested in and specialized in the heritage of the historical region of Jeddah. The interview questions revolved around three axes as follows:

- 1- The first axis: the social practices that were practised inside traditional homes: their types, nature, and characteristics.
 - What are the family and seasonal occasions that were and are always held inside the house?
 - In which spaces were these events held?
 - Were there any rules/rituals involved in these occasions? For example, was the occasion specific to a certain group? Was it time-specific?

- 2- The second axis: understanding the interviewees' experience inside the space, their tendencies during practices, the nature of their preferred practices, and the description of their sensory experiences (visuals, presence, space, movement, activities, colours, acoustics, sense of smell, etc.).
 - What are the occasions that you tend towards and are always keen to take part in?
 - Are there specific guidelines/rituals for the event venue? For example (preparing particular lights, preparing certain perfumes or scents, wearing certain colours or special clothes for the occasion, or particular sounds you associate with the event).
- 3- The third axis: difficulties relating to running the events smoothly and the juxtaposition between the relevant spaces, and the extent to which they accommodated practices.
 - Who supervises the ceremony and how does this happen? Are there any difficulties facing the supervisor? (such as access to service spaces or supervision during the event, etc.).

Finally, the interview results were analysed based on defining the practices, and linking them to the requirements of use and the general prevailing atmosphere when holding parties in traditional homes in the historic city of Jeddah.

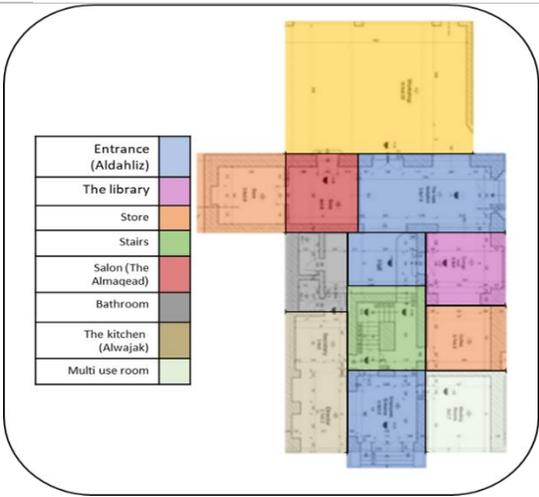
4.) Findings:

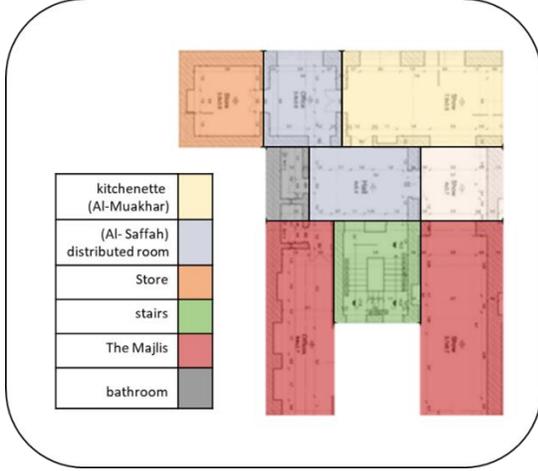
Architecture embodies the ideas of the society it presides in and is an urban product that shapes the present, the past, and the future. It is a reference point of cultural heritage and establishes the concepts and considerations on which it was built (Ghirbal, 2021). It acts as a link between tradition and the social practices that pertain to it. Further, it can cultivate a spirit of belonging in communities and contributes to the progress and development of an area.

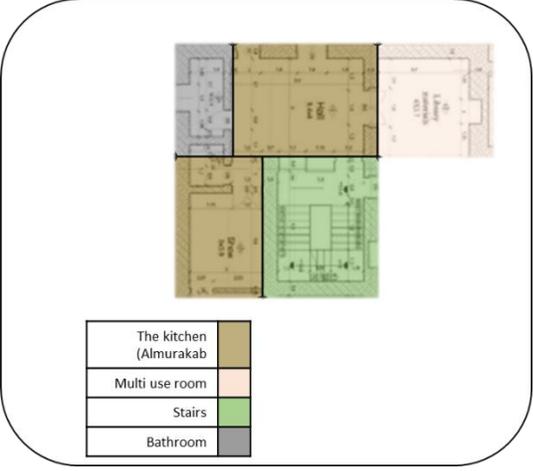
Thus, the researchers believe that the findings of this study are significant. Table 2, as seen below, illustrates the architectural characteristics of the sample houses that were used for the analyses.

