The Transformation of Housing Typologies in Dubai: From Pre-Oil to Post-Oil Era

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Abstract:

This thesis examines the transformation of Emirati housing in Dubai from the pre-oil era to the present, analyzing how housing typologies evolved in response to social, economic, and cultural shifts following the discovery of oil. Through a comparative spatial analysis of Arish, Barajeel, Sha'bi houses, and modern villas, the study investigates the extent to which these transformations align with traditional Emirati cultural values. By highlighting the tensions between modernization and cultural preservation, this research contributes to the understanding of how architecture both shapes and reflects identity in a rapidly developing society.

Keywords:

Housing Typologies, Cultural Identity, Urban Transformation, Vernacular Architecture, Oil Discovery, Dubai

"The desert on the other side was, most of the time, flat, hard and desolate; nothing and no one came from its depth except rarely . . . The bedouin who had at first refused to go near the sea or take part in unloading cargoes from the small boats were soon won over. It seemed to them curious, arousing and somewhat risky, and before long they went closer to the sea. They did so hesitantly, in stages, with a sense of experimentation and secrecy . . . but their fear never left them, for 'water is treacherous, a swallower who never is satisfied' . . . Later on they waded into the shallow water. It was enticing, caressing their feet with its coolness and density, and with the passing of time they did not hesitate to bathe in the sea . . ."

"You will not find in this city anyone who cares for it or wants it to stay, because it was born in the wrong place and at the wrong time. Even those who built it will abandon it, because they never imagined it would be this ugly and this hostile."

Abdelrahman Munif, Cities of Salt

Abdelrahman Munif (2004–1933) was a Saudi writer best known for his novel series Cities of Salt, one of the most renowned works in modern Arabic literature. The series envisions life in the Arabian Gulf following the discovery of oil and the rapid transformations that ensued. The novels were considered critical of the Saudi regime, leading to a long-standing ban on their publication within Saudi Arabia. Munif believed that the Gulf cities, which rapidly evolved from Bedouin coastal villages into large, striking urban centers after the oil boom, could just as easily vanish. He argued that these cities are inherently fragile and weak because they lack historical roots (Alraouf, 2017).

Barajeel roofs in 1960 *(Arabian Gulf Digital Archive, n.d).*

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Introduction

The city of Dubai has undergone a remarkable urban transformation over the past few decades, evolving a small fishing village on the Arabian Gulf in the nineteenth century into a global metropolis (Elsheshtawy, 2004). Its early significance tied from its strategic location along historical trade routes, situated at the eastern end of the Gulf, a crossroads for commerce that shaped its early economy. British India Office records first documented Dubai as a coastal settlement in 1799 and 1820, underscoring its historical role as a trading hub (Damluji, 2006, p.180).

Dubai's urban transformation was not limited to its skyline; housing typologies also underwent radical changes. Before the discovery of oil, the population relied on tents woven from goat and sheep hair for shelter. Today, Emirati citizens inhabit luxury villas, a stark contrast enabled by oil wealth. These housing transformations reflect not just economic progress but also profound shifts in social dynamics, raising questions about the preservation of cultural identity. In the late 1990s, Dubai adopted neoliberal economic policies, favoring privatization and deregulation, to diversify its economy beyond oil, prioritizing sectors like tourism, finance, and real estate. This shift granted private developers big control over urban planning, reshaping the city's demographic landscape (Alawadi et al., 2018).

The demographic consequences of this restructuring have been dramatic. Emiratis now represent a "shrinking minority," comprising just %8 of the population in 2023 (Dubai Statistics Centre, 2023), while expatriates from Arab, Asian, and Western nations form the majority. Scholars argue that this imbalance threatens national identity and culture of local population (Alawadi et al., 2013; Al Qassemi, 2013). While oil wealth has undeniably elevated living standards, it remains unclear whether these material gains align with the cultural values embedded in traditional Emirati life.

This study explores the transformation of Emirati housing through the lens of cultural adaptation. The research question guiding this study is: **How did the discovery of oil reshape housing typologies, and to what extent do these changes align with traditional cultural values?**

To answer this, the research analyzes pre-oil housing ,including Arish, and Barajeel houses. This section highlights how this houses were designed to accommodate to the local climate and cultural values of local citizens. Then, the study traces the post-oil shift to government-built Sha'bi houses and, later, privatized luxury single-family villas, evaluating how each typology reflects or disrupts Emirati cultural identity. By comparing historical and contemporary floor plans of national housing for Emirati, the study assess whether modernization has preserved cultural heritage or facilitated its erosion.

This research relies on a combination of primary and secondary sources, including archival materials, government housing plans, and scholarly research on Dubai's housing typologies. By analyzing shifts in housing typologies, this study seeks to understand how economic prosperity has influenced not only the built environment but also the cultural fabric of Emirati society.

1.1 Historical Context

Before the discovery of oil, Dubai featured two main housing typologies: courtyard houses constructed from coral stone, known as Barajeel houses, and settlements primarily inhabited by Bedouins, built from palm fronds, known as Arish houses. These two typologies coexisted together, as illustrated in Figure 1. The houses on both sides of the creek were predominantly Barajeel houses, while the city expanded primarily with Arish houses (see Figure 2). Barajeel houses served as residences for the wealthy, whereas Bedouins and lower- to middle-class citizens continued to reside in Arish houses.

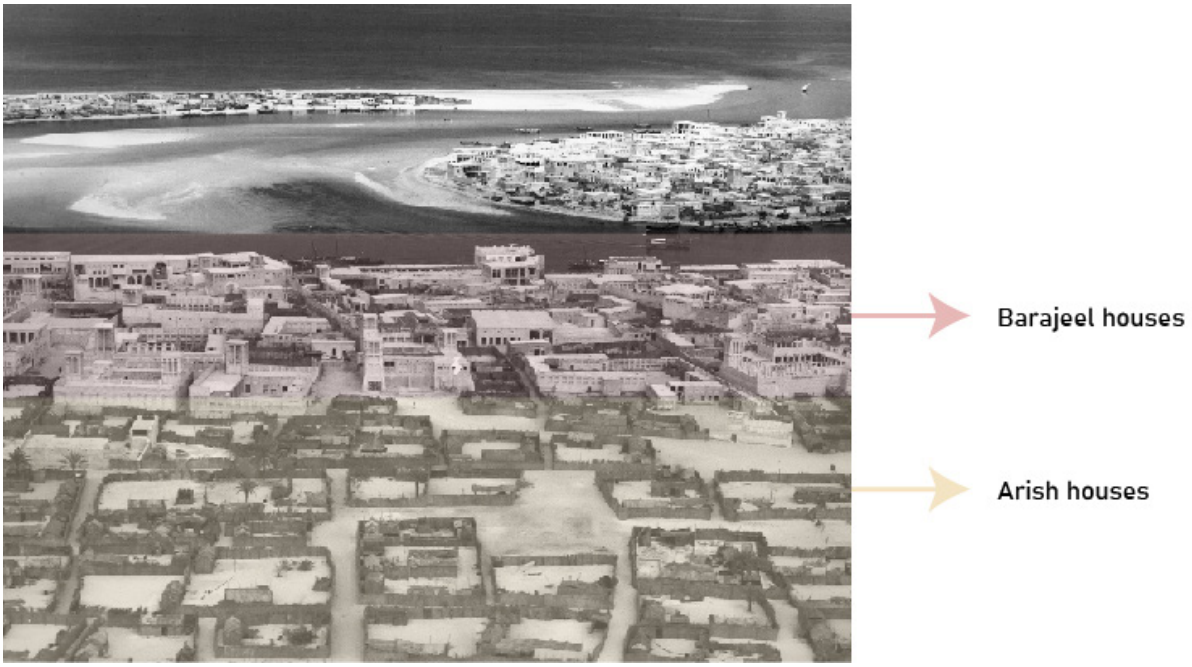


Figure 1, City of Dubai in 1950, showing Arish houses alongside Barajeel houses (Al Maktoum Foundation, n.d.)

