CHARACTERISTICS OF TRADITIONAL BUILT ENVIRONMENT OF FARASAN ISLANDS, SAUDI ARABIA

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Abstract. The various regions of Saudi Arabia consist of many sites of urban and architectural heritage that reflect the characters and features of each region. One of these regions is Jazan, southwest of Saudi Arabia, where traditional built environment architecturally varies between mountainous and costal styles. The traditional architecture of Farasan Islands, which is part of Jazan and on the Red Sea, is distinct from that of the rest of the region due to its aesthetical richness and diversity.

This study documents sites of traditional built environment of Farasan Islands and identifies its vocabularies through two levels: urban and architectural. The urban level contains both al-Qasar Village and Sayr Village while the architectural analysis covers several buildings such as Najdi Rifai House, Najdi Mosque, Jerman House and an Ottoman Castle.

By documenting sites and buildings, the research aims to reach to a mechanism that is appropriate to preserve and rehabilitate the urban and architectural heritage of the Islands and employ it within the current urban fabric. Hence, the research follows a methodology that is based on an overview of the meaning of urban and architectural heritage as well as an explanation of the significance of heritage preservation and the relevant preservation and rehabilitation techniques. It also discusses the implementation of these techniques within the urban fabric of the Islands as a socio-cultural and economic resource.
1 INTRODUCTION

Jazan is one of the thirteen regions of Saudi Arabia and located south of the country on the Red Sea. It has Jazan Seaport, which is considered the third largest seaport of Saudi Arabia (Figure 1). It is also characterized by its natural and climatic variation. Being part of Jazan Region, Farasan Islands have a long history dated back to ancient convoys that dealt with trading. As a result, Farasan Island, the largest of the Islands, has been an attractive spot for the settling of many travelers and traders who developed the Island in terms of construction and trading facilities. Since the Island has experienced travelers and traders from various parts of the world, the resulted architecture was unique from that of the other parts of Jazan Region. Therefore, architectural elements from India and North Africa are very common in traditional architecture of Farasan. In the following parts of this research, the documentation of architectural and urban heritage is discussed.

![Figure 1: Geographic location of Farasan Islands in the south west of Saudi Arabia](Source: [1]).

2 DOCUMENTATION OF HERITAGE BUILDINGS AND SITES IN FARASAN ISLANDS

The data this study includes is a result of an extensive filed survey of Farasan Islands carried out for a week in April 2012. The survey covered urban and architectural sites some of which have been renovated or completely modified while other have partially restored during the past years. Accordingly, the examples that have been documented by the research team are Sayr and al-Qassar villages, al-Rifai houses, al-Najdi house and mosque, Beit al-Jarman or the German house, and Qal’at al-Atrak or the Ottoman castle.

2.1 Urban Scale

Though the traditional built environment of Farasan Islands has mostly been replaced with a modern urban layout, the remains of some of old buildings, especially in the villages of Sayr and al-Qassar, give a general outlook of the features of this environment.

2.1.1 Sayr Village

This village is the second urban and populated settlement after Farasan, which is the largest urban area of the Islands. It is located northwest of the Islands and lies about 35 kilometers from Farasan Village. It features an old Muslim cemetery that is located in the south of the village. In this cemetery, which is known as Alawies (or Alawites) Cemetery, pottery items can be found. They are dated back to middle Islamic times, around the 10th Century AD [2].
Although most of the architectural heritage of Sayr is demolished or partially replaced by new residential buildings, the remains, which are very limited, could give some insight about the traditional architectural features of the village as well as the entire Farasan Islands (Figure 2). Exploring the remains of the old part of the village, it can be easily noticed that climatic and socio-cultural aspects have determined the physical configuration and composition of the urban fabric of the village. The one can noticed the presence of a compact urban form punctuated by winding narrow streets and pathways onto which houses are open. And there are several points or major open spaces made up of squares or intersections of roads and allies. The village houses are built with irregular sea stones and characterized by their elaborate geometric patterns formed by the plaster layer on these stones. Stone arches and wooden beams on the top of the doors and windows, working as frames, also characterize the old houses of Sayr. Inside the houses, alcoves within the walls divided by shelves can be noticed.