Table 2

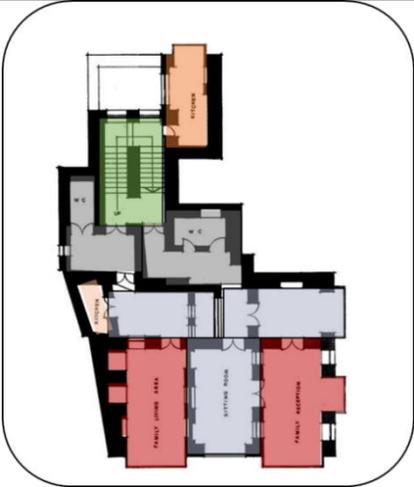
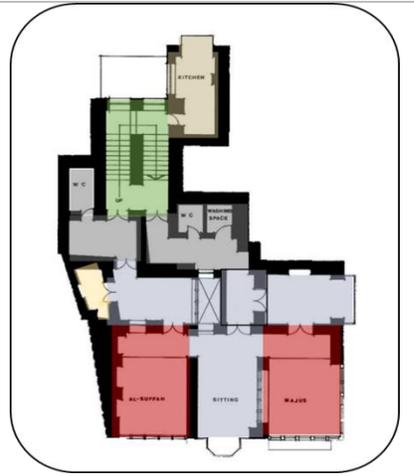
Illustrative image	Baeshen's house		
 <p><i>Picture (6): The eastern facade Source: (Misk Historic Jeddah / Ancient Houses / Twitter, n.d.)</i></p> <p><i>Picture (5): The north facade Source: researcher's photo</i></p>	North side and East side	Interfaces	Building Characteristics
 <p><i>Picture (7): Al, Roushan Source: researcher's photo</i></p>	The facade is made up of Al, Roushan and wooden windows. It is earth-toned in colour and has geometric decorations.	Windows and Al, Roushan	
 <p><i>Picture (8): The entrances to Baeshen's house Source: Photograph by the researcher.</i></p>	The two main doors are made of imported sandalwood. They are large, and ornate, both functional and aesthetic.	Doors and entrances	

 <p><i>Picture (9): a front facade showing the number of floors in Beit Baeshen. Source: (Bagasi & Calautit, 2020b)</i></p>	<p>The house consists of five floors, the first three dedicated to receiving guests and family</p>	<p>Number of floors</p>	
 <p><i>Picture (10): Dividing the areas of the ground floor of Beit Baeshen</i></p>	<p>The ground floor consists of two entrances, ('Al-dahliz') and leads to the ('Kharija'), which is a space with an open ceiling, in which men pray and gather. The entrance leads to the library and 'Al-Maqaad' (the place where the men sit) and to a storage room where hospitality supplies are stored. The second entrance leads to the kitchen ('Al-Markab'), a multi-purpose room in which servants sit and prepare hot drinks, another storeroom, and the staircase that leads to the upper floors.</p>	<p>Ground floor</p>	<p>Existing interior spaces according to roles</p>
 <p><i>Picture (11): The seat of Baeshen's house. Source: resear...photo</i></p>	<p>The main entrance is adjacent to the 'Maqaad' for the men's gathering, and the Roshan is stationed inside the space in the chest of the seat, forming an artistic painting.</p>		

 <p style="text-align: center;"><i>Picture (12): Division of the areas of the first floor of Beit Baeshen</i></p>	<p>The floors are divided similarly to one another. The stairs lead to the ‘saffah’ (the hall), and the rest of the room is distributed such that boards overlook the main street. There is a room where women visitors gather, a bathroom, and a multi-purpose room in which the servants prepare coffee and tea and is also used for storage. The living room is situated at the back and is used for female and family visitors.</p>	<p>First and second floors</p>	
 <p style="text-align: center;"><i>Picture (13): Dividing the areas of the third floor of Beit Baeshen.</i></p>	<p>The third floor contains two bedrooms called ‘Al-Mubait’, the ‘saffah’ room, the bathrooms, the storeroom, a multi-purpose room, and a kitchenette. In the middle of the house, there is a balcony for ventilation, it is sometimes slept in and is called ‘al-kharija’. The ceilings are high, and the house is decorated with wooden carvings. The staircase has what is called a ‘Basta’ —a large door on each floor that separates it from the other floors, and a small window for light and air (Manna, 2011).</p>	<p>Third floor</p>	
<p style="text-align: center;"><i>Picture (14): Dividing the areas of the fourth floor of Beit Baeshen.</i></p>	<p>The floor contains the kitchen, a multi-purpose storage room called Al-Baldaisi, a room for storing coal, and toilets.</p>	<p>Fourth floor</p>	

				
<p>Illustrative image</p>	<p>Noor Wali's house</p>			
 <p>Picture (15): Noor Wali's house Source: (We are our heri Twitter, n.d.)</p>	<p>The main facade of the building is connected by several large windows and Al, Roushans.</p>	<p>Interfaces</p>	<p>Building Characteristics</p>	
 <p>Picture (16): Rawashin Beit Nour Wali. Source:</p>	<p>The windows are made of wood and are decorated with geometric patterns that are connected. The Al, Roushan are made in a distinctive conical shape.</p>	<p>Windows and Al, Roushan's</p>		<p>It has three entrances</p>

	<p>It consists of six floors, four of them are dedicated to the reception.</p>	<p>Number of floors</p>	
<div data-bbox="251 485 652 974" data-label="Image"> </div> <p data-bbox="251 989 685 1045"><i>Picture (17): Plan of the ground floor of Noor Wali's house</i></p>	<p>It contains two main entrances, the first for men and the second for women and family members, two large halls and a storage room, and in the middle, there is a 'al-safa' room for toilets and stairs. The third entrance leads to the storerooms and stairs.</p>	<p>Ground floor</p>	<p>Existing interior spaces according to the</p>

