

FROM PEDESTRIAN NEIGHBORHOOD TO AUTOMOBILE SUBURBAN CITIES: THE VILLA-TYPE MODEL

Abstract

Saudi Arabia experienced rapid growth in its population and aggressive urbanization because of the new petroleum-based economy that played a critical role in shaping its architecture of today. The oil boom during the 1970s promoted progress through the abandonment of traditional pedestrian neighborhoods in favor of an automobile “suburban” model. The new gridiron blocks were an adoption of a whole new type of residential street layout, along with new villa-type dwellings based mainly on Western precedents. Aramco first introduced this type of detached “single-family” unit in 1938 to its privileged employee camps in Dhahran. This new “outward-looking” dwelling type abandoned the “inward-looking” quality of the traditional Saudi house. This new style established a radically different relationship between the public (streets) and private (dwelling) spaces. As a result, it changed the Saudi family’s perception of their living spaces. This urban transformation witnessed the emergence of a petro-modern middle class, who saw the new model of modern houses as a step to change their lifestyle. This meant that people moved away from their traditional houses in favor of the “prestigious” (villa-type) dwellings. Due to this change, the villa residence became a symbol for improving living standards of the petro-modern society in the Gulf.

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After World War II, Gulf countries experienced rapid growth of population and aggressive urbanization as a result of petro-economic development. The turn of the twentieth century witnessed the largest emergence of major oil companies known as the “seven sisters.” At that time, the existence of some of these international firms in the Gulf region played a major role in changing public perception of domestic space resulting in the abandonment of traditional pedestrian neighborhoods in favor of “suburban” (villa-type) dwellings. The influence of these major companies can be seen most prominently through their creation of the petro-modern middle class. This essay analyzes the disruptive role that oil played on reshaping public perception of living space and its physical transformation in Saudi Arabia in the context of Gulf countries.

One can clearly trace the emergence of a petro-modern middle class in Saudi Arabia right after oil was discovered and the petroleum industry began. Although the discovery of petroleum was at the cost of the old and traditional craftsmanship, it resulted in the prosperity of new skills and abilities. As the job opportunities changed, people had access to a wider variety of available jobs in different regions and new cities. The higher income that went along with the new jobs led to the growth of a new middle class of petro-modern society. This newly formed class perception of dwellings also saw a change from the traditional society, in that people started to see the new model of modern houses as a step to change their lifestyle and be part of the new petro-society. This meant that people moved away from their traditional houses in favor of the “prestigious” (villa-type) dwellings.

The change of the meaning of what a house was began with the arrival of the petroleum industry in Saudi Arabia. In 1933, the Saudi Arabian government granted a concession to Standard Oil of California (SoCal), which allowed them to explore for oil in Saudi Arabia.¹ 1938 saw the first success come with the seventh drill site in Dhahran, Saudi Arabia, a well referred to as Dammam No. 7. On January 31, 1944, the company name was changed from California-Arabian Standard Oil Co. to Arabian American Oil Co. (Aramco). To house their foreign employees, Aramco built new houses in a gated residential camp. Although this camp was gated for the sole use of Aramco employees, most of which were expatriates, it had an enormous impact on the built environment of the local society, not only in Dhahran but throughout the Kingdom. Aramco camp residential units introduced new building materials and spatial vocabulary, as well as a new form of car-oriented neighborhoods, an alien housing type. As it will be discussed further below, it is without a doubt that the spread of the Aramco housing model in Saudi Arabia was through their local employees. We also must not forget that

similar influences were spreading in neighboring countries, such as Kuwait, where petroleum was discovered. As the industry was moving toward greater mechanization in its processes, the traditional use of craftsmanship and local materials were slowly becoming extinct. This was the primary cause for new residential units being built by foreign expertise.

In 1938, the detached villa-type unit was first introduced in the Eastern Province cities at the Aramco senior employees’ camps in Dhahran, which was designed and supervised by Bechtel International Corporation (figures 1a and 1b). However, there was always going to be resistance from a society like Saudi Arabia against the radical physical changes, which were going to be made in terms of the living environment of the country. For that, there was a need to carry out a psychological and cultural agenda in order to prepare the people for any changes taking place in their environment and modify their perception in relation to their new homes.



