Investigating the Values of Modern Architectural Heritage in Dubai, UAE

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Abstract. In the last half-century, the world has witnessed a fast-paced technological development where cities have been changing tremendously in terms of infrastructure, public health, and quality of life. Looking into the Middle East and specifically in the Gulf states, the rapid urban growth started in the late 20th century has made the status of heritage structures more vulnerable. Cultural heritage in general and modern architectural heritage in particular, are facing extreme danger, which in turn leads to the loss of cultural identity and memory. The paper investigates the modern architectural heritage of the United Arab Emirates (UAE), taking Dubai as a case study. Due to the constant urban and architectural growth that Dubai has been witnessing since the 1950s, its 20th-century heritage has been put in extreme danger of neglect, or extreme physical alterations and, in many cases, demolishment. The UAE governmental bodies have started launching initiatives for the study and preservation of the modern architectural heritage, beginning with the Dubai Municipality’s initiative in 2017, and continuing on a wider scope with the UAE’s Ministry of Culture and Youth initiative in 2019. The purpose of this paper is to contribute to this process by establishing a chronological overview of the various architectural expressions of the modern era in the UAE. In that sense, the paper introduces a set of commercial architectural examples built in Dubai during the period between the 1960s and the 1970s. As well, it identifies and analyses their cultural and architectural characteristics, and assesses their values based on a chronological, morphological, and stylistic overview. The paper provides preliminary results and key findings and discusses possible guidelines and evaluation criteria to identify and evaluate Dubai’s modern built environment to aid their identification and ranking process, as well as promoting the shaping of conservation policies.

1. Introduction
After its emergence in the West at the outset of the 20th century, the modern architectural movement spread around the world and remained the main architectural style until the 1980s. Even though modernity is considered as most common design approach of the 20th century, there are various regional morphologic expressions. These expressions have emerged due to varying cultural and socioeconomic contexts, as well as the availability of resources, levels of development, and levels of international interactions and knowledge transfers in different geographies. Eventually, these different contextual frameworks had been influential in the creation of a complex pattern of fertilizations and cross-fertilizations [1]. Therefore, modern architectural legacy has preservation values as it bears witness to the socio-cultural, economic, and technological developments and transformations that shaped the
modern urban fabric and life. Sadly, during the past century, technological advancements and urban growths have put the modern architectural heritage in extreme danger of neglect and, in many cases, subjected it to demolition.

The world has witnessed an increased awareness and international movement regarding the importance of the study and protection of modern heritage since 1989 [2]. There has been constant development ever since, motivating the emergence of organizations and initiatives in the field. The Docomomo International, the Modern Heritage Committee of the Association for Preservation Technology (APT), the ICOMOS International Scientific Committee on Twentieth-Century Heritage, Conserving Modern Architecture Initiative by Getty Conservation Institute (GCI), and modern Asian Architecture Network (mAAN) [3] are dedicated not only to saving and conserving modern heritage but also to prompt research on exploring the characteristics of the 20th-century architectural heritage, regionally and internationally.

The ongoing international efforts have inspired initiatives for the study and protection of modern architectural heritage in the UAE since the early 2010s. These efforts began with the launch of the Modern Heritage Preservation Initiative by the Department of Culture and Tourism - Abu Dhabi (DCT) in 2011[4], followed by the UAE’s first participation in the Venice Biennale in 2014, which was heavily focused on preserving its 20th-century memory [5], Dubai Municipality’s initiative in 2017 [6], and continuing on a wider scope with the UAE’s Ministry of Culture and Youth initiative in 2019 [7].

1.1. Aim of the Research
This study aims at filling the gap in existing research by identifying and analyzing the UAE’s modern architectural heritage, taking Dubai, the largest city in the UAE, as a case study. It is the first output of research and fieldwork which particularly aims at locating, identifying, and analyzing the various morphologic expressions of buildings that are considered transformative for the development of Dubai’s modern urban fabric. The paper presents preliminary architectural analysis and evaluation based on a carefully selected set of commercial buildings constructed in Dubai in the 1960s and the 1970s. The results of this analysis aids in defining the cultural expressions and characteristics of Dubai’s modern era architecture.