 <p style="text-align: center;"><i>Picture (18): The plan of the first floor of Nour Wali's house</i></p>	<p>The stairs lead to a back storeroom, and corridors with toilets, which open to two 'al-safa' rooms. There is a distributed room with a small room for storage, and doors leading to women's councils.</p>	<p>First floor</p>	
 <p style="text-align: center;"><i>Picture (19): The layout of the second floor of Nour Wali's house</i></p>	<p>The staircase leads to a back kitchen, and corridors with toilets, which open to two 'al-safa' rooms. There is a distributed room with a small storage room, and doors leading to a women's 'Majlis' room.</p>	<p>Second floor</p>	

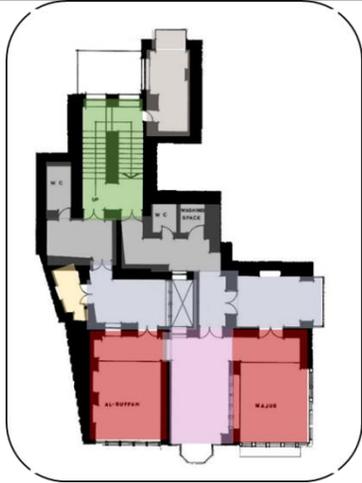
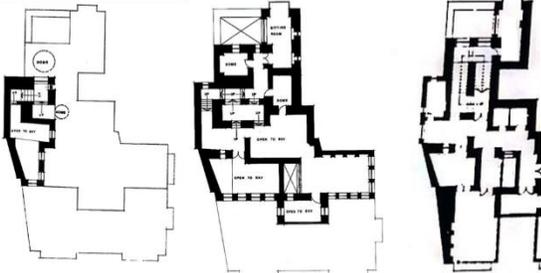
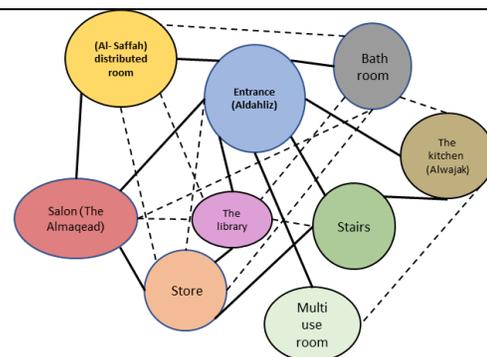
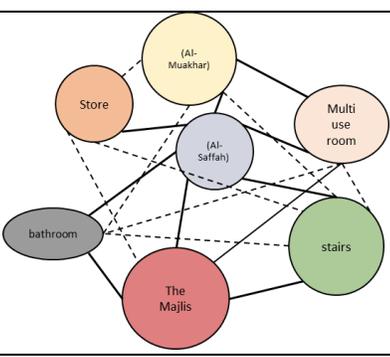
 <p style="text-align: center;"><i>Picture (20): The plan of the third floor of Nour Wali's house</i></p>	<p>The staircase leads to a multi-purpose room in the back that the servants live in. It also leads to corridors with toilets, which open to two 'Al-Safa' rooms. There is a distributed room with a small room for storage, and doors leading to the women's Majlis room. In the middle of the two chambers is a room called 'Al-kharija' that is open-roofed.</p>	<p style="text-align: center;">Third floor</p>	
 <p style="text-align: center;"><i>Picture (21): The plans of the fourth, fifth and sixth floors of Nour Wali House</i></p>	<p>These floors contain rooms for the family, including bedrooms, bathrooms, a kitchen, and a multi-purpose room.</p>	<p style="text-align: center;">The fourth, fifth, and sixth floors</p>	

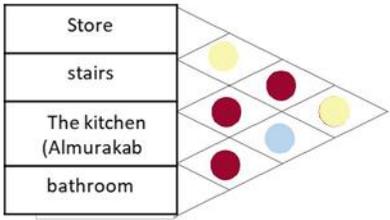
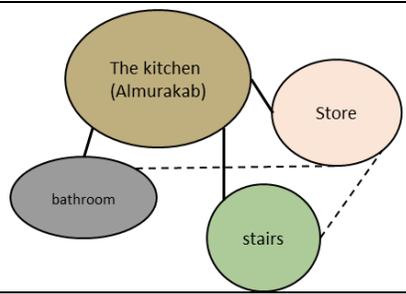
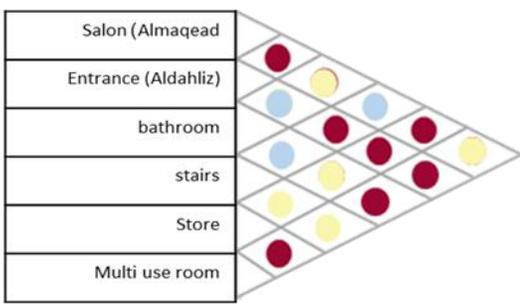
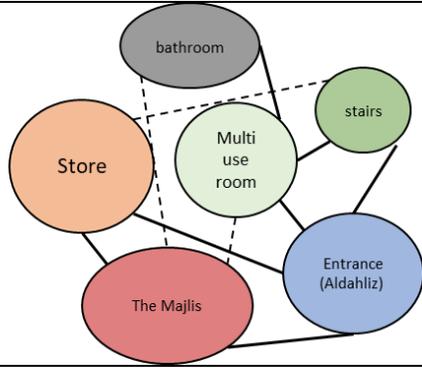
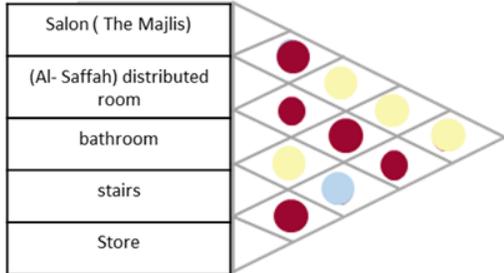
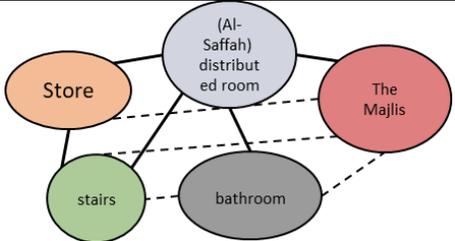
Table No. (2): Design considerations and architectural characteristics of Beit Baeshen and Beit Nour Wali