Figure 1a: Aramco compound Dhahran, Saudi Arabia. (Source: Aramco archive.)

Figure 1b: Levittown, New York, 1957. (Source: <https://www.thefoggiestidea.org/levittown-ny-1957> [Meyer Leibowitz/*The New York Times*].)

Notes

1. E.W. Owen, *Trek of the Oil Finders: A History of Exploration for Petroleum* (Tulsa: American Association of Petroleum Geologists [AAPG], 1975), 1290-93.

The impact of these new measures was indirect and implicit, but the impact was taking place nonetheless. Aramco was able to influence the minds of the people through commercials, and samples of ready-made design ideas through fancy physical models were being imparted to them (figure 2).

In the case of Saudi Arabia, traditional norms of generosity and hospitality also had an impact in shaping people's perceptions of dwelling space. Throughout its history, changes in the Saudi family structure called for adjustments in the size and form of the house and amount of living space in general. However, the social and cultural effect was seen as being minimized, but the petro-economic impact was leaving a lasting effect especially on Aramco's employees. Means by which this message was conveyed by petro-media included television, radio, publications, and exhibitions carried out by the oil industry. "While one might suggest that modernization always had a media department (it has always had to be sold), there is certainly something exceptional in terms of how cities in the Gulf have been represented and sold."² As a result, the modern villa or the privileged residence soon became a symbol of improving living standards and lifestyle.

This impact was not restricted to the members of the employees of Aramco alone as it was able to influence the middle and upper class of petro-culture society. Later on, these perceptions were passed down from these two classes to other social groups of the country. In spite of Aramco's involvement in the modern urbanization of Saudi Arabia, it was able to spread the image of luxury and prosperity to the privileged society. The influence was even seen to pass through different regions and reached the population of other nations as well. However, there was a contrast of living conditions and built environment of the employees— between the senior employees who used to live in the senior camp and the other workers who had to live in basic residential facilities. This was shook the equilibrium of the Saudi workers and created a division between social classes within the petro-modern society.

From a political view, the government seemed to also favor the model of the modern-villa that had been facilitated and advertised by Aramco. By 1953, the government decided to move the capital from Mecca to Riyadh. Thus, ministries had to build new headquarters for their offices and also provide new houses for their employees along the airport road. This saw the first governmental attempt of structural formation and transformation of the traditional neighborhood as an authoritative statement on how modern neighborhoods should be (figure 3). The whole project was sponsored by the government and the site of Al Malaz

was chosen as the location for the housing project to be built. Al Malaz was seen as a symbol of modernity in planning and building material in sharp contrast with the old town and was highly regarded by other segments of the society (figure 4a). The new housing project was planned following a gridiron plan with a hierarchy of streets, rectangular blocks, and 25x25-square-meter lots.



Figure 2: Aramco's employee showing a new Saudi applicant a ready-made model of the housing design for the Housing Ownership program. (Source: Aramco archive, 1961.)

As the housing units were completed in 1957, the employees were moved to the site. The project consisted of 754 detached modern-villas and 180 apartment units. It is clear that there had to be reservations in the indiscriminate adoption of such a Western neighborhood pattern. Thus, consideration should always have been given to the social-cultural setting of the local society in adopting any modern concept of neighborhood development.³ Al Malaz was a major change in the urban fabric of Riyadh, even when there was resistance by some Saudis, it was accepted and even cherished by others. Another support for adoption was the coinciding building of similar styles in neighboring countries making Al Malaz not so foreign (figure 4b).



Figure 3: Traditional mud houses, Old Riyadh, 1936. (Source: ADA archive.)

2. Todd Reisz, "The Orderly Pleasures (and Displeasures) of Oil Urbanism," *Academia.edu*. 25 (October 2013).

3. Saleh Ali Al-Hathloul, "Tradition, Continuity and Changes in the Physical Environment: The Arab-Muslim City," (PhD diss., MIT, 1981), 165.

