

“Where’s the air conditioning switch?”: Identifying problems for sustaining local architectural traditions in the contemporary United Arab Emirates

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Abstract

This paper examines the perception of vernacular architecture in the modern cities of the United Arab Emirates (UAE) and how this view creates obstacles in sustaining historic building forms and techniques. I argue that the greatest obstacle is the complex symbolic role that these buildings play in modern nation-building. While historic buildings are viewed with nostalgia, they are also not deemed suitable for contemporary life and have been isolated in the process of economic and social development. Separated from enlivening social activities, historic architecture in the UAE seems destined to survive only as outdoor museum displays.

1 Introduction

In order to understand the meaning the vernacular architecture of the past now holds, it is important to see the contrasts, both social and physical, that the UAE has experienced over the last generation. I thus provide an overview of the dramatic social changes brought on by oil, compare two important buildings in Dubai (one dating to 1896 and the other to 1999) and discuss the challenges of sustaining vernacular architecture. The uses that controlled the buildings’ construction have disappeared, the relationship to the natural environment has been re-defined, and settlement patterns have dramatically reshaped. Finally, I offer some observations on what might be done to encourage the appreciation of historic buildings and the expanded role they might play in contemporary life.

For the Arab world, the circumstances that I describe have important implications, particularly in the Arabian (Persian) Gulf where rapid development under Western influence has profoundly affected the built environment. In his general discussion of urban planning in developing nations, Stefano Bianco asserted that there exists an “intoxication by the Western ‘Myth of Development’...” and that urban planners have “...adapted obsolete Western ideologies, mistaking them for the miraculous instant solution to all their social, economic, and political problems...”¹

Although it is possible to re-utilize preserved buildings and incorporate past technologies in current construction, the adaptation of form and technology directly from the West on a monumental scale serves the needs of the society in a way in which the restored past cannot. Value for older buildings has shifted from use to symbolic, but even on a practical level, modern construction techniques create an interior environment free from the discomfort of the surrounding natural environment. In a country where the temperature soars to 50 degrees Celsius with humidity levels over 90%, this is considered a miracle. Furthermore, the symbolic value of the old and new together within the broader architectural context is integral to national identity. Modernist buildings signify membership in the modern world. The monumentality of contemporary architecture along side the preserved remains of the past defeats the stereotype of a region sparsely populated by easily dismissible Bedouin nomads. This perception presents enormous challenges for those involved in sustaining historic architecture. While documentation, conservation and restoration are immediate priorities, coordination among indirectly related institutions is required to encourage acceptance.

2 The Past

The United Arab Emirates is a peninsular country located on the southwestern side of the Arabian Gulf and on the northwestern banks of the Gulf of Oman. With an area of 83600 kilometers and a total 1996 population of 2,377,453,² the United Arab Emirates controls the third largest proven oil reserve in the world.³ It consists of seven emirates: Abu Dhabi, Dubai, Sharjah, Ajman, Umm al-Qawain, Ras al-Khaimah, and Fujairah. The region was known prior to confederation in 1971 as the Trucial Coast and dependent on the few resources the difficult climate and geography offered. The path leading to the establishment of the UAE was begun in the last quarter of the eighteenth century, after the collapse of Safavid Iran’s control of the lower Gulf. Tribal maritime forces based in the northern emirates attempted to control shipping in the Gulf through the Straits of Hormuz. The British government branded the area the Piracy Coast and began the systematic pacification of Gulf tribes, resulting in the signing of a series of truces and agreements, beginning in 1820, ultimately leading to the area’s establishment as a British protectorate. This tied the area to the development of British India trade, culminating in an era of prosperity based primarily on pearl fishing and trading in the first quarter of the twentieth century.⁴ Oil surveying gained momentum in the 1950s and 1960s, and funds

from the oil and gas industries fueled the rapid growth in the physical and social infrastructure of the country in the two decades following confederation.⁵

2.1 Environment and settlement

Before oil, the land and access to potable water controlled settlement location. The landscape divides into two distinct regions: the mountain range in the northeast and a remaining area of predominantly desert and coastal sediments. From the coast towards the mountains, numerous coastal lagoons give way to large areas of *sabkha*, or coastal desert plains, bounded on their landward side by low escarpments of tertiary limestone. The mountains, while constituting only 5% of the landmass, receive 30% of the annual rainfall. The wadi run-off provides the opportunity for terraced farming in the mountains, and reliable water sources on the close plains for date palm cultivation. The coastal marine region stretches along both coasts of the Arabian Gulf and Gulf of Oman. Numerous inlets and promontories characterize the longer Arabian Gulf side, where barrier islands and salt dome islands are evident, especially in Abu Dhabi. Each coast is cut by lagoons and estuaries, made shallow by continuous marine deposition.⁶ These geographic features shape the bio-diversity of each region, which consequently determines the kind of human settlement founded.