1.2. A glance at Dubai’s Urban and Architectural History
Dubai’s history dates back to the third millennium BC. However, its earliest recorded socio-economic history dates to the 18th century, when it was a well-established fishing village. Up until the 19th century, the small village has witnessed a change in its political and social setting. In 1833, a group of 800 people of the sub-section of Bani Yas “Al Maktoum” moved from Abu Dhabi to settle in the Shindagha area in the heart of Dubai and established the dynasty of the current Al Maktoum rulers of Dubai [8].

At the start of the 20th century, Dubai was a key town as a distribution center for trade and became increasingly important as a port where goods from India were re-exported to Persia and other neighboring countries. [8] But as most Gulf states in the Middle East, the modern urban renaissance in Dubai did not begin until a decade after the Second World War. The rapid increase of influx during the mid-20th century brought along an improved life quality for the community in terms of infrastructure, education, everyday living, and health. Therefore, it was essential to establish a proper ‘Baladiya’ (Municipality). Additionally, the city also witnessed the construction of its first hospital (Al Maktoum Hospital) in 1950 and its first airport (Dubai International Airport) in 1960.

Dubai’s population has significantly grown, and its unique multi-cultural nature has evolved ever since, in part due to the income generated from the economic and industrial developments and in part thanks to the oil revenues, which emerged post-1966 [9]. The increased and versatile job opportunities led to the high rates of immigration, hence boosting urban growth and technological introduction [10].
This socio-economic transformation has directly affected the shaping of the urban landscape of Dubai from vernacular ‘barajeel’ (traditional wind towers), ‘sikak’ (small pathways in tight neighborhoods), ‘areesh’ (architecture made out of palm fronds), and traditional houses of earth and coral stones, to concrete, steel, and high-rise structures (Figure 1). Following the independence and during the 1970s, the city has witnessed tremendous construction activity. Various building typologies, including banks, shopping malls, and hotels have been added to Dubai’s growing urban fabric. However, due to the constant development instigated by ambitious master plans, many early buildings were later demolished and replaced with new structures. This fast disappearance of the early modern buildings from the city’s urban fabric, which results in a loss in urban memory, has prompted the aforementioned governmental initiatives for the study and protection of the modern heritage of the UAE’s urban landscapes as cultural heritage.

Departing from this, the present research focuses on documenting the commercial architecture erected during the transitional period from vernacular to contemporary in Dubai.

![Figure 1. Left: Al Fahidi Historical District. Right: Cityscape of Deira from Dubai Creek](image)

2. Methodology and Process
This study employs a mixed qualitative approach of research and targets the commercial built environment of the 1960s and the 1970s. Three main research methods have been employed, which include:

1) Desktop surveying: for identifying and selecting a set of commercial buildings from the set period, through collecting data available on the internet.

2) Literature surveying: for collecting primary research materials regarding the selected buildings, employing archival research and interviews. The collected sources include drawings, recordings, and legal documents, as well as secondary sources like journals, research papers, and books. These materials aid the historical understanding of the selected buildings’ architectural concept, design, and development processes. As well, they aid in identifying the factors that shaped the different architectural expressions and the commercial image of Dubai.

3) Preliminary fieldwork: for physical observations and photographic documentation of the selected set of buildings. This process aids in the analysis and assessment of the typological and morphological characteristics of the commercial buildings in the selected period.

Initially, a set of 50 commercial buildings has been selected based on the data gathered through the desktop and literature surveying stages. Following a further investigation of whether each of these buildings exists on-site, the extent of modifications on their morphologic expressions, and the availability of data and limitations regarding accessibility, the list was reduced to 23 buildings. Case studies have been selected based on the existence of the building on the site, its originally designed
shape, limited exterior alterations, sound structural condition, and its cultural significance for Dubai’s urban fabric. This has been followed by a detailed investigation and analysis for extracting the valuation criteria relating to the study’s objectives.

3. Preliminary Findings: Results and Discussion
The preliminary findings have revealed various architectural expressions that shaped Dubai’s commercial architecture during the research period. A set of distinguished façade morphologies have been deduced. Finally, a preliminary guide has been produced to help identify the various cultural values associated with the studied architecture.

3.1 Identification of Dubai’s Modern Commercial Architecture
Twenty out of the fifty selected commercial buildings in the preliminary list are from the 1970s, while the rest are from the 1980s, and only a few are from the 1960s and 1950s. In terms of typology, the majority are hotels, mixed-use structures, banks, and shopping centers respectively. The typological and chronological data regarding these establishments have been documented during this research as in the following.

