

Design Philosophy of the traditional Kuwaiti house

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Abstract

Architecture represents the art of planning, designing, building and decorating. Also it reflects the identity, culture and social realities of whole civilizations, captures and converses with the environment of its inception be it the natural climatic environment or the values, norms and belief systems. The study of a given architecture, therefore, implies extensive knowledge about the society, its system of reference and its climate to properly identify and interpret the manifestations of all these factors in the art of building.

The study of the traditional Kuwaiti architecture, which is the focus of this paper, requires an understanding of both the natural and social environment of Kuwait. The traditional Kuwaiti house was conceived in a time when traditions and rules drawn from Islamic precepts had the upper hand. It was also built in a natural environment characterized by extreme temperatures, the people who built them were simple people, with very little wealth, but very resourceful.

All these factors produced a vernacular architecture that is highly compatible with various aspects of its environment. However, after the discovery of oil in the Gulf region in 1930, and the financial enrichment of the country, people started to opt for more modern styles of building for their houses. Such new houses proved very unbecoming to neither the Kuwaiti climatic environment nor the Islam-informed social climate.

This paper introduces research which is part of a doctorate research project conducted by the lead author at Cardiff Metropolitan University. The paper discusses the traditional Kuwaiti architecture and highlights the positive attributes it enjoys and which should be preserved and optimized rather than supplanted by the introduction of new 21st Century

architectural designs, thus contributing to the preservation of the ecology of the region and the world at large and accommodating the needs of Muslim desert dwellers such as the people of Kuwait in terms of comfortable and culturally aware habitat.

1. Introduction

This paper is part of the research for a doctorate project undertaken by the lead author that is in the early stages of development. The doctorate is investigation how new Government houses in Kuwait could be designed and constructed using traditional cultural features to reduce energy consumption for artificial lighting and cooling and increase occupant comfort and wellbeing.

The paper discusses the traditional Kuwaiti house and some of the most important features that have traditionally been used for cultural and environmental reasons.

2. The Traditional Kuwaiti House

The symbols and suggestions enclosed in the art of the traditional Kuwaiti house were not a coincidence. Al-Wail [1] affirms that the desert nature, its harsh life and human experience were the muses of the modest Kuwaiti craftsman whose memory was tattooed by the unforgiving nature of the desert; it is cruel sun and ardent heat. Al-Wail sought solace in the clement night sky with its stars and moon, and drew from them vivid symbols that he skillfully crafted through the medium of his hands and his unspoiled nature. The same impression is conveyed by the whole array of indigenous Kuwaiti art which, aided by its contact with surrounding cultures, managed to beautifully capture the feeling of the surrounding nature and environment and embody the people's way of life [ibid].

The traditional Kuwaiti house is characterized by its simple design that fits perfectly into the local environment. The organisation and configuration of internal space was contingent on the economical and social status of the Kuwaiti family occupying it; even though most houses had a rather austere nature manifested in their plain appearance from the outside. In the inside, the abstraction is manifest in the adoption of simple geometric forms, drawings of the local flora and some engravings with no representations of humans and living things as this is forbidden in Islam [ibid].

The traditional Kuwaiti house greatly respected local customs, traditions and norms drawn from old wisdom and from the teachings of Islam. One of its distinctive features is the protection and the sheltering it affords to the privacy of its occupants and its inner atmosphere, which is meant to be in clear contrast to the outer world. This is especially true for the Women of the house, as the common understanding of the Islamic teaching in the region is that women should keep as much as possible to the house and only leave it when there is no other alternative. Also, they should be sheltered from foreign male gaze, including visitors [2].

Hence, the focus of the house was on the interior. It sought balance between the strict need for privacy, especially females' and the Arab and Islamic obligation of hospitality. This was achieved through the division of its courtyard into different spaces of varying capacities open from one or many sides onto various rooms, and providing open but separated spaces for both male and female occupants to both live and receive guests [ibid].

3. Most important architectural elements in traditional Kuwaiti house

The architecture of a traditional Kuwaiti house was to a large extent improvised and spontaneous due to the lack of scientific expertise and the heavy reliance on instinct and local skills acquired through continuous practice [3]. Low financial capacity and the limited materials available locally for construction had their say on the nature of this architecture. Notwithstanding, it was a successful example of a construction that fitted perfectly within the merciless desert climate and responded adequately to the basic need of its occupants [ibid].