The general settlement pattern for the country as a whole consisted of trading and fishing villages along the coast using the lagoons and estuaries to provide protected harbor and supplementing maritime activities with date palm cultivation, interior oasis towns situated on subterranean water reservoirs and reliant on date palm and some pastoralism, and terraced mountain villages harnessing water run-off for agriculture. Multiple villages were utilized seasonally by tribes and tribal confederations or were occupied permanently by tribal sub-sections and tied to an intra-tribal network of villages.

The delicate balance of environment, climate, and human settlement wove an intricate economic net across the four environmental zones of the Emirates – coast, sandy *sabkha* plain, rocky alluvial plain, and mountain and *wadi* chain. These zones were stitched together through inter- and intra-tribal cooperation and provided more resources in total than could be meagerly harvested from any individual zone. The result was a network of key permanent towns and seasonally occupied residences and resource sites that depended upon one another for the economic well-being of the whole.

Each environment also provided for particular modes of economic activity. The shape, size and designs of buildings were thus profoundly affected by the function they served in the over-all economic pattern. Elaborate mercantile houses, large public *sugs* or markets, and other monumental buildings associated with the coastal towns of the nineteenth century were impractical in the mountains where population centers were small and villages were terraced above or beside the small fertile plots available. The oasis towns followed a pattern of settlement determined by agriculture and the location of suitable soil as well as the network of irrigation channels, or *aflaj*. The coastal villages had to be located on sites blessed with both sheltered moorage sites and the presence of

sweet water and were organized accordingly. The defensive structures required for protecting these invaluable resources shifted not only according to general patterns of settlement shaped by subsistence demands, but also according to the geographic features that allowed for passage and approach and according to the shifting allegiances with neighboring communities.

2.2 Traditional domestic architecture: The Sheikh Saeed House

With few exceptions, the surviving historic architecture of the United Arab Emirates dates primarily from between about 1750⁷ and the collapse of the pearling industry in the 1930s.⁸ While pearling and merchant communities along

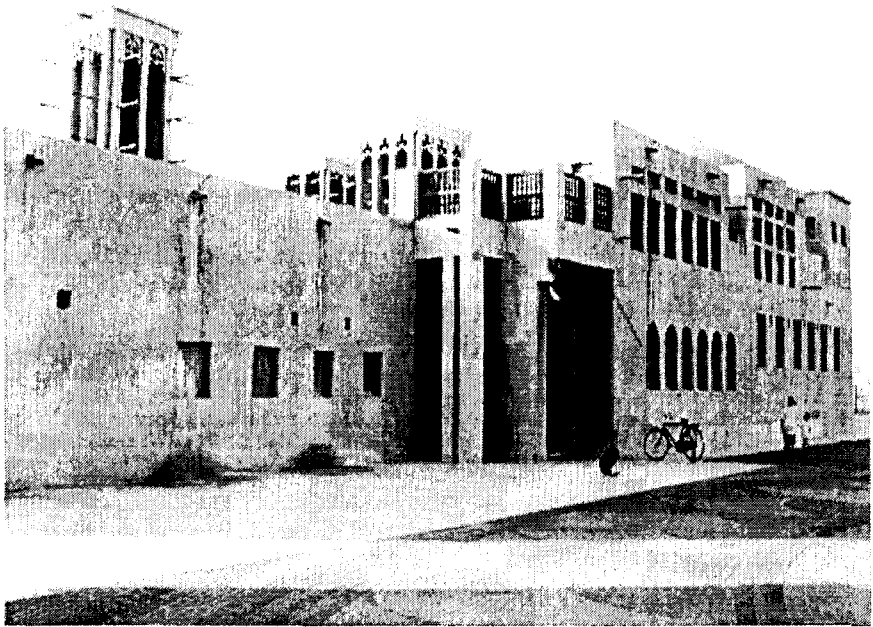


Figure 1: General view of Sheikh Saeed House

the coast developed into sizeable towns during this time, a combination of environment, climate, and economics has conspired to keep the region sparsely inhabited up until the nation's confederation as the United Arab Emirates in 1971. The target of the initial efforts in conservation and restoration has been the remnants of the coastal villages, which were the most threatened by urban growth. The first priority was the residences associated with the ruling and wealthy merchant classes from the pearling era. One of the most important buildings that survives from this period is the Sheikh Saeed House in the restored

Shindagha neighborhood of Dubai, which, as a courtyard house, has been presented as the one of the best surviving representative examples of “traditional” Emirati architecture.⁹ Originally built by Sheikh Maktoum, father of Sheikh Saeed, in 1896,¹⁰ it is best known as the official residence of Sheikh Saeed, ruler of Dubai from 1912 to 1958. It was abandoned after his death in 1958 and became so derelict, restoration was carried out through dismantling and then rebuilding the complex around a concrete core faced with coral blocks and plaster.¹¹