Figure 2, City of Dubai in 1950, showing Arish houses as settlements expending outside the inner city, along the creek, with barajeel houses (Al Maktoum Foundation, n.d.).

Historically, the Arab population has maintained a strong connection with the palm tree, which provided essential construction materials and a vital food source. Among the structures built from these materials, the Arish house was one of the most prominent traditional architectural forms in the United Arab Emirates. Arish dwellings once accounted for approximately %80 of residences, offering protection against the region's harsh climate. The use of palm fronds facilitated natural ventilation and provided a cooling effect. Despite advances in urban development, Arish houses continue to hold cultural significance. Many are still built alongside contemporary homes during the summer for their traditional atmosphere and are frequently incorporated into heritage events and tourism initiatives (Emarat Al Youm, 2024).

It is believed that around the 1930s, rapid development began with the arrival of Sunni merchants. Many coral Barajeel houses were constructed during this period, primarily by merchants who owned businesses near the suq (market) (Damluji, 2006, p. 181). This marked the emergence of a new housing typology in Dubai. The first Barajeel houses were built on the southern side of the creek, east of the old suq, where the inhabitants worked. The neighborhood that emerged from these developments became known as Al Bastakiyyah. The name originated from Bastak in Iran, as many merchant settlers, at the special request of Sheikh Maktoum, migrated from that region (Elsheshtawy, 2009, p. 77).

These wealthy merchants commissioned the construction of their homes, resulting in a neighborhood rich in architectural heritage. The houses were designed to maximize comfort in response to the heat and humidity of the Gulf coast (Elsheshtawy, 2016). In addition to climate adaptation, as discussed in numerous studies, these structures were designed to align with local cultural traditions and Islamic values (Saleh,2023; Bukhammas, 2024).

At the time, palm fronds were not only used to contstruct Arish houses but were also incorporated into Barajeel house construction and public spaces, particularly in suq (markets), to create shaded areas. Archaeologists have indicated that palm fronds were used as structural supports alongside coral stone in the construction of ground-level structures (Piesik, 2012, p. 130).

Figure 3, Barajeel houses seen from the creek in 1960 (Arabian Gulf Digital Archive, n.d).

By the late 20th century, following the discovery of oil, the district experienced gradual abandonment as residents sought modern amenities. Particularly in the 1970s, many local residents left their homes in Al Bastakiyyah and moved to newly developed suburban areas in Rashidya, where they were offered larger plots to build their own homes. This migration contributed to the decline of Barajeel houses, many of which were repurposed for low-income laborers. The extension of the rule's office and the construction of the Diwan office led to the destruction of a significant portion of the Al Bastakiyyah neighborhood, resulting in the demolition of several historically significant houses (Elsheshtawy, 2016).

In 1989, Dubai Municipality planned to demolish the remaining sections of the Al Fahidi Historical Neighborhood. Around this time, British architect Rayner Otter, who resided in the area, undertook the renovation of his house. Determined to protect the neighborhood, he launched a preservation campaign and wrote a letter to Prince Charles, who was scheduled to visit Dubai that year (Wikipedia contributors, 2024). Upon his arrival, Prince Charles expressed interest in Al Fahidi and toured the area with Otter. During the visit, he recommended preserving the neighborhood, leading to the cancellation of demolition plans (Elsheshtawy, 2009, p. 75).

In the following sections, the special layout and cultural adoption of the Arish and Barajeel houses will be analyzed.

1.2 Arish; First Housing Typology in UAE

Arish houses do not follow a single form; they can be constructed in various shapes, sizes, and arrangements. Additionally, their designs vary across different regions and landscapes in the UAE (Piesik, 2012, p. 50). A typical Arish house has been reconstructed in the Dubai Museum, located in the Al Fahidi neighborhood, as part of the city's heritage. The plan, shown in Figure 4, consists of a Khaimah, primarily used during winter, featuring a pitched roof, and a flat-roofed front section known as Arish, which is utilized in the summer. The summer Arish is equipped with a wind tower to facilitate ventilation during the hotter months.

The Arish and Khaimah can also be designed as separate structures, as illustrated in Figure 5. Each Khaimah includes a one-meter-wide washing area, serving as a functional space for a single family. The household is enclosed by an Arish fence, which creates a courtyard that can be partitioned to separate spaces for men and women (Piesik, 2012, p. 130). Within the courtyard, a Manama (wooden bed) is placed, allowing family members to sleep outside during warm summer nights. The wooden entrance door features a barrier on the private courtyard side, preventing guests or passersby from directly viewing the family's living space (see Figure 6).

The construction methods for the Khaimah and Arish differ based on seasonal needs. The palm frond panels in the Khaimah are tightly woven to minimize wind penetration during winter (figure 10), whereas the Arish is designed with a more open weave to facilitate airflow and cooling during the summer (figure 9) (Gulf News, 2016).

Arish houses represent an architecture without architects, as they were traditionally built by families or entire neighborhoods using dry palm fronds. This craftsmanship was passed down from parents to their children (Piesik, 2012, p. 182). The construction process involves cutting dry palm fronds from the tree, trimming the ends to ensure uniformity, and soaking them in salt water overnight to soften the material (Piesik, 2012, pp. 185–184).

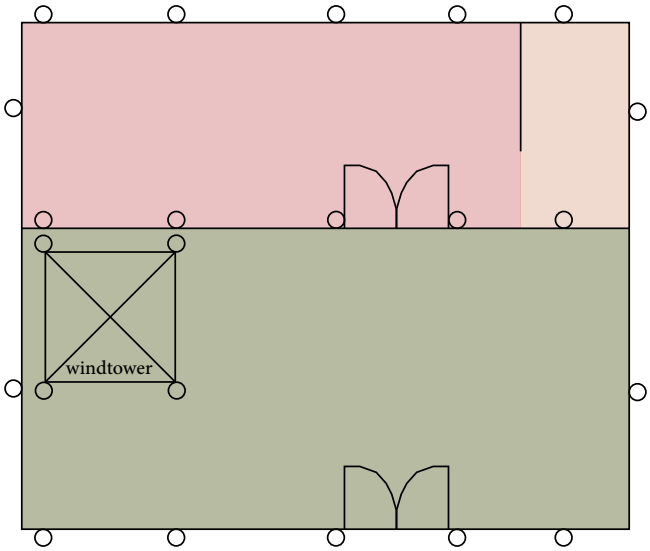


Figure 4, a redrawn typical plan of the Arish house reconstructed in Dubai Museum (Piesik, 2012, p. 130).