2.1.2 Al-Qassar Village

Al-Qassar is an old deserted village located on Farasan Island, and according to many historians, its historic and heritage significance is dated back to the Roman era. Indeed, some stones with Hamyarite Monotheism and ancient Latin calligraphic inscriptions have been found in the village. The village currently consists of around 400 houses built of stone and leaves of palm trees. Both materials are available in the environment of the village. The stones are sedimentary and mixed with snails, oysters and mud that harden over time to become solid rocks. Al-Qassar is about 5 KM from the City of Farasan, and the largest oasis of the Island. It is the summer resort of the inhabitants of Farasan Islands and features many wells and sweet groundwater that is close to earth’s surface.

Regarding the urban composition of the village, houses are distributed in the form of points scattered over the entire village. A wall of two meter high surrounds each house. These walls or fences shape the urban fabric or street network of the village. A typical house of al-Qassar Village consists of one or two rooms, an outdoor patio and a fence (Figs. 3 and 4).

Figure 2: Images of the remains of Sayr Village.

Figure 3: Images of al-Qassar Village.
Figure 4: The layout of an urban cluster in al-Qassar.

The village has experienced restoration of all of its urban and architectural elements as an attempt to rehabilitate it. Natural materials have been used in the maintenance work though some stones used in the reconstruction of a few houses have been brought from outside the Island. Also, some landscape furniture made of concrete have taken place, affecting the historic value, identity, and authenticity of the village.

2.2 Architectural Scale: The Farasani House

A typical Farasani house is considered one of the finest heritage features of Farasan Island. It consists of several stone buildings and various open spaces or yards, the most important of which are the northern yard (al-Gobal) and the western yard (al-Igab). This group of buildings are surrounded by a stonewall for protection and privacy of residents. The reason for the presence of two or more yards in the house is mainly climatic as the desirable wind blows from north and west while the southern wind becomes strong in winter. This wind direction trend has led to orienting the openings or windows of the guests’ room (majlis) toward the north from where the desirable wind blows in summer. The western windows are usually open toward the second yard. These open spaces are used for daily living activities in addition to sleeping during summer nights. The most significant characteristic of the Farasani house is the majlis or guests’ room as it features extensive gypsum geometric decoration and frescoes implemented in the form of friezes, strips and arched frames around the windows which are recessed and covered with a layer of stucco integrated with stained colored glass. Colored geometric ornaments are also engraved in the ceiling of the majlis, which is constructed from wood.

2.2.1 Ahmed Munawar al-Rifai’s House

This house is located in the center of Farasan Island and was built around 1922 by the famous pearl merchant of the time, Munawar Ahmad al-Rifai. It is a true masterpiece of art in the area where traditional architecture reflects the wealth and luxury of the boom days of pearl trade in Farasan. It is built of stone, overlooks the road from the eastern side, and is surrounded by buildings in the north and west sides. Its majlis is surrounded by open spaces on the north, onto which the several buildings are open. The western windows and door of the
majlis are open toward another yard. On the eastern and southern sides, the majlis is surrounded by corridors, where a bath shower building is built. The shower building is topped by a dome that is used to store water on the northeast side of the house. Figure 5 shows the floor plan of the components of the house. The plan is drawn by the research team according to a description given by the local historian Ibrahim Moftah, site survey of the external boundaries of the houses, and photographs also taken by the team.

Figure 5: Floor plan of Ahmed M. al-Rifai’s House (S: shop, M: Majlis, A: alley, N: northern courtyard/al-Gobal, and W: western courtyard/al-Igab).

