INVESTIGATING QATARI TRADITIONAL ARCHITECTURE FROM AN INTERDISCIPLINARY APPROACH

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This paper presents the findings of an Undergraduate Research Experience Program (UREP) research project funded by Qatar National Research Fund (QNRF). This interdisciplinary research project brings together architecture and sociolinguistics students and faculty members to develop a socio-cultural understanding and interpretation of the structures, designs, and physical dimensions of traditional elements employed by the members of the traditional society of Qatar from two complementary perspectives. The focus of this study is on identifying the multiple meanings and physical representations associated with elements of architecture, exemplified in the case of Qatari traditional architecture. These multiple meanings are dealt with from both architectural and multimodal discursive perspectives. The rationale behind this interdisciplinary approach is the fact that these two approaches are complementary to each other. This is because architecture spaces and elements act as a field and context where peoples’ practices and activities take place, Hence, these practices are intricately interwoven with the architectural, i.e. structural and design, peculiarities of the individual spaces. One hundred Qatari traditional elements were selected for the purpose of this investigation within a framework of multimodal analysis. This approach takes into consideration the multiple modes through which meanings are constructed, i.e. building materials, structures and shapes of buildings, types of people who are entitled to use a particular building, activities that are organized around a space, to mention just a few. The project offers the opportunity to undergraduate students and faculty members from diverse disciplines to collaborate in an interdisciplinary research project, and thus to benefit from each other’s background knowledge, ideas, and skills. The study recommends that this multidisciplinary approach be applied in undergraduate, postgraduate and other scholarly research pertaining to the study of traditional architecture and urban heritage. It proved to provide a better understanding and to serve as a strong motivation for students to engage themselves in research than an unidisciplinary approach.

Keywords: Multimodality, Qatar, Tradition, Architecture, Meaning.

Introduction

Lying at the forefront of contemporary transformation of Qatar, architecture deals with spaces, elements and constellations, which basically set the background against which people plan and live their lives, organize themselves in groups and participate in activities, through which they secure their quality of life and they communicate with each other. These two dimensions, namely the spatial and the human communicative one, are not usually dealt with in unison in academic scholarship, that is why a lacuna has been created, which our current project wishes to fill in. Traditional architecture in a rapidly transformed
country, like Qatar, is difficult to investigate, given the variety and more often than not contradictory character of resources relevant to it.

On the other hand, Qatar as a rapidly transformed country, presents its community with a challenge; how to reap the benefits of modernization and still maintain its traditional culture and identity as much authentic as possible. This challenge also forms a vital parameter of the Qatar National Vision 2030, which is a compass for the country’s activities and political choices in all levels of everyday life. These two realities have provided us with the incentive to engage ourselves in the study of traditional Qatari architecture from a multimodal and neuroaesthetic analytical lens. Against this backdrop, we have decided to join our respective departments’ undergraduate forces, in order to investigate the traditional architecture of Qatar from an architectural and discursive perspective.

The focus of this study is to identify the multiple meanings and physical representations associated with elements of architecture, exemplified in the case of Qatari traditional architecture. More specifically, our aim is to describe and interpret traditional architecture of Qatar as a structure and as a lived experience. Before the actual analysis, though, a literature review of the concepts we are using in our analysis is in order.

### Literature Review

The sociocultural linguistic approach focuses on multimodality as a theoretical framework for investigating traditional Qatari architecture. The very essence of multimodality lies in its combination of different modes, which in unison create social meaning. Multimodality is an approach, which is couched in the more general framework of social semiotics, namely the study of the society via different types of semiosis, including language (spoken and written), picture (portable, mobile, and static), and sound (music or natural sounds, or noises), to mention just a handful. Mode, which is the most central concept in multimodality, is a socially and culturally shaped resource for making meaning (Iedema, 2003; Bezemer & Kress, 2008, p. 171). A house, for example, can be seen as an example of a mode, inasmuch as it indexes the meaning of family, comfort, safety, and relaxation. Modes have differing modal resources. For instance, a house can be instantiated as a mansion, an apartment, a villa, a (semi)-detached building, etc. Likewise, a door can be realized as a gate with an arch or as a very small backdoor. These differences in resources translate into different kinds of semiotic work. That is to say, modes have different affordances, namely potentials and constraints for meaning making (ibid.). In this way, the meaning they are attached with varies, and this is exactly one of the major foci of our research.

