

# The House of Bahrain Press Heritage

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## Abstract

The Kingdom of Bahrain is the smallest island in the Middle East, it is located on the Arabian Gulf, and traces show that the island has been inhabited since 3000 B.C. In the past 200 years, the island has started to have its architectural identity when people moved from straw, man made tents to bearing wall houses. They continued building using the same structure, building material and architectural elements. The structure upon which these houses was built was a 60 cm thick bearing wall system in which they carved their niches. In addition, there were round columns carrying the cantilevered balconies. The roof structure consisted of round timber horizontal pieces spanning from one wall to another, carrying the weather protection of handmade sheets (bamboo and mangrove) covered by a thin layer of mud.

The purpose of this paper is to focus on a renovation and rehabilitation experience of one of the traditional houses that was built in 1834. This house has social and cultural values for being the place where the founder of the first press in Bahrain and one of Bahrain's famous authors was born and raised. In addition, the house enjoyed many cultural events at that time. Furthermore, this house has distinguished architectural elements and traditional building materials.

This paper will discuss the structural situation of the house and the misuse of it before it was renovated. Later on, it will consider the procedure of renovation and reconstruction using traditional building materials and the traditional way of building. The rehabilitation of the house to be "The House of Bahraini Press Heritage" will also be brought under discussion. This paper will also discuss the impact of conserving and reusing the house on the local community on the one hand, and on the conservation of the heritage of Bahrain on the other. It will also include the role of the local communities and the government in preserving the architectural heritage.

Finally, conclusions and recommendations relating to the issues discussed through the paper will be presented.

*Keywords: cultural heritage, renovation, conservation, traditional buildings, rehabilitation, value.*



## 1 Introduction

The issue of conserving traditional buildings in the Kingdom of Bahrain took place in the late quarter of the previous century, when the private sector adopted the renovation of some buildings to be reused later for tourism.

This trend took a different direction in the past ten years when the conservation and reuse of these buildings were related to cultural and social issues, this helped to strengthen the meanings of cultural heritage.

The House of Bahrain Press Heritage is one of the projects that were implemented by the private sector in all stages, from choosing the house and the activity that will take place in it, to preparing the drawings, implementing the renovation, and finally to reusing the house as: The House of Bahrain Press Heritage.

## 2 Location and values

The house is located in Muharraq traditional city. The main value of the house is being one of the traditional houses that are connected to each other by narrow pathways open to yards; forming a unique urban fabric.

In addition to its cultural value for being the house of a famous writer, the house has an architectural value for being a court (hoosh) type house which reflects the conservative Bahraini life style at that time. It is also distinguished by traditional, architectural elements, details and openings.

So the conservation of the house helped in understanding tradition, it also helped in stressing the idea of reviving the cultural images through conserving their authenticity.

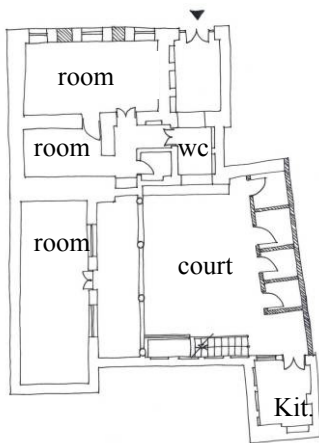


Figure 1: Ground floor plan (before renovation).

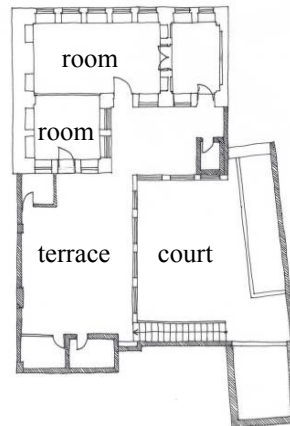


Figure 2: First floor plan (before renovation).

### 3 Spaces and architectural features

The total area of the house is 330 m<sup>2</sup>, it consists of two floors. The main rooms in the ground floor were the guests' room (majles) which had a direct relation with the court, family living room and other services such as kitchen, bathrooms and storage rooms (figure 1). Bedrooms were on the first floor, open to roofed terrace (liwan) which looks to the court on the ground floor (figure 2).

The house is rich in its traditional, architectural elements ranging from the arched decorative entrance to the traditional wooden doors topped by stained glass decorative arches, arched windows, wall recesses (Banohat) in the exterior and interior elevations, in addition to the decorative wooden ceilings and gypsum decorations.

### 4 Structural elements

The house had a typical Bahraini, traditional house structure, either in the material used for building or in the methods used to build it.

#### 4.1 Walls and foundations

Bearing walls of 60 cm width are the main elements of the house structure, these walls extended for about 50 cm deep in the ground to form the foundation. At this level, the thickness is one meter.

Irregular desert stones of different sizes were used in building the walls, filled with sand, gypsum and water mix in a specific ratio. This mix was added after each layer, bigger stones were arranged on the external sides of the wall, followed by smaller stones and then gravel size stones to fill in the gaps.

