



“Islamic Style” Secular Architecture in Egypt: 6th October and Al-Shaikh Zayid as Case Studies

Tarek Galal

Assistant Professor, October University for Modern Sciences and Arts
E-mail: tgalal@msa.edu.eg

Abstract

This paper is a sequel to a study paper which discussed the “Islamic Style” architecture in Egypt using the buildings of 6th October and Zayid cities as case studies. The first study analyzed the residential examples. In this paper the non-residential secular buildings were analyzed, while the religious buildings will be the topic of a third forthcoming study. The secular non-residential buildings found were a very small number (twelve only) and have been categorized into commercial, public and educational. No one dominant or clear Islamic style has been noted, and out of seven contemporary styles of architecture we know of only three were noted in our case studies: eclectic (two), neo-Islamic (three) and the dominating Modern Simplified Islamic (seven), yet we find great variations in each style and no consensus on the vocabulary used or details. The study suggests four reasons for using the Islamic styles in those types: expected patron/owners’ image, design intent, need for differentiation, nostalgia and creating a marketable image. It is also noted that in all of the examples recorded with one exception, the Islamic styles or principles were limited to the facades but were not reflected in the layout. Only one example echoed an Islamic urban pattern for its layout in addition to its façade detailing. The situation can be described as chaotic fraught with eclectic styles, with borrowings and re-interpretations of details from different eras and countries, with no clear dominant “style” emerging or even beginning to evolve. No specific style or detail dominated. This eclecticism and chaos is most probably a reflection of the lack of familiarity of the historical styles by the designers, with exceptions of some successful interpretations. Once again, our analysis shows that the lack of identity

and style in contemporary Egyptian architecture continues in the secular examples, with no Contemporary Egyptian style of architecture, Islamic or otherwise, emerging or forthcoming.

Keywords: Sliding wear, cutting force, cutting tools, spring back

1. Research Objectives

This research has four aims:

- 1) Suggest a definition for the different Islamic architectural styles that will be used in the study.
- 2) Record the state of contemporary Islamic Egyptian styles of architecture as shown in the extant buildings in Shaikh Zayid and October.
- 3) Analyze the architecture vocabulary used in the examples.
- 4) Based on the analysis, we will determine if there is a clear contemporary “Islamic Egyptian Style” of architecture.
- 5) We will suggest reasons for using the “Islamic Style” in secular buildings.

2. Methodology

- 1) We will first give some background information and agree on certain terminology to be used in our research.
- 2) We will then put contemporary Egyptian Islamic style in context in the history of architecture in Egypt.
- 3) We will categorize the extant buildings in October and Zayid
- 4) We will record the secular buildings that can be classified as being built in the Islamic style and analyze their architectural vocabulary and elements.
- 5) We will analyze and suggest reasons for the use of the Islamic style for those buildings.

3. Contents

A) Introduction and Background Information.

A-1) Terminology.

A-2) Elements of the Islamic Style Vocabulary.

A-3) Contemporary Islamic Styles and the Search for Architectural Identity.

A-4) Categorization of the Contemporary Islamic Styles.

B) Analysis of Islamic Style Secular Buildings in Zayid and October.

B-1) Commercial Buildings

1) Neighbourhood Centres.

2) Mixed Use Office Buildings.

B-2) Public Buildings

B-3) Educational Buildings

C) Discussion and Final Analysis

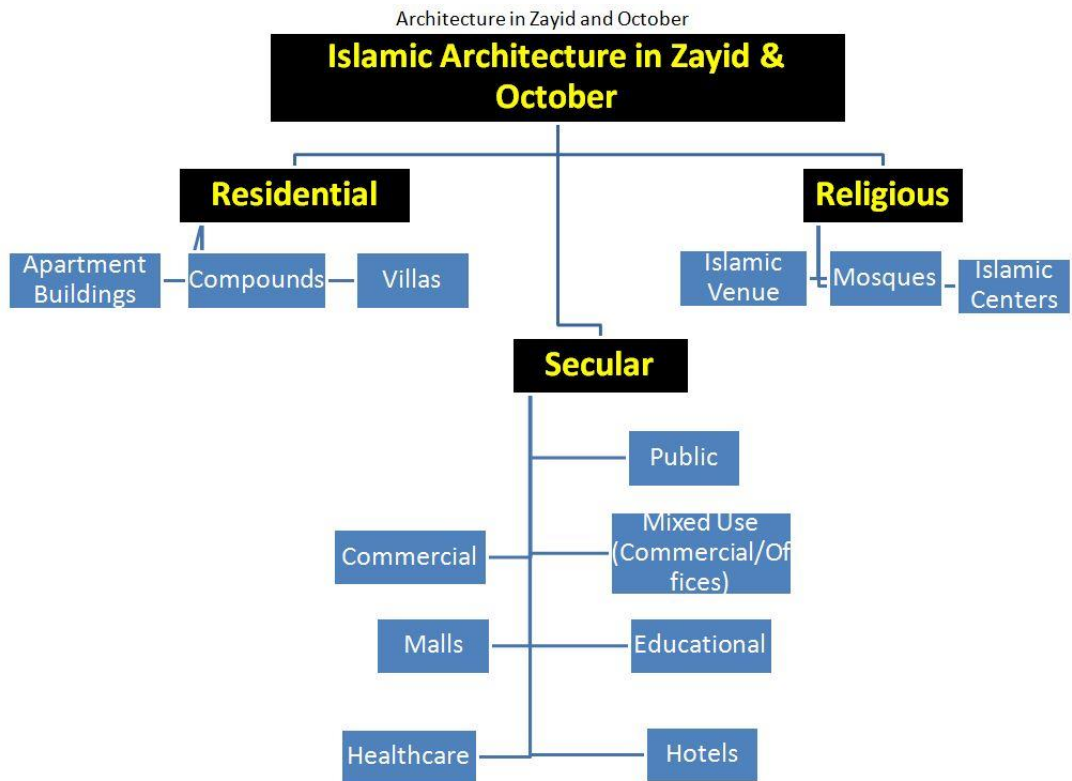
D) Conclusion.

4. Introduction and Background Information

1. Terminology.
2. Elements of the Islamic Style Vocabulary.
3. Contemporary Islamic Styles and the Search for Architectural Identity.
4. Categorization of The Contemporary Islamic Styles

4.1. Introduction and Background Information

The following terminology will be used for classification of building types. *Religious architecture* will refer to all buildings that have a mosque as an integral part of their function, even if other functions are included. *Residential architecture* will refer to all buildings used as non-communal residences or living, including villas, apartment buildings, compounds, dorms or other structures that are used mainly for living. *Secular Architecture* will refer to all other buildings that don't fit the past two categories.



The “*Historic Islamic Style of Architecture*” is identified as “the style of architecture that was dominant in the Islamic lands in the time period from the late 7th to the early 19th centuries, roughly 632-1800 AD” [1],[2],[3]. We also identified the most important of those “*Historical Styles*” as: Early Islamic & Umayyad, `Abbasid, Turko-Persian Dynasties, Fatimid, Tulunid, Ikshidid, Western North Africa and Spain, Seljuk, Ayyubid, Bahari Mamluk, Burji Mamluk, Ottoman, Ottoman Baroque (Rumi), Ilkhanid, Timurid, Safawid, Qajar, Moghul and other sub styles and variations” (Abdelhamid, 2019).

We will use the term *Contemporary Islamic Style* to refer to Islamic architecture in the late 19th, 20th and 21st centuries, postdating what we have called the *Historical Styles*.

Several definitions of “Islamic Art” and “Islamic Architecture” have been given (Blair & Bloom 2003; Hillenbrand 2003, Rabbat 2011, Rabbat, 2012, Rabbat 2013, Rashed 2015). We suggested that the “Islamic Style” will be that “style that is part of the heritage of the “Historic Styles”, or that borrows from, imitates, revives, builds, uses decorative elements, or parts of those elements, or principles of design, spatial arrangement, masses, solid and void relationships, visual elements, passive or active climatic or ecological methods or principles for climatic control, irrespective of the builder (a Moslem or not), geographical location (in Islamic lands or other), client (Moslem or not) and function. Any Islamic religious function for a building (prayer, religious education, social functions) will automatically label its style as “Islamic,” unless the style can be distinctively identified as a “non-Islamic” style” [4].