3.1.1. Hotels. With the increasing number of visits of international businessmen attracted by the prospect of oil exploration and gold trade activities, Dubai saw the beginnings of its hotel sector in the second half of the 20th century, with the four earliest first-class hotels: the Carlton located on the Deira side of the Creek; the Bustan, located by the airport; the Airlines Hotel in Bur Dubai, built in 1958; and the Riviera Hotel, built in 1962 [11]. Sadly, all these hotels were later demolished. Additional hotels were built later, which still exist today, including the Ambassador Hotel built in 1968, and the Phoenicia Hotel built in the 1970s. By then, international hotels lined Dubai’s Creek with 10-story buildings like the first 5-star hotel, the InterContinental Hotel (currently Radisson Blu), built in 1975; a building compromised of two structures and are linked via a plaza of shops and international restaurants.

By 1976, the Metropolitan Hotel, currently non-existent, was designed by Dubai’s master planner John R. Harris and was the first hotel to be opened on what today is known as Sheikh Zayed Road [12]. The following year, the construction of the first Hyatt Hotel, a 5-star luxury hotel, begun, while the Sheraton Deira Hotel in Deira Creek was opened.

3.1.2. Mixed-used Structures and High-rise Buildings. Mixed-used buildings included entertainment structures and new leisure amenities that were introduced to cater to the different preferences of the western expatriates. Some new activities, like cinemas, were introduced in Dubai for the first time. Plaza Cinema (later called Golden Cinema) and Strand Cinema were both built in 1972. Unfortunately, they have been demolished in the recent past to make way for new developments. Other leisure amenities were entrainment parks that included mixed-used structures like the Safa Park Pavilion, built in 1977 based on a design by the modernist architect Patrick Gwynne; it was designed to host a restaurant and a mixed-use hall [13]. Additionally, Al Nasr Leisure land (which means ‘The Victory’ in Arabic) was designed by the architectural firm Scott, Brownrigg & Turner in 1979, and was one of the first mixed-use destinations for families living and visiting Dubai. It combined sports and entertainment, becoming the city’s most popular venue for all seasons, and ultimately became famous for its ice rink, magic fruit garden, and cinema. [14]

Mixed-use skyscrapers were introduced by the mid-1970s. High-rise buildings were designed to combine commercial and residential uses, like Al Mulla Plaza built in 1978, which is the first shopping mall in Dubai. Moreover, Dubai World Trade Centre (or Burj Rashid) was designed by John R. Harris and built in 1979, becoming the city’s first tallest tower (38-storey) [12]. A year later, Deira Tower was built. Designed by Marks Heeley Ltd., the tall skyscraper (29-storey) is raised above a 2-story luxurious shopping plaza and topped by a circular structure.
3.1.3. **Banks.** Since the late 1940s, Dubai has witnessed an expansion in its banking sector. This was a great commercial force in the development of the region, due to the work undertaken by the gold trade, and then the practice of oil companies [11]. Banks architecture in Dubai started with the British Bank of the Middle East (now HSBC), the first modern bank to operate anywhere in the UAE. It opened its first office in 1946 (Figure 2) and then a second branch in 1962 [15]. A year later, in 1963, the National Bank of Dubai opened. Sadly, all three buildings were demolished. However, the building of the First National City Bank of New York (Now Citibank), which was completed in 1967, has survived. By 1968, six other banks from the Gulf countries, the UK, and the USA had opened their offices [11] and by 1974, there were 16 banks total in Dubai [12].

3.2 Overview of Architectural Styles Practiced in Dubai’s Modern Commercial Heritage

Although concrete technology was transferred to Dubai until the 1950s it was used in the built environment only to reinforce original structures and build small civic structures. One of its first commercial applications is the 1946 two-story BBME building. The front elevation shows covered balconies with a series of columns, which was a traditional style in Dubai’s buildings at that time.

