

The Lost Identity of Jeddah

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Abstract This study aims to explore and discuss the architecture of Saudi Arabia. Taking Jeddah as a case study, by defining the advantages and characteristics of the local architecture and the texture of the old city, it pays full attention to the physical transformations that have been adopted. It occupies a place in the urban planning and architectural form of Jeddah. However, the main objective of this study is to discuss the effect of modernization and westernization on the physical appearance of the city, comparing it with the local old urban fabric and buildings, and finally criticizing the impact of the modern movement in Jeddah in terms of the environmental, cultural and Islamic aspects. All in all, this study considered the most traditional of Jeddah as the main case study and outlined the effect of modernism and westernization in Jeddah, as well as criticized the modern architecture and urban planning in Jeddah.

Keywords Local Architecture, Old Urban Fabric, Physical Transformation, Modernization, Westernization

1. Introduction

Saudi Arabia is the land that covers 80% of the Arabian Peninsula with an area of 2,149,690 sq. km. According to world population review, the population of Saudi Arabia in 2016 was about 31,437,968. It is bounded by Iraq and Jordan on the north, the Arabian Gulf on the east, Red Sea on the west, Yemen and Oman on the south and southeast [1-3]. Most of the Saudi lands are deserts or semi deserts with Najd desert in the center of the kingdom, and other large deserts such as; Al-Nafud and Rub Al-Khali. It also

features with mountain topography along the Red Sea coastline, especially in the southwest area. Saudi Arabia is characterized by the hot desert climate with a high percentage of humidity along the coastlines and rainfalls in the region of Asir, where it is the appropriate place for agriculture. Saudi Arabia has four main regions with Najd in the center, Hejaz in the west, Asir in the south, and finally the Eastern Province. In Najd, the land is almost sandy and rocky with mountains and valley systems. It is the origin place of Bedouins, nomadic and pastoral communities. The Hejaz region consists of Makkah, Medina, Jeddah, Al-Taif and Yanbu. It is the region of diversity, where it consists of a community with multiple backgrounds and cultures. Hejazi community was interested in agriculture, fishing and trade. Asir has a number of cities such as; Abaha and Bisha. It is characterized by its nomadic, farmers and tribal community. The Eastern Province includes many cities like Damam, Khubar, Jubial and Hofuf. It is the Kingdom's prominent source of oil wealth, and it is well known with its industrial and trade works.

Saudi Arabia's land is considered as a historical center that has been through many eras and civilizations through the years. It compromises historical Mada'in Saleh of Thamud people and the Grand Kaaba that was built by Prophet Ibrahim before Islam. It is also the rise place of Islam and it contains the birth and burial sites of Prophet Mohamed, and the two holy mosques in Makkah and Medina. All Muslims around the world must visit Saudi Arabia as it is the main destination for Hajj and Umra. The land of Saudi Arabia passed through many powerful Islamic dynasties such as; Umayyad, Abbasid and Ottoman dynasties. The Kingdom's land was united by Abdul-Aziz Al Saud in 1932 and that was the beginning of the

flourishing era of Saudi Arabia. In the middle of the 18th century, 40 % of Saudi people were nomadic and lived in tents, where the other 40 % settled down in villages and rural areas, and finally the 20 % were people living in cities such as; Makkah, Jeddah, Buraydah and Riyadh [4].

In 1950, Saudi Arabia accomplished a major development in the oil industry that led to a rapid growth of cities and a huge urbanization. The oil industry contributed to strengthening the economy and the political place of the country.

Saudi Arabia has a wide range of different traditional societies and each region of Saudi Arabia has special social and cultural features, but they all shared the same values based on Islam and Arabs customs. Saudis music, dancing, poetry and horsemanship are some examples of the Saudi traditional practices. The culture of Saudi Arabia is also represented in their arts and local architecture around the different areas of the country. Later on the social and cultural values were a little bit manipulated by the western influence in the 1970s.