4.2. Elements of the Islamic Architectural Vocabulary

We will categorize an “Islamic Style Building” as any building that uses any of the traditional elements found in Historic Islamic Style. This vocabulary will include: arches (pointed, rounded, keel, horse shoe, shallow...etc.), stucco decoration, Arabic calligraphy, Quranic Inscriptions, Islamic style ceramic tiles, woodwork, eaves (either in wood or terracotta covered sloping eaves and roofs supported on woodwork or other), use of decorated cantilevers, crenellations, mouldings, arabesque patterns, *mashrabiyya* screens, striped masonry exterior finishes with yellow and reddish brown (*mushahhar*) or alternating black and white marble or stone (*ablaq*), stallactites in stucco or stone, use of arabesque patterns (floral or geometric) in stucco mouldings and wooden/iron balustrades, use of windows with stucco and stained glass with floral and geometric arabesque designs, use of arabesque patterns on plaster, facades or metalwork or stucco work as decoration, use of Islamic style decorative features in stucco, marble, wood, stone cladding, stone and marble floors. Use of Islamic style courtyards with fountains and trees, use of irregular formal relationships juxtaposed with regular forms, Some elements of Islamic military architecture are also used, specifically the use of machicolations. The previous list is not exhaustive.

4.3. Contemporary Islamic Styles and the Search for Architectural Identity

The study on Egyptian architecture and society since the ascension of Muhammad Ali and the Westernization wave since the late 19th century has led us to conclude that there was a schism in Egyptian society that equated “all that is local Egyptian-Islamic to be backward and all that is European to be modern and correct” [4]. This led to the creation of what has been called an inferiority complex in Egyptian society, acknowledged by Egyptians and referred to as “the westerner’s complex,” (*‘oqdat al-khawaja*) which simply meant that all that is western is superior versus all that is Egyptian HAS to be inferior [4]. Thus an Egyptian elite was created, whose taste was European in lifestyle, dress, tastes and manners. Their artistic and architectural tastes opted for European “classical” styles, as seen in their choice for their interiors and furniture: classic Baroque and Rococo, Louis 14th, 15th and 16th, and Empire Styles were the hallmark and symbol of richness and fine quality elitist taste. This was simply the “style” to show your sophistication and wealth. This also was reflected in architecture. The different European styles dominated architecture in Egypt in the 19th and early twentieth centuries interrupting the development of Islamic Egyptian architecture to absorb modern society as it evolved with the Industrial Revolution and the multitude of development in materials and processes. Islamic Architecture was simply denied the opportunity to develop through the stages which western classical architecture developed, relegated to a historical outmoded style that fell out of favour by society. By the late 19th century, extant buildings of Islamic architecture in Cairo were in need of “preservation” and “conservation”, as evidenced by the creation of the Comité de Conservation d’Architecture Arabe, which played a vital role in the preservation of Egypt’s architectural Islamic heritage.

During the first half of the 20th century, Egyptian architecture was dominated by European modern styles imported by Egyptian architects returning after acquiring their degrees from different schools of architecture in Europe and the United States. Some rare cases existed that re-interpreted Egyptian architecture, like the trend of Nubian/Vernacular style initiated by Hasan Fathi and Ramsis Wesa Wasef, however, their impact on the mainstream building movement was marginal, an interesting oddity in a sea of modern and neo classical buildings and designs. The returning architects were established in the three main schools of architecture in Egypt (Cairo, Alexandria and Fine Arts), teaching more architects in their chosen modern western style. Strengthened by the disruption of the social strata of Egyptian society due to the 1952 revolution, the Nassirist/Socialist doctrines and mood of the times, Egyptian architecture continued to lose its identity, becoming an imitation of other modern styles everywhere else, part of the International style.

By the late 1970’s, and with the second disruption of Egyptian society with the Open-Door policy (*Infitah*) and the invasion of Western ideals, investment in Western style buildings as signs of catching up with the west, and the emergence of a new class of clients who haven’t seen or where knowledgeable of any styles except western inspired style, we saw that this trend continued with a chaotic era of architecture with non-specialized patrons and builders trying their hand at modern-style architecture. “This trend continued and became established as a style in the new suburbs of Cairo.... Starting from the 1990’s onwards, with different classes but with similar background: newly acquired wealth and first-generation

ascendance from their social class and education.” New schools of architecture founded in the boom of private universities in the late 1990’s also took from the pool of architects and educators who have had no experience or education in building in the historical Islamic styles, so the trend continued, more architects being educated in the western styles, who graduate to cater for the “modern” tastes of patrons and build more buildings in the modern international style or copy whatever western style is en-vogue at the time[4], [5], [6].

Research on this topic noted that the lack of identity resulted was compounded by: the infatuation of Egyptian architects with Western Architectural thought and style, the paucity of research and studies on 20th century Egyptian architects and their works, and schools of architecture limiting studies of architectural theory and history to the historical styles up till 1850 AD and to 20th Century Western styles [7].

We also concluded that the “political Islamisation of Egyptian society that was ongoing since the 1970’s did not affect architecture” [4]. We also confirmed that we don’t have what we can call a contemporary “Egyptian Local Style”, Islamic or otherwise, a conclusion that is confirmed by other studies [8], [9], [10]. For residential architecture we showed that we do have a multitude of western/international styles, with the market having a relatively high number of examples of a modified neo-classical style of architecture that relies on GRC or Gypsum classical details of columns, mouldings, balustrades and decorative elements stuck on more or less similar prototypes.

The Westernization of Egyptian society that has been ongoing since the late 19th century still continues into the 21st century, with more alienation from Islamic styles and tastes.

4.4. Categorization of the Contemporary Islamic Styles

There is no consensus on how to categorize the different Islamic styles that evolved in the 20th century specifically in Egypt. We must note that the problem of categorization is mainly dominated by the perception of the facades and decoration of the building. Numerous uses which were not known in medieval times have been created in contemporary times. Old uses have taken new forms with the changes in construction materials, technology and advances in construction methods and building techniques. Such changes naturally impacted Islamic Architecture, even leading to new forms and solutions to old problems and functions.

Studies that categorized non-historical styles of Islamic architecture in Egypt gave different classifications. Sakr [11] divided Islamic Architectural styles in the first half of the 20th century into: Neo-Islamic Revival, Modernized Islamic, Eclectic, Twentieth Century Islamic and Baroque Islamic Style. Another classification was given by Ashour [6] who divided contemporary Egyptian Architectural styles into four main styles: Modernized Islamic Style, New Arab Style over two periods, New Pharaonic and Vernacular.

Other studies were more specific dividing the Non-Historical Islamic styles into six categories: Traditional / Vernacular, Conservative/Conventional, Neo Islamic,

Contemporary/Modern, Eclectic and Popular [12], [13]. However, this categorization was criticized and modified into three categories only: Conservative/Conventional, Renewal, and Contemporary/Modern [13]. Similar tripartite categories were also suggested by Abowardah and Dwidar [14] who divided contemporary Islamic architecture into three trends: Explicit Restoration Trend, Composite Trend and Analytical Trend. A similar classification but with different terms was given by Reham & Zeinab [15] who divided contemporary Islamic architecture into three types: Revival Style, Eclectic Style and Islamic Abstraction.

For the purpose of our study we propose to use a modification of the 6 style division mentioned above, suggesting a seventh trend which we will call the Creative / Stylized style, making the types or trends of contemporary Islamic Architecture seven trends as follows:

- 1) Revival (Direct Imitation)/ Conventional / Conservative
- 2) Neo-Islamic (Modified Historical Styles)
- 3) Simplified/Modernized Islamic.
- 4) Eclectic (Proto-Islamic).
- 5) Traditional/Vernacular (Local with Islamic Elements).
- 6) Creative / Stylized.
- 7) Popular.

The following table (Table 1) gives a comparative summary of the styles discussed above.