In the researcher's opinion, the elements of the traditional Kuwaiti house are therefore the product of an interaction between the occupants, its natural environment and its social surroundings. The architectural details were all created as a result and in reaction to the unwelcoming natural environment. Rudofsky [4] affirms that most traditional houses are the practical and theoretical response to human interaction with the environment, and that these traditional houses were build without architects in a modern sense, which means without the strict and precise modern architectural rules. The specificity of the traditional Kuwaiti house lies precisely in this spontaneous, unsophisticated and improvised mode of building, which manifested as follows:

3.1 Courtyard

An inner courtyard is a common architectural element found in most ancient civilizations such as ancient Egypt, Western Asia and Rome [5]. The particularity of Islamic inner courtyards is the fact that they came as an architectural response and fulfillment of Islamic precepts that command modesty and introversion. Islamic buildings were to reflect this parameter and create as stark a contrast as possible with the outer conditions. This, environmental contrast, is one of the basic rules underlying Islamic architecture; it is where the concept of an inner courtyard originated from in the traditional Kuwaiti house [ibid].

It is commonly stated by Dostal [5] that a courtyard is the lung of the house. It is indeed the principal outlet for the people of the house, especially women who rarely set foot outside the house. It is an architectural principle that promotes the introversion upheld by Islam, and strives to achieve reconciliation between Arab hospitality and the need for privacy inside the house. Traditional Kuwaiti houses all had one or more open courtyards inside, which were surrounded by walls to delimitate the boundaries of the house vis-à-vis the outside world and the neighbours houses and send the message that inside those walls is a private space that is not to be violated (see Figure 1) [ibid].

The inner courtyard was surrounded by different rooms overlooking them exclusively with their doors and windows to stress the need for privacy and to facilitate the movement between different parts of the house (see Figure 2). The walls surrounding the courtyard were usually quite high so they somewhat protected the house from strong winds and dust which is another proof of the high compatibility of the traditional Kuwaiti house with its natural environment [6].



Figure 1: Courtyard of one traditional Kuwaiti houses, Bayt Al-Bader(Mohammad photo). Figure 2: Courtyard surrounded by rooms, Bayt Al-Bader(Mohammad photo).

3.2 Wind towers

It is impossible to discuss the traditional Kuwaiti house without reference to the very important constructional element that is the 'Wind tower'. Wind towers were crucial means of softening the impact of the desert's scorching heat. They were either very tall to moderately tall, either luxuriously built or displaying only the basic elements and finally they were either built of mud bricks or coral rocks but they all shared the faculty of being durable, stable, strong and regardless of any additional embellishment, they were all eye catching and beautiful [7].

Traditionally, a wind tower were placed on the house roof and could reach as much as fifteen metres high, and each house used to have one or more towers depending on the requirement and financial capacity of the owner. Two kinds were common in the traditional Kuwait houses which are wind tower and wind scoop [ibid].

First, the wind tower is a cubic shape and entirely open from four directions and able to trap cool air in any direction (see Figure 3). The wind tower system involves wind coming from one direction and pushing the air inside the room by hidden duct inside the walls. And the hot air that was generated in the room and pocketed at top of the duct is released through the duct in opposite direction that of the inlet ducts like the flue of the chimney (see Figure 4). If the direction of the wind changes, the direction of wind entering in the duct and escaping in the opposite direction also changes. The pressure in the air which travelled inside the duct gained speed, and the air increased the speed of the cool air circulation entering and sending the hot air out forms a cooler current inside the room, and in this way the room is air conditioned. And when the air circulation is not needed then the shutter of the wind tower is closed [ibid].

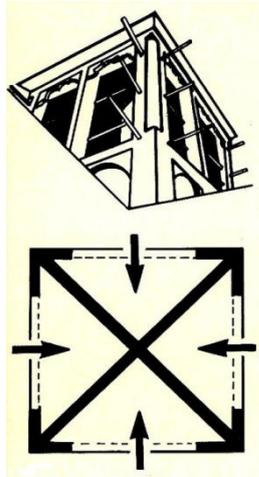


Figure 3: [8].