The house is accessed through a gate that is open toward an alley facing the southern side that intersects with the western yard. Along the alley, there are 3 shops next to each other attached to the house’s fence on the western side. Other houses are also open to that alley. It is noticeable that there are three arches on the path of the alley that differ in their shape and decoration detail, but the richest and most architecturally affluent is the first arch that separates the alley from the eastern street and is closely linked to Ahmed Munawar al-Rifai’s house. This arch features decorative stucco elements and topped with a crown of plaster panel punctuated by stained glass. The most important element of the house, which is one of the finest traditional buildings in Farasan Island in terms of design and the beauty of engravings, is its majlis. The external walls of the majlis are covered with decorated plaster geometric patterns carried out in the form of ledges and bars. And on the windows and the decorative recessed arches and strips, there is a higher interface board from the outside and top of the door bar written verses from the Quran. The interior of the majlis is full of frescoes that cover the four walls in which there are shelves characterized by the richness of their geometrically decorated frames. In the middle of the wall and above the entrance windows there is a belt in the form of plaster frieze with prominent Arabic writings.

On top of the main door of the house, from the inside, there is a curved inscription of the date of the construction of the house. And in the middle of this arch, there are writings of the word "Allah" or “God” surrounded by stained glass. We find that the upper small windows at the top of the writing cornice are made of stained glass integrated with gypsum ribs. As far as the ceiling, it is a Java or Indonesian wood painted with colored geometric carvings. With the exception of stained glass and wood of the ceiling, all materials used in the construction of the
house are local. It should be noted here that the method of stucco or gypsum painting and engraving are also local but similar techniques could be found in India, Morocco and Yemen [1].

2.2.2 Hussein Bin Yahiya al-Rifai’s House

This house is located in the center of the Island and northeast to Ahmed Munawar al-Rifai’s House but separated from it by an open space or square that faces a major road that runs south-north. It is built of stone in the form of courses. Its historic and architectural or artistic value is represented in its main gate, which is rich in decoration adorned with frescoes cavernous entrance arc-shaped and topped with geometric patterns of decorative stones coated with stucco.

The house consists of a majlis and other indoor spaces such as a shower, a bathroom, a storage, and a cooling room. This is in addition to open spaces or courtyards and open-to-sky corridors. A wall that includes multiple projection and features geometric decorations also surrounds the house. The house also has an open space in the northern side where a room and ruins of another room can be found.

The shape of the majlis is rectangular (8.25 m x 4.35 m) and accessed through the main gate, which leads to a small corridor up to the main yard (the northern yard of al-Gobal). The corridor is also rectangular and raises about one step from the part that faces the majlis. Its length is around 4.5 m. On the eastern and southern sides there is an open corridor connected with other yards and leads to the shower room from one side and to a toilet from the other side attached to the majlis. The western side of the majlis has a door that leads to an open space (al-Iqab), and on right side there is a small storage while on the left side there is a small room and a place for cooling water (Figure 6).

Figure 6: Gypsum decoration of the internal and external walls of Hussein Y. al-Rifai’s House.

In the middle of the northern façade of the majlis of this house, there is a door sided by two windows overlooking the northern courtyard (al-Gobal). Moreover, on both sides of the door and the top of the windows there are geometric recessed patterns in the form of gypsum strips and frieze. There are also wooden beams with strips into which Arabic scripts are engraved. The majlis itself is filled with stucco geometric decorations, especially in the upper half of it. And in the lower part of the wall decorations in the form of section recessed shelves surrounded by decorative ribbons and topped with an arcade are found. The roof of the majlis is constructed from layers of palm tree leaves and imported wood.
2.2.3 Al-Najdi House

Al-Najdi House or Palace is located in the center of Farasan Island, west of Rifais’ houses that are discussed above. It is also south-east of the Mosque of Abraham al-Najdi. The house is built of regular-shaped stone courses. Its architectural value is represented in its majlis, which is full of geometric decoration and stucco ornaments. The majlis is rectangular in shape and surrounded by an arcade on three sides. In addition, the house contains a shower room, a separate room for living, a service room, a storage, courtyards and open-to-sky corridors or hallways. From outside, a 3-meter high wall built of rough stones and covered with plaster surrounds the house. On that wall, there are various simple geometric decoration elements. The majlis is accessible through the main gate that faces the street. This gate also leads to the western courtyard (al-Igab), which has a door that is open to the main courtyard (northern courtyard or al-Gobal) that is located on the northwest corner of the house (Figure 7).

