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Contemporary Mosque Architecture in Egypt and Iran (a Comparative Analysis)

Hosam Ali
hosamaraby@aucegypt.edu

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CONTEMPORARY MOSQUE ARCHITECTURE IN EGYPT AND IRAN

MA THESIS BY
HOSAM EL-DIN ARABY
SUPERVISED BY
PROFESSOR BERNARD O'KANE

THE AMERICAN UNIVERSITY IN CAIRO

The American University in Cairo

School of Humanities and Social Sciences

Contemporary Mosque Architecture in Egypt and Iran

(a Comparative Analysis)

A Thesis Submitted to

The Department of Arab and Islamic Civilizations

In Partial Fulfillment of the Requirements for the Degree of Master of Arts

By Hosam el-Din Araby

Under the supervision of Dr. Bernard O'Kane

The American University in Cairo

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(a Comparative Analysis)

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Thesis Committee Advisor_____

Affiliation_____

Thesis Committee Reader_____

Affiliation_____

Dr. (Type the name of the faculty member)

Thesis Committee Reader_____

Affiliation_____

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Abstract

I would like to introduce my research with this quote from Ahmed Hamid's book *Hassan Fathy and Continuity in Islamic Art and Architecture*:

> As a student of Architecture at Cairo University's Faculty of Engineering, I was ashamed that we Egyptians and Muslims had nothing in our syllabi that could be considered comparable to the genius of the west. Islamic architecture was omitted from the curriculum as being of no interest value for modern architects. It bothered me when I found that Egyptians believed the image propagated by some orientalists that Islam, and by implication its art and architecture, was backward.[1]

What is Islamic architecture in the first place? Rabbat summed Grabar's words by stating that "Islamic architecture is the architecture built by Muslims, for Muslims, or in an Islamic country, or in places where Muslims have an opportunity to express their cultural independence in architecture."[2] Therefore, no matter what the architecture looks like, no matter what statement it carries, it will still be Islamic as long as it satisfies these. This gives a wide spectrum of options in the design of Islamic architecture. Nevertheless, Islamic architecture is not a separate entity. It is a reflection and a vessel of Islamic culture in the place where it is situated.

To trace the influences of Islamic culture on its architecture, it is important to emphasize two factors that regulate all aspects of life for Muslims, including the ways they construct or alter their environment. First, Islam tolerates cultural and aesthetical differences in a multitude of nations. The concept of tolerance is commanded in the Quranic verse 34:27: "We did not send you (Prophet Muhammad) for all mankind except to bring them glad tidings." This means that the message of Islam is the message of acceptance of all the mankind with their differences in mindsets and cultures. When

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[1] Hamdi, *Hassan Fathy*, 19-21.

[2] Rabbat, "What is Islamic Architecture," 1-15.

tolerance is applied to architecture it accommodates a cultural variety. Such cultural interactions and influences are evident when comparing Timurid architecture to Mamluk architecture, for example. Second, Islam urges us to respect the environment and be conscientious when altering it. For instance, the Prophet Muhammad used to consult all his fellows - even non-Arabs – when taking a decision on modifying spaces, as in the famous incident of digging trenches around the city following the advice of an Iranian, which was an innovative solution for the Arabs who had not previously known the concept of trenches.

Despite such freedom of expression, the mosque remains the pivotal component of both Islamic identity and Islamic architecture. The belief for a Muslim is the core of life; therefore, the mosque becomes the center of their constructed environment. As Saoud (2002) puts it, "The religious beliefs and practices formed the center of cultural life for those populations, thus giving the mosque the central position in spatial and institutional hierarchies."[3] From a praying space built adjacent to the Prophet's house from local simple materials, like mud bricks and palm tree trunks, to huge structures with extensive decoration and intricate components – a mosque is the journey of the Muslim prayer space. "Today, people use a mosque only for the purpose of Ibadah. But we realize that Network of Mosques (NoM) has a great potential to improve social welfare for the society who live around the mosque."[4] Hence, studying the mosque is essential to understanding Islamic architecture.

Another factor that has determined the face of Islamic architecture - and mosques, in particular - is related to socioeconomic changes in the world. The industrial revolution, modernism and postmodernism played a key role in changing the designs of mosques. This is reflected in the comment that the master jury of Aga Khan Award made about the Niono Mosque in Mali: "Islamic culture has only recently begun to emerge from a past whose aesthetic values were based on craft toward a future whose

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[3] Saoud, "Introduction," 1-9.

[4] Dahlan, "Developing," 7-9.

aesthetic values will surely be based on machine production."[5] Islamic architecture comes in an abundance of manifestations. Various cultural and contextual influences on Islamic architecture continue to evolve. Throughout history Islamic architecture adopted the effects of surrounding architecture through adding spaces and elements that fitted the needs of the users. Nowadays, the concept is still the same, but there is more complexity to it, not only in the architecture itself, but also in the perception of architecture.