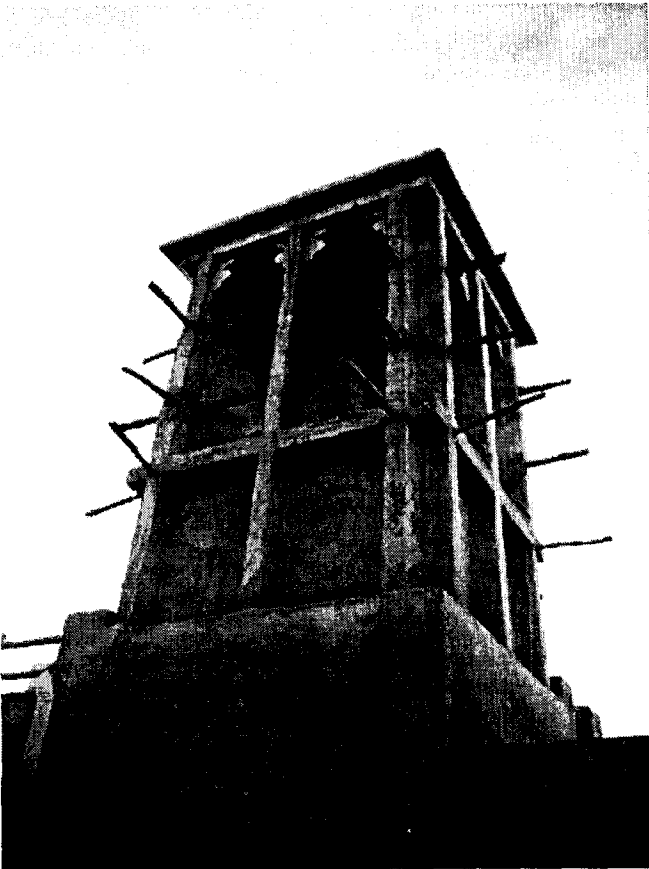


Figure 2: Wind tower at Sheikh Saeed House

Following the original plan, it was built around a large central courtyard, 660 meters in area. Each of the four blocks of rooms surrounding the inner

courtyard functioned as self-contained living quarters for the Sheikh, his sons, and their families. Each block contained a ground floor, first floor and a roof terrace. The southern side also contained a range of single story service rooms, including kitchens. A number of strategies were used to cool the residences and service rooms. The upper rooms had pierced plaster screens set into the walls to allow cooling breezes and the windows were fitted with shutters to close of the intense light of the midday sun.¹² Each residential block was also fitted with a wind tower, a tower rising 15 meters in the air and constructed in an X-shaped design and open on four sides to catch and push the cooling air down into the room under it.¹³

Like most Emirati traditional architecture,¹⁴ the room widths were limited by the mangrove beams, imported in standard width from India and east Africa. Decoration was sparse, consisting primarily of arcades and foliate-shaped archways and recesses, timber lattice screens, the foliate-designed pierced screens and plaster panels with a carved relief floral motive against a black background made from ground charcoal mixed with water.¹⁵ The status of the residents was indicated through the buildings relatively large size for the time and its location at the head of Dubai Creek, overlooking the boat traffic in and out of the city's port.

Illuminated by flood lights and transformed into a Museum of Historical Photographs and Documents of the Emirate of Dubai, the house now "...stands as a reminder of Dubai's rich architectural heritage and culture."¹⁶ There is, however, an opportunity here to explore the applicability of past technologies and form to the needs of the modern city through an understanding of the structure and technique used to construct the Sheikh Saeed house. William Facey outlines the attributes of mud-brick courtyard house in his documentation of the restoration of the Al-'Udahaibat farm house in Saudi Arabia. He notes that the building, similar to the Sheik Saeed house, interacts with surrounding date palm gardens to cool the building and that, quoting Hasan Fathy, the location of the inner atrium and shaded arcades facilitates wind movement and limits dust deposits. He also notes that mud brick has twice the thermal inertia of concrete block.¹⁷ In the UAE, builders used similar materials and spatial arrangements to what Facey describes for Saudi Arabia and, in addition, incorporated a range of novel, low-technology strategies for enhancing wind flow and cooling. The problem, as Facey writes, again quoting Fathy, "...is not with the material itself, but with the prejudices ranged against it and with the interests vested in the use of industrialized building materials."¹⁸ In other words, it is not necessary for these kinds of structures to remain simply as museum displays, but something needs to be done to convince those who would use and pay for such a building.