Figure 7, Arish wall constructed from palm fronds (The National, 2020)

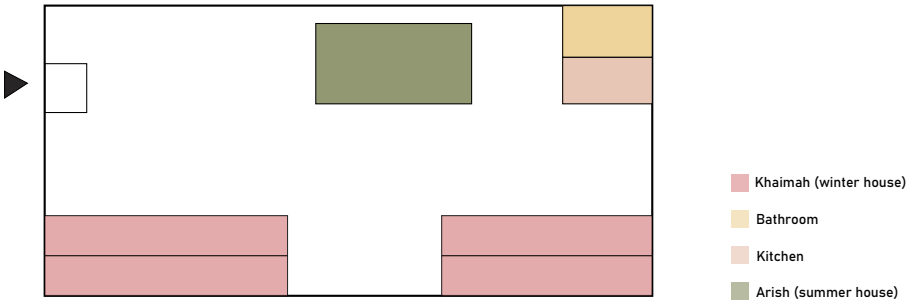


Figure 5, redrawn plan of Arish house within the courtyard as sketched by a household (Piesik, 2012, p. 130)

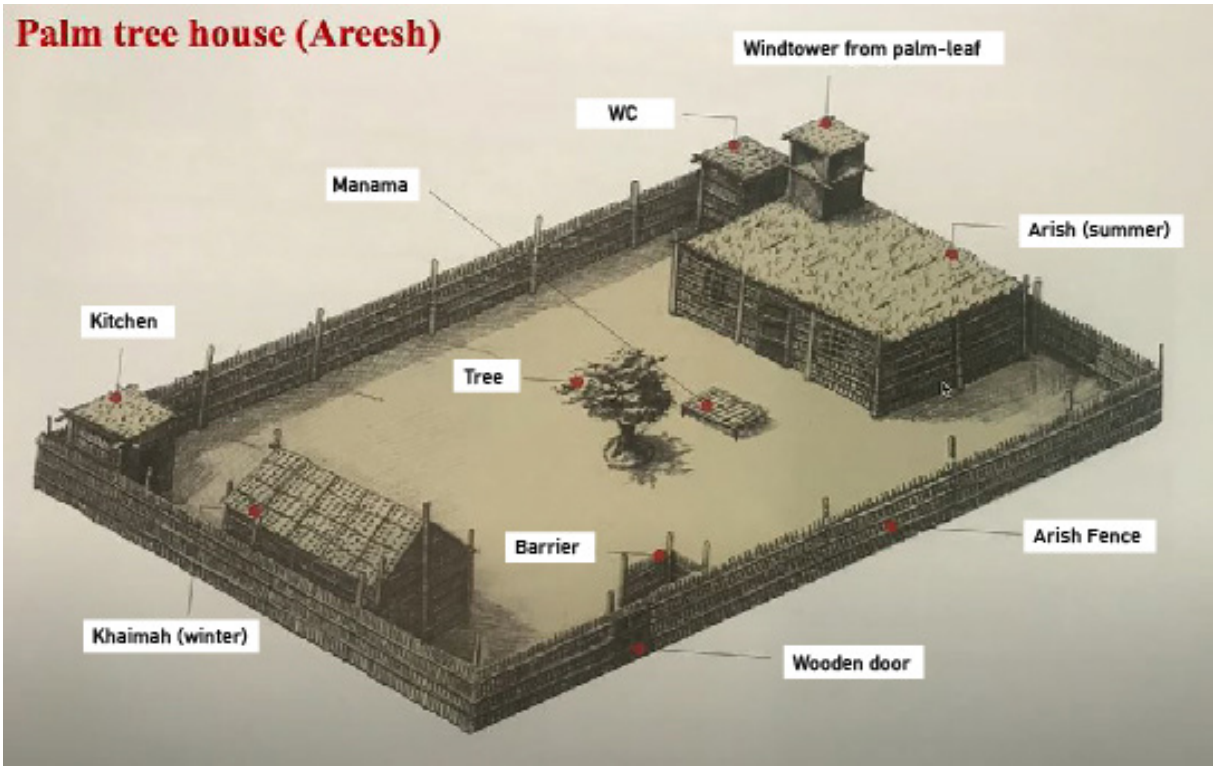


Figure 6, an illustrated perspective of Arish house with functions (Bukhash, 00:31:00 ,2022)

Figure 8, Arish house with windtower constructed in Dubai Museum, located in the Al Fahidi neighborhood (Where in Our World?, n.d.)

Figure 9, Arish (summer room) with open woven palm fronds for air flow (Where in Our World?, n.d.)

Figure 10, Khaimah (winter room) with tight woven palm fronds (Where in Our World?, n.d.)

1.3 Barajeel; The Traditional Lifestyle in Dubai:

Barajeel houses (wind towers) featured various layouts and architectural details; however, they followed the same fundamental principles, which are common characteristics of this type of housing. Factors such as the family's wealth, individual needs, and the size and location of the plot influenced these variations. Barajeel houses were designed to adapt to the evolving needs of families over time. Additionally, they were intended to accommodate extended families, ensuring that multiple generations could live together under one roof (Damluji, 2006, p.183).

It was common for families to reside in the same house, and if space was limited, they would live in close proximity to one another. This tradition remains prevalent in Arab and Islamic communities today, despite modernization. Adult siblings often take responsibility for caring for their parents, reinforcing the cultural norm of living together or nearby. A single household could accommodate three different generations, from grandparents to married grandsons (Damluji, 2006, p.183). The religion of Islam emphasizes the importance of strong family relationships as a foundation for a cohesive community.

A medium-sized Barajeel house was selected to be analyzed to define the main characteristics and principles that shaped this form of living and its strong connection to the local culture. Barajeel houses typically consisted of a single storey; however, it was possible to expand them by adding rooms on the first floor. These houses featured a central courtyard and wind towers, which were used to cool the rooms on the ground floor (Damluji, 2006, p.183).

The selected house (figure 11) has two entrances: one primarily for visitors conducting business and the other for private use by family members, particularly women. Although these two entrances differ in appearance (see north and east elevations, figure 13), the private entrance is designed to be simple, while the visitor's entrance is more elaborate, featuring a covered porch and ornamental details. The private entrance is located along narrow sikkah (alleyways), ensuring maximum privacy for the family. The visitors' entrance does not open directly into the courtyard, which is reserved for the family's private use. Instead, it features a porch where neighbours could gather. Along the hallway leading from this entrance, there is a majlis (gathering room), a guest room (for visitors to stay overnight), and a bathroom for visitors, though not all houses had the latter. The majlis is an open room intended for receiving guests, reflecting the culture's deep-rooted hospitality. As a more public space, it has windows on both sides facing the sikkah, unlike the private rooms in the house. Additionally, the majlis is elevated a few feet above ground level to maximize airflow, providing a cooler environment for guests sitting on carpets (figure 12) (Damluji, 2006, p.187).

Although the house is designed to ensure privacy from the outside, there is a clear yet fluid interaction between public and private spaces within the structure itself. In addition to serving as a residence, the house also had commercial functions, as the majlis and guest room were used for business transactions. A small shop was located in the northeast corner, and some rooms were used as extra storage spaces for goods.