![Floor plan of Al-Najdi House](image)

Figure 7: Floor plan of al-Najdi House (E: entrance, S: service, M: Majlis, C: corridor, N: northern courtyard/al-Gobal, W: western courtyard/al-Igab, T: terrace, R: room, St.: storage, and Sh.: shower).

The majlis, which is 6 meter high, is accessed through 3 doors that are linked to the arcade that surrounds the majlis from the north, west and south sides. The level of the arcade is higher than that of the courtyard. In fact, the northern part of the arcade appears as a terrace.
opens upon a small room for the service. The interior walls of the majlis are filled with small engraved simple geometric shapes on the top of recessed shelves. The ceiling of both the arcade and the majlis is wooden panels and leaves of palm trees.

The arcade surrounding the majlis is built of stone with circular and square columns topped with a crown box graded scale based upon decorated curved arches. On the top of the arches, there are two projected stone bands with simple geometric shapes. The upper end of the arcade is a parapet that is formed by square or rectangular divisions. The external wall of the arcade that overlooks the corridors and the courtyards is formed by a group of walls and columns that are separated by slots of five arch openings.

2.2.4 Al-Najdi Mosque

This is one of many old mosques of Farasan Island. It was constructed by the pearl merchant Ibrahim al-Najdi al-Tamimi in 1929 AD. The construction took 13 years [2]. The mosque is located in the center of Island, in the heart of an urban cluster surrounded by houses on all sides and separated by roads and squares. It is rectangular in plan with a length of 29 m and a width of 19.40 m, and consists of a prayer hall attached to another prayer hall in the back. There is also a courtyard, an ablution space, toilets, storage and a well on the right side of the eastern entrance of the courtyard. It also includes an additional building south of the prayer hall and is used for special events or as a women’s praying area. In the southeastern corner of the mosque there is a minaret and two rooms.

The prayer hall is accessed through two entrances in the sides of the southern wall that overlooks the courtyard. Six columns center this hall. Each of the 3 front columns has a circular diameter of about 70 cm with octagonal edges. As for the 3 rare columns, one of them is octagonal and the other two are circular and square (110 cm). The height of each column, just below the arch, is around 2 meters with a gradual projection. The four walls of the prayer hall are decorated with plaster-recessed ribs opposite each similar decoration, and rise above the columns and arches opposite direction perpendicular to the wall bearing 12 dome ceiling. The wall that faces Qibla or Mecca has 4 windows; each topped with geometric gypsum decorative arches. Every doors to the hall consists of wooden panel with glass elements of 4 colors. A wooden Mehrab, where the prayer leader or Imam stands and a Member, which is used for Friday prayer speech, are brought from India and full of colorful decoration ornaments (Figure 8).

Figure 8: The interior of al-Najdi Mosque.
The back of the prayer hall is raised from the rest of the space and separated by a wooden screen that is topped with a band of gypsum decoration of 2.25 m high. This rare prayer area has its own mehraab or alcove. Its openings in the internal walls have the same shape and elements that exist in the large or front hall. To illustrate, there are 6 windows in the southern wall, 4 of them are small. And in each side there is a larger window while there are 3 windows in the western wall. The eastern wall has 2 windows and a door. All openings are covered with geometric gypsum decorations. The prayer hall has two entrances that lead to the courtyard. Both are topped with gypsum decorations forming a half-circular arch carried on two gypsum columns. Indeed, the most important feature of this mosque is the Islamic inscriptions and decorations. The two entrances are located in the southern wall and lead to the courtyard. Above each entrance there is plaster decoration in the form of a semi-circle that falls below two plaster pillars that divide the arch into three sections. Each section is a set of squares divided in turn into four squares; each contains a square of colorful stained glass.

The courtyard wall is 2 meter high. It is divided into 2 sections, both built of stone and with a thickness of 65 cm and a height of 120 cm. Later, another layer of mud bricks with a height of 80 cm was added to the wall, which has recently been covered with cement painted with white color. The outside of the corners of the prayer hall has been reinforced with projected beams. Also from outside, the mehraab is extended in the middle of the wall that faces Mecca. These corners and the middle of prayer hall feature projected decorative windows that look like balconies (Figure 9).