Similarly, the use of glass was initially used sparingly. John R. Harris’s design of the 1969 National Bank of Dubai shown on the right of figure 2, included limited use of glass. This was mainly due to the architect’s consideration regarding the building’s maintenance, specifically related to the then water shortage in Dubai. [12]

![Figure 2. Left: British Bank of the Middle East main office in 1960 (Source: Reproduced with the permission of HSBC Archives). Right: The National Bank of Dubai at night, revealing Harris’s choreographed brise-soleil. Courtesy John R. Harris Library and Henk Snoek / RIBA Collections (Source: Reisz, 2021).](image-url)

The 1970s, especially after the discovery of oil in 1966, can be considered a significant period for Dubai’s urban growth. The second master plan by John R. Harris was introduced in 1971 and then followed by the formation of the UAE in the same year. The shift in architecture has been significant and, thanks to international architects and technologic expertise, higher structures, new typologies, and styles have emerged.

Styles such as the International Style and Islamic/Arabic Architecture gained visibility. However, they were interpreted depending on climatic considerations, availability of resources, and inspiration from Dubai’s traditional architecture of the time. Building plans and spatial typologies were borrowed from the modern styles, but in many cases, façade morphologies were heavily inspired by the traditional...
architectural and cultural elements, and hence they fit within the existing urban context. This is one of the unique characteristics of Dubai’s early modern architecture.

3.3 Overview of Architectural and Cultural Elements
The results of the architectural analysis on the selected case studies have revealed a set of certain architectural and cultural elements in the design and morphology of the buildings. Summarized in Table 1 and Table 2, these elements have been classified as:

- Architectural elements inspired from the UAE’s traditional architecture: like rectangular recesses placed on fixed intervals, which are typically seen on the facades of traditional houses (Figure 3). An example of that is offered by the deep-set frames seen on the façade of Magrudy’s Mall that was built in 1974 and expanded in 1981. Moreover, the use of traditional rectangular and arch-topped windows is broad, as well as different types of arches are evident especially on double skin facades and claddings (Figure 4).

![Figure 3. Architectural details on Al Bastakiyah Nights Restaurant (formerly Abdulrazaq Abdulrahim Al Bastaki House) located in Al Fahidi Historical District.](image)

- Modernized traditional elements: traditional architectural elements that were tweaked to fit modern criteria and needs. An example of that is the double-triangle arch that is heavily used in claddings, mostly on skyscrapers. Some of the examples include Dubai World Trade Centre (or Burj Rashid) that was completed in 1979, Deira Tower (Figure 4), and the ARBFIT Tower, both completed in 1980. Other modernized elements include decorative railing, pseudo three-centred arched recess, and crenelated parapets. As well as the courtyard and bay/arcade in terms of spatial typology. An example of this is Magrudy’s mall expansion in 1981.

Finally, working with challenging climate and new materials, some elements were invented as a response to it, like the patterned screens or brise-soleils designed in concrete latticework on the building elevations to provide sun shading. In the case of the First National City Bank of New York (now Citibank), completed in 1967, the brise-soleil screen also acted as a security barrier as seen in figure 4. Widely used in the design of hotels such as the InterContinental, the elements such as balconies and deep-set windows were implemented. Moreover, vaults and arches were explored in larger-scale structures like in the 1979 Al Mulla Plaza.
Figure 4. Left: Magrudys Mall. Middle: Deira Tower. Right: First National City Bank of New York building.

Table 1. Architectural Elements of Façade Morphology.

| Wall Surface Elements | Top Wall Elements | Windows |
|-----------------------|-------------------|---------|
| Traditional elements  |                   |         |
| Rectangular Recess    |                   | Rectangular windows |
| Arches                |                   | Arch topped windows |
| Modernized traditional elements | | |
| Double-Triangular arches | Decorative Railing | |
| Pseudo three-centred arches | Crenelated Parapet | |
| Climate Responsive Elements | Solar shading/Brise soleil | Deep-set windows |
| Balconies             |                   |         |
3.4 Identifying the Cultural Significance of Dubai’s Modern Heritage

Based on the preliminary findings of the empirical study, this section identifies and briefly describes a set of values to be used in the formulation of assessment criteria for the modern architectural heritage in Dubai. These values are exclusively related to historic, architectural and aesthetic, cultural, and socio-political aspects with a key role in shaping Dubai’s modern built environment.