As mentioned before, Saudi Arabia consists of four main regions. Each of these regions represents an architecture school that is characterized by its traditional old architecture, which reflects the pure Saudi identity and the beauty of each context. In Najd, the traditional architecture is mainly affected by its hot and dry climate and their firm cultural customs. Houses were arranged as clusters detached by narrow and winding streets; in order to provide shade. The dwellings are characterized by the central courtyard surrounded by one or two floors. The materials used are stone, mud bricks, timber and lime plaster. In Hejaz, the most important elements are the use of projected Roshans, Mashrabiya, whitewash and the use of coral stone. In Asir, the architecture is influenced by the rainfall and mild climate. The buildings are designed with local thick layer of stones and rocks to prevent rain water from penetrating inside the house, and also the buildings are constructed on a higher level of the ground to be protected from the rainfall. The architecture of Asir is distinctive with their colorful decorations inside and outside the house which are expressed and decorated by the woman of the house. Finally, the architecture of the Eastern Province is characterized by the use of wind towers (Malqaf) to catch the cold breeze inside the house. Most of the buildings are with one or two floors around a central courtyard. The materials used in their buildings are mud, stones, timber for roofing and lime plaster.

1.1. Jeddah's Identity and Cultural Development

Jeddah is located in the territory of Hejazi, so Jeddah is characterized by Hejazi culture [5]. It is worth mentioning that compared with other cities in Saudi Arabia; Jeddah is a less conservative community because it directly interacts with millions of international tourists every month [5, 6]. Therefore, Jeddah's communities are always influenced by

different cultures and are always open to new sciences, scholars and cultures [5, 6]. Traditional construction methods and designs are rarely used, and most of them are just memories without detailed reflection [7]. The structure that still exists is either ignored or completely transformed into a way that the original matter has little left [7]. In addition, traditional buildings in central Saudi Arabia have evolved from a limited set of technology and material choices to a large extent on the principles of energy efficiency, material selection and use, site impact, and longevity and flexibility [8].

Moreover, nowadays, science and technology are developed, and cultures such as tourism, studying abroad, and information exchange are open to each other. The new generation has found a common ground and surpassed all obstacles in some way, resulting in a modern common culture, which generally comes from the West, especially the United States [5]. This kind of cultural alliance is developing towards cultural globalization on the one hand, and towards politics, society, and economy on the other. In addition, as the new generation is looking for the latest technology, urbanization, and civilized culture and identity, such alliances are threatening regional identity, philosophies and lifestyles [5]. Therefore, this study discusses the traditional architecture of Saudi Arabia and determines the factors that led to the loss of Jeddah's identity.

2. Case Studies: The Traditional Jeddah

The city of Jeddah is the second largest city in Saudi Arabia that is located under Makkah province along the eastern coast of the Red Sea with an extreme humid climate throughout the year. Jeddah has been always a dominant center due to its large port and acting as a destination or gateway for all Muslims around the world to the holy Cities of Makkah and Al-Madinah. It has been an important settlement of people with diverse origins and backgrounds. Jeddah city has been through many historical events and eras. According to Jeddah Municipality, some archaeologists founded some evidences of previous occupants that go back to the Stone Age and Thamoudian carvings in Breiman and Boib Valley in the north and east of Jeddah, and other historians suggested that Jeddah was founded by tribe of Bani Quda'ah who settled in it after the collapse of Ma'rib Dam in 115 BC. Other historians believed that Jeddah was founded by Fishermen in The Red Sea that was an important center for them. After Islam, Jeddah was named "Balad Al-Qanasil" (country of consulates) by Othman bin Affan, since it was a prominent port for the city of Makkah in 647 AD [9]. Jeddah has been under the rule of many Islamic dynasties starting with Ummayd, Abbasids, Ayyubids, and finally the Mamluks, who built protection walls around Jeddah under the rule of Sultan Qansouh Al-Ghori in 1509 AD.

Jeddah has been always seen as a hub for art and architecture. It is distinctive with its local traditional architecture that reflected the Hejazi identity. Traditional architecture of Jeddah depended on three primary design considerations, which are privacy, separation between males and females, and adapting the hot humid climate [10]. The socio-economic status played a role in classifying the traditional houses, first is the small houses for simple families, second is the tall large buildings for traders, and third is the palaces for wealthy people that consist of many buildings attached to each other. Jeddah's old architecture was influenced by the skills of many pilgrims that exchanged their thoughts and concepts with the Hejazi people. For example, Egyptians had brought the Roshan or Mashrabiya elements of the traditional architecture in Hejaz region. Jeddah's domestic architecture is characterized by the implementation of passive design in terms of the construction methods, materials selections, and in the main architectural elements. The old houses were recognized by the use of whitewash and the use of the local coral stone.