Yet, with the rise of "the international style" and globalization since the mid-twentieth century, Islamic architecture has faced confusing choices for both users and architects posing the following questions. Should architects advocate their attachment to a particular historical period? Conversely, should they move on and adapt contemporary concepts and forms inspired by international architectural movements? Does the vocabulary of the past guarantee authenticity? Does the authenticity of this style of architecture merely depend on its forms and vocabulary? Does authenticity lie in the connection between a style and religious concepts? Many scholars, including Nasser Rabbat and Ali Gabr, tackled these questions studying multiple cases, especially following the debates around modernism, deconstructivism, traditionalism and regionalism since the mid twentieth century.

My research will involve a summary of all these theories and their application in contemporary (21st century) Islamic architecture in Egypt and Iran. The purpose of this dissertation is to compare the approaches taken in both countries in designing mosques. My analysis will be based on the socio-political context of architecture, the influences that affected its designs and the lens of the relevant theoretical framework.

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[5] Fethi, "The Mosque Today," 53-61.

Introduction

The medieval and modern history of architecture of Egypt is rooted in Islam and goes back to 'Amr ibn al-'As' conquest, throughout the Islamic Caliphates and Sultanates until the defeat of the Ottoman Empire in the First World War. Similarly, Islamic influence on Iran is very complex. Both Egypt and Iran have created a distinctive Islamic art and architecture connected with their historical heritage. With time, their politics, cultures and architecture have changed. Both countries are now governed by authoritarian regimes and both have a history of revolutions. Many scholars showed the influence of politics on architecture. Thus, studying the socio-political context of architecture may reveal factors that shaped it.

This research aims to give an overview of contemporary Islamic architecture revealed in mosques and the approaches used in Egypt and Iran under the theoretical framework of modernism, deconstructivism, traditionalism and regionalism. Why did I choose Egypt and Iran? The decisive reason was their closeness in the evolution of Islamic culture and architecture in the approximately parallel time frame. Nevertheless, each country developed their distinct style, building materials and influences. Egypt was mostly affected by the surrounding regions, including North Africa and Anatolia; while Iran's specificity came from its pre-Islamic culture and the region of Central Asia. Such distinct influences resulted in different building materials and techniques employed. I hope to show what has inspired both countries' contemporary Islamic architecture. The following questions will also be addressed: Has the socio-political environment affected contemporary Islamic architecture? Have the international movements, like modernism and deconstructivism, changed the perspectives of Islamic architectural design? Finally, should mosque architects adhere to traditional nostalgic designs?

The research will investigate three cases from Egypt and two from Iran. Each of these cases reflects a different design approach. The three cases in Egypt are al-Fattah al-'Alim mosque (2019), Basuna Mosque, and the Great Mosque of 'Izbat al-Nakhl (2019).

Al-Fattah al-'Alim Mosque is the first mosque built in the Egyptian new administrative capital commissioned by the state (2015). The Engineering Department of the Egyptian military forces was the designer and the main contractor of the building. The mosque is considered the founding building of the New Administrative Capital. The mosque adapts a traditionalist approach using many features borrowed from Ayyubid and Mamluk architecture.

Basuna Mosque was built in Basuna, a small village in Sohag governorate (2019). Its patron is Osama al-Azhary. The mosque used local materials and traditional construction techniques in a modern form. It was nominated for the al-Fozan award for mosques (2019) and won other awards.

The mosque of 'Izbat al-Nakhl was built with the charity funds fed by donations from the citizens of 'Izbat al-Nakhl. It adopts a postmodernist approach for the design with many Ottoman features interpreted in a modern context.

The Iranian cases include the Valiasr mosque and cultural center (2018), and the Imam Riza Cultural Complex (2012). The Valiasr mosque and cultural center (2018) is located in Tehran, and was also nominated for the al-Fozan award (2019). It is built in a contemporary style and adopts a fluid design, creating smooth forms with a limited color palette. The mosque has been a source of controversy since it was erected. It does not have a minaret or a dome, which gives a very important insight into Iranian perspectives of contemporary architecture. The Imam Riza cultural complex creates a modernist and harmonious form manifesting many inspirations from the past in terms of materials and concepts.

The Egyptian case-studies were all built after 2011, and the Iranian case-studies after 2009. These are the time-frames I chose, because of the socio-political changes that occurred after the Egyptian Revolution of 2011 and the Iranian Green Movement in 2009. I will analyze all the cases in terms of architectural design and features and their relevance to the Islamic architecture of the past. I will also show how they relate to the theoretical framework and the socio-political environment.

Methodology

My approach in the analysis of the case-study mosques will be based on finding their roots. I will attempt to define the characteristics of Islamic architecture, its modern perceptions by people, and its concrete applications in Egypt and Iran. There has not been much research done on mosques built after 2010. Studying the selected mosques in the light of regionalism will give a clearer understanding of the approaches taken in Egypt and Iran in designing new mosques. The research will be conducted within the modernism, regionalism, postmodernism and deconstructivism theoretical framework. Art and architecture cannot be understood from the historical lens only; the political and social context will also be considered.