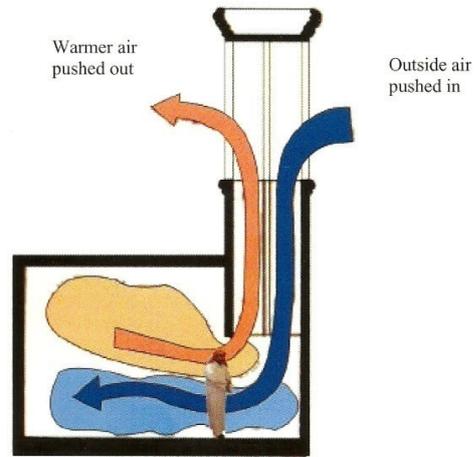


Figure 4: [7].

Second, the wind scoop is a rectangle shape and open from one directional flow of air (see Figure 5). The wind scoop function was only to let in the air from outside and supply it to the rooms below though hidden duct inside the wall (see Figures 6 and 7). It is usually placed with its open interface facing north or northwest sides to catch directional airflow. The windows in the rooms have to be kept open so that the air pressure pushes out the hot air in the room through the door or windows, this is not necessary for the wind tower as the inflow of air is pushed out through the wind tower itself [ibid].

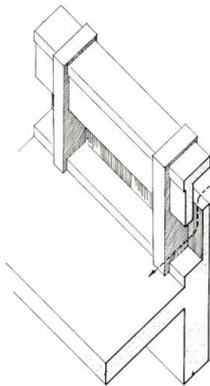


Figure 5: [8].

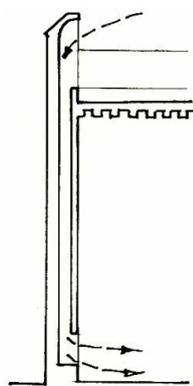


Figure 6: [8].

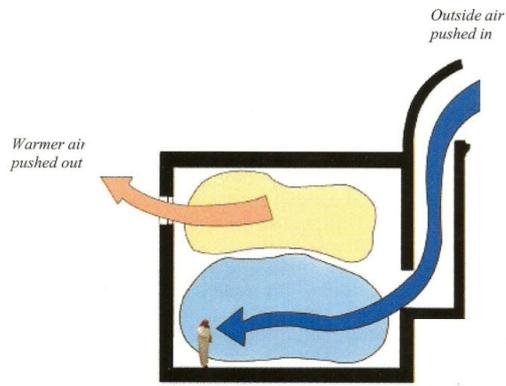


Figure 7: [7].

Al-Wail [8] sustains that the wind towers are not an original Kuwaiti architectural symbol. They were a Persian invention that found its way into Kuwait through the trade and economic relations that the two countries used to entertain with each other, and through the migration of some families that were living along the coast of Persia and chose to settle in Kuwait. With time, the wind towers became an integral element of Kuwaiti architecture. The very name given to these structures in Arabic: *Bagdeer* comes from Persian and means both wind tower and wind scoop [ibid].

Haider [9] reveals that the wind towers go further back in history than even Persia. Traces of these structures were found that date back to the Assyrian time as this dynasty had spread its rule over the best part of the Middle East after the Sumerian civilization and the Babylonians under Hammurabi. This structure was also found in Persia in Arg-E-Bam near Yazd. This early form was known as wind scoops. It was basically a tube that collected the air and made use of the outside pressure to push it along the device; the air then gained speed in the tube and travelled down to the rooms. These basic structures were later developed into sophisticated wind towers [ibid].

4. Conclusion

This paper has introduced research as part of a doctorate project, which is focusing on whether traditional cultural features, such as courtyards and wind towers could be used in new Government houses. The use of courtyards and wind towers has been discussed and illustrated in the context of houses in Kuwait. It is concluded that potentially both techniques could be used, but will require further investigation including computer modeling. It is seen that traditional Kuwaiti buildings speak volumes about the history of past civilizations that populated the region and left their print on each and every aspect of them. They also bear witness to the harsh climatic conditions the region is subject to and reflect the beliefs and social norms governing the society they originated in.

5. References

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