Proposed Styles in this study	Studies on Islamic Style Classifications				
	Abdelazim [12], [13]	Sakr [11]	Ashour [6]	Abowardah & Dwidar [14]	Reham & Zeinab [15]
1) Revival (Direct Imitation)	Conservative/Conventional	Neo-Islamic Revival	Eclectic/Modernized	Explicit Restoration Trend	Revival Style
2) Neo-Islamic	Neo Islamic	Neo-Islamic Revival Baroque Islamic Style	Eclectic/Modernized	Explicit Restoration Trend	Revival Style
3) Modernized Islamic (Simplified Islamic).	Contemporary/Modern	Modernized Islamic	Eclectic/Modernized	Composite Trend	Eclectic Style
4) Eclectic (Proto-Islamic)	Eclectic	Eclectic	Eclectic/Modernized	Composite Trend	Eclectic Style

5) Traditional/Vernacular (Local with Islamic Elements, Nubian/Egyptian Vernacular)	Traditional / Vernacular	Not categorized	New Arab Style	Composite Trend	Islamic Abstraction
6) Creative (Stylized).	Contemporary/Modern	Twentieth Century Islamic	New Arab Style	Analytical Trend	Islamic Abstraction
7) Popular.	Popular	Not categorized	Not categorized	Not categorized	Not categorized

Table 1: Comparative Summary of Contemporary Islamic Style Classifications

5. Analysis of Islamic Style Secular Building Types in Zayid and October

Follows are examples of some notable Islamic Style secular buildings in Zayid and October, divided into their types and different styles (Tables 1-3). The examples have been subjectively chosen after a survey in the course of several years. Such findings have been confirmed with numerous residents of both cities on their perception of an “Islamic” style building. Categorization is based upon the above-mentioned Islamic styles perceived.

It must be noted that out of a total of around 886 buildings in Zayid and October we can find only twelve (12) buildings (1.35%) that we can say that they were built using an Islamic style (Table 2).

Non Residential Buildings	6th October[16]	Zayid [17]	Total	Islamic Style	%
Shopping & Commercial Centers	339	27	366	3	1%
Public Services Buildings	233	9	242	2	1%
Schools and Institutes	74	29	103	2	2%
Azhari Institute [18]	4	2	6	4	67%
Hospitals & Medical Units	26	6	32	1	3%
Social Services Buildings	39	38	77	0	0%
Higher Education Buildings	9	2	11	0	0%
Kindergardens	24	1	25	0	0%
Telephone Exchange	7	2	9	0	0%

Clubs & Youth Centers	12	3	15	0	0%
Total	767	119	886	12	1.35%

Table 2: Distribution of the non-residential building functions in Zayid and October.

The following table lists the case studies found and their categorization.

	Building	Style
Islamic Style Commercial Buildings		
1- Neighbourhood Centers		
	1- Al-Lo'lo'a (Pearl) Neighborhood Center , First District, Zayid.	Eclectic
2- Mixed Use Office Buildings		
	1-Al-Saraya Mall: (Office building and Mall), Al-Mostaqbal Road, Zayid Central Spine, Zayid. 11 Modern with Islamic elements	Modernized Islamic (Simplified Islamic).
3- Malls		
	1- Mall, 6 th October, Off Service Spine	Modernized Islamic (Simplified Islamic).
4- Islamic Style Public Buildings		
	1- Federation of Arab Archaeologists Headquarters Al-Shabab Road, Central Spine, Zayid. 12 Re-Interpreted Islamic Revival Style	Neo-Islamic
	2- Ittihad al-Magami` al-Loghawiyya al-`Ilmiyya al-`Arabiyya (Union of Arab Scientific Linguistic Societies), Off the service spine, October. Neo-Islamic	Neo-Islamic
	3- Salah al-Din Medical Center, Service Spine, Midan al-Hurriyah (Liberty Square), October. Eclectic (Modern with Egyptian Vernacular and Andalusian Elements)	Eclectic
	4- Giza Palace Hotel, under construction, 26 th July Mehwar Main Road, Zayid, before entrance Two.	Neo-Islamic
	5- Faisal Islamic Egyptian Bank, Main Spine, October. International Style Glass Box with Curtain Walls with Islamic Details	Modernized Islamic (Simplified Islamic).
6- Islamic Style Educational Buildings		
	1- Model Azhari Institute for Boys	Modernized Islamic (Simplified Islamic).

	2- Model Azhari Institute For Girls.	Modernized Islamic (Simplified Islamic).
	3- Al-Hosary Azhari Institute	Modernized Islamic (Simplified Islamic).
	4- Ahmad Al-Mahdy Azhari Institute	Modernized Islamic (Simplified Islamic).

Table 3: Summary of Islamic Style Buildings chosen for Analysis.

Table 4 summarizes the Islamic style building types and categories

Type Of Building	Number	Style	Number	Percent
Commercial	3	Eclectic	2	17%
Public	5	Modern Islamic	7	58%
Educational	4	Neo-Islamic	3	25%
Total	12	Total	12	

Table 4: Summary of Building types and Islamic Styles used.

5.1. Islamic Style Commercial Buildings in Zayid and October

Commercial Buildings can be further divided into Neighbourhood Commercial Centres, Malls and Mixed Use Office Buildings (Office Building with retail space).

5.2. Neighbourhood Centres

6th October and Shaikh Zayid cities are planned by division into several areas separated from each other by main roads, and each Area is further subdivide into several neighbourhoods. Each neighbourhood has its own commercial centre. We can divide the neighbourhood commercial centres into two types: Single Block Centres (commercial and perhaps administrative units) and the Complexes, which have a series of commercial/administrative units and an adjoining mosque. In Zayid and October, single block commercial “Centers” can be easily categorized as having a “no style” “modern” architecture, typical of Egyptian architecture since the 1960’s with no clear identity or attempt at design in its facades or plan. Conceptually they are simply a series of shops opening onto the main street with window fronts and signs dominating and creating the architecture. The shops are mostly services or grocers who try to play the role of “supermarkets.”

As for the Complexes, Al-Lo'alo'a Center, a popular neighbourhood centre, may be the only example we can find that is actually designed as a souq or market inspired by the traditional markets of the Middle East. With its mosque, design and uniformity of details, it was given a clear and definite Islamic style. Other commercial neighbourhood centres, even if they do have a mosque, don't have this character, and our analysis will propose an explanation.

5.2.1. Al-Lo'Lo'a (Pearl) Neighbourhood Centre, First District, Zayid

We can consider this building to be an Eclectic / Re-Interpreted Islamic Revival style. The congregational mosque is what we can call a neo-Islamic adaptation, with an interesting treatment of the arches, main dome, facades, and entrance courtyard and ablution area. As mentioned above, this is one of the few neighbourhood centres with a congregational mosque that is integrated as part of its design and on its same lot. Actually, the shopping centre itself envelops the mosque in an L-Shape (Fig. 1), from its northern and Western sides, with a clearing in between from which you can gain access to the entrance, with the Qibla and East sides overlooking the streets. The site overlooks three streets, with a difference in level of almost one floor between the Southern and Northern streets (Figs. 2,3), which has been very well used in the design, raising the shopping centre on the higher elevation, with the mosque on the street level. In spite of the difference in heights, geometry, details and functions of the two buildings, yet there is a feeling of integration and homogeneity between the two buildings.

The concept of the centre itself is clearly inspired by the traditional "Souqs" in an Islamic city, with a series of spaces on a central spine onto which open the shops and a series of interconnecting alleys. The same urban tools used in Islamic cities are intelligently copied in this centre: a series of spaces in succession, each with its own identity and geometry, on a main spine, acting as "squares" on this main road.

There are three main entrances to the centre, from the North West (Fig. 4), South West (Fig. 5) and South East (Fig. 6). The two entrances from the North West and South East (figs. 4, 6) are almost identical, round buildings with a dome, with a series of stairs leading up to their level which is higher than the street level, while the rectangular and open southern entrance is only a few step above the street. From this open air Southern entrance you start your journey on this spine, reaching the first square (Fig. 7) then a second "square", from which the path emerges onto the main central plaza (Fig. 8) at the corner of the L-form, with rounded walls, with a partial covering of a ribbed open air semi dome (Fig. 9). From this space the central path continues under a bridge (Fig. 10), to a fork, then continues as a double height corridor (Fig. 11) with a gallery overlooking it (Fig. 12), leading onto the rotunda of the Northern Entrance (Figs. 13-14) that is covered with an "open air ribbed dome" with a solid oculus, supported on a series of round arches (Fig. 14). The series of green plastered ribs that form open air arches (Figs. 7-12) are a unifying feature that is used throughout the project. The second floor shops open onto the galleries (Fig. 12) and bridges offer interesting vistas onto the main spine, making use of the double height opportunities given by that second floor.