I will start by exploring and defining the theories of modernism and regionalism, to categorize the buildings according to the theory that the architect followed in the design. Following that, the historical, social and political backgrounds of Egypt and Iran will be analyzed, showing the change of policies and ideologies in both countries. Such aspects as nationalism, theocratic governments and post-revolution changes that both countries experienced give a wider perspective in understanding their architecture. Then I will investigate each building in terms of its concept, form, plan, decoration and massing. A critical analysis will trace how these buildings relate to the original design concept and how they responded to the context. Finally, I will show how architecture relates to history in terms of its features and concepts showing how it has responded to the needs of time.

The primary sources for this research comprise the monuments themselves and interviews with the architects for the case-studies in Egypt. Waleed Arafa of Basuna, Bahaa Shawky of al-Fattah al-'Alim and Dr. Osama Farag of 'Izbet al-Nakhl Mosque have been interviewed. The Iranian cases will be studied through the relevant documented sources, and also through my interview with Reza Daneshmir, the designer of the Valiasr complex. The theoretical framework of this research will consider previously published material.

Literature Review

The concepts of identity and authenticity are controversial, with various architects and art historians debating the manifestations of the former in architecture. The confusion in interpretations of authenticity is evident in newly built mosques. While many architects adapt the traditionalist approach using historical motifs and concepts to preserve the identity of Islam or reflect the identity of a country and nation, others employ the international or regionalist approach. In order to understand architects' method of thinking, their design approaches should be explored. Most modern mosques in Iran could be studied via published papers; yet there have been few documented sources on Egyptian contemporary mosques. Therefore, I will resort mainly to the primary sources collected through the interviews I have conducted with the architects themselves.

There are many studies on regionalism, modernism and traditionalism. The reason why I chose these theories is because of their strong influence on architecture in the past century. These movements relate to each other, and they are a byproduct of modernism. After WWII, rebuilding of the destroyed cities needed to bring back their character. Regionalism was the choice to tone down the modernist approach.[6] The traditionalist movement appeared in the 1960s. It was a nostalgic one that rose against modernism. The difference between traditionalism and regionalism is that the former treats tradition as a static entity.[7] All the studied cases lie under the umbrella of these movements. However, in order to study contemporary mosque architecture, we have to return to the roots of mosque design. Tracing the roots is a more profound way to analyze the cases that – in a way – have broken cultural norms.

Omer presented one of the most influential studies of the building sequences of the Prophet's Mosque in his "Some Lessons from Prophet Muhammad (SAW) in Architecture: The Prophet's Mosque

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[6] Meganck, "Introduction," 7- 13.

[7] Al-Lahham, "Traditionalism," 64-73.

in Madinah."[8] Muslims are ordered to follow the Prophet Muhammad (SAW), so Spahic Omer returned to the Prophet's Mosque to bring out some basic principles of mosque design. He gave a detailed account of the stages of the Prophet's Mosque. According to his research, the mosque had only a mud brick walled enclosure with a mud brick arcade on the qibla wall without any decoration. Omer showed the function of the Prophet's Mosque by relating its form to the function: the mosque was used for social gatherings, political meetings and prayers. This allowed Omer to elicit the basic principles of Islamic architecture, namely: form follows function; respect for the environment; promoting social interactions, and inflicting no harm. The above principles formed the basis for studying Islamic architecture. This implied that proper mosque design could not be realized in isolation from the framework of religion. Omer's conclusion is taken in this research as reference point to going back to the origins of mosque design. His study does not prescribe any form of a building. However, it showed the main principles for designing mosques.

On the other hand, some approaches to mosque design within the regionalism movement mimic elements that are foreign to a certain region, conflicting with the identity of its society. Brian Brace Taylor in his studies on regionalism criticizes such pastiche architecture.[9] However, his arguments on regionalism are rather vague and fail to show a specific understanding of it. He questions its value, and it is clear that he neglects the findings of many previous studies.

Ismail Serageldin also tackles the topic of regional and traditional architecture. His writings on regionalism tend to support architecture that does not rely on superficial solutions and that interacts with society.[10] He divides regional architecture into two approaches, the popular and the populist; he names architecture that responds to the people's needs "popular architecture". Conversely, the architecture that responds to the political agendas to control the masses by appealing to traditional and superficial elements

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[8] Omer, "Some Lessons," 115-140

[9] Taylor, "Perspectives," 19-21.

[10] Serageldin, "Architecture as an Intellectual," 16-30.

is the "populist". To support his argument about populism, Serageldin analyzes various cases, including the Bhong Mosque in Pakistan and Niono Mosque in Mali. In particular, he praises the solutions proposed by the Niono Mosque's architects in volumetric treatments and design of space. The importance of his article "Architecture as an Intellectual Statement - Modernism in the Muslim World" lies in its relevance to Islamic countries' political status. Serageldin precisely defines modern architecture and describes traditionalism in Islamic architecture:

> There are those who advocate an almost romantic attachment to the built forms of the past, not as exemplars of a particular historic period, but as the only real authentic manifestation of a culture. These advocates are usually the same individuals who consider that particular elements of an established architectural vocabulary (such as arches, domes or gateways) are essential to ensure authenticity.[11]

The above quote warns architects from falling into the trap of using the forms of the past as the only element that provides authenticity.