The family entrance is more open toward the courtyard; however, barriers prevent direct visibility into the private space. The ground floor contains two family rooms, which were commonly used in winter, while the roof provided a cooler place to sleep during hot weather. The wind tower room was primarily used during the summer, offering a naturally ventilated space for family members to sit or sleep. Unlike the public-facing rooms, family rooms on the ground floor do not have windows facing the sikkah; instead, they open toward the courtyard,

ensuring privacy. Small niches built into the walls, as seen in the floor plans (figure 11), served as storage for personal belongings. Verandas in front of the rooms provided shade, functioned as gathering spaces, and were often used by women for food preparation before cooking in the matbakh (kitchen). While cooking took place inside the kitchen, food preparation often occurred in the courtyard, where women worked together (Damluji, 2006, p.189).

The first floor contains rooms for extended family members and is designed as a flexible space where additional rooms could be built if necessary. A family summer room on the first floor features a loggia in front of it. Family rooms on this level have windows on both sides, including those facing the sikkah, yet designed in a way that prevents direct visibility into the interior. Similar to the ground floor veranda, the loggia serves as a shaded sitting area during summer. The roof is also utilized as a private space for the family, enclosed by a parapet wall for privacy (see elevations, figure 13) (Damluji, 2006, p.190).

Barajeel houses are built in close proximity to one another, with maximum plot coverage, creating a dense neighborhood (figure 14). However, they are are designed with several features that protect their inhabitants' privacy from the public while still fostering social interaction. They provide private outdoor spaces, such as courtyards and rooftops, while interior rooms remain well-shielded from public sikkah (alleyways). At the same time, these houses encourage social engagement with neighbours through the majlis, which is open to male guests, and the courtyard, which serves as a gathering space for women during the day. The courtyard allows for interaction among family members as well as visits from female guests while ensuring maximum privacy and protection from the view of unrelated men.

Figure 11, floor plans barajeel house (Damluji, 2006, p.186), own analysis.

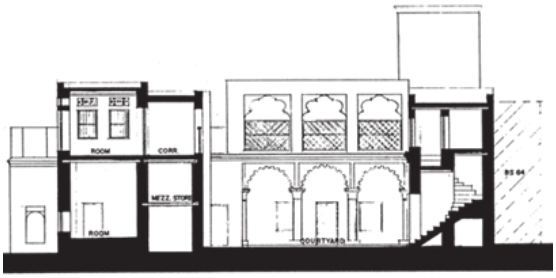
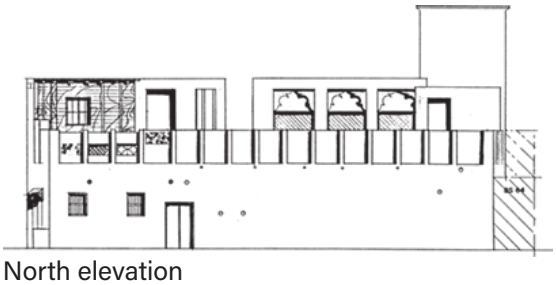


Figure 12, section through courtyard barajeel house (Damluji, 2006, p.187).

South elevation



North elevation

East elevation

Figure 13, elevations Barajeel house (Damluji, 2006, p.187).

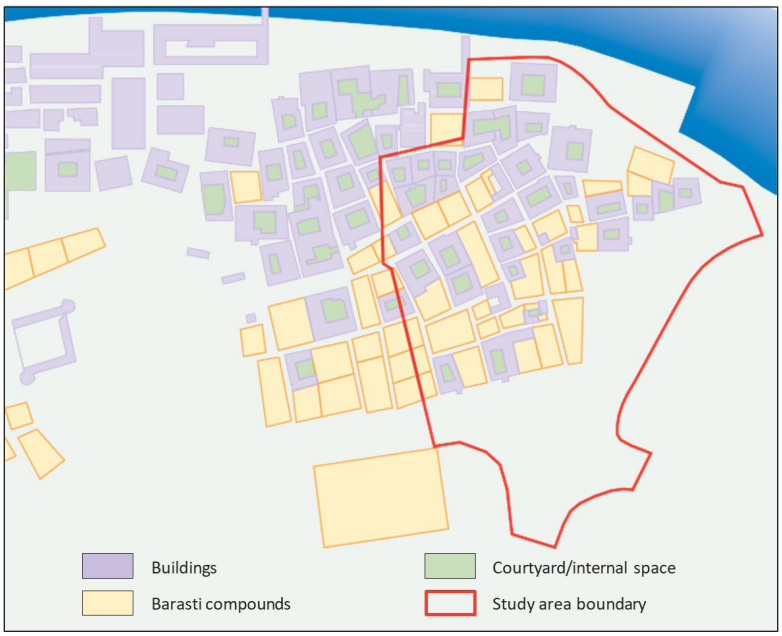


Figure 14, Bastakiyyah neighbourhood in 1950 on urban scale (Damluji, 2006, p.182)

A still-existing traditional neighborhood in the foreground, contrasting with the high-rise towers in the background (Alawadi, 2016, p. 124).

Chapter 2 The Transitional Phase: Sha'bi Housing

2.1 Historical Context

Sha'bi houses (folk houses) were the first attempt to introduce modern housing for local residents. Their primary objective was to distribute the wealth generated from oil discoveries among Emirati citizens, with the ruling authorities emphasizing that housing nationals was a priority. Additionally, these houses were intended to accommodate the Bedouin population, who had previously lived in Arish houses (constructed from palm fronds) in the vacant desert areas beyond the inner city boundaries (Elsheshtawy, 2016).

As UAE cities began expanding and developing into a modern state following the discovery of oil, the first step was to urbanize the Bedouin population by providing them with homes equipped with modern amenities, such as electricity and running water, facilities they had previously lacked. Arish houses were no longer considered suitable dwellings. This sentiment was reflected in an article published in Al Ittihad newspaper in 1972 regarding social housing (Elsheshtawy, 2016, p.92):

"This constructive step is considered to be a strong push to get rid of dwellings made of palm fronds, especially after the recent fire that destroyed more than thirty homes. It is also designed to eliminate these homes, which no longer serve the image of the United Arab Emirates and to raise the social, health and work standards by changing the lifestyle and daily behaviour of individuals." (Elsheshtawy, 2016, p.92; Al Ittihad, 1972)

Figure 15, extracted from Ittihad newspaper, shows Sha'bi houses after construction (Elsheshtawy, 2016, p. 112).

Sha'bi houses began to be heavily constructed in the early 1970s across various regions of the UAE. They were considered a gift from the ruler, Sheikh Zayed bin Sultan Al Nahyan, to the people. These social housing units were primarily built on the same land where Bedouins had previously settled, as many refused to relocate to the city, even when offered palaces instead, preferring to remain in their traditional environments. There is limited documentation on the history of these houses, with the work (Elsheshtawy, 2016; Elsheshtawy , 2019) of being one of the few scholarly sources available. Part of their research primarily relies on articles from Al Ittihad newspaper, which recorded the early development of Sha'bi houses.

An analysis of these historical records suggests that Sha'bi houses were built on a limited budget, as they did not provide large enough spaces to accommodate extended families and did not fully align with the needs of local residents. However, at the time, the transition from traditional homes to modern housing was seen as a significant privilege, and most people initially welcomed the move. These new homes offered modern facilities, such as electricity and running water, which greatly improved daily life. Despite this, newspaper articles from that period captured a growing sense of nostalgia among citizens, as many began to miss their tents and Arish houses, which they had built themselves (Elsheshtawy, 2016, p.102; Al Ittihad, 1977).