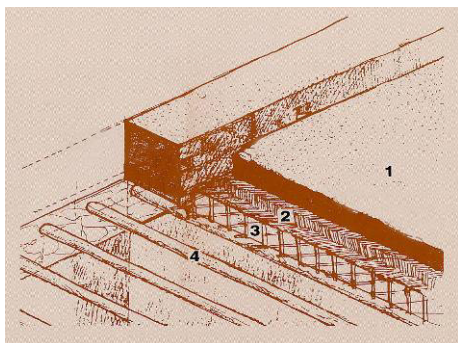
After five layers of stone above ground level, a layer of timber wooden round beams was applied all around the perimeter of the house. These beams were roped with 1 cm round rope diagonally to strengthen the bond with other materials. The space between timber beams was filled with stones followed by gypsum mixture; this layer was also repeated over the windows' and doors' top openings to work as beams.

#### 4.2 Roof

Timber wooden beams (Danchel) of 10 cm diameter were spanned from wall to wall; forming the main structure of the roof. A layer of thin bamboo sticks was applied over the beams diagonally covered by netted bamboo sheets (mangrof), and then topped with a layer of mud (figure 3).

The roofs' structures were left exposed to the rooms (figure 4). However, in the living room it was covered by colored wooden sheets (figure 5).





1. mud
2. bamboo netted sheet (mangrof)
3. bamboo sticks
4. timber round beams (danchel)

Figure 3: Roof structure.



Figure 4: Exposed roof structure.



Figure 5: Colored wooden roof.

## 5 Evaluating the house

The house was occupied by foreign, low income laborers. It was neglected whether in dealing with the house's physical features or in adding extra structures when there was a need for extra spaces. These structures were added using different materials -cement and blocks, hence, they were not in harmony with the architecture, and also without any respect for the authenticity and values of the house. In addition to the fact that the house didn't face any level of maintenance for a number of years.

### 5.1 Structural evaluation

The general evaluation of the structure was described to be inadequate but it varied from room to room, the following are some of the structural problems:

- Some additions were applied to rooms located on the ground floor using cement blocks. These additions were in a weak structural situation.
- All floors were in a bad condition and full of cracks.
- Cement walls were built over the traditional ones when there was a need to raise these walls.

- Traditional roof of the ground floor was deteriorating in some places because of a leak in sewage and air conditioning pipes that passed through the roof of the added cement bathroom in the first floor.
- Some walls were maintained using cement layers over the traditional layers.
- Most of the traditional roofs did not undergo any maintenance, the timber beams (danchels) within which were bent, the bamboo layers were in a bad condition, and most of the added cement roofs were in a deteriorating condition.
- There were deep horizontal and vertical cracks in the walls, staircase whether traditional or added structures.
- There were deep cracks in the joints between the traditional walls and the added cement walls.

## 5.2 General house condition before the renovation

In addition to the structural problems, the house had other problems related to the physical and architectural features, some of these problems were:

- Extra rooms were added when there was a need to extend the house area; these rooms disturbed the inner court and the architectural fabric of the house.
- Some rooms were divided into smaller rooms by using wooden partitions.
- Most of the paints were full of cracks and in some places it was completely cracked due to lack of maintenance and because of weather conditions.
- Wooden doors, windows, gypsum decorations and stained glass were not maintained nor renovated.
- Sewage pipes were added externally which disturbed the inner elevations of the court and there was a manhole in the middle of the court.
- Air conditioning pipes were applied externally.
- Galvanized gutters were added instead of traditional wooden ones (merzam).
- Electrical units and wires were applied on the external walls and on the front elevation.
- Water tank, shower sink and water heater tank were in the court in the ground floor and the balcony on the first floor.

## 6 Renovation

A strategy was implemented to keep up the architectural traditional fabric of the house and conserving its cultural and architectural values in order to reuse it.

First the house was evacuated of people, furniture and all other added physical features such as water and heater tanks. Then a full documentation of the house was done including plans, elevations, room sections, architectural elements, all by drawings and pictures. After that a survey to evaluate the structural situation and the infrastructure services of the house took place. Tests were done in different places of the house and including all the structural elements: foundation, columns, roofs, walls and staircase. Results showed that



foundations were in good condition, some walls needed only external renovation, and others needed deep treatment so gypsum mix was pumped into the walls to fill gaps between stones. Roofs of the ground floor were kept but renovation was applied to it. The roof of the first floor was reconstructed. Renovation plans and architectural drawings were prepared, respecting the main volumes and relations between rooms, despite the idea of changing the use for the house (figures 5–11).

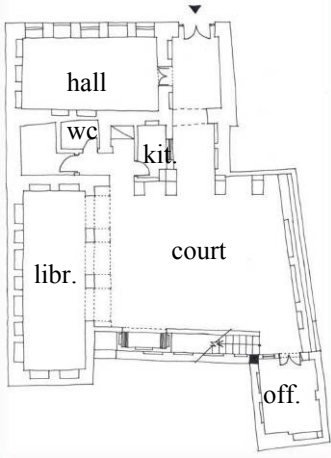


Figure 6: Ground floor plan (after renovation).