The above table reveals that there are some differences between the two houses. For instance, in the Nour Wali house, the ground floor is for men and the other two floors are for women, while in Baeshen's house the first floor was allocated to women. Nour Wali's house was concerned with creating a large space for toilets, thus, he created a space for ablution on the ground floor, and space for a Turkish bath on the second floor (women's floor). The ground floor of Baeshen's house had space for a chapel for the neighbourhood people to pray.

It also has an outside door, inside door, and library adjacent to the main entrance. Nevertheless, despite these differences, there are also great similarities between the homes. This is seen in the way spaces are distributed throughout the houses. For instance, they share the juxta-positioning between the ‘Al-Maqaad’, the entrance, and the staircases. Both have storage rooms and multi-use rooms on all floors, and the ‘Al-Safa’ rooms are adjacent to the ‘Majlis’. Both houses also have toilets on all floors, seats are located on the ground floor of the house, and the Majlis is located on the remaining floors. Moreover, in both houses ‘Al-Maqaad’ and the ‘Majlis’ are located on the main side of the front of the house, and have a view of the main street. The kitchen spaces are located on the upper floor in both houses and have a large surface area. They are adjacent to storage spaces that also have large surface areas. The kitchens are far from the ‘Al-Maqaad’ and boards of the house and all ‘al-kharija’ (a room without a ceiling) floors are used for family and visitors. These rooms are similar to modern-day balconies but differ in terms of space and design, where the exterior is large and walled and creates privacy for the people of the house.

In a second stage, the design of the architectural program for each of Beit Baeshen and Beit Nour Wali was reached according to the following table (3):

Baeshen's house									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">Entrance (Aldahliz)</td></tr> <tr><td style="padding: 2px;">Salon (The Almaqead)</td></tr> <tr><td style="padding: 2px;">(Al- Saffah) distributed room</td></tr> <tr><td style="padding: 2px;">Bathroom</td></tr> <tr><td style="padding: 2px;">The kitchen (Alwajak)</td></tr> <tr><td style="padding: 2px;">Multi use room</td></tr> <tr><td style="padding: 2px;">Store</td></tr> <tr><td style="padding: 2px;">The library</td></tr> </table>	Entrance (Aldahliz)	Salon (The Almaqead)	(Al- Saffah) distributed room	Bathroom	The kitchen (Alwajak)	Multi use room	Store	The library	
Entrance (Aldahliz)									
Salon (The Almaqead)									
(Al- Saffah) distributed room									
Bathroom									
The kitchen (Alwajak)									
Multi use room									
Store									
The library									
<p>The ‘Al-Maqead’ for men is adjacent to the entrance and the outer space (‘Al- Saffah’). The entrance here is a distributed space for the Majlis, the Saffah, the toilet, the kitchen (‘Alujak’), and a multi-purpose room in which drinks and coffee are prepared. The kitchen and storage room are close to the stairs to provide privacy for the family during occasions. The large entrance space and high ceilings are indicators of wealth and luxury, followed by ‘Al-Maqead’ while the rest of the spaces are medium to small spaces.</p>									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">The Majlis</td></tr> <tr><td style="padding: 2px;">stairs</td></tr> <tr><td style="padding: 2px;">(Al- Saffah) distributed room</td></tr> <tr><td style="padding: 2px;">Store</td></tr> <tr><td style="padding: 2px;">kitchenette (Al-Muakhar)</td></tr> <tr><td style="padding: 2px;">Store</td></tr> <tr><td style="padding: 2px;">bathroom</td></tr> </table>	The Majlis	stairs	(Al- Saffah) distributed room	Store	kitchenette (Al-Muakhar)	Store	bathroom		
The Majlis									
stairs									
(Al- Saffah) distributed room									
Store									
kitchenette (Al-Muakhar)									
Store									
bathroom									
<p>The staircase is adjacent to the ‘Suffah’ (a hall) and storage spaces are distributed from it, the living room is located at the back to isolate the sound and provide privacy for the family. The living room is large, while the rest of the rooms are medium to small sizes.</p>									