Several details are repeated throughout the building and are echoed in the mosque, like the arches with alternating white and green colors (Figs. 15-16), mimicking *mushahhar*, but in white and green instead of the traditional beige and reddish dark brown. The rhythm of the repetition of the arches has been lost since they are mostly enveloped by the advertisement billboards and signs of the shops (Fig. 14). Other details are the keel pointed arches (Fig. 16) , the pointed arch crenellations in green (Fig.17) that are used throughout the building, the use of eaves with roof tiles (Fig. 18) and many other details that are part of a vocabulary of Islamic inspired architectural details, with modifications.

It must be noted that the centre itself is one of the earliest commercial centres to function in Zayid, and has many shops that cater for the building industry and for providing the many basic functions that are necessary for the daily life of the citizens. With its heavy user traffic, density of shops, goods on display in its alleys, modest upkeep of the building, a level of cleanliness that needs more attention, the chaotic use of signs and banners everywhere, all this contributes to provide an atmosphere that gives the building its character: a local traditional *souq* reminiscent of those in any typical Middle Eastern city.



Fig. 1) Layout for Al-Lo'lo'a Center. Source Google Maps.



Fig. 2) Mosque of Al-Lo'lo'a Center from the North (by author)



Fig. 3) View from the North West corner (by author)



Fig. 4) Entrance from the North West Corner (by author)



Fig. 5) Entrance from the South West (by author)



Fig. 6) Entrance from the South East (by author)












Fig. 7) First round square from Southern Entrance (by author)



Fig. 8) Main central plaza (by author)



Fig. 9) Open air ribbed semi dome in main central plaza. (by author)

		
<p>Fig. 10) Main spine showing bridge. (by author)</p>	<p>Fig. 11) Central spine with open air ribbed pointed semi vaults (by author)</p>	<p>Fig. 12) Second floor galleries overlooking the central spine. (by author)</p>
		
<p>Fig. 13) Rotunda behind Northern entrance block. (by author)</p>	<p>Fig. 14) Open air ribbed dome in the Northern rotunda. (by author)</p>	<p>Fig. 15) Eastern Façade showing typical arches in green and white (by author)</p>
		
<p>Fig. 16) Keel arch with alternating green and white colors. (by author)</p>	<p>Fig. 17) Crenellations in green and series of plain round arched windows. (by author)</p>	<p>Fig. 18) Eaves with green roof tiles above pointed arch, and dome above. (by author)</p>

5.3. Mixed Use Office Buildings

There are many office buildings that also have commercial spaces occupying the ground and mezzanine floors. Mostly use a very modern façade with lots of glass and aluminium or stone cladding, radiating a very new and modern look. We can count several buildings in Zayid and October that have used an Islamic style.

5.3.1. Alsaraya Mall, Zayid Central Spine, Al-Mostaqbal Road, Zayid

Using an eclectic style with modern detailing, this building has some interesting features that make it worthy to mention. Compared to the other modern style aluminium-clad mixed use office buildings in Zayid, this building stands out. It is also an excellent example of how building laws and economical profit factors affect architectural design forcing the architect to design within those constraints. The architect used for the side facades double height pointed arches to connect the skeleton on the ground and mezzanine floors, with the borders of the arches coloured in alternating dark brown and light brown, imitating *mushahhar* technique (Figs. 19-21). The Eastern façade overlooking the main street has been stepped outwards twice, with the mezzanine floor creating a cantilevered first step then the typical floor cantilevered outward. This detail is missing from the other facades. This so called “telescopic section” is a common tool in Islamic residential architecture to offer protection from the sun and increase shade on the façade. The architect used a variety of opening sizes and forms, with large glass rectangular storefronts on the ground floor, while the cantilevered mezzanine floor has the same *mushahhar* pointed arch as the side facades (Fig. 22-23). The entrance of the building stands out in direct contrast to the style of the building being made of a glass box curtain wall (Fig. 24) extending the full height of the building, in direct contrast to the arches and relatively heavy façade. The façade has an interesting combination of rectangular windows in recesses topped with *muquarnas* decoration, while the top floor rectangular windows are bordered within a pointed arch frame giving a lively differentiation between the different floors. The building is topped with a protruding stucco cornice. A decorative finial taking the shape of a bulbous dome has been added at the corners of the main street façade (Figs. 21, 26), the rear façade and the central core, visible from the northern side façade (Fig. 20). The corners on the main street are decorated with panels then topped with a cornice of rectangular recesses (Fig. 26). The use of beige stucco for the façade and medium dark brown for all the framing and decorative panels and the *mushahhar* in the arches gives an overall unifying effect of the façade.



Fig. 19) Southern façade (by author)



Fig. 20) Northern façade (by author)



Fig. 21) Main Street Façade (by author)



Fig. 22) Detail of the lower segment of Main Façade. (by author)

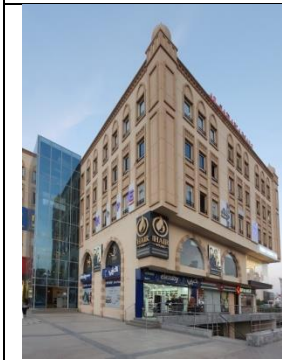


Fig. 23) South East Corner (by author)



Fig. 24) Entrance Glass Cube (by author)



Fig. 25) Detail of corner south of entrance (by author)



Fig. 26) Detail of South East Corner on the Main Street. (by author)

5.3.2. Mall, 6th October, Off Service Spine

This mall is hidden in a street in between the two main spines of 6th October, just behind City Scape Mall. It is less than 50 m away from the Union of Arab Scientific Linguistic Societies, to be discussed below. The design of the façade is based on using a series of forms connected to each other: a curved segment then a rounded segment, then a straight segment connecting to a truncated cone (Figs. 27-28). The first curved segment has a façade of large windows and its concrete skeleton shows and is clad in marble. This leads to a circular segment that stands out with its size and blue tinted curtain walls, with a series of rounded arches on its ground floor, faced with marble that contrasts nicely with the curtain walls above and in the arches. This leads to a straight segment that mimics the first curved part, leading to a final rounded segment that tapers upwards in the form of a truncated cone, completing the rhythm of the façade with its blue tinted curtain walls. The use of curtain walls is very well contrasted with the use of stone and marble revetments in the entrance and in the rounded arches in the ground floor. Further contrast and echoes of an Islamic style is reflected in the balcony above the main entrance (Fig. 29), with its wooden arcade and wooden eave and balustrade, typically Islamic details reminiscent of *sabil-kuttabs* common in the Burji Mamluk and Ottoman periods. The entrance is crowned with a crenellation with alternating rectangular solids and voids. The truncated cone segment has a large rectangular marble frame that delineates its entrance from the street (Fig. 30).

The mall is still under construction. Although it has no clear “style” yet this eclectic combination of Islamic detailing with modern glass and curtain walls definitely works. There is a mixture of forms and materials, like marble, blue glass, curtain walls, large glass panels, marble, rough stone, arches, crenellations, blue tiles, wooden eaves and arcades. This gives the building a unique character quite different from other designs around it in October.



Fig. 27) Façade from the North West. (by author)



Fig. 28) Main Street Façade from the North. (by author)



Fig. 29) Main Entrance Block. (by author)



Fig. 30) Main Entrance Details with wooden arcades. (by author)

5.4. Islamic Style Public Buildings

We have several examples of those buildings, rare, but related to some kind of Islamic venue so it is acceptable in the public eye to use that style. Four buildings deserve to be recorded. Two of those buildings were financed by His Highness the Ruler of Al-Sharjah, Dr. Sultan Ibn Muhammad Al-Qasimy.

5.4.1. Federation of Arab Archaeologists Headquarters, Al-Shabab Road, Central Spine, Zayid

This is the first building financed by H.H. Ruler of Al-Sharjah, inaugurated in May 2015. It is built in an eclectic Neo-Islamic style that mixes some classical details with modified typically Mamluk details. The building was designed by the Egyptian firm AGC (Architectural Group Consultancy) lead by Architect Hossam el Din Mahmud [23]. This firm is one of the rare firms that specializes in designing in the Islamic style, with a very impressive portfolio of projects. This project (Fig. 31) is comprised of three floors, the first floor contains four conference halls, one main hall and three smaller ones, plus the administrative offices of the Federation. The Second floor houses the library, laboratories and training rooms. The third floor is occupied by a hotel consisting of ten triple occupancy rooms and needed services.