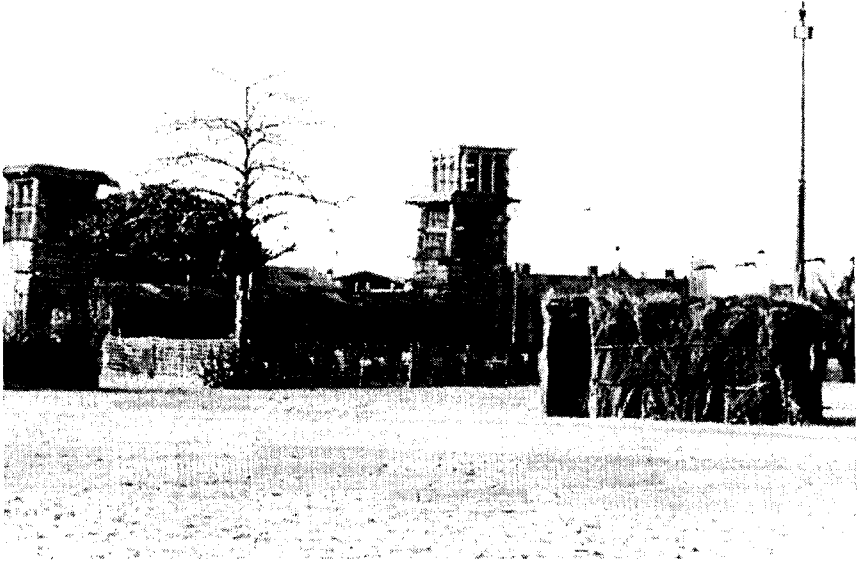


Figure 3: General view of Dubai Heritage Village showing palm frond hut and reconstructed palm frond hut and reconstructed palm frond suq.

3 The Present

The urban growth of the late pearling period collapsed along with the pearling market in the Great Depression. The newest phase of economic transformation began to occur in the Gulf in the 1950s along side the first oil exports.¹⁹ The first step was the replacement of traditional building materials with concrete block. Evident in smaller communities still with the concrete laid over top of earlier mud brick and stone foundations, this intensified over the next thirty years to the point where the traditional pattern of clusters of kin-related residences was dispersed, the use of traditional materials almost completely disappeared, and the traditional architectural answers to the harsh climate were abandoned.

More importantly, the rise in oil exports created structural changes in the UAE's economy, creating diversification by directing funds raised through oil exports to, first, industrialism,²⁰ and, second, to service sectors of the economy. This is critical because it reshaped the traditional economic structure and tore the fine commercial and tribal net that connected the various villages and towns. The settlement patterns changed with a dramatic shift towards increasing reliance on imported labor. Residents from the interior moved to the coastal cities, especially Abu Dhabi, Dubai and Sharjah to take up administrative and commercial positions. The expansion of the physical infrastructure of the country stimulated a massive influx of foreign labor.

This led to a sudden urbanization of the coastal towns. Traditional public buildings, like mosques and the few formal schools, could no longer accommodate the sudden rise in population. Larger private and public buildings replaced existing structures, whose value then shifted from use to symbol. The

effects were further two-fold: 1. in the environment of new wealth, initially the materials and principles of vernacular architecture were viewed as symbolic of an impoverished past and left to be inhabited by the least wealthy of the indigenous population or the new classes of foreign labor; 2. stands of traditional architecture became encircled and isolated within a new modernist architectural environment, closed off from their previous economic and social contexts. Even in the still rural interior, the federal and municipal governments instigated building programs in the 1970s to provide what was seen as suitable housing for the indigenous population and to replace uncomfortable traditional buildings. During this time, surviving mosques and some residences were modified with insensitive restoration attempts. Such was the perception of the old vernacular styles of architecture that in the 1970s, half of the dramatic neighborhood of Bastakiya in Dubai was demolished.²¹

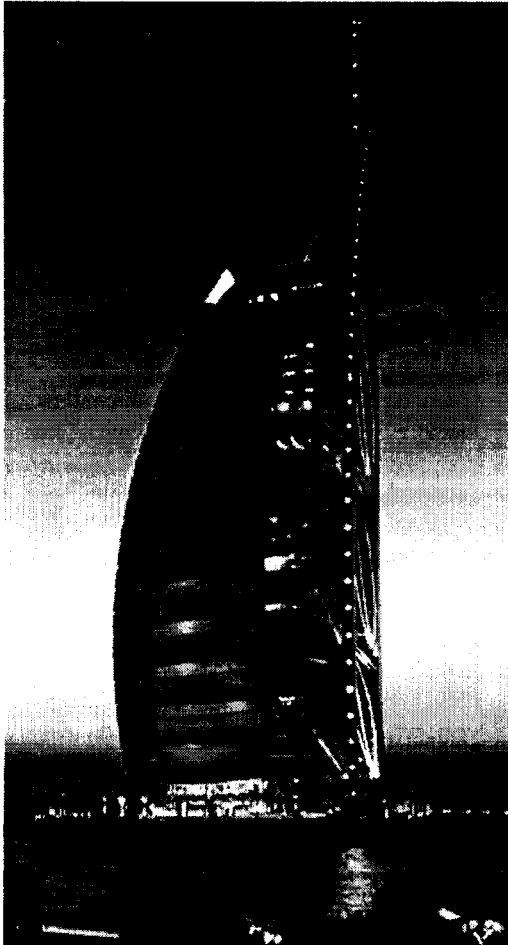


Figure 4: The Burj al-Arab Hotel

What replaced the old conventional buildings were giant pre-cast concrete houses, whose aesthetic sensibility is best exemplified in the Burj al-Arab hotel, completed in 1999 and seen as suitably emblematic enough of Dubai and its growth to adorn the emirate's car license plates. Obviously, no house matches the hotel in scale, but its design principles echo the basic expectations of the local population for contemporary architecture and it thus serves as a suitable, if dramatic, example of Dubai's current aesthetic sensibilities.