	
<p>The kitchen is joined by the pantry, the dining room, and the coal storage room. The bathroom is situated nearby. The kitchen is also close to the stairs and occupies the largest surface area followed by the storage space, which is also large. This floor has particularly good ventilation to accommodate kitchen activities.</p>	
<p>Noor Wali's house</p>	
	
<p>The entrance joins the ‘Majlis’, the storeroom, and a multi-purpose room used to make hot drinks and to facilitate service for the guests in the Majlis. The stairs are also close to the entrance and create a pathway for women to the top floor. The large Majlis and main entrances accommodate a large number of visitors.</p>	
	
<p>Here, the large ‘Saffah’ space is distributed to the rest of the rooms as it is used to prepare coffee and has cupboards for storage as well.</p>	

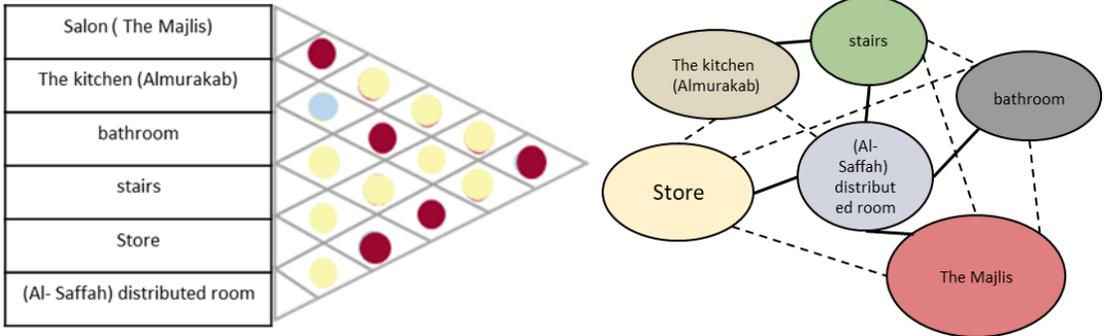
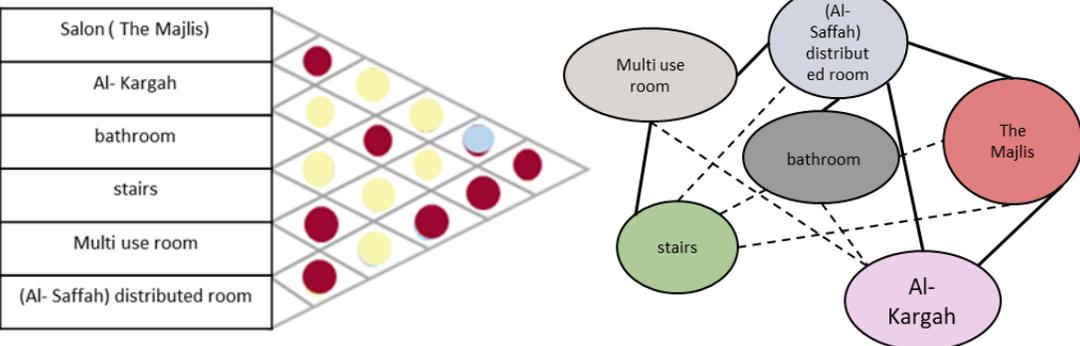
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">Salon (The Majlis)</td></tr> <tr><td style="padding: 2px;">The kitchen (Almurakab)</td></tr> <tr><td style="padding: 2px;">bathroom</td></tr> <tr><td style="padding: 2px;">stairs</td></tr> <tr><td style="padding: 2px;">Store</td></tr> <tr><td style="padding: 2px;">(Al- Saffah) distributed room</td></tr> </table>	Salon (The Majlis)	The kitchen (Almurakab)	bathroom	stairs	Store	(Al- Saffah) distributed room	
Salon (The Majlis)							
The kitchen (Almurakab)							
bathroom							
stairs							
Store							
(Al- Saffah) distributed room							
<p>The ‘Saffah’, the ‘Majlis’, and the storage room are adjacent to each other and are separated from the kitchen by two spaces: the ‘Saffah’ and the staircase. This isolates the smells coming from the kitchen and keeps the visitors from being disrupted. The seating area is large, as are the bathrooms closest to the luxury door, but the kitchen space is quite small.</p>							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">Salon (The Majlis)</td></tr> <tr><td style="padding: 2px;">Al- Kargah</td></tr> <tr><td style="padding: 2px;">bathroom</td></tr> <tr><td style="padding: 2px;">stairs</td></tr> <tr><td style="padding: 2px;">Multi use room</td></tr> <tr><td style="padding: 2px;">(Al- Saffah) distributed room</td></tr> </table>	Salon (The Majlis)	Al- Kargah	bathroom	stairs	Multi use room	(Al- Saffah) distributed room	
Salon (The Majlis)							
Al- Kargah							
bathroom							
stairs							
Multi use room							
(Al- Saffah) distributed room							
<p>The ‘Majlis’ joins the closely located ‘kargah’ and is also used for visitors during mild weather. A multi-purpose room is separated from the rest of the rooms by a staircase to accommodate servants as well as provide privacy.</p>							

Table No. (3): Functional relationships, adjacent spaces, and spaces.