The indigenous architecture of Jeddah has undergone the entire range of evolution from individual architecture to settlement mode; in terms of spatial organization, construction technology, material selection and the use of passive design features, it responds more appropriately to the climate. The seven-story tall, airy, and light-looking buildings built for the wealthy merchants of Jeddah will still stand two to three hundred years later. Traditional houses in Jeddah use some ingenious natural and passive features and techniques to maintain the thermal comfort of the building, especially during hot and humid periods of the day. The following introduces various passive design features or technologies determined in traditional residential buildings in old settlements in Jeddah from the aspects of settlement pattern and street layout, house form and building system and materials. For example, a commonly used passive design is Roshan, which provides ventilation and light flow inside the building without giving up privacy factors [11]. Since Jeddah was a great trading port for many years, it had benefited its architecture by importing various materials from outside the region, such as Teak, Mahogany and Sisam wood from Africa and Indonesia [10]. Jeddah also has used local materials such as coral stone from The Red Sea reefs and clay from the Manqabah lagoon. With the use of stone foundation and timber in construction, it allowed to build tall airy buildings up to seven stories high. Jeddah's architecture was recognized by the use of whitewash and wooden lattice work. The two factors of privacy and climate helped in emerging the design of Roshans and screening windows. Roshan refers to a wooden projected bay window full of ornamentalations that help to maintain a sufficient air flow inside the building, and to drop shadows on the walls and on the streets. Another wooden element is the Mashrabiya that refers to many Roshans assembled on facades one

above others. Windows in the traditional buildings are used to be covered with screens or wooden louvers. Another distinctive element is the magic eye. It can be described as window that opens downward to the street that allows residents to look down to the street without being seen from strangers [10]. The use of interior courtyards was a feature in Jeddah's houses, where people used to be inward orientated. Figure 1 and Figure 2 demonstrate the facades of old Jeddah and functionality of the Roshan window respectively.

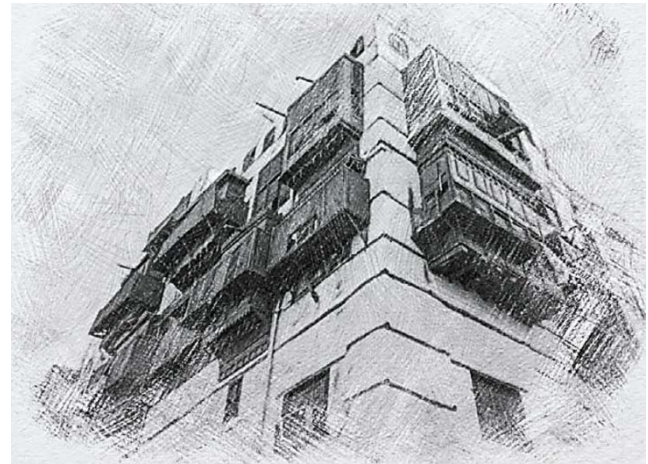


Figure 1. The facades of old Jeddah [12]

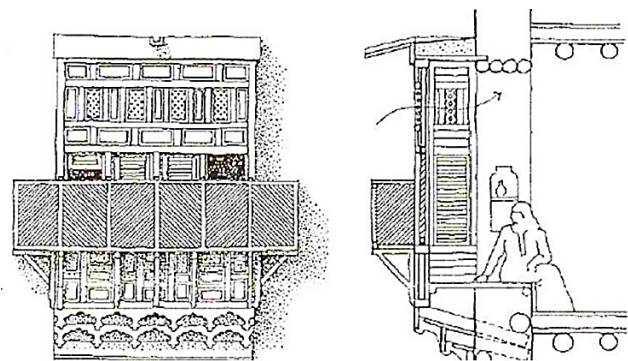


Figure 2. The functionality of the Roshan window [12]

The city of Jeddah was surrounded by walls and four main gates. From the era between 1927 and 1970, Jeddah had an organic urban fabric with narrow winding streets with an animal transportation system. The streets were flanked by tall vernacular buildings that cast maximum amount of shadow on the streets. Streets width was determined upon their uses, the main street with a width of 12-20m, the primary street with a width of 4-10m, and finally the secondary or local street varies from 2-4 m wide. In order to keep the wide streets in shade during the day, it was designed to north-south direction at right angles to the sun path. Points of intersections were open to receive sun radiations and used to act as focal points with the community gathering area.