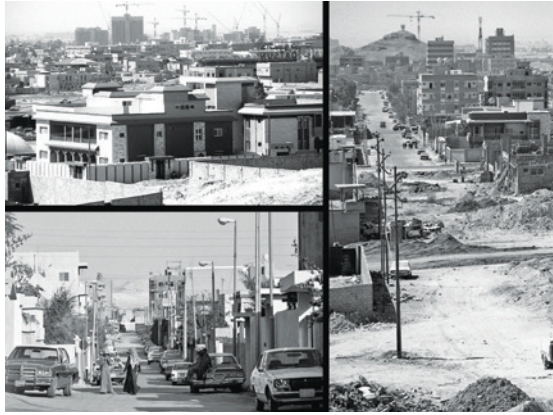


Figure 4a: Views of Al Malaz, government employees housing project in the 1960s. (Source: *Al Riyadh* newspaper).



Figure 4b: Modern villa-type houses, Al Malaz, Riyadh, 1958. (Source: *Al Riyadh* newspaper.)

of a petro-modern town was later adopted all around Kuwaiti cities after the country's independence in 1961 and, in turn, introduced a new lifestyle during the 1960s and 1970s. The new Ahmadi company town's first planning policies were based on a structural hierarchy of its employees, which also reflected the way in which the town was functioning. The implementation of these planning policies were drawn from the concept of "Garden City" and Abadan town, located in central western Iran, which was one of the first models of petro-modern cities in the region.⁶



Figure 5: Ahmadi, Kuwait, 1947. (Source: <https://abadantimes.com/2016/02/27/abadan-a-model-for-ahmadi-in-kuwait/>.)

Ahmadi in Kuwait, for example, offers a similar case in the Gulf region's earliest manifestations of petro-modernity. Similar to Aramco, Kuwait Oil Company (KOC) was formed as a result of several joint ventures of petroleum companies. KOC was the result of the joining of the Gulf Oil Corporation (GOC) and Anglo-Persian Oil Company (APOC, later BP) where they became equal shareholders.⁴ Although the American GOC and the British APOC jointly owned KOC, it was effectively a British-controlled company as APOC's majority shareholding was with the British government.

With the first oil exports in 1946, the colonial and imperial nature of Kuwait's relationship with Britain would come to be expressed spatially through architecture and urbanism. This was epitomized by the construction of Ahmadi Town as the headquarters of KOC in 1947 (figure 5). The project was commissioned to the British architectural firm Wilson, Mason and Partners, which was to be built in five different stages during five years. The project included 1,450 residential units, a hospital, a fire station, a post office, schools, staff clubs, shops, and parks.⁵ This model

4. R. W. Ferrier and J. H. Bamberg, *The History of the British Petroleum Company. Vol. 2: The Anglo-Iranian years, 1928-1954* (Cambridge: Cambridge University Press, 1982), 148.

5. "Kuwait Building Program," "Housing, Municipal and Amenity Works: 1947-1951," 1947 (file 68422/001, BP Archive).

6. R. Alissa. "The Oil Town of Ahmadi Since 1946: From Colonial Town to Nostalgic City." *Comparative Studies of South Asia, Africa and the Middle East*, 33, no. 1 (January 2013): 41-58.

Senior staff of KOC were exclusively British and American, while the bottom of the scale were the Kuwaitis and Bedouin from the neighboring Arabian Peninsula. Between 1945 and 1947, and before starting to build the new town of Ahmadi, the company had temporary houses for their employees. At that time, senior staff were living in a prefabricated steel structure for military use (Nissen huts) shipped from Abadan and London (figure 6). Later, prefabricated air-conditioned houses replaced these steel huts. Junior staff were initially housed in tents or long concrete and mud blocks. This arrangement of hierarchy soon became the driving force shaping Ahmadi's architectural design and urban plan.



Figure 6: The steel prefabricated Nissen hut structures shipped from Abadan and London. (Source: BP Archive.)

James Mollison Wilson, the founder of Wilson, Mason and Partners, was hired to design the new Ahmadi town. Wilson's work in Iraq, Iran, and Kuwait was clearly influenced by his mentor Sir Edwin Lutyens, as he worked for him as an assistant between 1913 and 1916 for the planning of New Delhi in India. Wilson was the director of the Public Works Department in Baghdad until 1926. During his role in Iraq he designed many of its famous buildings, such as the University of Baghdad, the Agricultural Institute, Baghdad Museum, the hospital in Basra, and King Faisal's palace. After that, he went to Britain to start his architectural practice.⁷ During Wilson's time in Baghdad the high commissioner was Sir Arnold Wilson, who later became general manager of APOC and hired Wilson in 1927 to design a general hospital in Abadan. This was his first in a series of commissions by the oil company, and by 1944, Wilson was formally recognized as the official architect of APOC.⁸ This can be seen as another paradigm of the impact and authority given to foreign architects to shape the newly formed petro-cities.