Here, some common characteristics between the two houses were observed, and they were at the level:

- The Majlis joins the entrances, the staircase, the ‘Saffah’ room (in which coffee is usually prepared). The storage room and the bathrooms are adjacent to the ‘Saffah’ room and a multi-purpose room that provides privacy. The differences here are that the kitchen is far from The Majlis, and the storerooms are close to the entrances.

▪ The Majlis and sitting areas are large and numerous. The entrances take a share of the large space, and there is an open unroofed space on the upper floors of the house called the ‘Al- Kargah’. It is used to provide a simultaneously open and closed space for women to listen in on during the occasions without violating their privacy.

With regards to practices that take place in traditional homes, interviewees from the specialist categories reported that the spaces for special occasions are divided into two parts. One part for men (the seat and ‘Al- Kargah’) and the other for women (‘Majlis’ and ‘Al- Kargah’). However, these spaces also play an aesthetic role and indicate the distinctive decorations of the region. A difficulty of the floor plan is that the kitchen is located on the upper floors which makes it difficult to transport items. However, thankfully there are multi-use spaces close to the ‘majlis’ that are used for hospitality, such as coffee and tea preparation, and even sometimes storage. The elderly interviewees emphasized the division between occasions for men and women. They stated that important occasions for men included Friday for the chief merchants and the people of the neighbourhood. They also stated that men’s gatherings are more prolific than women’s gatherings and that men visited each other almost daily after prayer. They went on to say that these gatherings used to be short but that in today’s times they end very late. When women gathered they would use the ‘Majlis’ and would sing, dance, and play indoors and outside as they set up tables and exchanged conversation. This space was used specifically for privacy. The presence of children at women’s gatherings may be what helped preserve the cultural heritage of these occasions. Further, they stated that no difficulties were faced in organizing and preparing events as they were handled by servants and women. The events were attended by the neighbourhood people and took place inside and outside the house.

Two of the grandchildren who were interviewed added that there were storage spaces on all floors and said that the largest exit was near the kitchen. Further, they said that the ‘Majlis’ and ‘Al- Kargah’ were used to accommodate people for occasions but that they seem small by today’s standards. All interviewees agreed that the house was divided into male and female parts and that the Roshan is functional, aesthetic, and serves the purpose of holding events. There was consensus that multi-use rooms facilitated the hospitality of visitors, but that there were differences in opinion regarding the Majlis and the seat for the preparations. Specialists considered it small, but the elderly and grandchildren described it as large. Further, the elderly did not see difficulties in the preparation or the hosting of events while specialists and grandchildren claimed the distance between the kitchen and the event space was a problem.

The sample also agreed that because these floors have rooms that are connected to the outside, such as the ‘Al-Kharga’ and the ‘Majlis’ that have rafters overlooking the main street, they serve both men and women’s occasions without violating either genders’ privacy. Thus, table (4) is a compilation of the important social practices that are practised inside various spaces of the house as well as the requirements for these practices to exist (for example, furniture, movement, and ambience).

practice definition					Requirements		Atmosphere			
occasion type	The time of the event	Group type (family - neighbors - friends - women - men)	The purpose of the occasion	activity area	Requirements for use		Colors	lighting	acoustics	Odor
					walk paths	Furniture				
Eid al-Adha	From after sunset	women's gathering	Celebration and gathering at the dinner table to eat lamb	Majlis and coffee room	Entrance - stairs - Majlis - tea preparation room - bathroom	Sofas - Chairs - Tables	White color is a sign of spirituality	Turn on all house lights	Hear the Eid Takbeer	Maamoul bread (prepared with dates) And the smell of grilled meat
Eid al-Fitr	Breakfast time	Family gathering	eat a meal	Majlis - kitchen	Entrance - stairs - Majlis - tea preparation room - bathroom	Sofas - Chairs - Tables	bright colors	Turn on all house lights Inside and hanging lighting from the outside	Hear songs and children's voices from outside	The smell of Albukhur- the smell of dabiza (a dessert made of nuts, sugar and apricots - Rose water scent
	after sunrise	Visits by friends and relatives of men	Greetings, drinking coffee and eating sweets	The seat for men and the coffee room	Entrance - seat - tea preparation room - bathroom	Arranging the seat and preparing dessert and coffee supplies				
	afternoon	Women and children gather to go to the yards and parks	Buying toys	-	-	-				
Entering Ramadan	Breakfast time at Sunset	Relatives and family	eat a meal	The kitchen, the Majlis and the coffee room	Entrance - stairs - Majlis - coffee room - bathroom - kitchen	Cleaning, especially carpets	bright colors	Equipping lights on the facades of the house	Hearing the call to prayer	Mastic - kadi water - fruity aromas - hibiscus - spread the smell of food for the month of Ramadan
	afternoon	Outside, men gather	chatting	Almarkaz Area	Entrance - Al magead - tea preparation room - bathroom - kitchen	Buying new bedding, prayer rugs, Eid clothes and Ramadan food	white		hear a prayer	The smell of red tea - mint and fragrant
	When it is confirmed that the month of Shawwal has begun	women's gathering	Preparing the house for Eid	The kitchen, the Majlis and the coffee room	Majlis - storeroom - kitchen - tea preparation room	preparing sweet dishes, laying out new rugs, and in some cases home maintenance and the renewal of some pieces of furniture	Gold, silver and bright colors		Hearing the call to prayer	Starch smell - Albukhur - lemon fragrance
new Year	Morning time and afternoon period	Visits by friends and relatives	Greetings and drinking coffee eat (molokhia)	Majlis for women - Al magead for men the kitchen coffee room	Entrance - stairs - Majlis - tea preparation room - bathroom - kitchen	coffee preparation	green - white	Installing lights on the front of the house	-	The aroma of milk and almonds - cinnamon - ginger
Ashura	After Sunset	Family gathering	Eating breakfast	Kitchen and the Majlis	Entrance - stairs - Majlis - tea preparation room - bathroom	Food and dessert preparation (Ashouria)	green - white		-	The aroma of sugar, milk and roasted pistachios
Alshaebana	The last days of the month of Sha'ban	Relatives and family	Celebration	The kitchen, the Majlis and the coffee room	Entrance - stairs - Majlis - tea preparation room - bathroom - kitchen	preparing dessert and food	bright colors	Turn on all house lights	-	The smell of seafood