The hotel was designed by the Surrey-based firm, W.S. Atkins, under the project's design director Tom Wright. Upon its completion, it was the tallest hotel in the world – 1053 feet – and is constructed on an artificial island.²² This massive structure is designed in excess: 21000 square feet of 22-carat gold decorates its walls and furniture; a huge central fountain with a 100 foot geyser occupies the main foyer; an “undersea” restaurant is accessed through a simulated submarine ride; and each suite contains an additional butler suite. McBride's commentary on this excess reveals the patterns of criticism common of contemporary architecture in the UAE. “Both the hotel and the city,” writes McBride revealingly, “are monuments to the triumph of money over practicality. Both elevate style over substance. Above all, both were designed from the top down, working backwards from a desired image to its physical incarnation.”²³

The effect of this is, according to McBride, “...more of a film set than city....Dubai has built itself the body of a city without the soul.”²⁴ Martin Giesen, dean of the American University of Sharjah's School of Architecture and Design, is even more contemptuous, declaring the Burj al-Arab to be “...a monument to the hubris of our age, a brutal invasion into the equilibrium of landscape, arrogantly treating nature as a totally passive and malleable resource.”²⁵

The contrast between the architecture of the past and present exemplifies a tension in expectations about the nature of the modern city and the relative value of architecture. For those lamenting the potential for globalized cultural homogenization in the patronage of international modern and post-modern architecture, the Burj al-Arab indicates a failure to sustain local identity. However, the two buildings discussed here exist in tandem and the Burj and similar buildings have been symbolically “re-territorialized”²⁶ in Dubai's self-conscious visual representation. The Sheikh Saeed house on one hand and the Burj al-Arab on the other, are the negative and positive spaces of Emirati national self-image: the Burj's bright, pulsating demonstration that the sky's the limit against a nostalgic memory of the past as presented by Sheikh Saeed house. In this nationalist dream, the Dubai of today thrusts phoenix-like out of the burning sands of yesterday. The venom directed towards the building is evidence of a gap between the expectations of different cultures. As McBride points out, the Burj al-Arab was commissioned by Sheikh Saeed's grandson, Sheikh Mohammad bin Rashid al Maktoum, the Crown Prince of Dubai, who has set a course for Dubai into the main global commercial and tourist markets in order to secure economic viability independent of the oil and gas industries, of which Dubai has considerably less of than, for example, Abu Dhabi. It is indeed

an emblem of power. The ostentatious gesture that the Burj represents is a symbol of the will of the Emirati nation. The impossible luxury of the Burj al-Arab reflects the determination of Sheikh Mohammad and the people of the UAE generally (and of Dubai specifically) to dominate the geography that has otherwise bequeathed them little historically but an unrelenting sun and a sweltering climate. It is the extreme example of one people's aesthetic, where the extravagant materials and scale of the building symbolize a hard-earned prosperity and promise sustained growth

4 Problems in sustaining vernacular architecture

4.1 Economic constraints

In a recent mission statement for the conference on Conservation and Regeneration of Traditional Urban Centers in the Middle East, organizers criticized the approach Dubai and the UAE have taken to the architecture of the past and articulated a desire in the regional conservation industry to sustain rather than re-invent:

In many places of the Middle East, the living heritage ...is being replaced with staged and packaged environments. Cultural landscapes ...are increasingly becoming histories of artifacts and building forms rather than genuine ways of life.²⁷

The main point is that to preserve the integrity of the building one needs to consider the economic and social context in addition to material considerations. Architectural conservators then have to wrestle with the difficult problems of how to make the displays alive and meaningful. The tendency in the UAE is to preserve or recreate historic architecture as a symbolic tableau within the architectural context of the modern city. The buildings are not sustained so much as part of the living city as they instead function as a trope in a larger statement about Emirati progress. While technical restoration problems common throughout the world also face the restorers in the United Arab Emirates, the meaning of the past constitutes perhaps the biggest obstacle. Globalization has made traditional economic pursuits virtually obsolete and related buildings have been abandoned to decay in the heat and humidity. Since the economy of oil has re-shaped contemporary life and thus both the physical context of settlement patterns and the ephemeral rhythm of social activities, it has become difficult to sustain an authentic context for much of the remaining historic architecture.