Some interesting details are used in the facades. The main façade (Fig. 31) is symmetric around a central curved entrance block that is crowned by a large cornice. The entrance block boasts an impressive portal that has twin columns on each side carrying corbels (Figs. 32-34). The entrance doorway itself is nested inside a pointed keel arch with segments, while the wooden doorway extends the full height to fill the arch with the doorway crowned by a combination of blind arches and carved stalactites. Classic looking engaged pilasters with mouldings and vertical ribbings frame a typical recess that is repeated throughout the main façade. This typical recess houses two windows, the bottom one with its lintel a shallow arch, while the upper floor is recessed in a pointed keel arch lintel. A combination of several

decorative elements are used. Classic looking roundels and mouldings and decorative bands are used, divided by a row of stalactites. Islamic stucco arabesque patterns are used in the spandrels and in the tympanum of the arches. This gives the typical recessed unit quite an eclectic look and style (Figs. 35-36).



5.4.2. Ittihad al-Magami' al-Loghawiyya al-'Ilmiyya al-'Arabiyya (Union of Arab Scientific Linguistic Societies or Arabic Language Scientific Academy), Off the Service Spine, October

This is the second building financed by H.H. Ruler of Al-Sharjah. It was designed by Howeedy Consultants, and was inaugurated in June 2015 [24]. It is an excellent example of a neo-Islamic revivalist style building with multiple functions. Three floors of “average level area 3050 sq. m. including managerial offices, accommodation, meeting rooms, teaching staff, administration and financial affairs’ offices, researchers’ labs, open space for 100 researchers, parking spaces, 1600 sq. m. of green spaces...and other necessary building utilities” plus a 200 person conference hall [25]. This is a huge building, over 70 meters in length, and is subdivided into four segments: a square segment to the north, then the oval entrance block,

then a rectangular segment that is attached to the last rounded segment to the south. Its facades uses quite an extensive vocabulary of Islamic style elements (Figs. 37-38), like pointed arches with decoration panels in the spandrels, roundels in the centre of the arch and perforated stucco screens with geometrical arabesque pattern (Fig. 39). Other notable details include the protruding entrance with pointed arch vault, large entrance block with a huge cornice and the large entrance sign (Figs. 40-42). Worked iron gates are quite expressive of the function and style of the building with eight pointed start panels and interlacing borders (Fig. 43). The outer street fence of the building has some segments in wrought iron while other huge segments is masonry with stucco with a crowning cornice, divided by the main entrance gate (Fig. 40) with a security room with its small side doorway with a pointed arch profile (Fig. 41, 44). An interesting feature is the use of a crowning balcony on top of the pierced stucco grill arches on the facade, with the parapet changed to a series of pierced 12 pointed star shape and side supports with small domed finials (Fig. 45), providing interesting detailing to break the monotony the straight line of the building skyline. In the main entrance block pointed arches are used protruding outwards from the facade as frames supported on small cantilevers, with the wooden window (Fig. 46). The parapet of the main entrance block has a series of pointed arches carrying a large parapet with engaged fanlike supports (Fig. 47).



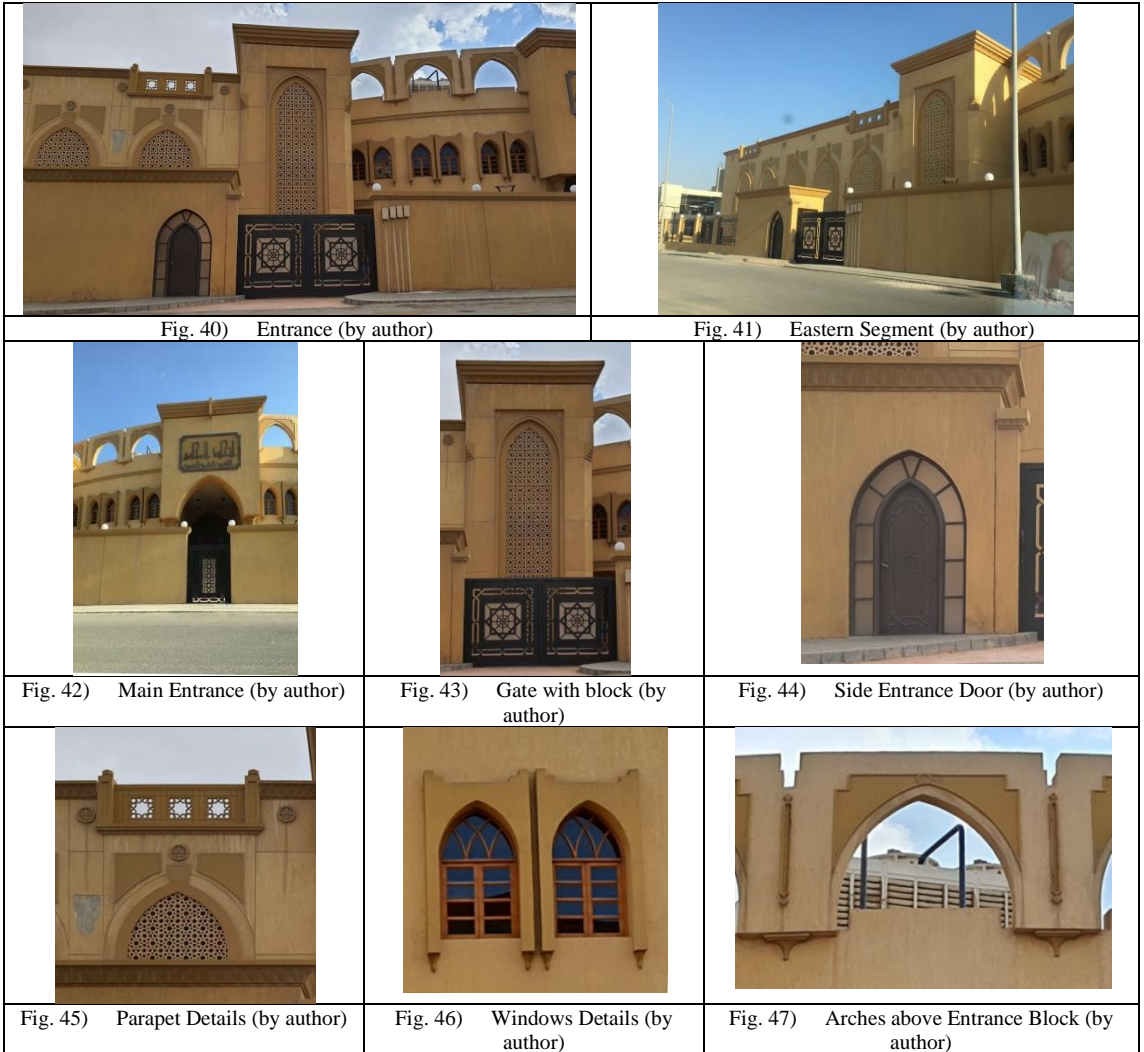
Fig. 37) Street Façade, Eastern Segment (by author)



Fig. 38) Street Façade, Western Segment (by author)