Some residents also criticized the lack of local visual identity in Sha'bi houses, noting that they were constructed from concrete with a uniform, minimalist appearance, devoid of ornaments or elements of Islamic architecture. Additionally, local materials, such as palm fronds and coral stone, were replaced with concrete structures. Unlike traditional materials that naturally regulated indoor temperatures, concrete retained heat, making air conditioning a necessity (Elsheshtawy, 2016, p.96).

The rapid construction of Sha'bi houses led to several challenges. Between 1971 and 1976, records indicate that 40,000 units were built (Elsheshtawy, 2019; Al Ittihad. 1976). While early Sha'bi houses were inspired by the Bedouin way of life (Elsheshtawy, 2016), the sheer volume of construction left little room for in-depth studies on traditional and cultural needs (Elsheshtawy, 2019).

2.2 The spatial arrangements of Sha'bi houses

In Dubai, no case studies have been found documenting a specific Sha'bi house still occupied by its original Emirati residents, as most have either been demolished or are now inhabited by expatriate workers. However, in other UAE cities, a greater number of Sha'bi houses remain occupied by their original Emirati residents, making them easier to document. Despite variations in modifications over time, most Sha'bi houses followed a similar design.

For an analysis of the spatial arrangement, a typical floor plan was selected to provide insight into the original design of Sha'bi houses. Figure 16 presents a floor plan of a Sha'bi house designed by Halcrow (a British engineering company) from 1968. The layout consisted of two bedrooms, a majlis, a kitchen, a bathroom, and a large courtyard within a 24×24m plot. A covered roof extension was included to provide shade and minimize direct sunlight exposure. The house had two entrances, likely with one leading to the majlis as a designated guest entry. Notably, the built area occupied only %25 of the plot, leaving a large open courtyard that could be used for gardening or future room expansions (Elsheshtawy, 2019; Al Ittihad, 1973).

However, certain design flaws were noted. The majlis was located too close to the bedrooms, compromising privacy when guests were present. Additionally, family members and guests shared a single bathroom, and the kitchen's proximity to the majlis was culturally inappropriate in that time (Elsheshtawy, 2019). The lack of clear separation between private and public spaces conflicted with local traditions, where it was essential to create distinct areas for male guests and female household members.

To address these shortcomings, residents modified their homes over time. Given the large plot sizes, it was possible to add extra rooms to accommodate growing families. The government regulated modifications by requiring residents to submit official applications for home expansions. Authorities reviewed these requests and approved them if deemed necessary (Elsheshtawy, 2016, p. 110). This policy aimed to maintain urban planning standards and prevent unregulated modifications. However, in many cases, residents proceeded with changes independently, leading to significant variations in the appearance and layout of Sha'bi houses after they were occupied.

The government acknowledged the criticism and feedback from the public, responding by continuously refining the design of Sha'bi houses. Figure 17 presents a floor plan developed by the Ministry of Public Works, which introduces additional rooms and a more structured distribution of spaces within the courtyard. This design aligns with the description provided by Al-Ittihad newspaper (1980) claiming that it is the guides of the ruler, Sheikh Zayed, to improve Sha'bi houses reacting to the criticism of people:

"Zayed's directives state that each unit should have a fence 100 feet long, of the correct height, and that each bedroom should have its own bathroom. His Highness expressed his concern that unit design conforms to Islamic traditions, with men's halls remaining separate from women's halls, and halls not overlooking interior rooms. The houses should also have "liwans"(veranda), which shade the entrances of rooms and provide shade, particularly during summer. The directives also stated that social housing units should be situated in appropriate locations, in order to avoid flooding in the low-lying areas, and to ensure that public utilities are available. Kitchens should also be expanded to make work easier for housewives." (Elsheshtawy, 2016, p.108; Al Ittihad, 1980)

In this design, the majlis is strategically positioned adjacent to the street, allowing guests to enter directly without accessing the family's private areas. It is also equipped with a dedicated bathroom, ensuring that visitors remain separate from the household's living quarters. The bedrooms are placed at a considerable distance from the majlis, enhancing privacy and incorporating two separate bathrooms for the residents.

A liwan (veranda) extends in front of the bedroom section, serving as a buffer against direct sunlight while also functioning as a shaded outdoor seating area. The kitchen is situated at the rear of the house, deliberately separated from the majlis, thereby allowing female family members to cook and move freely without concerns regarding male guests› presence. Furthermore, placing the kitchen away from the bedrooms prevents cooking odors from permeating the sleeping quarters, ensuring a more comfortable living environment (Elsheshtawy, 2019).

These houses where designed as a minimum in which they consisted of prefab white concreate structure and had in most cases only two bedrooms which was not enough for the usually big families of Emirati. However, the minimalist design and the big courtyard allowed people to modify those houses according to their needs and culture. This included adding extra rooms, painting the walls and adding decorations and planting the courtyard and the surrounding of the house which added privacy for those houses.

This all resulted in a great variation in the appearance of shai'bi houses as now two houses looked the same after being occupied. According to Elsheshtawy, 2016, The Sha'bi house can indeed be seen as a form of vernacular architecture that challenges the dominant model of top-down planning commonly found in the region.

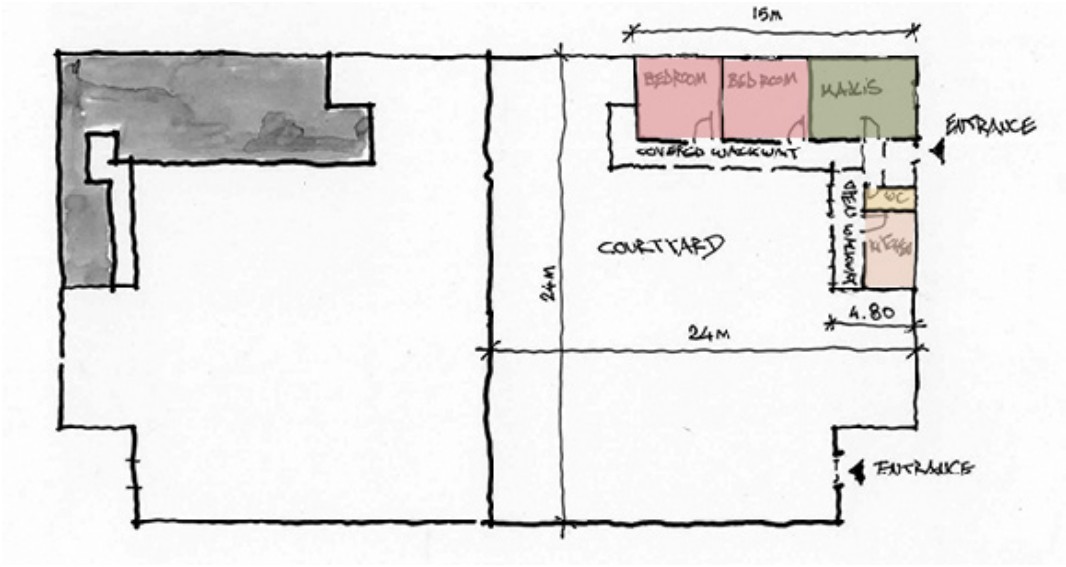


Figure 16, Halcrow Sh'bi housing model 1968 (Elsheshtawy, 2016, p.25)

Figure 17, plan of Sha'bi house developed by Ministry of Public Works (Elsheshtawy, 2016, p.40)

To conclude, amid Dubai's rapid urban development, locating Sha'bi houses within the contemporary urban fabric has become increasingly difficult, as many have been demolished or repurposed as housing for expatriate working-class communities, as example is Al Satwa neighbourhood in Dubai.