Table No. (4): Important social practices for occasions and necessary requirements for the occasion to occur.

4.2 Constant architectural characteristics that support cultural sustainability at the simultaneous tangible and intangible levels

The following constant architectural features enable cultural sustainability and heritage preservation.

-The facades, their decorations, and openings serve as a guide for visitors to the main door of a home where both men and women enter.

-Al, Roushan is an integral element of occasions from an aesthetic point of view. Its decorations (and lack thereof) both internally and externally serve as communication employing distinctive design. It facilitates ventilation of the void which is crucial when hosting many visitors inside the space.

- The design, size, and details of the external doors guide visitors to enter the home without violating the privacy of the house. The division of roles (one for men, another for women, and the last for the family) supports the principle of privacy and the continuity of these celebrations without disturbing the family.
- The division between spaces from storerooms, coffee preparation stations, and toilets and having the entrance close to the ‘Al-Maqead’ and the ‘majlis’ facilitates the movement of visitors in and out of the house. Further, it makes it easier for the people of the house to serve and supervise hospitality.
- Flexibility in the formation and design of multi-purpose rooms, sometimes used for storage, servants' accommodation or preparing coffee and tea, helps the people of the house to adapt to the type of celebration, and to prepare the space using the requirements for the occasion.

5.) Conclusion:

In conclusion, the architectural structure of traditional houses supports cultural practices. This is seen through the relationship of the inside with the outside, at the level of the openings (such as Al, Roushan), their large size, and the design made with hollow materials that make communication with the outside easier. In turn, this supports a sense of belonging to the neighbourhood and the region as a whole.

Further, the separation of spaces for the sake of men and women's privacy, the large multiplicity of seats and boards, and the flexibility of multi-use rooms also supports the requirements and, thus, the continuity of such occasions.

6.) Recommendations:

- The researchers recommend a scientific reference point is formed (using the above-mentioned design considerations) for designers, specialists, and engineering offices that incorporates these design aspects into modern homes to preserve cultural identity, maintain originality, and enhance cultural sustainability.
- Future studies should take place in different regions within the Kingdom of Saudi Arabia. They should also adopt other design considerations that support intangible cultural heritage based on an analysis of tangible cultural heritage (traditional architecture) specific to each region.
- Further studies could also pay attention to the ventilation and the smells that are associated with each occasion, as it was noted that all special occasions have particular smells that accompany them.

References

- 'abulaylah, M. M. S., & Al-Barqawi, W. bin A. (2019). Methodologies for the preservation of urban and architectural heritage in the Arab countries. *International Journal in: Architecture, Engineering and Technology*, 2(1), 127–144. <https://doi.org/10.21625/baheth.v2il.422>
- al-Hamid, N., & mohammed, I. (2014). Centuries-old houses major attraction in Balad Previous. *Arab News*.
- Al-Amoudi, S. (2018). *Albald houses*. Dar Mansour Al-Zamel for publishing and distribution.
- Al-Ban, A. Z. G. (2016). *Architecture and cultural identity in the traditional homes of Jeddah*. University of Colorado at Denver.