Arkoun in his criticism of the philosophical concepts related to Islam and Islamic architecture disagrees with Ismail Serageldin's perspective. He believes that Serageldin underestimates the influence of Christian and Judaic communities on Islamic architecture.[12] However, in his article "Muslim Character: The Essential and the Changeable" he seems to undermine the architects' role in determining an Islamic character and its symbolism. Architects are both the builders and the designers; they are trained to sense and understand the essence and the character of the buildings they design. Arkoun's writings lack clearly-defined conclusions.

Aida Hoteit[13] takes research on contemporary mosque architecture to another level by categorizing and analyzing the context of buildings. Her study is unique in the way she investigated the

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[11] Serageldin, "Architecture as an Intellectual," 16-30.

[12] Arkoun, "Muslim Character," 208-212.

[13] Hoteit, "Contemporary Architectural Trends," 13547- 13558.

concept and functionality of mosques. While analyzing four samples of modern mosques, she related their use of historical features to their contemporary features. Her findings about their ethnicities demonstrate how Islamic architecture adapts to its environment. The methodology she used in her study is similar to that I will employ. She emphasized the concept and significance of mosque elements. After a brief introduction to mosque styles in different regions she analyzed the cases according to contemporary perspectives, analyzing each element according to their meaning, as at the Penzberg Mosque in Bavaria . She discussed why the architect used a glass façade and why its transparency was important. Analyzing contemporary architecture through its concepts is essential in understanding modern architecture.

Tajuddin's research integrates many of the studies that have been written on contemporary Islamic architecture.[14] It adds another viewpoint to the mosque design process. He - like Spahic Omer[15] - returns to the roots. In this regard, the studies of Omer and Tajuddin complement each other. The latter also tackles a very important aspect of mosque design, relating it to the context and environment surrounding the building. The variety of styles and the complexity of the social structure require a thorough understanding of the contexts of the building. Tajuddin's conclusion about the mosque's form is key to studying modern Islamic architecture. He views the inherited traditional elements as not attached to either the spirituality of the mosque or its function. He believes they are just a byproduct of building techniques, political forces and cultural influences of the time. Therefore, he separates the mosque's function from its form.

Suha Özkan's[16] studies in regionalism and modernism include vernacularism and modern regionalism. He is one of the few authors who put vernacularism in perspective. Specifying vernacularism as a sub-theory of regionalism is very important. Briefly, vernacularism, according to Özkan, incorporates climate, technology, culture and related symbolism into the design process. It creates architecture that is

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[14] Rasdi, "Contextualism in Mosque,"181- 187.

[15] Omer, "Some Lessons," 115-140.

[16] Özkan, "Introduction Regionalism," 8- 20.

coherent with its environment. However, it does not usually fit the image of contemporaneity for the users. Özkan clarifies the reason for the conflict between vernacularism and modernism tracing it back to internationalism. Internationalism, in Özkan's definition, is reducing the building to its skin and bones. In his opinion modern regionalism is the solution that could fill the gap between vernacularism and modernism. Unlike many authors, including Ismail Serageldin, for example, who regards the works of Hassan Fathy and Wissa Wassef as successful applications of regionalism, Özkan categorizes their work under the umbrella of vernacularism. In contrast, he praises Gordon Bunschaft's National Commercial Bank H.Q in Jeddah for the architect's profound understanding of regional modernism. His separation of vernacularism and modern regionalism makes his understanding of regionalism more specific by dividing it into sub-areas. His study will help in analyzing mosque designs from the perspective of a theoretical vision that the architects implemented in their designs.

Maziar, Iskandar and Nafida's[17] research is also very insightful. It demonstrates people's perceptions and feelings related to Islamic architecture. The importance of their study lies in the way it shows what users expect from the architect in the design of mosques. It illustrates why many architects adopt the traditionalist approach following such expectations.

In studies of traditionalism and pastiche architecture, Abeer al-Lahham adds a new term while explaining traditionalism. The new term she proposes while exploring pastiche architecture is 'traditionaliesm'. Although inventing a term just to create an interesting title seems unnecessary - since the definition of traditionaliesm resembles the one of pastiche discussed in many studies - narrowing down the concept of traditionalism is the core of her study. It allows her to propose a more specific understanding of traditionalism.[18]

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[17] Mazloomi, "Impact of Architecture," 235- 245.

[18] Al-Lahham, "Traditionalism," 64- 73.

Ashraf Salama, in his writings on contemporary architecture in Egypt, studied the architectural movements of Egypt in the 1990s while analyzing the factors that led to the existence of this kind of architecture[19]. His influential research is among the most important studies in this field. He concluded that two major trends are present in modern Egyptian architecture: historicism mixed with historical revivalism and regionalized modernism. However, the most important part of his study is related to the westernization of Egyptian architecture and resistance to it. He showed that market needs greatly influenced the architecture of Egypt of that period, and concludes that architectural designs should respond to the demands of the context and the environment. His is one of the most important theoretical frameworks that are employed in contemporary Islamic architecture.[20]

Kishwar Rizvi's work in the field of contemporary and modern Islamic architecture and Islamic society's studies is also valuable.[21] Her writings on modern Iranian architecture and her theories on the 'transnational mosque' shed light on contemporary Islamic architecture.[22] The introduction of her book *The Transnational Mosque* provided very useful concise information on the relationship between politics and mosque architecture.