Beginning in the 1980s, most Emirati families relocated to luxury villas on larger plots, leaving behind their traditional homes. However, some Emiratis chose to remain, either due to a strong emotional attachment to their homes or financial constraints that prevented them from moving to modern suburban villas. As a result, these families found themselves living among working-class expatriates, a situation often perceived as culturally undesirable within Emirati society.

Figure 18, A still-existing Sha'bi house in a traditional neighborhood in Dubai, with high-rise towers in the background (Elsheshtawy, 2016, p. 166).

Figure 19, A still-existing Sha'bi house in Al Shorta, Dubai, with high-rise towers in the background (Elsheshtawy, 2016, p. 17).

Luxery Villas in Suburban Neighbourhood (Alawadi, 2016, p. 127).

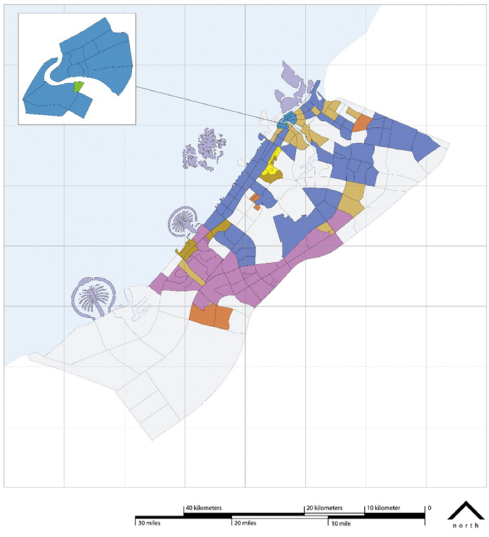
Chapter 3 The Post-Oil Era: Emergence of the Luxury Villa

3.1 Single-Family Houses in the Urban Context of Dubai

The United Arab Emirates has long prioritized housing for its citizens. This commitment originates from an initiative launched by Sheikh Zayed in the 1960s, which laid the foundation for today's national housing programs designed to distribute wealth among Emirati nationals. The beginning of 1980 marked the transition from Sha'bi houses to the single-family modern villa model that dominates today. This shift was primarily driven by increased oil revenues, enabling the government to offer more luxurious housing options in place of the low-cost, minimalist Sha'bi houses.

In Dubai, Emirati citizens receive priority in urban development strategies. Government efforts focus on creating appropriate neighborhoods and amenities fitted to citizens' needs. Urban planning in the city tends to segregate nationals and non-nationals (Alawadi, 2016). This segregation aligns with the discomfort many Emiratis feel living in close proximity to expatriates, due to cultural differences (Alawadi & Benkraouda, 2017).

Currently, Dubai's housing distribution is shaped as following: Emiratis typically live in subsidized homes within designated neighborhood, while high and middle-income expatriates reside in contemporary mega-projects such as high-rise apartments and gated communities initiated by private sectors. The private sector now controls about 45% of Dubai's urban area (Alawadi et al., 2018). Meanwhile, older distracts such as Al Satwa and Al Karama, characterized by Sha'bi houses and midrise buildings, are primarily inhabitated by low-income migrant workers due to their affordable rent (Alawadi, 2016; Alawadi et al., 2018). Figure 20 illustrates Dubai's housing typologies, highlighting that single-family communities occupy approximately 48.89% of the built residential area (Alawadi et al., 2018).



Typology	Thematic Growth Phase	Developed Area (sq. mi.)	Built-up Area (sq. mi.)
Al Fahidi (formerly Al Baskatia'ya)	Necessity (1900-1955)	0.02	0.02 (0.05 % of total residential area)
Organic Dense City	Necessity (1900-1955)	1.95	0.77 (2.33 % of total residential area)
Apartment Complexes & Midrises	Compact Growth (1956-1970)	22.63	3.86 (11.64 % of total residential area)
Labor Housing	Compact Growth (1956-1970)	15.73	2.70 (8.15 % of total residential area)
Single Family Communities	Suburban Growth (1971-1993)	100.78	16.22 (48.89 % of total residential area)
Emerging Downtown Corridor	Bigness (1994-2008)	65.84	6.95 (20.95 % of total residential area)
Gated Communities	Bigness (1994-2008)	2.06	0.77 (2.33 % of total residential area)
Tower Complexes & Waterfronts	Bigness (1994-2008)	6.37	1.16 (3.49 % of total residential area)
Island & Off-Shore Communities	Bigness (1994-2008)	24.29	0.62 (1.86 % of total residential area)
Total: Dubai: Developed & Built-up Area		386.10	56.52

Figure 20, Identified housing typologies in Dubai (Alawadi et al., 2018)

Each Emirati family is eligible for government support, either a land plot of at least 929 square meters with a no-interest mortgage or a fully built, move-in-ready home. Figure 21 highlights neighbourhoods designated for native-born citizens, which occupy about %13 of Dubai's total built environment (Alawadi, 2016).

Figure 21, native-born citizens neighbourhoods in Dubai (Asim Khanal and Khaled Alawadi) (Alawadi, 2016)

The government's transition from traditional to modern housing began in the 1980s, when larger land plots were allocated to citizens, prompting them to move from their traditional homes in order to receive these bigger plots. (Alawadi, 2014; Elsheshtawy, 2009). From the 1980s onward, urban scholars began identifying issues in national housing development, particularly the emergence of urban sprawl and fragmented growth patterns (Alawadi & Benkraouda, 2017; Alawadi, 2016; Elshshtawy, 2004; AlShafieeei,1997). The urban layout evolved from high-density, interconnected neighborhoods to low-density suburbs with irregular, curvilinear street networks. These new layouts, isolated by highways and designed for car-dependency, mirrored post-World War II suburban patterns in North America (Alawadi & Benkraouda, 2017; Alawadi, 2016).

Since 2007, Mohammed Bin Rashid Housing Establishment has been the primary institution funding housing for Emirati citizens in Dubai. Their services include home purchases, construction on vacant land, and renovation or expansion of existing homes (Mohammed Bin Rashid Housing Establishment, n.d.).

To analyze the shift in housing typology since the 1980s, five villa houses were selected. These are typical, government-subsidized homes provided by the Mohammed Bin Rashid Housing Establishment between 2007 and 2023. While there is no available documentation for homes built by the government between 1980 and 2006, the main evolution during this period involved the introduction of larger, multi-story and more luxury villas with larger plots. Providing native citizens with larger plots of land became a key focus after 1980, as land began to be viewed as both an investment and a form of financial security for Emiratis. (Alawadi & Benkraouda, 2017).

The selected case studies (highlighted in figure 22) represent different locations and typologies, particularly homes built in large numbers and offered in various sizes (5–2 bedrooms) and architectural styles. These were analyzed for their spatial configurations and shared design features.