- Al-Ghamdi, jisna, & aleujaal, tariq. (2018). Oral history of the city of Jeddah in the nineteenth and twentieth centuries: An analytical documentary study. *King Abdulaziz University Journal: College of Arts and Humanities*, 31.
- Al-Ghamdi, saeid. (2007). *Folklore in the village and city: Al-Baha District, Jeddah*. the University of California.
- Ali Sabah Salman & Abbas Ali Ajil. (2020). Festive movie features. *Literature magazine*, 133. <https://doi.org/10.31973/aj.v0i133.911>
- Al-Kandari, A. (2019). The social practices of the Kuwaiti family and their relationship to the rights of the child: A critical analytical study. *Faculty of Arts magazine*, 52(1), 357–406.
- Al-Sahli, M. (2020). *Jeddah Encyclopedia—Society*. Jeddah Encyclopedia Center.
- Aslan, Z., zwini, S., & Sahouri, S. (Eds.). (2018). *The Arab Forum for Cultural Heritage: Proceedings of the First Arab Forum for Cultural Heritage*. The Regional Office for the Preservation of Cultural Heritage in the Arab World (ICCROM), available at [Publications | إيكروم \(iccrom.org\)](https://publications.iccrom.org/)/acced 24 Dec 2021 .
- Attia, M. (2021). *Sustainability Features of Jeddah Traditional Housing*. IntechOpen. <https://doi.org/10.5772/intechopen.98735>
- Attioui, A. (2016). *Hijazi dialect dictionary: Vocabulary and expressions*.
- Avrami, E., Macdonald, S., Mason, R., & Myers, D. (2019). *Values in heritage management: Emerging approaches and research directions*.
- Badawy, S., & Shehata, A. M. (2018). Sustainable urban heritage conservation strategies—Case study of historic Jeddah districts. In *Cities' Identity Through Architecture and Arts* (pp. 83–97). Routledge.
- Bagasi, A. A., & Calautit, J. K. (2020). Experimental field study of the integration of passive and evaporative cooling techniques with Mashrabiya in hot climates. *Energy and Buildings*, 225, 110325.

- Batterjee, S. A. (2010). *Performance of shading device inspired by traditional hejazi houses in Jeddah Saudi Arabia* [PhD Thesis]. Citeseer.
- Diab, M. (2003). *Jeddah history and social life*. house of knowledge.
- B. Truggler and E. Sdelkina. (2013), Shin, E, “Evaluation of the normative activities of the UNESCO Culture Sector, Part I: 2003 Convention for the Safeguarding of the Intangible Cultural Heritage”, UNESCO.
- Farsi, H. (2014). Natural energy and vernacular architecture. *Natural Energy and Vernacular Architecture*, 28–32.
- General / Saudi newspapers*. (2021). [Gov]. Saudi news agency.
- Ghirbal, Z. (2021). Our sustainable architecture: Towards activating the image of architecture used with the features of inherited architecture. *Journal of Architecture, Arts and Human Sciences*, 26. special number (2).
- Hassan, N. (2009). *Modern house design*. King Abdulaziz City for Science and Technology.
- Historic Jeddah is a journey of the past, present and future*. (2014). https://mt.gov.sa/ebooks/Documents/Others/P14/Historic_Jeddah/HistoricJeddah/HistoricJeddah.pdf
- Maghribi, M. (1982). *Features of social life in the Hijaz*. Jeddah, Tihama.
- Manna, A. (2011). *Jeddah of human and place: A history that has not been dated*. Dar Al Marsa for Publishing and Distribution.
- Moustafa, G., Khalif. (2014). Study of the current reality and its analysis of traditional houses in the city of Kafrajja in Ajloun governorate. *Jordan Journal of Applied Science: Humanities Sciences Series*, 398(3605), 1–21. <https://doi.org/10.12816/0029424>
- Nuruli House.. The most beautiful historical houses of Jeddah were ignored by the trust and neglected by the heirs*. (n.d.). Al-riyadh newspaper. Retrieved November 11, 2021, from <http://www.alriyadh.com/431608>
- Rayes, A. A. M. (2018). *Sustainable house project in Jeddah, Saudi Arabia* [Master’s Thesis]. Universitat Politècnica de Catalunya.

- Sabry, E., & Dwidar, S. (2015). Contemporary Islamic Architecture towards preserving Islamic heritage. *ResearchGate*.
- Sadiq Diab, M. (2004). *Jeddah History and Social Life*, Al Madinah Press Foundation. Al-Madina Press Foundation, Dar Al-Ilm.
- SCTA (Ed.). (2013). HISTORIC JEDDAH, THE GATE TO MAKKAH. SAUDI COMMISSION FOR TOURISM AND ANTIQUITIES. ”, available at: <https://www.mt.gov.sa>
- Soini, K., & Birkeland, I. (2014). Exploring the scientific discourse on cultural sustainability. *Geoforum*, 51, 213–223.
- Telmesani, A., Sarouji, F., & Adas, A. (2009). Old Jeddah A Traditional Arab Muslim City In Saudi Arabia, ed. *King Fahad National Library, Jeddah*.
- Thirumaran, K., & Kiruthiga, K. (2018). Conservation strategies to revive the imageability of the Kumbakonam historic town. In *Cities’ Identity Through Architecture and Arts* (pp. 27–35). Routledge.
- Throsby, D., & Petetskaya, K. (2021). Heritage-led urban rehabilitation: Evaluation methods and an application in Jeddah, Saudi Arabia. *City, Culture and Society*, 100397.
- Torrieri, F., Oppio, A., & Rossitti, M. (2020). Cultural Heritage Social Value and Community Mapping. *INTERNATIONAL SYMPOSIUM: New Metropolitan Perspectives*, 1786–1795.
- UNESCO - *Proclamation of the Masterpieces of the Oral and Intangible Heritage of Humanity (2001-2005)*. (n.d.). Retrieved October 29, 2021, from <https://ich.unesco.org/en/proclamation-of-masterpieces-00103>