3.4.1 Historic Value. The historic value of a site or a building lays in its capacity to stimulate relation or reaction to the past [4]. What is conceived as historic in the case of Dubai embodies a timeframe starting from the second half of the 20th century, in which the city has grown. Its relevance lays in the architectural fabric’s age, its association with a significant event or people, it being an early example of a building typology, or its technological qualities. The First National City Bank of New York building (later used by ENBD) is one of the oldest surviving modern buildings in Dubai embodying a significant historical value.

3.4.2 Architectural and Aesthetic Value. The architectural value is based on an object being a rare and/or a unique example of the modern period, the first, or the best of a certain style or typology, or the work of a particular individual that influenced the growth of the city as a whole [16]. During the second half of the 20th century, Dubai witnessed a wave of architectural transfers, especially from the West. This prompted the experimentation of modern materials and technologies. Different architectural styles and typologies have emerged in Dubai, especially since the 1970s. The transition is also seen from indigenous construction materials to concrete, steel, and glass, and from traditional craftsmanship to advanced design processes and methods that allowed for designs that reveal a changing sense of

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**Table 2. Architectural Elements of Spatial Typology.**

| Modernized Traditional elements | Outdoor | Indoor |
|---------------------------------|---------|--------|
| Courtyards                      | ![Image](image1.png) | ![Image](image2.png) |
| Bay, arcade                     | ![Image](image3.png) | ![Image](image4.png) |

| Climate Responsive Elements     | Overhangs | Vaults |
|---------------------------------|-----------|--------|
|                                  | ![Image](image5.png) | ![Image](image6.png) |
aesthetics [4]. Tracing through these architectural transfers and associated developments helps with the identification of modern heritage that is unique to Dubai. Examples of modern buildings with architectural values are architect Patrick’s Gwynne’s Safa Park Pavilion built in 1976 and architect John R. Harris’s Dubai World Trade Center built three years later (Figure 5).

![Figure 5. Left: Dubai World Trade Center. Right: Safa Park Pavilion.](image)

3.4.3 Cultural value. Cultural values aid in building cultural affiliation in the present and they can be historic, traditional, political, or related to other means of living together [16]. This may also be assumed as a reflection of the embrace of contemporary life while honoring tradition in the modern design. The introduction of new amenities and leisure facilities to cater to the cultural preferences of the western expatriates [4], like the introduction of apartment buildings, sports facilities, and cinemas, exemplify cultural values in the urban context of Dubai, like the adaptation of the traditional design in the Magrudy’s mall and the introduction of modern entertainment amenities in the Hyatt Regency hotel. Cultural values refer to the shared meanings associated with heritage that are not strictly historic but are related to the chronological aspects and meanings of a site.

3.4.4 Socio-Political Value. The socio-political values enable and facilitate social connection, networks, and other relations. They may include the use of a site for social gatherings like celebrations, markets, picnics, or sports games and activities that do not necessarily capitalize directly on the historical values of the site but, rather, on the public/shared-space qualities. The socio-political value can be interpreted as a key contributor to civil society or a political tool to enforce national culture. The kinds of social groups involved could include local communities, families, neighborhood groups, ethnic groups, and special interest groups [16]. For example, both Al Nasr Leisure Land and Safa Park Pavilion embody a significant social connection within the community of Dubai.

4. Conclusions
The paper presented the preliminary findings of a research on Dubai’s modern commercial architectural heritage, the main architectural and cultural elements that signify the morphology of the 1960s and the 1970s have been identified. A set of values have been defined for evaluating the cultural significance of the listed commercial architectural properties of the early modern era in Dubai. This paper contributes to knowledge by documenting and chronologically classifying Dubai’s early modern heritage and proposing a value assessment guidance for determining its cultural significance with an aim to pave the way for its preservation and rehabilitation. The paper also proposes a set of recommendations for future studies:

- Documenting and analyzing the cultural and morphological elements of Dubai’s modern architecture, their function, and possible development on a wider scope of typologies including governmental buildings, healthcare buildings, educational buildings, residential buildings, religious buildings, etc.
• Developing a framework to assess and preserve the cultural significance of the modern built environment based on the values that were deduced from this study.
• Establish an archive and database of the modern architecture in Dubai with an aim to collect and preserve primary and secondary data on these properties, as well as further research and developing knowledge on the protection of modern heritage.
• Developing preservation policy and sustainable conservation management strategies for Dubai’s modern architectural heritage.

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