Leena Sadek makes a valiant effort to conduct substantial research in the theory of modernism, traditionalism, and regionalism.[23] But her understanding of the theories is not precise. For example, when she talks about modernism she includes the issue of westernization in Egyptian society. However, modernism is not the reason for westernization of Egyptian society. The issue of westernization can be better understood from Galal Amin's study in his book *Whatever Happened to the Egyptians.*[24] Amin's

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[19] Salama, "Contemporary Architecture," 80-101.

[20] Ibid.

[21] Isenstadt, *Modern Architecture,* 3- 11.

[22] Rizvi, *The Transnational,*8-15.

[23] Sadek, *Politics.*

[24] Amin, *Whatever Happened.*

research is based on a profound understanding of the development of the Egyptian socio-political environment. In contrast, her illustration of traditionalism is vague and does not lead to a conclusion that is relevant to architecture. The separation between traditionalism and regionalism in her thesis needed more elaboration and connection. Nevertheless, her analysis of the Al-Shurta Mosque and the Hassan Al-Sharbatly Mosque is very detailed.

Aida Hoteit's writings on deconstructivism are very insightful.[25] Her article "Deconstructivism: Translation from Philosophy to Architecture" discusses the relationship between deconstructivism in architecture and deconstruction theory. Ahmad Osman in his studies shows the characteristics of deconstructivism and defined follies.[26] Himadri Shastri also provides a solid background to deconstructivism as an architectural style. These authors helped to give a thorough introduction to architectural deconstructivism.

The findings of the studies under analysis have helped me develop a better understanding of the theories of modernism, regionalism, traditionalism and deconstructivism and widened my perspective. They provide the solid theoretical background for my analysis of the case-study buildings.

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[25] Hoteit, "Deconstructivism," 1-13.

[26] Ibrahim, "Deconstructivism," 16– 34.

I. Theoretical Framework

Architecture is simultaneously a structural metaphor in philosophical thought and an expression of multiple ways of thinking.[27]

Understanding the theories of the last century helps to understand the influences that contemporary architects embrace. Therefore, in this chapter, I will discuss the theories that may have had an impact on mosque architecture. In addition, I will give a more thorough explanation of contemporary mosque architecture. However, it is worth mentioning that this chapter does not intend to identify the superiority of any of these theories.

Modernism

Modernism is interpreted by a wide range of authors, critics, and historians in different ways.[28] It has also been given divergent connotations in different regions and in different political circumstances. It is a philosophy rooted in art, literature, and society, which later found its way to architecture. Criticized and later modified, it has passed through many phases of development. My approach to discussing it is brief. I will focus on its origins and the circumstances that preceded its emergence. I will also mention its pioneers. Finally, I will illustrate how it manifests in architecture. This will not be a critique of modernism, but an analysis of a variety of modernist perspectives realized in contemporary architecture.

The Origins

Eugène Emmanuel Viollet-le-Duc, a prominent architect who restored some valuable samples of architectural and historical cultural heritage of France, once said:

> Suppose that an architect of the twelfth or thirteenth century was to return among us, and that he
> was to be initiated into our modern ideas: if one put at his disposal the perfections of modern
> industry, he would not build an edifice of the time of Philip Augustus or St. Louis, because this

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[27] Hoteit, "Deconstructivism," 1-13.

[28] Heynen, *"Architecture and Modernity,"* 9-20.

would be to falsify the first law of art, which is to conform to the needs and customs of the times.[29]

French theorists, including Eugene Viollet-le-Duc and César Denis Daly, searched for an authentic modern style that would embody the spirit of that time. In 1920, the first trials found their way to maturity: promoted by a cohort of aspiring architects, including Le Corbusier, Walter Gropius, and Mies van der Rohe, a new style emerged featuring floating volumes and a clear-cut geometry. Modernists wanted their architecture to be untainted with precedents.[30] This approach defied history and standardized architecture, creating an international style. Metaphorically speaking, the style refused to differentiate between a building in China and a building in Europe, neglecting the regional character of architecture. The Bauhaus school was one of the foundational contributors to the modernist architectural movement (1919). Walter Gropius, a German and later American architect, was the founder of the school and the pioneer of allying creative designs with machine production. The Bauhaus school promoted standardization and prefabricated elements for building.[31] Its central belief was also in the interrelationship of the arts. Gropius aimed to interweave technology and art by training his students to reject historicism. He introduced the use of glass facades, the innovation that made architecture a pure expression of new technology unburdened by historicism.

During the period it emerged in architecture, modernism was a manifestation of change in art and philosophy. It showed a massive expression of abstraction and industrialization. Hilde Heynen compared Gropius' Bauhaus in Dessau (1926) (fig. A.1) and L'Arlésienne (fig. A.2) by Picasso (1911-1912)[32]. He pointed out the similarities, such as the use of defined geometric shapes and transparency.

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[29] Curtis, "*Modern Architecture,*" 14-22.

[30] Nia, "Aesthetics of Modern," 66-76.