3. The Effect of Modernism and Westernization on Jeddah

A new stage was introduced to Jeddah with the appearance of the oil boom in the 1970s that was linked with rapid urban expansion and population growth. It was associated with a major change in the economic, political and social environment. Nowadays a clear lack of identity was noticed by many designers and architects. Modernizations played a huge role in dispersing the minds of Saudi architects and distracted them from their local traditional architecture and urban planning, where they become totally western-oriented, who forgot the beauty of their culture and traditions, and here it was the beginning of forgotten identity. According to Reza Askarizad [13], social and cultural factors have a great influence on the formation of architectural spaces. At the same time, the cultural concept of architecture gives priority to its material significance, and architecture gains vitality through social and cultural organizations [13].

In the late 20s century, the contemporary Islamic architecture and planning in Jeddah has been divided into three main groups, which are the revivalist, historicist and modernist. The revivalist aimed to conceive their traditional identity by the full imitation of their past traditional architecture in building forms and constructions. Some of the examples of this type of buildings are the private villa designed by Hassan Fathi, The Suliman Palace by Abdul Wahid Al-Wakeel, and Al-Angawi Villa [14]. The historicists are architects who attempted to merge between their traditional architecture and the modern style by using traditional elements in a modern scheme, and by that they are preserving their regional identity. The Tujjar Jeddah Complex is a clear example of the historicism architecture, where they presented their Mashrabiya with modern materials. Also, there are many homeowners and architects who designed their private villas within this field of architecture such as the private villa designed by Wajdi Bardeesi. Finally, the modernists are architects who intended to design modern hybrid buildings and high-rise structures with full ignorant of the old traditional styles. There are several modern examples of modern buildings throughout Jeddah. Most of the complexes and public buildings in Jeddah have been designed with a full modern style.

Figure 3, Figure 4 and Figure 5 demonstrate the revivalist style building, namely Private Villa by Sami Angawi, Abdulrahman Nassif Villa and Al-Sulaiman Palace respectively. Besides that, Figure 6, Figure 7, and

Figure 8 illustrate the historic style building, namely Tujjar Jeddah Complex, Wajdi Bardeesi's Villa and Private Villa in Jeddah respectively.



Figure 3. Revivalist style - Private Villa by Arch. Sami Angawi, Jeddah.



Figure 4. Revivalist style - Abdulrahman Nassif Villa



Figure 5. Revivalist style - Al-Sulaiman Palace by Abdelwahid Elwakeel



Figure 6. Historiest style - Tujjar Jeddah Complex, Jeddah, Saudi Arabia



Figure 7. Historiest style - Wajdi Bardeesi's Villa, Jeddah, Saudi Arabia



Figure 8. Historiest style - Private Villa, Jeddah, Saudi Arabia

One of the major socio-urban features in cities around the world is the squatter settlements or which are known as slums that could be found in developing countries such as in Saudi Arabia. For a long time, Jeddah has been struggling from the subsistence and the rapid growth of slums which became hard to cog by the urban planning authority, namely by the Municipality of Jeddah.

By definition, the term “slum” connotes highly dense squatter/informal settlements, lacking in basic services with squalid environments and without legal recognition or rights, even though some may have been in existence for a long time [15].

Jeddah consists of 102 districts, 52 of them are considered to be slums spread all over the city. These slums are populated with more than one million people, which is an equivalent to 43% of the city population. Dwellings exceed the eligibility policy of density of 120 person/ hectare with a density that is over a 407 person/hectare [16].

All the deteriorated urban conditions of Jeddah are resulted from many different circumstances and reasons that are all connected together and reflect on each other. It is to be told that the presence of the wall around Jeddah in the past limited the city grows and that resulted in the induction of poorly constructed districts such as Al-Sabeel, Al-Hindaweya and Al-Sahaifah. The oil boom played a huge role in scaling up the slums by having too many immigrants from all over the world in order to participate in the expanding process of that time, where people were looking for the most low-cost housing in which Jeddah lacks of. Citizens also suffered from the high increase in property and prices that monopolized lands of the rich people in addition to the income incline. Over the years, Jeddah started to witness a huge population growth with a few lands to host them. Therefore new districts started to appear randomly without the supervision of the higher authority.