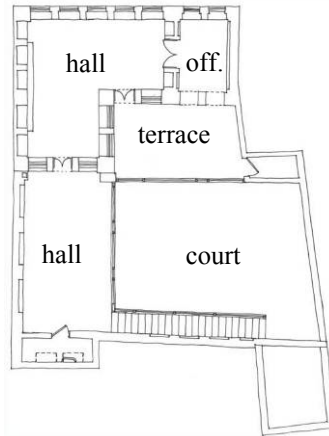


Figure 7: First floor plan (after renovation).



Figure 8: Front elevation (before renovation).



Figure 9: Front elevation (after renovation).

The plans were implemented; it took around 8 months to renovate the house which cost around 375,000 USD.

The main aim of the strategy was to eliminate all additional structural and architectural elements and peel the walls from added cement layers, and work on reinforcing the building structurally.



Figure 10: Court before renovation. Figure 11: Court after renovation.

In order to make use of the court all the year through, the architect thought of covering it. The material used was completely different than what was used to build the house originally. These materials were glass and steel, which created a kind of contrast between the ancient and the modern (figure 12).



Figure 12: Court, glass and steel roof.

## 7 Impacts of renovating and reusing the house

For a long period of time the idea of renovation and reuse of traditional buildings was related to tourism aims, where restaurants, gift shops, motels and other activities were the common use for such buildings, which also generates income for the owners of these buildings. This experience came to change all these perceptions as cultural events such as art exhibitions, cultural and political lectures are taking place in the house.

### 7.1 Impacts on the local community

The whole restoration process is a cultural product, and it is an experience that can be adopted and repeated to maintain a sustainable cultural development.

During the renovation period, Bahraini laborers participated in the renovation and building process of the house. This involvement of the local community had raised the income of locals and created new job opportunities.

On the other hand, and due to the cultural events that take place in the house attracting educated and highly cultural qualified people; this raises the social level of the area.

Also as part of the restoration of the house, the surrounding area was treated, where pavements, tiling and a parking area were applied, in addition to renovating and painting the walls of the surrounding buildings.

## **7.2 Impacts on Bahraini heritage**

By restoring the house and using it for cultural events, a new centre is added now to the Bahrain tourist map that encourages the cultural tourism. This attracts different kind of people either from the locals, expatriates or tourists. On the other hand, this experience encouraged other interested parties to implement similar projects as another house is currently under renovation and is to be used for Bahraini traditional music and folklore.

## **8 Evaluating the restoration experience**

In dealing with any traditional building, there are essential principles that must be respected. These principles are:

**Public Benefit Value:** During the process of conservation one should think of the future generation, and consider this culture as legacy that should honestly be passed on to others. And when dealing with this heritage, its values and authenticity must be respected.

**Value Principle:** Where every traditional building has a historical value that tells the history of it, this value should be respected because it represents the historical stages that passed over this building.

**Understanding the Heritage:** In order to present the heritage properly, people who are working in the conservation should understand the meanings of heritage and the importance of the history it represents, as such; the proper methods in dealing with this heritage through the restoration stage, in addition to the importance of documenting the building and any other information that deals with it and all the processes that took action on it.

**Respect Principle:** The historical aspects that give the building its heritage value must be respected by conserving the distinguished elements of the building, in the decision of reusing it, and the activities that will take place in it.

**Authenticity:** It is essential to conserve the original architectural spaces, traditional building materials, and the relation between the building and its surrounding environment without any major changes.

In applying all these principles to the House of Bahrain Press Heritage experience; the house succeeded in implementing the main principles by conserving the architectural value and its authenticity, it also succeeded in



reviving the soul of the owner by reusing it and activating the same actions that took place at that time.

## **9 Role of governments, private sector and local communities in conserving the cultural heritage**

Restoring and reusing traditional buildings, alongside managing and maintaining them, are all part of the development, in which all sectors should participate to guarantee its success and sustainability.

As for the local communities, there should be national awareness programs about the importance of this heritage in recording the history. These programs must be implemented by the government, and they should target all community members including all ages and educational levels.

The governments are also required to plan the restoration programs and priorities of implementation according to the structural evaluation and the historical values of the buildings.

Governments are also involved in supporting restoration programs by developing the infrastructure services in the traditional areas and the pathways that lead to these areas by providing it with signage systems, pavement and tiling, and following up its maintenance. Also, by providing a proper car parking in the areas where cars are not allowed.

As for the private sector, its main task is to implement the restoration programs and to manage the buildings during the reuse, in addition to keep up the maintenance process.

All sectors are asked to work together in order to conserve the national cultural heritage.

## **10 Conclusion**

- The conservation of the house facilitated an understanding of tradition for the local community, and concentrated on this process's relation to social and cultural issues.
- Reusing the traditional buildings helps in sustaining cultural heritage.
- The governments, private sector and local communities are all partners in conserving the cultural heritage.
- The renovation process can be applied to any traditional building regardless of its structural condition and evaluation.

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