This seems to be a particularly crucial and increasingly problematic set of issues to those associated with historic architectural traditions in the United Arab Emirates, which, as a nation, has experienced as dramatic a shift in life as anywhere in the world. Where conservators in the UAE have been most successful is in the more urban commercial parts of the old towns, although many structures here have simply been rebuilt, or even imaginably built from scratch, rather than restored. However, the pedestrian thoroughfares that connect old residential neighborhoods to the local suqs (which are still very much a living part of the community), has obscured the static, park-like atmosphere by

integrating the buildings into the city's leisure traffic. Also, the dhows that transport consumer goods through the waterways in all the coastal cities still connect littoral Arabia to the commercial ports of southern Iran and south Asia and offer an authentic-feeling backdrop. In short, the old town was primarily commercial and thus has not suffered the economic changes experienced by other parts of the community, because it continues to exist as part of a commercial corridor. The integration of these buildings into the surrounding neighborhoods and the activities that are performed there has not been lost.

4.2 Social constraints

There are social constraints against a more integrative use of the old non-commercial architectural fabric of this part of the city as well – namely, the equation of poverty with the past and the inadequacy of low-tech cooling strategies in this climate of extreme heat and humidity. Small rooms of plaster and palm frond do not adequately express the power and wealth the local Emiratis prefer to advertise in their large walled mansions of concrete, marble and stained glass. On a university class visit to a restored nineteenth century mosque at al-Falayyah in Ras al-Khaimah, my female students opted to perform their noon prayers in the local shopping mall, noting the heat, lack of clean water and general untidiness of the old mosque in comparison with the sanitized, neon-lit prayer rooms near MacDonal'd's and the mall's food court. Five minutes of prayer was followed by fifty-five minutes of window-shopping. Much to my chagrin as a historian, it was the mall that made their hearts beat faster, not a mud-brick *majlis* from the 1820s.

This is not simply the “younger” generation's disaffection with the past. Another of my students described how her father had kept telling the architects and engineers for the house he had constructed to keep making the rooms bigger, the ceilings higher. She smiled and said that it was because he remembered the small and narrow rooms of his more impermanent childhood home all too vividly. The Emirati poet Hamad Bu Shihab captured a sense of how the past might be reflected in a negative light in a poem celebrating the progress of the nation under the leadership of its first and, so far, sole president, Sheikh Zayed bin Sultan Al Nahyan:

*Yesterday these Emirates were torn apart
In them destructive men created havoc.
And today we are enjoying security and stability
Forcing envious people to admire us.
Yesterday these were disunited Emirates
Suffering ignorance, poverty, illness, and chronic disease
And today the Lord has bestowed upon us his grace
In uncountable abundance.
Yesterday few people knew our name
And today our voice reaches all corners of the Earth.
Oh! What a difference between our yesterday and today.²⁸*

The situation is further complicated by social norms in Gulf societies, where the privacy of women is of utmost concern. Conventionally, each house contains a public *majlis*, or sitting room, which allows male visitors to the residence without contravening the privacy of the female members of the host's family. Sometimes the *majlis* is attached to the main house. Other times it is constructed away from the house, usually at the perimeter wall of the yard with an entrance opening onto the main street. These kinds of spatial and structural conventions are easily adapted in contemporary architecture and are common to the monumental concrete houses typically preferred by wealthier Emirati families today. Important social traditions are sustained in this way.

However, in terms of sustaining the use of older buildings, the accepted view appears to be that it is important that tradition is made available to outsiders through maintaining the shell of the past and that convenience is guaranteed for the indigenous population through the provision of land grants and low-interest or interest-free loans for the construction of new, larger, and more comfortable housing.²⁹ In this way, the life of an Emirati family from the past can be opened up to the visitor in a controlled context, thus allowing them an understanding of the important underpinnings of Emirati society without contravening either Islamic strictures or local custom.

The importance of representing indigenous custom to outsiders cannot be overestimated. The UAE is a country completely dependent on foreign labor. In 1975, Emirati citizens represented 36% of the total population. By 1980, the percentage had dropped to 28%.³⁰ In a recent debate on expatriate and domestic labor in the United Arab Emirates sponsored by the Arabic-language newspaper *Al Khaleej*, speakers cited a government census indicating that Emirati citizens constitute only 7.5% of the nation's workforce. The majority of the nation's residents are citizens of other countries, most notably India and Pakistan.³¹ Different sectors of the economy are dominated by different ethnic groups, none of them Emirati. This has created a crisis of identity, especially with the foreign dominance of media and education.