2.2.5 The Jarman House

In the Island of Qumah, southwest of Farasan Island, and approximately 6 km on the coast, there is a building known as Beit al-Jarman (or the German House or Castel). The construction of this house started in 1901 to be used as a storage of coal that was utilized to fuel the German ships roaming the Red Sea [2]. The building is rectangular; 107 m long (50 m along the coast), 32 m wide, and 4 m high. It has four entrances; three of them are in the northern side opposite the coast. The fourth entrance is in the center of the eastern wall with a width of about 8 meters. Inside the building, there are two rows of columns; in each row there are 20 columns of a square shape align with the pillars of the top wall components. The construction of the building was not completed, maybe due to the end of the First World War in 1918. Nonetheless, the building is constructed from stone courses with the mortar in between. Most of the columns of this building are eroded and collapsed because of the salt of the sea. Yet,
the building still appears complete from the outside except the eastern entrance, which vanished with time (Figure 10).

Figure 10: Plan and external and internal views of al-Jarman house.

2.2.6 Qal’at al-Atrak (the Turkish or Ottoman Castle)

This castle is located about 400 meters north of the center of Farasan Island, on a hill of 10 meters above the sea level. This is a strategic location as it overlooks most of the coasts of the Island. The castle is dated back to the Turkish or Ottoman era and was used as a military base for the Turks. It was built in the early 20th Century and consists of a rectangular building along the southern side of the fence [2]. The southern wall of the Castle is 17.70 m while the eastern is 12.85 m. Its main entrance overlooks Farasan Island. The castle inside the fence contains two small rooms perhaps were used as warehouses. The ceiling of the first room that is attached to the fence and noticeably built of “dom” wood that is not available in the Island. The height of the room does not exceed 2 meters, taking the shape of a high bench. And to the left of the entrance there is an exposed water tank whose internal walls are covered with cement. There is also a room in the form of a tower in the northwest corner of the castle. A bench of 5.6 m long and 2.10 m wide faces the fence’s entrance. In the eastern side of the castle, there is a stairway leading to a high room assigned as a residence for the soldiers. It can accommodate up to 30 persons. It is noted that all the exterior walls of the castle and the fence openings oblique as they were used to control and defend the building. They are built in a way that offers those inside a clear vision for those outside as these holes widen inside and narrowing outside. The walls of the castle, including the fence are built of coral or sea stone that is plastered with gypsum both inside and outside (Figures 11 and 12). The thickness of the wall is around 65 cm. The roof of the castle is constructed in the form of beams of railway tracks covered by leaves of palm trees.
SUMMARY AND CONCLUSIONS

The distinct urban fabric and architectural styles of Farasan Islands reflect a special beauty and accuracy of creativity. This study has documented various sites of the urban and architectural heritage of Farasan Islands and identified its vocabularies. In turn, the study indicates the importance of preservation and rehabilitation of this heritage within the current urban environment of Farasan Islands. Accordingly, the most important recommendations to maintain the traditional built environment of Farasan are as follows:

• Implementation of a policy of preservation of urban and architectural heritage of Farasan Islands alongside the development of the social and economic conditions of the population as a way for the success of urban improvement.
• Relying on a policy of utilization of historic sites and buildings in the process of reviving the urban and architectural heritage of Farasan Islands. The policy of re-use of historic or traditional buildings is considered one of the successful means of preservation, as it is not costly.
comparing with the construction of new buildings. This reuse will provide a financial base to spend on the bundlings’ maintenance and survival.

- Setting up periodical maintenance programs to limit or prevent the physical deterioration of the buildings. Such programs will prolong the lifespan of the buildings.
- Encouraging construction of hotels and resorts of various types will provide opportunities for tourists to visit Farasan Islands and enhance the local economy. This in turns will support any urban or architectural preservation activities.

REFERENCES