Year	Project Name	Quantity	Type
2007	Al Quoz	114	Houses
2007	Hatta	259	Houses
2007	Hor Al Hinz	11	Houses
2007	Oud Al Muteena	172	Houses
2007	Zabeel	10	Houses
2007	Al Mizhar	80	Houses
2008	Al Rashidiya	30	Houses
2009	Al Lisaili	9	Houses
2009	Oud Al Muteena	940	Houses
2010	Al Barsha	252	Houses
2010	Al Warqa	509	Houses
2010	Jumeirah	14	Houses
2011	Khawaneej	76	Houses
2012	Al Qouz Second	114	Houses
2014	Al Barsha	1,240	Houses
2018	Al Qouz Second	96	Houses
2018	Oud Al Muteena	500	Houses
2020	Hatta	346	Houses
2020	Al Warqa Fourth	539	Houses
2020	Oud Al Muteena	397	Houses
2021	Al Barsha South	2	Commercial Floors
2021	Hatta	26	Houses
2021	Al Muhaisnah Fourth	20	Residential Buildings
2022	Al Warqa Fourth	144	Houses
2022	Al Khwaneej (First Stage)	379	Houses
2022	Al Khwaneej (Second Stage)	667	Houses
2022	Oud Al Muteena	1	Building (4th Floor)
2023	Al Warqa 4	136	Houses
2023	Oud Al Muteena	9	Houses

Figure 22, National Housing Projects offered by Mohammed Bin Rashid Housing Establishment since establishment till now with selected case studies highlighted (Property Finder, 2025)

3.2 Key Spatial Features of Modern Emirati Villas

The spatial arrangement of modern villas in Dubai reflects a hybridization of traditional Emirati cultural values and contemporary residential design principles. The analysis of selected case studies reveals several recurring spatial characteristics (see figure 24). The majlis, traditionally positioned near the main entrance and often equipped with a separate entrance, serves as a formal reception space dedicated to hosting guests, reinforcing cultural norms of hospitality and privacy. Adjacent to this space, a guest WC is usually included for convenience of family members. The majlis is a space that continues to exist since the earliest housing typologies in Dubai and as it continues to have its own privacy as a room with own door.

Another feature is the maid's room, now a standard inclusion even in government-subsidized homes. The maid's room is generally located near the kitchen and laundry areas, both of which are often located near the majlis to facilitate hospitality functions. Dining areas are typically placed next to the majlis to accommodate traditional practices of serving guests upon arrival. The majlis frequently includes a dedicated guest WC—a design feature traceable to barajeel houses (see figure 11). Compared to the earliest housing typologies, the kitchen is no longer seen as a primary space where Emirati women spend their time, especially with the increasing presence of domestic helpers. In earlier typologies, placing the kitchen near the majlis was not culturally acceptable, as it negatively affected privacy.

The family living room is , in many analyzed cases, the central space around which all other rooms are organized. Although not always a separate room, it often functions as a circulation zone that family members pass through to reach their private bedrooms.

To the rear or side of the family area, private bedrooms with en-suite or nearby bathrooms are situated to ensure personal comfort. As Emirati culture values living together as extended families, providing a separate bathroom for each room offers maximum comfort and privacy. This feature is also evident in the layout of barajeel houses (figure 11), where nearly every family room has its own bathroom. It began also to appear in housing layouts during the 1980s, particularly in the floor plans of Sha'bi houses developed by the Ministry of Public Works (see figure 17).

As with the earliest housing typologies, such as Arish and Sha'bi, the large courtyard surrounding the building block remains a key feature in modern villas. However, increased wealth has enabled the government to provide families with larger plots, reaching an average of about 1,200 m^2 in some suburban neighborhoods (Alawadi, 2016). As in earlier typologies, a fence surrounding the house remains essential for maintaining privacy. The courtyard serves not only as an outdoor space for gardening but also as a flexible area for future extensions, such as adding new rooms when needed. Most villas feature a porch near the entrance, offering both shade and a degree of privacy before entering the home. A similar porch is also present in Barajeel houses, located at the entrance to the guest area.

Most villas are offered in multiple architectural styles, allowing residents to choose the appearance of their homes and contributing to greater diversity in the built environment. However, these stylistic variations do not affect the internal layout of the villas. One of the available styles is the "local" style, which includes features such as wind towers, echoing the traditional Barajeel houses. However, these wind towers are often non-functional, much like those found in certain hotels and residential buildings in Madinat Jumeirah (Elsheshtawy, 2009, p.81). This stands in noticeable contrast to the Sha'bi houses, which lacked architectural identity and were constructed primarily from plain concrete.

Compared to earlier housing typologies, modern villas feature larger glass openings that allow more natural sunlight to enter the interior space. This design choice enhances visual connectivity with the outdoors and improves the overall aesthetics of the home by creating brighter and more inviting interiors. However, the increased use of glass also affects thermal comfort, particularly in warm climates, as it can result in greater heat gain during hotter months and increased energy consumption due to a higher reliance on air conditioning. In addition, while the open, transparent design adds visual appeal, it may challenge traditional expectations of privacy.

Oud Al Muteena, 2007

Al Warqaa, 2008

Andalusian style

Local style

Islamic style

Al Barsha, 2010

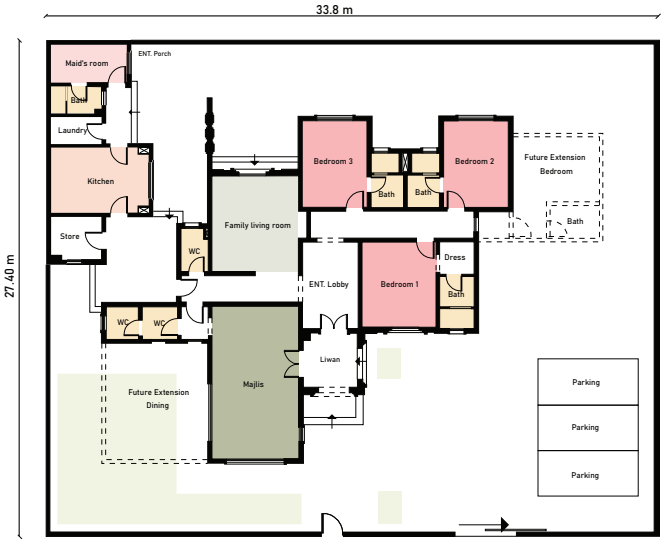
Andalusian style

Local style

Islamic style

Figure 23, Redrawn floor plans of selected case studies with analyzed spaces and images (Mohammed Bin Rashid Housing Establishment, n.d.)

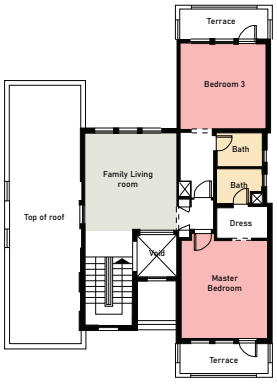
Selected neighbourhoods



Al Quoz II, 2012

Andalusian style

Islamic style



Oud Al Muteena, 2020

Local style

Islamic style

Andalusian style

Modern style

Legend

- Bedroom
- Maid room
- Bath/ WC
- Kitchen
- Majles
- Family living room

3.3 Urban Context and Cultural Implications

While this study primarily focuses on the spatial arrangements of housing typologies, the urban context cannot be overlooked, as it significantly affects how these houses function in relation to local cultural values. Contemporary villas incorporate many elements from traditional housing, such as an emphasis on privacy, the inclusion of a majlis, a key space in earlier housing typologies, reflecting Emirati hospitality, private outdoor areas that allow for future extensions, and architectural features like wind towers and Islamic ornamentation.