There is acknowledgement of the past in public discourse aimed at Emirati citizens as a means of perpetuating a common national identity, but the meaningfulness of the past is based on its utility to the present. Sheikh Zayed places the past within the context of progress:

History is a continuous chain of events. The present is only an extension of the past. He who does not know his past cannot make the best of his present and future, for it is from the past that we learn. We gain experience and we take advantage of the lessons and results. Then we adopt the best and that which suits our present needs, while avoiding the mistakes made by our fathers and grandfathers.³²

The most important inheritance from the past and historically the main unifying factor among the diverse and often feuding Emirati tribes was (and is) Islam. Islam is supported through mandatory theological education in both

private and public schools, museum displays and the governmental patronage of mosque construction, Islamic study centers, and activities, like Quranic recitation contests or workshops on Dawa, or the invitation to convert,³³ that perpetuate and popularize adherence to Islam. It is the practice of Islam in this view that overshadows any material manifestation of faith. Briefly, the Quran and the Sunna, “the paradigm of behavior that every Muslim must follow...based on the belief that the Prophet Muhammad is the role model for all Muslims...”³⁴ provide guidance for the practice of Islam. The most meaningful continuity with the past is the continued *practice* of Islam.

This view creates a particularly non-material sense of history in the UAE since it creates the evaluative framework through which history is constructed in the education system. Although there is curiosity in the local past, both Islamic and even pre-Islamic, “...the educational system in the UAE does not emphasize...” UAE history and “therefore the awareness of its importance is not instilled in Emirati people.”³⁵ Alternative views not incompatible with the primary emphasis on the importance of Islamic practice are beginning to influence the development of education. Education thus offers potentially the most accessible venue through which historical context may be presented, debated and understood and through which the possibility of sustaining past building practices may gain recognition and acceptance.

Conclusion

The severing of traditional economic patterns has made it all but impossible to preserve social context for the restored buildings. The problems are both practical and symbolic. Practically, urban growth has created isolated pockets within its modernist architectural cityscape and the real informing and activating connections to other (often even more rural) communities and strands of the regional tribal economy have been lost for good, barring the complete collapse of the oil industry. Here there is an inherent incompatibility with the buildings of the past and the needs of the present. In the minds of many, no matter how quaint the inventiveness of the wind tower, it does not compare with electric air conditioning. Within the context of the UAE’s rapid modernization, the past has significant meaning in a park-like setting in which one can experience a sense of the tradition and then leave it to return to the comforts of the present.

A perception thus exists that no practical lessons can be gleaned from vernacular traditions for the architecture of the present and that the past, at least the material past, is best left there. The blame has been assigned to the presence of multinational architectural firms who have no firm grasp on the social and environmental needs of architecture in the Gulf and a limited interest in utilizing the traditional language of Islamic and Gulf architecture.³⁶ A solution proffered by this problem in Emirati society generally is Emiratisation, or the employment of Emirati nationals in all sectors of the economy. Given the low percentage of Emiratis in the UAE labor market, this solution is problematic at best. Unfortunately, the low indigenous population cannot produce enough architects to meet the needs of the massive construction now undertaken.

Second, until recently, professional Emirati architects would have had to be trained overseas. This problem has been partially solved by the opening of the School of Architecture and Design at the American University of Sharjah. In addition to offering professional training in architectural design, it also includes a program in Heritage Management, whose objectives are to encourage the conservation, restoration, and management primarily of historic architecture. A related problem, one shared by the majority of post-secondary institutions in the UAE, is that the faculty are all foreign, mainly from North America, with little or no specific knowledge about vernacular Emirati architecture, its underlying principles and its specific and highly localized techniques. The lack of curricula specific to the issues facing UAE society is common in most post-secondary institutions in the country. Its effects filter down to the lack of curricula and resources at the secondary and elementary levels of education as well. With few or no books on Emirati history, no specific courses, and a body of foreign faculty with limited knowledge of the country, it is difficult to instill an appreciation of past accomplishments among students, not only among those who will design the buildings but also among those who ultimately will pay for and use them. Part of the answer to this aspect of the problem is research. Adequate research support and funding will cultivate the resources necessary to create locally-responsive curricula and programs at all levels of the educational system.

Another issue is the segmentation of society generally and of the labor market specifically. As mentioned before this cuts along ethnic and linguistic lines. There exists as well a disjuncture between institutions of different kinds working on related problems. The lines of communication need to be opened between the conservation bodies, both public and private, the different universities and colleges, museums, and the schools and departments of education. Because of the high and frequent over-turn in foreign faculty, this is a difficult exchange to sustain. Likely, the solution will be reached in the growth of academic conferences, university-community outreach programs, and student internships in the community. This is a matter of time. Inter-action between post-secondary institutions and community-based and governmental cultural agencies is still nominal, although the older colleges and universities are more successful in this respect. As programs mature, the links between community and school will be secured.

References

- ¹ Bianco, Stefano, *Urban Form in the Arab World: Past and Present*, Thames and Hudson: London, p.14, 2000.
- ² Al Abed, Ibrahim, Vine, Peter J., & Vine, Paula, editors, *The United Arab Emirates 1996*, Trident Press: London, p.269, 1996.
- ³ *Ibid.*, p.99.
- ⁴ See Al Qasimi, Sultan Bin Muhammad, *Power Struggles and Trade in the Gulf, 1620-1820*, University of Exeter Press and Forest Row: Exeter, 1999.
- ⁵ Zahlan, Rosemaire Said, *The Making of the Modern Gulf States*, Ithaca Press: London, 1998.