Another key concept in our approach is the medium, namely the means of distribution of the meaning in communication (Kress, 2010). A medium is a twofold tool necessary in any discussion of multimodality, given that it is seen as having both a material and a social aspect; materialistically speaking, medium is the substance in and through which meaning is instantiated or realized and through which meaning is communicated to others. Such an example in architecture is glass or cement. The social parameter of medium is identified with the latter resulting from sociosemitic, environmental, geographical, geological and sociocultural needs.

The architectural approach, on the other hand, focuses on neuroaesthetics as a framework for investigating the physical and mental experience of traditional architecture. Recent neuroscience discoveries allow us to understand how the human brain works. More specifically, they can help us understand not only how memory, consciousness, feelings, thinking and creativity work, but also how art interacts with architecture. This new field was termed by Zeki as “neuroscience”. This new field gained ground in the field of architecture, especially the formation of the San Diego group led by architect John P. Eberhard, who “have founded the Academy of Neuroscience for Architecture (ANFA), with the explicit mission of promoting and advancing “knowledge that links research to a growing understanding of human responses to the built environment.” (Mallgrave, 2010)

As indicated by Mallgrave (2010), “people largely perceive buildings emotionally through the senses.” (Mallgrave, 2010) This complex process is largely overlooked in the study of traditional
environments. Traditional artifacts are looked at as primarily physical objects. Values and emotions are largely overlooked due to the fact that research methods focus more on the physical than the perceptual. Our study attempts to bridge this gap by focusing on people’s emotional and sensory perceptions of traditional environments and attempt to discern values and emotions attached to them.

The rationale behind this interdisciplinary approach is the fact that these two approaches are complementary to each other, given that architecture spaces and elements act as a field and context where peoples’ practices and activities take place, which, nonetheless are intricately interwoven with the architectural, i.e. structural and design, peculiarities of the individual spaces. To this end, we developed an ethnographically-oriented methodology (Atkinson, Coffey, & Delamont, 2001) with the aim to elicit primary data from senior Qatari citizens, who have experienced life in traditional Qatari houses and spaces.

**Methodology**

In order to collect the data, which would shed light on Qatari traditional architecture, the PIs were required to complete and finalize the IRB requirements that included the development of a questionnaire and a visual interview in both Arabic and English. The requirements included: participants’ consent form, questionnaire, and visual interview questionnaire forms. The questionnaire contained some questions to elicit some basic demographic information about the participant and to pave the way for the main interview, which was conducted with the help of a Visual Interview Questionnaire in the students’ laptops or iPads. The questionnaire had pictures and a suggested name for the depicted artifact or area or space (e.g. majlis, ditsha, etc.). The names were in both in Arabic and Arabizi, namely Arabic spelt in Latin characters. PowerPoint was used to develop this questionnaire, and its pictures came from the Internet, from books and some were taken by the PIs around Doha. The selection of the words that were included in the visual questionnaire was based on a comprehensive survey of several references, documents, websites and individuals knowledgeable about traditional Qatari architecture. The team selected the words for this research project based on the following criteria: frequency of use in literature and significance to the study. The words were classified according to the following criteria: context of use (exterior and interior) furniture and house items, structure and materials. In order to anonymize our participants’ data, each participant’s datasets was coded for the name, the preferred pseudonym of the participant, their gender, age and the date of the interview, in the following format: 1.1.FHW.B.F.112.5/5/2013.

Three teams were formed from architecture and linguistics students. The purpose was to form the teams in order to achieve maximum interaction between the students. During the interviews stage, architecture students were responsible for taking notes and transcribing the interviews. Sociolinguistics students were responsible for conducting the interviews and focus on the respondents’ feedback. It was hoped that through this team formation and distribution of work the interviewers focus on the interview process and that the interviews are recorded as accurately as possible. Regarding the distribution of words, the 100 items were divided equally among the three groups consisting of two students each (one architect and one linguist) to cover the different categories. Each of the three groups had a separate group of words. Before the actual interview, the groups rehearsed the interviews with each other in presence and guidance of the PIs.

Exactly because both principal investigators of this project are non Qatari, hence outsiders, we decided not only to interview Qatari citizens with a long experience in and with the architectural terms that we are interested in, but we also made sure that each of the undergraduate student teams had at least one Qatari student, who is familiar with and could sense the peculiarities of the Qatari sociocultural and linguistic landscape.