The modernism movement has affected the urban planning of Jeddah, where it neglected the old organic fabric that characterized the old parts of Jeddah, and replaced it with new planned regular patterns. Also, it was responsible of the demolishing Jeddah's old walls that contributed to the loss of the cultural heritage [17]. With this huge change, the city witnessed an imbalance in both the urban fabric and the social economic status between the north and south areas of Jeddah. Now, there is an irregular pattern with low income residents in the south and in contrast, there is a regular grid system with upper class residents in the north.

4. The Criticism of Modern Architecture and Urban Planning in Jeddah

After the employment of modern architecture in Saudi Arabia, many architects started to criticize this action and they expressed their displeasure with the modern movements in forums, meetings, books and newspapers. They clarified their criticism upon many major principles that show the incompatibility of this movement within the Saudi context.

The first objection principle was about the

incompatibility of the environmental performance of this architecture and urban planning of Jeddah that mainly goes back to the use of modern materials and construction methods that does not match hot humid climate. In modern architecture the most used material is the concrete blocks, which is characterized with high heat conductivity, unlike the traditional mud that is distinctive with its high heat resistance. Modernists in Jeddah have replaced the use of stone to the Portland cement. Critics mentioned that traditional architecture features small little openings, and in contrast, modern architecture features the use of wide glass openings that will allow much heat penetration inside the buildings and it will contribute to high-energy consumption and expensive insulation methods. Modern architecture neglected the use of traditional courtyards that was acting as a major source for lighting and ventilation inside the building. Some modern houses incorporated the courtyards, but because of the air condition they had to enclose it with glass walls and domes, and this technique was considered costly and space consuming. Critics also emphasized on the importance of the old urban fabric of Jeddah that reflects the sustainable urban planning, unlike the modern urban fabric that consists of detached houses with wide un-shaded street and many street intersections that increase the possibility of accidents.

Another objection principle that was criticized is the disappearance of architectural identity in Saudi Arabia. A few decades ago each region had its own characterized architecture based upon its environment, climate and its local materials. Over time, due to the excessive use of reinforced concrete, many of these styles disappeared or started to disappear, relying on electric air-conditioning for indoor climate control. Critics also clarify that until the 1970's most of the architects in Saudi were non-Saudis Arabs, mostly from Syria, Egypt and Jordan. They came into the country and started implementing their own styles neglecting the Saudi environment and culture. These styles are criticized as aliens to Saudi Arabia, and once more Saudi architects who are more familiar with the local architectural traditions replace them, this phenomenon will be solved.

Many critics believe that outsiders are responsible for the creation of modern architecture in Saudi Arabia, which is an infraction to the 'Islamic Architecture' that is known by specific design criteria. Modern architecture neglected the emphasis on the privacy of the residents and the respect for right of neighbors. Islamic architecture is defined by the domestic use of courtyards which has been replaced by an outward garden in which privacy is lacking since neighbors often can see over it [18].

5. Conclusions

In conclusion, this study is not only focusing on criticizing the modern movement in architecture and planning, as the intention of this study is not about forcing

the architects to limit their designs toward a traditional approach only. For an example, with all the rapid change in the 21st century, it is impossible to design a whole tower with mud brick or stone foundation as the whole system might fall apart in a short time. Another example that can be illustrated is the wide span structures that require a well-studied structural system consisting of new material such as the steel and reinforced concrete. This study encourages Saudi architects to revive their identity by integrating both traditional and modern architecture together. This will reflect both the local traditional style and modern achievements to the world, and that refers to the historicism approach. The civilized communities want to keep up with all the modern technologies and techniques in design and show the world the capability to preserve the magnificent local architecture along with all the modern tools that the west is applying. The designer and architect can look back and adopt all the sustainable tricks and techniques and develop them into new smart designs that would serve the environment effectively. This will build a stronger community that protected the culture no matter how time changes. Another thing to be considered is all the Saudi architects to take an action and implement post-modern architecture with other local architects without the interfering of western designers. This study believes that the sustainable creativity and knowledge can produce long lasting monuments as the ones still remaining from the old times.

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