[31] Siebenbrodt, *Bauhaus.*

[32] Heynen*, Architecture,* 38- 40.

Before WWII, modernists struggled to become acknowledged, since modernism was not yet recognized as an official architectural style.[33] Turkey and Czechoslovakia were the only states that accepted modernism as their official style. After the war, many political entities adopted architectural modernism. Modernism was seen as the way to change society and the response to technological advancement. It was associated with rationalism. Hence, modernist architects tended to use materials in a rational and simple way.

Le Corbusier's perception of the house as a machine was also revolutionary during his time. His view of a house with a major focus on the functionality and systemized relationship between man and the living space led to a wave of standardization. However, viewing the house as a machine was one of the main factors that led to the later criticism of modernism. Mies Van Der Rohe's perspective of the building as the body with 'skin and bones' became a template for modern architecture. He created spaces with maximum flexibility using two main features: columns (the bones) and curtain walls (skin).[34]

The Heroic Period

After WWI, anti-liberal regimes used modern architecture to express their political views. The heroic period of modern architecture came to life with the rise of Fascist Italy, Nazi Germany, and the USSR.[35] Those regimes refused individualism and promoted the 'return to order' movement to nurture nationalism. They brought back the elements of the past and mixed them with modern architecture in congruence with the regionalism movement. However, the regimes themselves with their political approaches were the spark that ignited WWII. After WWII, the destroyed cities needed to be rebuilt. There was also a critical need for a new type of architecture that would be consistent with the demands of societies and not contaminated with a nationalist image of the past.

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[33] Lu, *Third World,* 34-50.

[34] Chen, "The Analysis," 323-328.

[35] Lu, *Third World,* 34-50.

Style Properties

Form follows function… less is more[36]

Modern architecture is characterized by its simple shapes. The plain facades and exteriors are the dominant features. Using basic geometric shapes, lines, and forms are the basis of modern design. Modern architecture tends to have monochromatic color palettes.[37] "White-colored weightless buildings devoid of ornamentation" is how Janson and Tigges described modern architecture.[38] Abstraction, basic forms and geometry, economical use of materials, and purity of construction are also all characteristics of it.[39] Hilde Heynen[40] described its properties in terms of its spatial design and features, inlcuding simultaneity, dynamism, and transparency.

Regionalism and Traditionalism

Background

Regionalism is nothing more than the adaptation of modern architecture to the region in which it develops[41]

Regionalism and traditionalism have been the subject of continuous debate. Many authors, architects, and theorists dispute the definition of the two terms. On the one hand, the subtle difference between them has been analyzed in many articles and books. On the other hand, societies' perception of regionalism and traditionalism is also controversial. Despite the controversy, both played a prominent role in architecture in the 1960s. Apart from the controversy, it is undeniable that the regionalism movement

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[36] Nia, "Aesthetics of Modern," 66-76

[37] Chen, "The Analysis," 323-328.

[38] Janson, *Fundamental Concepts.* 219-225.

[39] Morgenthaler, *The Meaning,* 5-10.

[40] Heynen*, Architecture,* 9 -20.

[41] Meganck, *Regionalism,* 12.

rose from the alienation between users and the built environment. Modern architecture failed to create a sense of cohesion and belonging between users and architecture.[42]

Regionalism

Some theorists believe that regionalism was a protectionist wave that commenced in the 1930s. Architects used regionalism as a tool to promote nationalism. For many theorists, that was a devastating experience preparing the stage for WWII. However, recognizing that regionalism indeed had its roots in the interwar period,[43] some researchers argue that the true regionalist movement began to germinate only after WWII.

To clarify the conflict between regional and modern architecture influenced by nationalism, I resort to Hamilton Harris' explanation:

> It is a picture of an adventure into new territory, new ways of living, new forms of construction, new harmonies of form. It is a picture of individual men discovering the universe in architectural terms and realizing themselves more fully than before. It is a picture of liberation, of expansion, of diversity… A national expression, on the other hand, is, at its highest, the expression of consolidation. This is because a nation is a people consolidated. The purpose of national architecture is to further unite people as citizens. Since the nation is essentially a symbol, a national architecture must provide an image of the qualities the nation symbolizes. [44]

Although the term 'regionalism' might seem straightforward, many authors use it to describe different concepts. Some authors define regionalism as the use of traditional elements in architecture to evoke nostalgic feelings.[45] Others describe it as an approach that incorporates local materials and local building techniques. However, I would like to use Suha Özkan's elaboration of regionalism as my

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[42] Al-Lahham, "Traditionalism," 64 -73.

[43] Söderbaum, *Theories*, 22- 43.

[44] Canizaro, *Architectural Regionalism,* 62.