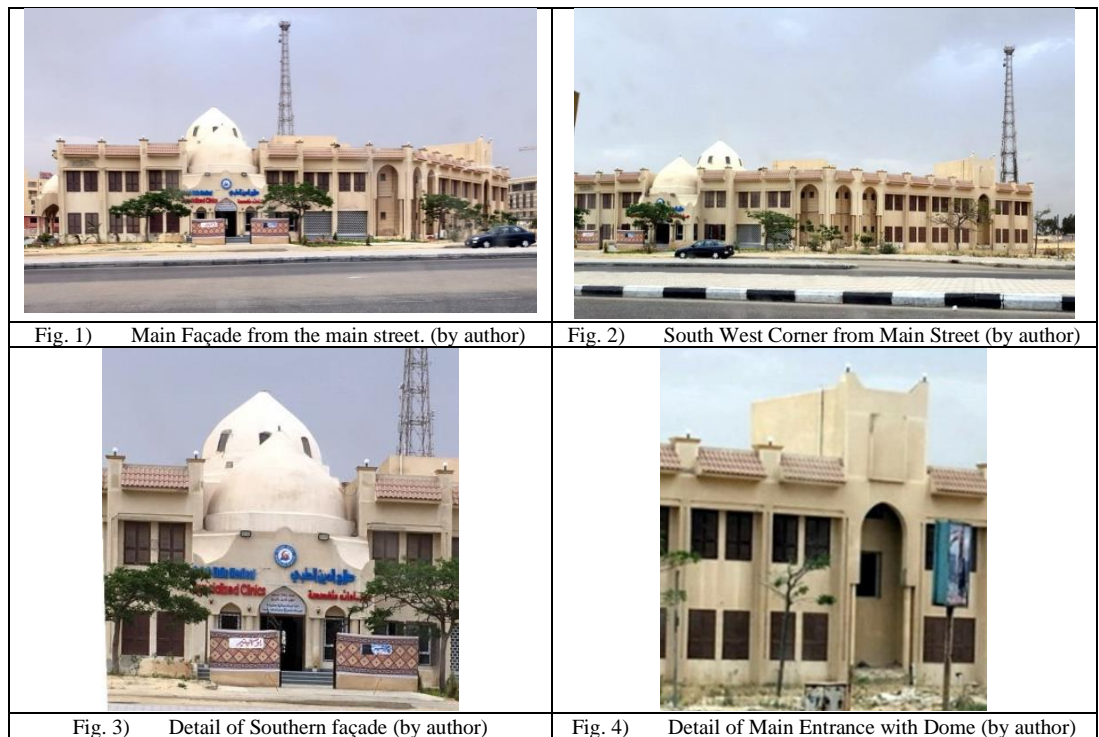
Fig. 39) Arcades with Stucco Grills (by author)



5.4.3. Salah Al-Din Medical Centre, Service Spine, Midan al-Hurriyah (Liberty Square), October

This building can be considered as an eclectic style. This is a one of its kind building that can be found in October, the only example we have for a medical centre that is built in a style that borrows some Andalusian features (Figs. 48-50), namely the use of cantilevered awnings with terra-cotta tiles of a light reddish colour. However, the architect used for his entrances very heavy domes whose colour, profile, zone of transition and position in the façade all look quite awkward and give the impression that they were an addition built in mud bricks (Fig. 50). The architect used a series of arches for the corner, extending the full height of the two storey building. This detail has been repeated in the staircase on the side facade.

The column of the concrete skeleton are used to divide the façade into bays, topping each bay with a cantilevered sloping awning covered with terracotta tiles. A large arch extending the full height of the two storey building accentuates the staircases (Fig.51).



5.4.4. Giza Palace Hotel, under construction, 26th July Mehwar Main Road, Zayid, before entrance Two

This is going to be a major Five Star hotel in Zayid on the 26th July Main Spine. Other 5 Star Hotels are in a different area closer to October: the Hilton Dreamland and Movenpick Hotel, both built in a modern architectural style. Giza Palace is owned by Sinai Tours (part of the Travco Group), designed by Raafat-Miller Consulting with Travco Engineers and GTC. The facades were designed by the international firm WATG [25]. The project is being built by Travco as a main contractor. Built over a 33,412 m2 land, the total built up area is planned to be 175,000 m2. It is a large site, extending a full block length, with its main Eastern Façade on the Mehwar (Figs. 52-53) and its Western façade overlooking al-Bustan Road (Fig.54-55). Its Northern façade (Figs. 56-57) extends the full length of the block, one of the largest facades in any building in Zayid. When finished, the hotel should include 553 hotel rooms, plus 61 luxury suites, a shopping mall, spa and health club, ballroom and conference halls, 3 underground floors for parking garages to accommodate 442 cars, plus other amenities and services. Although the building is still under construction, however, its

facades are slowly taking shape, revealing an excellent example of Islamic detailing. The designers are using an eclectic vocabulary of pointed arches (Fig. 58), domes, arabesque patterns, balconies with columns and double arches (Fig. 59). The quality of construction is excellent, to say the least, with beautifully constructed arches and GRC detailing on the facades. An on-site mock-up room has been built that shows luxury, excellent taste and professional attention to details. The detailing of the facades by WATG is an excellent example of how to reuse Islamic architecture elements to create a new architectural Islamic vocabulary.



Fig. 5) Main Eastern Façade on Mehwar (by author)



Fig. 6) North East Corner (by author)








Fig. 7) Western façade (by author)



Fig. 8) North West Corner (by author)



Fig. 9) Northern Façade-1 (by author)

		
<p>Fig. 10) Northern Façade-2 (by author)</p>	<p>Fig. 11) Typical Single Arches with double arcades above (by author)</p>	<p>Fig. 12) Typical Double Arches with flat openings below. (by author)</p>
		
<p>Fig. 13) Rendered Northern Façade , Courtesy of TRAVCO</p>	<p>Fig. 14) Rendering of Entrance Court, Courtesy of TRAVCO</p>	

5.4.5. Faisal Islamic Egyptian Bank, Main Spine, October

This branch of Faisal Islamic Bank in October is living up to the hype of its "Islamic" image. One must mention the Bank's main headquarters overlooking Sheraton Square in Dokki, with its innovative facades of pierced stucco, modelled with Arabic calligraphy, in a unique treatment in Cairo buildings. Here, there is a completely different approach to the "Islamic" image. We can call the style used a Modernized Eclectic style, in which curtain walls are used with various Islamic style decorative detailing. The rectangular shaped office building has its base clad in white marble and pierced by a combination of pointed arches and round arches in the corner bays (Figs. 60-62). The 3 storey offices above are enveloped in a glass curtain wall, with the two corner segments clad in white marble and pierced by dark brown and beige marble panels pierced by rectangular windows with supporting glass curtain walls for the 4 storey offices. The main entrance is in the Southern side façade overlooking a large parking lot (Fig. 63), and has been accentuated by taking the central bay and cladding it in black marble, using Kufic calligraphy in white and two triple height round columns to delineate the entrance portal (Fig. 63). The text used is the word "ALLAH" in Kufic script above three intersecting crescents. The contrast between the bluish glass curtain wall and the

black marble and the white marble works well. The pointed arches on the ground floor are framed by a brownish marble band and black marble, with wrought iron grills with a geometric square pattern rotated 45° (Fig. 65). The side panels with geometric arabesque star patterns and arches add to the “Islamic” feel of the façades (Fig. 64) and provide a contrast to the glass curtain walls and accentuate the corners of the cubical volume of the building with their greyish marble cladding background. The Eastern façade overlooking the Central Spine is dominated by a black marble panel with the same ALLAH script used above the main entrance but this time surrounded by interlaces of beige marble strips (Fig. 66). The two corner panels are similar to the side façade with their arabesque patterns and arches, same greyish marble, black and brown, but with only one vertical arched panel instead of two (Fig. 61).



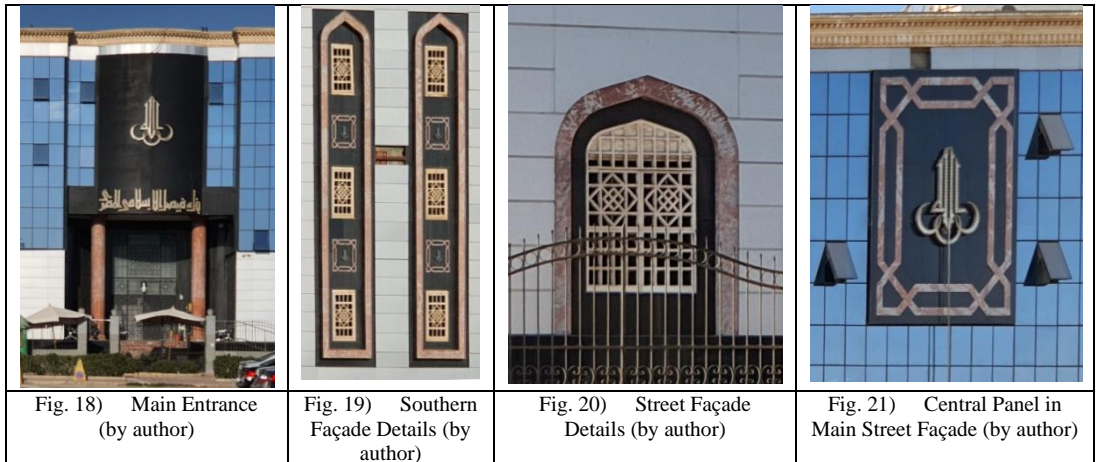
Fig. 15) South Eastern Corner (by author)