Wilson's town-planning approach to Ahmadi was shaped by a variety of factors: His colonial background and experience with Lutyens in Delhi, Garden City principles, KOC's building program policy, and, most important, his planning and design of Abadan. As Wilson's first major APOC commission, Abadan provided a model for Ahmadi. As in Abadan, he replicated the structural hierarchy of the oil company at three different scales: the urban, the architectural, and the social. This urban hierarchy not only reflected KOC

employee grades but also replicated the company's policy of ethnic segregation, as was apparent in the planning approach Wilson adopted in Abadan and before that in Delhi. However, unlike Howard's Garden City, Lutyens and Wilson's overall urban plan of the hexagonal grid in New Delhi was based on certain zones according to race, occupational rank, and socioeconomic status.⁹



Figure 7: The KOC senior staff housing in Ahmadi, Kuwait, 1960s. (Source: <https://abadantimes.com/2016/02/27/abadan-a-model-for-ahmadi-in-kuwait/>.)

These new types of planning policies of segregation between locals and foreigners in the Gulf cities faced strong criticism by oil workers to the government. Companies were criticized for their unfair treatment of local workers relative to the foreign employees who received higher pay and benefits and strong anti-colonial feelings were expressed. This called for a nationalization movement inside the Gulf oil companies; both KOC in Kuwait and Aramco in Saudi Arabia made sure to publicize its various efforts toward this end. These included an increase in the sponsorship of local training programs for their national employees, sending them abroad on scholarships, promoting and appointing citizens to more senior positions, and introducing the housing ownership programs (figure 7).

Both Aramco and KOC had created new rules and standards through the housing programs. In other words, in order to be eligible for the loan, the design of the residential unit had to be submitted. The number of architects who were working in the region in the 1950s were very few. Most of the architects who were in the city were working for oil companies. It is very likely a similar process had taken place in other Gulf countries. This meant that the employees who wanted to get a house designed had to rely on the company's architects in order to design their houses. For the sake of creating a standard of modular units and enhance the rapid housing production, there were a few alternative designs which had been approved by the companies and were offered to the employees

7. C. H. Lindsey Smith, *JM: The Story of an Architect* (London: Wilson, Mason and Partners, 1976).

8. M. Damluji, "The Oil City in Focus: The Cinematic Spaces of Abadan in the Anglo-Iranian Oil Company's Persian Story," *Comparative Studies of South Asia, Africa and the Middle East* 33, no. 1 (2013): 75–88.

9. Anthony D. King, *Colonial Urban Development: Culture, Social Power, and Environment* (London: Routledge and Kegan Paul, 1976), 244.

to choose from as an alternative. These designs and ideas had been put forward by architects who were not familiar with either the socio-cultural values nor the climate of the region.

Before starting these attempts of nationalization, there were amenities which were being provided to the senior staff which were overlooked for the local workers. This led to an acute increase in the need of the employees to achieve self-affirmation by looking to become senior employees and get to live in the privileged quarters of the oil companies. In Saudi Arabia, this led to the labor strikes of 1953 and 1956, as employees felt alienated and ignored by the company's management.¹⁰ The protests showcased the need of the employees to get to enjoy the benefits of using better building materials and techniques and improving their quality of life that was being enjoyed by the senior staff. In Kuwait, employees were also seeing an awakening of their self-consciousness as they were becoming aware of their conditions and wanted to end the regime of discriminatory practices used by oil companies.¹¹

The people soon realized that they would not be able to live the privileged life, as it was reserved for only a certain class of people. Belonging to a lower class of society, they would never be able to achieve the benefits and privileges enjoyed by the others. By applying for the housing ownership programs, the native employees were able to go through a process of social and psychological change, which allowed them to acquire better skills and allowed them to live in better residential units. Due to this change, the villa or the privileged residence given to the senior officials became a symbol for improving living standards of the petro-modern society in the Gulf.

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