[45] Eggner, "Placing Resistance," 228-237.

guideline. He noted that it was one of the main critical movements that rose against internationalism.[46] For him, its primary concern was local culture, climate, and sometimes technology. It covered a wide array of approaches, which he classified into two main ones: Modern-Regionalism and Vernacularism.[47]

Regionalism, the Way to a Moderate Modernism

Regionalism does not stand as a movement separate from modernism. It came as a way of incorporating local identity into modern architecture. William Curtis clarified the change from modernism to regionalism:

> To mention modern architecture is to immediately raise the bogey-man of the so-called 'international style… It seemed as if the concrete frame and the air conditioner were together conspiring to demolish local identity from architecture altogether.[48]

The wave of modernism created a monochromatic concrete trend in architecture. Its main concern was the function of spaces combined with the merits of industrialization and standardization. It neglected cultural, regional, contextual, and environmental aspects. This is where the postmodernists and regionalists fill the gap. However, in his argument, Curtis objected to using the "fossilized" old historical forms of the traditionalists' architecture to fill such a gap. Instead, he found regionalism to be a dynamic and contemporary interpretation of the principles of the past that was capable of finding unique and dynamic responses to different cultures and climates. The job of a regionalist is to dig beyond the surface of memories and societies' aspirations and to provide an authentic architectural expression, which speaks of its time and responds to the needs of its users. Curtis believed that authentic architecture rose above nationalist propaganda or pan-Islamic clichés. He was also against "The irrelevantly employed glass box and the tacky version of the Arabian Nights."[49]

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[46] Özkan, "Introduction – Regionalism," 8-16.

[47] Ibid.

[48] Curtis, "Regionalism," 73-78.

[49] Ibid.

Marcello Piacentini also questioned the contrast between modern and vernacular architecture: "But then are the two tendencies really antithetical? ... it is possible to arrive at the vision of a sane architecture which will be neither old nor new but simply true."[50] This quote is in agreement with the views of William Curtis. Since Piacentini's comparison referred to modern and vernacular architecture, I conclude that not considering architecture old or new is the key to regionalists' thinking. It is not a matter of what new could be done; it is a matter of authenticity, i.e., a genuine interaction between the user and the built environment. In *Regionalism and Modernity, Architecture in Western Europe 1914 – 1940,*[51] the authors connected regionalism and modernism. According to them, regionalism could not be understood separately from modernity: regionalism is the continuity of modernism; it is a moderate response to contextual modernism. In the authors' opinion, regionalism is not an anti-modern movement, it is a variation of modernity. Suha Özkan[52] shared the same viewpoint on regionalism: it is not a rejection of modernism, but a denial of internationalism. Thus, regionalism is a "sub-theme" of modernism. Regionalism embodied the spirit and the meaning of the surrounding region.

Regionalism and Vernacularism

I will not elaborate on vernacularism in depth. However, it is essential to see how scholars like Özkan differentiated regionalism and vernacularism. The Vernacularist movement rose side by side with modernism in the 1920s. It was a reaction to industrialization and standardization of buildings with the rise of modernism, causing decay in 'local' architecture, i.e., in building with traditional materials and techniques.[53] Vernacularism, as Özkan put it, it is bringing vernacular forms, functions, and spatial arrangements back to life.[54] Comparison of Gordon Bunshaft's National Commerce Bank in Jeddah (fig.

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[50] De León,"Revisiting Quotations," 125-132.

[51] Meganck, *Regionalism,* 12.

[52] Özkan, "Introduction – Regionalism," 8-16.

[53] Mileto*, Vernacular,* 157-162.

[54] Özkan, "Introduction – Regionalism," 8-16.

A.3) with Hassan Fathy's New Gourna (fig. A.4) village could provide a clearer image of the difference between modern regionalism and vernacularism, respectively. Bunschaft used modern sleek forms and contemporary technology in his building. The National Commerce Bank structure is steel, and the facades are clad with precast insulated concrete. The building is introverted and does not overlook the exterior environment. Instead, all the floors look on to an internal courtyard. The courtyard helps to decrease heat in the building and ensures a sense of privacy. The building perfectly fulfills its function. Gordon Bunschaft created a modern building with modern technology with respect to the region's climate and norms. Serageldin praised the design of the bank for the architect's ability to reinterpret the vernacular (traditional) solutions, such as the courtyard and *malqaf*.[55] In contrast, Hassan Fathy in New Gourna used traditional forms and building materials. Despite the overall success of Fathy's approach in the architectural design and environmental solutions, it was not accepted by the users who aspired more up to date housing. They also did not like the domes within the houses, since it reminded them of mausoleums, which were not acceptable for domestic architecture.

Traditionalism

> Relying on linguistic methodologies in the design process, these elements were emptied of their non-architectural contents which essentially belong to the operative and imperceptible structures dealt with through their physical forms only.[56]

Abeer al-Lahham considered Islamic Traditionalism as a sub-style of postmodernism. As mentioned earlier, the alienation that users felt towards modern architecture was the trigger that sparked the regionalism movement. The architects who adopted traditionalism intended to restore a sense of belonging to users. The architects tried to connect them with their built environment. The traditionalists reduced the inherited traditions into sets of physical and spatial elements from the past. History was confined to static aesthetical entities brought to the present to add significance to architecture and create a

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[55] Serageldin, "Architecture as an Intellectual," Statement," 16-30.