Fig. 16) Street Façade on Main Spine (by author)



Fig. 17) Main Entrance Façade (by author)



5.5. Educational Buildings in the Islamic Style

Educational buildings in the Islamic style are limited to institutes that are affiliated to Al-Azhar, one of the leading Islamic educational institutions in the world with over two million students in Egypt in all levels of education in 9569 public and 225 private institutes [27] in addition to its universities throughout Egypt that cover both Islamic and secular sciences education creating scholars in all fields with an Islamic orientation and education. Its long history and tradition can be traced to the foundation of Fatimid Cairo in 969 AD. As expected, most buildings affiliated with Al-Azhar are built in some kind of “Islamic Style”. We have noted a total of two governmental Azhar affiliated institutes in Shaikh Zayid and four in 6th October, two of them private sector Azhar affiliated language institutes [18]. Strange enough, not all of those buildings were built in an “Islamic Style”. Al-Azhar as the leading Islamic educational establishment is sending its own message: Islamic education in an Islamic inspired building. However, what we get for most Azhar affiliated schools is a modern school design with some elements of “Islamicized” architectural elements. Naturally this is quite a departure from typical traditional Islamic madrasa designs with a courtyard and four iwans, a design that hasn’t been used in Egypt since the 17th century. The other governmental schools that are not affiliated with Al-Azhar use almost identical designs and wall colour, but without the Islamic elements. It should be noted that all the other private sector schools in Zayid and October use very modern looking facades with curtain walls and cladding, part of the Western image they try to convey as providers of Western education (American, IGCSE or International Baccalaureate), even one school modelled its main building as a direct metaphor for a Greek Temple, complete with entablature and peripheral Doric columns.

To ascertain the Islamic image of its buildings, the “Islamic” architectural elements used by al-Azhar are mainly the use of a triangular arch, a simplification of the historical Fatimid pointed keel arch (Figs. 69-71, 74) and some pierced stucco grills and perhaps some

type of Islamic inspired decoration. This style of simplified “Fatimid” style is typically used in most of the educational buildings affiliated with Al-Azhar throughout Egypt, to confirm its “Islamic” identity. This triangular arch is easy to construct and doesn’t require any special skills and makes the building look different. It can also be easily applied to the standard governmental school prototype being built. Numerous examples can be seen elsewhere in Cairo, with the same triangular arch that frames its window bays.

Islamic Style Azhar Affiliated Institutes in Shaikh Zayid we have the Model Azhari Institute for Boys (Fig.67) and the Model Azhari Institute for Girls (Fig. 68) are both built in an almost identical Islamic style which we will discuss below. The Azhari Boy’s Institute (Fig.67, 69) on Al-Mostakbal Road in Shaikh Zayid has an F-shaped plan, with the main courtyard open to its west side, while its eastern bloc has an enclosed narrow courtyard. The main entrance gate (Fig. 69) uses a series of pointed keel arches (Figs. 70-71). The Girl’s Institute (Fig. 67) uses a similar plan and architectural vocabulary. Typically, for their facades, both institutes use “Azhari” architectural vocabulary mentioned above: vertical panels ending with a parapet with simplified blind triangular arches (Figs. 72, 74) and pierced stucco grills in the outer walls of the staircases. Some buildings may use a moulding in the form of triangular blind arch above a rectangular window. The perimeter wall of both institutes is divided into typical rectangular panels using buttresses that have been modelled into vertical recesses ending in a triangular arch (Fig. 73). The top of the wall is decorated with an octagonal star, in an attempt to give the wall an “Islamic” style (Fig. 75). This typical panel is repeated along the length of the wall. In Shaikh Zayid, one of the public governmental schools uses the same Islamic inspired design for its outer perimeter wall, but the building itself was devoid of the Islamic style elements. If it wasn’t for the triangular bays, it would have been impossible to differentiate the regular governmental schools from the Azhari ones.






Fig. 22) Azhari Institute for Boys (by author)



Fig. 23) Azhari Institute for Girls (by author)

77



Fig. 24) Azhari Institute for Boys – Main Entrance (by author)	Fig. 25) Arch above Entrance (by author)	Fig. 26) Side Panels (by author)
		
Fig. 27) Typical Outer Fence Module Unit (by author)	Fig. 28) Eight pointed star in outer fence (by author)	Fig. 29) Typical bay of façade. (by author)

In 6th October, out of the two governmental institutes, Ahmad Al-Mahdy Azhari Institute uses a façade similar in design and colour to those institutes in Zayid, however, October Elementary Institute doesn't, using red sandstone bricks for its walls and plaster for its skeleton structure giving it a neutral modern feel. As a Al-Hosary Azhar Language School, owned and operated by a large private sector charity organization, they used a completely different plan and attempted to give their buildings an Islamic touch, by using a simplified keel arch in the façade, and partially painted the façade in alternating stripes of light and dark brownish red, imitating the use of *mushahhar*, a typical Islamic Egyptian technique. The other private sector Azhari language school in 6th October (Al Hoda Azhar Language School) used a modern style façade in its buildings.

6. Discussion and Final Analysis

Based on the above survey, we need to answer two important questions, the first is there an Islamic Egyptian contemporary style of architecture, and what the reasons for using an Islamic style are.

In the examples cited above, we notice that the use of an “Islamic Style” is mostly limited to the facades. A rare example, al-Lo’lo’a Center, which uses in its layout some of the general traits of Islamic style markets and cities as an integral part of its design. Al-Saraya mall uses an echo of the traditional telescopic section in its main facade. However, for the other buildings, they are buildings with modern functions with contemporary designs, enveloped in an “Islamic style” external veneer, or facades.

Only twelve buildings were categorized as having an Islamic style, which makes it a very small sample to base a trend on. The examples studied above are dominated by simplified interpretations of Islamic vocabulary with some examples of clear revival of authentic historical Islamic architectural details. Some may argue that all those buildings can be

classified as eclectic styles, with borrowings and re-interpretations of details from different eras and countries, with no clear dominant “style” emerging or even beginning to evolve. This eclecticism and chaos is most probably a reflection of the lack of knowledge of the historical styles by the designers. Out of the seven Islamic styles we categorized only three were noted: eclectic (two), neo-Islamic (three) and Modern Simplified Islamic (seven), yet we find great variations in each style and no consensus on the vocabulary used or details, with no clear or dominate style visible. This lack of consistent or recurrent detailing or clear style is indicative of the lack of similar background education of the architects for the elements and vocabulary of Islamic architecture. The relative dominance of our categorization of a simplified modern interpretation of Islamic detailing may be interpreted as another symptom of the lack of familiarity of architects with historical Islamic architectural details. I can suggest that only through experimentation and continuous building, trial and error, evolution of client tastes and the existence of sufficient practicing architects and skilled workmen will the style develop. So far, with the very small number of examples we noted and the relatively limited repertoire of Islamic Architectural vocabulary that is being used we don’t see any clear style emerging, nor can we see a repetition of any vocabulary of Islamic architectural elements being used. There is no clear style Islamic Architectural style that dominates or appears forthcoming.

Based on the buildings analyzed, we can suggest the reasons for using the Islamic style in the buildings covered in this study were:

- 1- Architect’s intent of using a design and style in conformance with the Egyptian heritage: the function and form of a Middle Eastern market in an Islamic style using Islamic elements of design. We have only one example: Al-Lo’lo’a (the Pearl) centre in Zayid.
- 2- As part of the image expected of its owners (Faisal Islamic Bank, Al-Azhar Institute, the two buildings funded by His Highness the Ruler of Al-Sharjah, Dr. Sultan Ibn Muhammad Al-Qasimy: Scientific Consortium and Federation of Arab Archaeologists, and the Azhar affiliated institutes).
- 3- Need for differentiation, or simply preference for a “different” style (Al-Saraya Mall and 6th October Mall).
- 4- Nostalgia for historical grandeur and images of past luxury to create a marketable image: Giza Palace Hotel.