Participants were selected from old generation of Qatari who resided in the old houses of Qatar. They were mainly over fifty years old and above, male and female. The teams interviewed these senior Qatari citizens, who have experienced life in traditional houses and buildings by using a questionnaire encouraging them to share their narratives. Each of the three groups had a separate group of
words. Another group of participants identified by the research team includes professionals knowledgeable about traditional Qatari architecture. It was decided that this group be interviewed by several members of the research team after data collection from participants is completed, in order not to influence the data collection from participants.

Finally, weekly meetings were held with the students, in order to keep track of the progress of the project. The first meetings were reserved for discussing the procedures that a researcher needs to follow in an interview, including how to approach interviewees, how to cultivate a good relationship, how to do the recordings and how to elicit personal stories from people, how to transcribe the data, how to summarize their content in English and how to identify themes, which are common among the various terms. Later on, the discussion focused more on the whole experience of interviewing, and an attempt was made to come up with a tentative analysis of the data.

Data Analysis Results

The participants’ interviews were thematically analyzed to extract common themes found within and across the datasets. We attempted to identify patterns and shared understandings in the interviews. Several themes pertaining to the understanding of the phenomena and provided answers to the research questions. The following discussion presents five of the significant themes identified by the authors and linked to the theoretical framework.

1. Material and Form

The first research question addressed by the research was the difference between the definition of the ‘traditional’ between the public and the professionals. Participant’s responses indicated that “material and form” play a significant role in the definition of the traditional in the eyes of the public. An informant commented, “We lived in a traditional house. The house was made from ‘tabouk’ (bricks) not ‘tein’ (mud)! But the design was like the ‘kadeem’ (old).” Tradition is a mode perceived by the public as a form regardless of its material. Tradition in this sense is regarded as an intangible medium for meaning making. For the professionals, the use of material was customarily considered as an essential element in defining the traditional. Yet, as indicated by Ahmad (2006), “Since the Venice Charter 1964, the scope of heritage has broadened from a concern for physical heritage such as historic monuments and buildings to groups of buildings, historic urban and rural centres, historic gardens and to non-physical heritage including environments, social factors and, lately, intangible values.” (Ahmad, 2006) Traditional environments embody intangible values to different Qatari generations. For the old generation they exemplify memories and meanings that were experienced firsthand, but for the young generation they represent an old way of living. Rapoport (1990) suggests that the built environment communicates meanings that are shared globally, between those of similar socio-cultural backgrounds and unique to individuals. (Rapoport, 1990) Traditional environments embody a “sense of place” because, as Rodman (2003) indicated, they are “socially constructed by the people who live in them and know them; they are politicised, culturally relative, historically specific, local and multiple constructions.” (Rodman, 2003)

2. House and Family

The meaning of “House” is perceived according to social and cultural interactions between people. The house is not just a building, it is interaction between immediate family members, extended family members’ neighbors and other people. It is not a simple structure, it is a place where relationships between members of the society take place. House parts are remembered as a medium of communication and activities. As an informant indicated, “‘alhoush’ (courtyard) is where ‘alyihhal’ (kids) play. Some were big and some were small with one palm tree or two. ‘Albeir’ (well) was in alhoush’ (courtyard) center.”
The neighborhood was perceived as ‘fareej’ hosting an extended family in a linear strip setting or street. Another informant commented, “Each ‘fareej’ (street) had a name. It was our house and our neighbors. Each fareej carried the name of the extended family that occupied it; fareej Al-Abdaly, Fareej Al-Kawary, fareej Al-Ghanem, etc. Some houses opened to a ‘saha’ (yard) that functioned as collector of several houses where kids play. Large ‘ferjan’ (streets) had ‘sahat’ (yards), but small ones did not have ‘saha’. Large ‘saha’ had shops. Shops were not located beside houses, they were located in ‘saha’.”

Houses were not isolated from each other. “Before houses had openings between each other called ‘alfriah’. Our house and our uncle’s house were always open to each other through ‘friah’. In the past, it was a shame to have closed doors, because of strong association with generosity”, an informant commented. Opening to the community was through an outside door called ‘albab aloud’. It was the main house door opening to the street. The house was not isolated from its environmental and social surroundings, yet it provided private environment for its residents. The aforementioned examples illustrate clearly the close association between memories, human experience and the mode of house with its various modal resources. The structure of the house had implications for people’s behavior and, subsequently, it contributed towards the establishment of interpersonal relations. This bidirectionality is a meaning, which is activated in our participants’ memory, when they encountered the picture and the name of the artifacts mentioned earlier.