⁶ United Arab Emirates University, *The National Atlas of the United Arab Emirates*, United Arab Emirates University: Al Ain, pp.21-27, 1993.

⁷ Surviving buildings from the early part of this period tend to be defensive structures. See: Kennet, Derek, *The Towers of Ras al-Khaimah*, BAR International Series 601: London, 1995.

⁸ The latter part of this period is characterized by increased urbanization in coastal villages. Surviving architecture from this era is dominated by large merchant houses, mosques, public schools, and suqs. See: Al Rostamani, Ahmed Hasan, *Dubai and Its Architectural Heritage*, Al Safeer: Dubai, 1991.

⁹ While now viewed as “Emirati,” there is substantial evidence that it represents a syncretistic form or architecture emerging in the last part of the pearling era between 1904 and 1929 with the emigration of Iranian and Indian merchants and masons to Dubai. See: Hawker, Ronald W. , *Reflections on the Wind Tower House: Architectural Style and Historical Context on the Trucial Coast. Tribulus*, 11.2, pp.18-22, 2001.

¹⁰ Omer, M. (Editor), *Traditional Architecture of Dubai. Arts and the Islamic World Special Supplement 27 and 28*, p.9, 1998.

¹¹ Kay, Shirley and Zandi, Dariush, *Architectural Heritage of the Gulf*, Motivate Press: Dubai, p. 30, 1991,.

¹² *Ibid*, pp.31-32.

¹³ *Ibid*, p.21.

¹⁴ See also: Coles, A. and Jackson, P. A Windtower House in Dubai, *Art and Archaeology Research Papers*, pp.1-28, 1975; Velde, Christian. Falayya: The Summer Residence of the Qawasim in R’as al-Khaimah, U.A.E.. *Tribulus* 11.1, pp.5-9, 2000.

¹⁵ Kay and Zandi, pp.31-33.

¹⁶ Omer, p.9.

¹⁷ Facey, William, *Back to Earth: Adobe Building in Saudi Arabia*, Al Turath: Riyadh, pp.63-82, 1997.

¹⁸ *Ibid*, p.177.

¹⁹ Butt, Gerald, Oil and Gas in the UAE. in Ibrahim Al Abed and Peter Hellyer, editors, *United Arab Emirates: A New Perspective*, Trident Pres: London, p.231, 2001.

²⁰ Shihab, Mohamed, Economic Development in the UAE, Abed and Hellyer, *United Arab Emirates*, pp.252-253

²¹ Rashad Bukhas, personal communication.

²² . McBride, Edward, Burj al-Arab Hotel. *Architecture*, 89:8, p.116, 2000.

²³ . *Ibid*.

²⁴ . *Ibid*.

²⁵ . Quoted in “Building for a Green future,” *Gulf News*, June 3, 2000: 3.

²⁶ This is based on Short and Kim’s proposed definition of “reterritorialization” to “...describe the process in which deterritorialized cultures take roots in places away from their traditional locations and origins. The reterritorialization of a culture embraces a series of processes ranging from the diffusion from their origin across borders (spatial, temporal and cultural) to establishment in a new

form. Reterritorialized cultures are not simply transposed, they are transformed.” Short, John Rennie and Kim, Yeong-Hyun, *Globalization and the City*, Longman: Essex, p.79, 1999.

²⁷ conference mission

²⁸ (from Ghanem, p.309.)

²⁹ This is a well established governmental policy at both federal and individual Emirate levels. By 1997, the Emirate of Abu Dhabi alone had provided 21, 344 homes for its citizens. See: Abed, I. and Vine, P., editors, *United Arab Emirates Yearbook 1999*, Trident Press: London, pp. 164 and 170, 2000.

³⁰ Kazim, Aqil, *The United Arab Emirates A.D. 600 to the Present: A Socio-Discursive Transformation in the Arabian Gulf*, Gulf Book Centre: Dubai, p. 370, 2000.

³¹ *Ibid.*

³² Quoted in Abed and Vine, *United Arab Emirates*, p.13.

³³ See, for example, Ahmed, Ashfaq, The Call of Islam: Learning how to spread the message. *Gulf News*, June 29, 2001.

³⁴ *Ibid*, p.73.

³⁵ Khalid, Khawla, Archaeology in the UAE, Unpublished research paper submitted as a course requirement for ART 461, Department of Art and Design, Zayed University, Dubai, p.8, 2002, (manuscript in author’s possession).

³⁶ Mawlawi, Ziad, Stereotypical Approaches to Architectural Design in the Islamic Gulf Region: The Case of the Western Firm. Conference paper delivered at *Arab Stereotyping: How Arabs are seen and how they see themselves and others*, Beirut Institute of Media Arts, Lebanese American University, Beirut, Lebanon, November 6-9, 2001.