After reviewing the case studies cited above, taking into consideration the reasons for using an Islamic style, the question must be asked: is the final effect worth it? or should the clients and their architects should have simply adopted the style that came with the forms they were imitating or taking from, which is usually Western? To me, I believe that all types of experimentation with Islamic style facades or design are welcome. Western architecture reused Classical elements on all types of forms and functions that didn’t necessarily fit with the initial designs, so, for us Egyptian Architects, why can’t we? Islamic Egyptian architecture has been simply denied the opportunity to develop through the stages through which Western architecture developed. Imported Western architecture interrupted the development of the historical Islamic Egyptian style starting from the early 19th century, so that by the end of the century there was the eventual loss of practicing Egyptian architects and contractors, and the

loss of the taste to the style except in religious architecture. With the eventual shift to Western and Modern architectural trends and the return of Western educated architects to Egypt to practice and teach western styles and trends, Egyptian architecture was denied the opportunity to evolve towards an Egyptian Islamic style. I believe that only through experimentation and continuous building in whatever Islamic style interpretation is used will we eventually reach our goal: a truly contemporary Islamic Egyptian style, reflecting our society and based on our heritage, unique to us as Egyptians in this age and time.

7. Conclusion

This study found and recorded a very small number (twelve) examples of Secular Architecture (Non Residential and Non-Religious function) in Al-Shaikh Zayid and 6th October Cities in the “Islamic Style.” Those buildings have been categorized into commercial (three buildings), public (five) and educational (four). No one dominant or clear Islamic style has been noted, and even with categorization of the styles into eclectic, neo-Islamic and simplified Islamic yet we find great variations in each style and no consensus on the vocabulary used or details. The reasons for using the Islamic style is varied: enforcement by the patron (H.H. Ruler of Sharjah) in two examples, the conformance to an expected image of the establishment (Faisal Islamic Bank, Al-Azhar Educational Institution), the search for grandeur of differentiation (Giza Palace) and finally differentiation by simply using a different style from the surroundings (Mall and Office building). One memorable example (Al-Lo’lo’a Centre) attempted to offer a shopping and cultural experience through the creation of a modernized oriental *souq* (bazaar) that functions as a main neighbourhood centre. The styles recorded were quite varied drawing from the rich vocabulary of Islamic historical architectural styles known. Variations and simplifications of the Islamic style vocabulary dominated the repertoire used, some successful, others not so. Based on our analysis we can suggest that architects with better knowledge of the historical styles will have an even better and more varied repertoire to draw from. Eventually, through continuous building and experimentation a style with specific vocabulary may dominate and become a truly contemporary Islamic Egyptian architectural style.

References

- 1) Rabbat, Nasser, 2012 "What is Islamic architecture anyway?." Journal Of Art Historiography no. 6 (June 2012).
- 2) Rabbat, Nasser, undated, Egypt: Modernity and Identity, A Special Edition Of Viewpoints, The Middle East Institute Viewpoints: Architecture and Urbanism in the Middle East; 16-18; www.mideasti.org, retrieved 29/9/2018.
- 3) Bloom, Jonathan & Blair, Sheila (1994), The Art and Architecture of Islam 1250-1800, Yale University Press Perlican History of Art.

- 4) Abdelhamid, Tarek Galal, IN SEARCH OF A “CONTEMPORARY EGYPTIAN ISLAMIC STYLE” OF ARCHITECTURE: 6TH OCTOBER AND AL-SHAikh ZAYID AS EXAMPLES. Conference: Archcairo 8 - 8th International Scientific Conference [BUILDING THE FUTURE NOW, Rights to better Living, Architecture & Contexts] Cairo University, Faculty of Engineering, Department of Architecture Engineering, Cairo, Egypt, 2019.
- 5) Nigm, Abdelmonsif Salim (2002), Qusur al-Umra' wa al-Bashawat fi Madinat al-Qahirah fi al-Qarn al-Tasi` `Ashar, 2 Vols., Cairo: Zahraa' Al-Sharq.
- 6) Ashour, Shaimaa' Samir Kamel, 2012, Al-Mi`amariyying al-Misriyyin al-Rowwadkhilal al-Fatra al-Libraliyyabaynthawraty 1919 wa 1952 (The Egyptian Pioneer Architects during the Liberal age 1919-1952AD), Cairo: Madbuli.
- 7) Hasanin, Emad Eldin Mohammad, Mohammad, Howaidi Sami Kamal, Ahmad, Mohammad Ramadan Mohammad, 2018; Ruwwad al-`Imara al-Misriyya fi al-Nisf al-Thani min al-Qarn al-`Ishrin, Journal of Al-Azhar University Engineering Sector, Article 9, Volume 13, Issue 47, Spring 2018, p. 721-735.
- 8) Barrada, Abdelhmohsen (1986), “Architectural Education in Egypt”, Architecture Education in the Islamic World, The Aga Khan Award for Architecture, Concept Media Pte. Ltd. Singapore, 183.
- 9) Salama, AshrafM. (2004). Contemporary Architecture in Egypt: Reflections on Architecture and Urbanism of the Nineties. In J. Abed (ed.), Architecture Re-Introduced: New Projects in Societies in Change. The Aga Khan Award for Architecture, Geneva, Switzerland. PP. 80-101. https://www.academia.edu/23170126/Contemporary_Architecture_in_Egypt_Reflections_on_Architecture_and_Urbanism_of_the_Nineties_Ashraf_M._Salama_2004/ retrieved 29/9/2018
- 10) Rashed, Mohamed Mahmoud Mostafa (2015), Architectural Identity in Contemporary Cairo, Msc. Thesis, Politecnico Di Milano.
- 11) Sakr, Tarek Mohammad Refaat, 1993, Early Twentieth-Century Islamic Architecture in Cairo, Cairo: AUC Press.
- 12) Abdelazim, Tamer 2000, Dilalat al-Sourah fi `Imarat al-Masjid al-Mo`asir, unpublished MSC. Thesis, Faculty of Engineering, Ein Shams University.
- 13) Abdelrahman, Ahmad Zakaria Zaki Ali (2001), “Al-Taghayyur ri `imarat al-majid al-mu`asir”, unpublished MSC. Thesis, Ein Shams University.
- 14) Abowardah, Eman Sabry & Dwidar, Salma, (2014), “Contemporary Islamic Architecture Towards preserving Islamic heritage”, Conference: ARCHDESIGN'14 on Design methodologies (Architectural Design Conference), Istanbul, Turkey, 2014. https://www.researchgate.net/publication/328149727_Contemporary_Islamic_Architecture_Towards_preserving_Islamic_heritage, retrieved 15/12/2021.
- 15) ُReham, Ibrahim Mumtaz & Faisal Abdelkader, Zeinab (2009), “Al`Imarah al-Islamiyyah al-Mu`asirah ma bayn al-Tagdid wal-taqlid”, Modern Academy for

- [https://beng.stafpu.bu.edu.eg/Architectural%20Engineering/5648/publications/zeina b%20feisal%20abd%20elkader_1.PDF](https://beng.stafpu.bu.edu.eg/Architectural%20Engineering/5648/publications/zeina%20feisal%20abd%20elkader_1.PDF), retrieved 1/6/2021.
- 16) http://www.newcities.gov.eg/know_cities/October/default.aspx
 - 17) http://www.newcities.gov.eg/know_cities/Sheikh_Zayed/default.aspx
 - 18) <http://www.giza.gov.eg/Companies/Azhar/Dalill.aspx?ID=8>
 - 19) <http://wam.ae/ar/details/1395280410510>;
 - 20) <https://www.youtube.com/watch?v=Jsl1XdgzJbk>;
 - 21) <https://www.youtube.com/watch?v=m0pEATfdKOU>;
 - 22) https://www.masrawy.com/news/news_egypt/details/2014/10/31/378680
 - 23) <http://www.agcegypt.com>. I would like to thank Eng. Khaled Hossam and Eng. Adel al-Sawi of AGC for their support and cooperation.
 - 24) <https://www.albayan.ae/across-the-uae/news-and-reports/2015-05-12-1.2372780>.
 - 25) <http://howeedyconsultant.com/inauguration-of-the-arabic-language-scientific-academy-project-at-6th-of-october-city-giza-egypt/>
 - 26) Wimberly Allison Tong & Goo. WATG are recipients of the 1979 Agha Khan Award for Architecture for Tanjong Jara Beach Hotel in Malaysia, other outstanding projects include: Atlantis Dubai, Emirates Palace Abu Dhabi. Their work in Egypt includes: ZED at El Sheikh Zayed. See <https://www.watg.com/about/heritage>.
 - 27) <https://www.facebook.com/AlMasrystudiescenter/posts/567242226662816/>