3. Space and Function

Space inside and outside the house was used by members of the Qatari society for a variety of functions. Alliwan (arcade) was located in front of the rooms where family members gathered under its shade. Through this example, we can see how the affordance of a space, namely the idea of offering shade, influences people’s choices, in the sense that given the harsh desert climate, the meaning of alliwan is essentially protection of the family members, namely parents and children, by gathering and interacting with each other. Outside the house, Aldikka (bench) served as a social interaction with neighbors for male members of the family. Spaces inside and outside the house hosted events and activities. Unlike modern houses where each space has a designated use, there was no specific use for each room of the traditional house. They could be used for different purposes as needed.
Figure 2. House entrance to the community.

Figure 3. A traditional house courtyard with well and liwan.
4. Enclosure and Privacy

Privacy was an important social and cultural requirement in traditional society. Different levels of privacy were indicated by many respondents. Privacy requirements inside the confines of the house were the lowest. As a respondent indicated, “Before, children did not have separate rooms. Girls had to sleep with other family members or relatives. They can share the room with their brothers.” As indicated before, neighboring houses of related families were connected. Outside the house, the levels of privacy requirements were higher. There were basically two levels of privacy, one inside the house and the other outside its walls. Another level of separation was between male and female members of the community. Almajlis was a socialization room for men only. Women were not allowed to use it for their socialization with other women.

![Figure 4. Majlis room for men.](image)

5. Time and Change

An informant indicated that neighborhood feeling is changing. She said, “Ferjan in the past were good opportunity for interaction. Today, no one knows their neighbor.” The meaning of house and community changes with time. The meaning of traditional architecture acquires different meanings for different generations. While for the old generation, traditional is memory reality and medium of existence, for the young generation it is built environments and artifacts that represent the past. The value of heritage environments for the old generation is the embodiment of memories and events. The significance of heritage for the young generation is the embodiment of history and continuity. For the old generation, heritage is not sacred nor pristine. It is a living entity that can evolve and change.
Conclusions

The theoretical model proposed by this study focused on three dimensions of studying traditional environments; namely sources, approaches and themes. This model is beneficial for future studies of traditional environments that aim to approach the study and teaching of traditional environments from a multidisciplinary perspective. The two approaches employed in this study include architecture and multimodal analysis. Several sources were employed in the study including literature, experts and different generations of Qataris. The five themes identified by this study can be expanded depending on the nature of each study. For the current study they included: 1) Material and Form, 2) House and Family, 3) Space and Function, 4) Enclosure and Privacy and 5) Time and Change.
The project offered the opportunity to undergraduate students and faculty members from diverse disciplines to collaborate in an interdisciplinary research project, and thus to benefit from each other’s background knowledge, ideas, and skills. The study recommends that this multidisciplinary approach be applied in undergraduate, postgraduate and other scholarly research pertaining to the study of traditional architecture and urban heritage. It proved to provide a better understanding and to serve as a strong motivation for students to engage themselves in research than an a single disciplinary approach. The significance of this study is the employment of this approach by undergraduate students through a funded research grant. It allowed them to gain firsthand experience in research formulation, methodology, research tools, data collection and analysis, and communication. It provided an excellent learning environment and integration of research in undergraduate studies by learning-by-doing.

Built heritage provides a means of enhancing our understanding of the past and interpreting social, cultural and economic changes. It also provides a hub for community identity, from which a sense of belonging can be generated. Henderson (2008) indicated that physical structures from the past, not necessarily monumental, can be repositories and powerful symbols of heritage and identity. Ku (2010) argues that “in seeking their own identity, people also draw on individual and collective memory which is a collective or individual relationship of the place with the people, in a generation or across generations, who shared some common experiences pertaining to a particular historical period” (Ku, 2010). Heritage environments should not be preserved as physical entities but as modes of communication and meaning making among members of the community. The paper argues that built heritage conservation efforts should be addressed from a multidisciplinary perspective taking in consideration multiple values of built heritage from the physical to the experiential.

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