However, these villas are typically located in suburban neighbourhoods that reduce social interaction between neighbours, an aspect that was deeply rooted in traditional housing. Older homes were built in close proximity to one another on smaller plots (figure 24), and the majlis was often open to visitors and even passersby. In contrast, residents of contemporary villas are often unfamiliar with their neighbours, as each family lives in a self-contained, isolated unit.

Although the Sha'bi house introduced modern architectural elements, it remained embedded within the traditional urban fabric, characterized by smaller plot sizes and well-connected street networks. Scholars have analyzed older traditional neighbourhoods that still contain Sha'bi houses, now mostly occupied by working-class immigrants, highlighting the strong social cohesion and communal interaction in these areas. These studies emphasize the importance of preserving such neighbourhoods from demolition to make way for new mega projects (Alawadi & Benkraouda, 2017; Alawadi, 2014; Elsheshtawy,2016; Elsheshtawy, 2009).

Altogether, while contemporary villas may adopt visual and spatial features that align with Emirati cultural values, they often fail to replicate the social dynamics and lifestyle of earlier traditional housing.

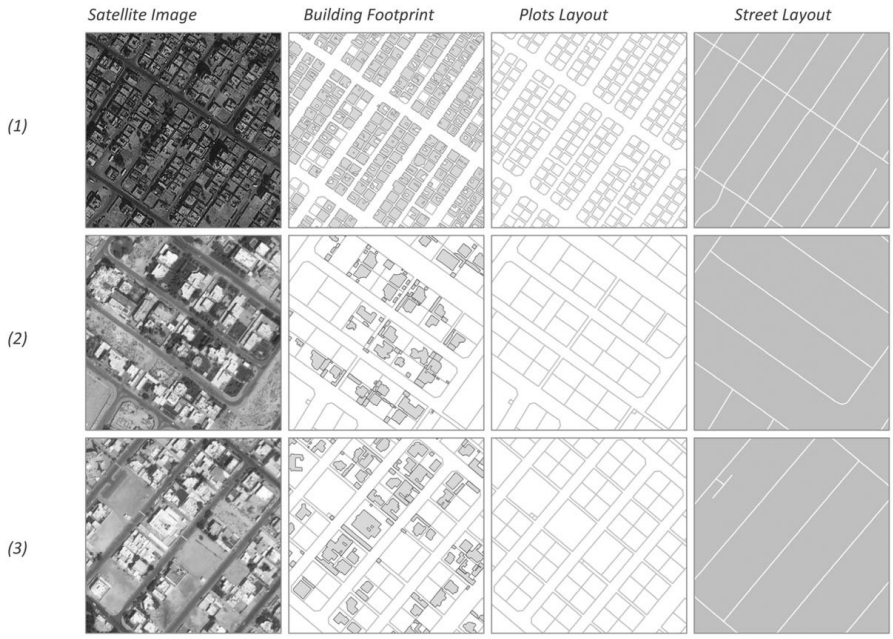


Figure 24, The morphological development of the national housing landscape from the 1960s to the 2000s. From top to bottom: (1) Traditional urban neighborhoods (Sha'bi houses) from the late 1960s to early 1970s, characterized by interconnected street systems and alleyways (density = 8 to 13 units per acre); (2) Suburban neighborhoods from the late 1980s to early 1990s, featuring fragmented street layouts and superblocks (density = 3 units per acre); (3) Suburban neighborhoods from the late 1990s to early 2000s (density = 4 units per acre) (Alawadi & Benkraouda, 2017).

Conclusion

This study has examined the evolution of Emirati housing typologies, tracing the shift from the traditional Arish and Barajeel homes to Sha'bi dwellings and, more recently, modern villas, while exploring the tension between cultural continuity and adaptation. Traditional housing was deeply embedded in Emirati culture, designed to foster communal living, support extended families, and preserve values such as privacy, hospitality, and neighbourly bonds. The Arish and Barajeel houses, with their climate-sensitive design and social orientation, embodied a way of life that prioritized social cohesion, respect for privacy, and collective responsibility. As Dubai transformed into a global metropolis, the Sha'bi dwellings represented a bridge between traditional and modern forms, integrating modern conveniences without entirely abandoning the cultural underpinnings of earlier typologies.

However, the shift to contemporary villas has resulted in a more fragmented community experience. While these homes retain visual elements of traditional architecture, such as majlis spaces, wind towers, and courtyards, they are often placed in isolated suburban settings that prioritize individual privacy and automobile dependence over communal interaction. This spatial isolation undermines the social fabric that once defined Emirati neighborhoods, contributing to a decline in spontaneous social encounters and weakening the extended kinship networks central to traditional Emirati life. Moreover, while these modern villas reflect cultural symbols on the surface, their functional disconnect from the practices they were meant to support raises questions about the authenticity of cultural preservation in contemporary urban design.

The suburban model of housing, inspired in part by Western ideals of privacy and luxury, also presents environmental challenges, particularly in the context of Dubai's extreme climate. The large plots and energy-intensive villas contribute to unsustainable land use and increased demand for resources such as water and electricity. Despite the government›s continued emphasis on large, standalone homes for Emiratis, this approach may no longer be viable as Dubai's population grows and climate change accelerates. As such, there is an urgent need for urban planning to reconcile cultural preferences with ecological responsibility, ensuring that the future of Emirati housing supports both heritage and sustainability.

Ultimately, the study reveals that while the material wealth of modern Dubai has enabled the revival of traditional design elements, it has not preserved the spirit of traditional Emirati life. The increasing divergence between the aesthetic and functional aspects of housing highlights a critical dilemma for future urban development: Can architecture alone sustain cultural identity, or must urban planning evolve to support a more integrated approach to community and culture? This question becomes even more pressing as the rapid urbanization of Dubai continues, and the challenge for policymakers lies in balancing cultural authenticity with the demands of modern living and environmental sustainability..

Glossary

Barajeel **براجيل**

(plural of “barjeel”) refers to traditional wind towers used in Gulf architecture. These towers functioned as early natural ventilation systems, capturing and directing cool air into homes before the advent of air conditioning. The word is believed to originate from the Arabic word “burj” بـــرج (meaning tower), adapted through local dialects.

Arish **عريش**

(also spelled “Areesh”, meaning structure used for providing shade in Arabic) is a traditional structure made from palm fronds, commonly found in the Arabian Gulf and other desert regions. It is typically used as a shelter or dwelling, designed to provide shade and allow ventilation in hot climates

Shai’bi **شعبي**

(meaning flok in Arabic) refers to “folk housing” or “affordable housing”. It describes housing types that are designed to be accessible and affordable for the general population, particularly for lower-income communities.

Majlis **مجلس**

(meaning “to sit” or “to settle in a place” in Arabic) A designated space or room in a house, traditionally used for receiving guests and holding social gatherings. It serves as a place for conversation and hospitality. The design typically includes low seating arrangements, and the atmosphere is often warm and inviting.

Sikkah **سكة**

A flat or paved path, also referring to a narrow alley between houses in older city structures.

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