[56] Al-Lahham, "Traditionalism," 64-73.

sense of belonging. Such elements as arches, domes, decorative motifs, and vestibules were used extensively.[57]

Serageldin divided regional architecture into popular and populist. He attributed the evocation of sentiment in architecture to populist architecture. His analysis of populist architecture was based on populism theory, which divided people into an elite of decision makers and the ruled class. However, his attribution of traditionalism's application to the patron's misunderstanding of architecture, or political agendas sounds like a rejection of it.[58] He classified architecture that fits in its context and embraces contemporary techniques as popular architecture. His research on this topic was very important because it shed light on the difference between pastiche and authentic regional building. However, I believe his use of the term 'popular' was misleading. Nelson Mota[59] also wrote on regionalism and populism. He provided similar a classification of architecture to that of Serageldin, despite his use of the term "critical regionalism architecture" instead of "popular architecture". These terms express the theory in a clear manner, as Serageldin's term 'popular' includes critical regionalism (modern-regionalism) and vernacularism.[60] Serageldin's analysis of 'populist' traditional architecture gives an insight into the characteristics of traditional architecture. Unfortunately, this style of architecture does not show any account of contemporaneity. Detaching forms from their original functions, depending on the nostalgic impact it would give, neither ensures authenticity nor responds to the needs of contemporary society.[61] One of the most recent examples of this approach is the al-Shurta Mosque in New Cairo.[62]

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[57] Ibid.

[58] Serageldin, "Architecture as an Intellectual," 16-30.

[59] Mota, "Between Populism," 35-58.

[60] Özkan, "Introduction – Regionalism," 8- 16.

[61] Serageldin, "Architecture as an Intellectual," 16-30.

[62] Sadek, *Politics.*

Example

One of the controversial examples of the traditional style in architecture is the Aga Khan Award-winning Bhong Complex in Pakistan (fig. A.5) (1986) discussed by Serageldin in his "Architecture as an Intellectual Statement".[63] The mosque is designed in 'the Arabian Nights' style – a term coined by Tajuddin.[64] The complex is extensively decorated, contrasting with the mud-brick architecture of the surrounding villages. Excessive use of arcades, muqarnas, domes and decorative motifs (fig. A.6) are the striking factors of the Bhong Mosque. Serageldin mentioned in astonishment that the building reflected total disregard of contemporary architectural theories, although the users clearly thought the decoration to be not only acceptable but desirable. However, Serageldin continued, the role of an architect should be in designing architecture that would elevate the aesthetic standard of the community. The architect should think beyond what just pleases the people.[65] Serageldin, Tajuddin and al-Lahham's opinions on traditionalism is that it does not show authenticity. I second their opinions. I believe that historical architecture served its purpose at its time. We need architecture that serves its purpose in contemporary times.

Postmodernism

Background

> We were punished by the architectural establishment for being so vulgar. But we used it as a vehicle to learn about symbolism.[66]

In the early 1960s postmodernism began to emerge. It was accompanied with waves of regionalism and traditionalism. Based on socio-political movements, all these theories were a byproduct

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[63] Serageldin, "Architecture as an Intellectual," 16-30.

[64] Rasdi, "Contextualism in Mosque," 181-187.

[65] Serageldin, "Architecture as an Intellectual," 16-30.

[66] Kahl, "Robert Venturi," 55- 63.

of the same spark; the user's alienation in the built environment. Architects of that period explored the symbolic value of architecture, which modern architecture often lacked. The latter was viewed as overly simplistic, soulless, and bland. Besides, blank glass facades, flat roofs, and concrete structures appeared quite dull. As a response, postmodernist architects incorporated, for example, decorated elevations and pre-modern columns abandoning functionalism to add more humanism and culturally influenced aesthetics. Postmodernists sought identity by filling the gap between the modernism and culture. Therefore, modernism was not denied, but transformed.

Postmodernist pioneers such as Venturi, Scott Brown and Izenour added a layer of historicism and eclecticism to their architecture. Venturi is considered the father of postmodernism,[67] embodying formal and contextual architecture in his creations by bringing back decorated columns and pediments. His style is apparent in his response to Mies van der Rohe's famous quote "Less is more" when he remarked that "Less is a bore!" Venturi's work was criticized as pastiche and pseudo-historical. However, he promoted his work as the victory of richness over simplicity. His main argument was that his architecture was consistent since it symbolized what it looked like. He even called one of his projects houses that looked like houses.[68] This demonstrates how critical he was towards modernism, which he saw as devoid of character. Another renowned postmodernist, Michael Graves, argued that modernists sacrificed the humanism of architecture.[69]

Postmodernist Features

Stern counts three main areas of attention of these postmodern architects that all are related to the production of meaning: the facade, the city and the idea of "cultural memory. He calls these three areas of activity or the principle that emphasize on the attentions as decorationism, contextualism and gesturism.[70]

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[67] Sabini, "Remembering," 253- 259.

[68] Kahl, "Robert Venturi," 55- 63.

[69] Amiri, "Modernism," 1626-1634.

[70] Ibid.

Modernism dealt with buildings as separate independent structures detached from their surroundings. Conversely, postmodernism dealt with buildings as a part of the surrounding fabric. The main concerns of postmodernism were the social, cultural, and economic characteristics of the users. It was called pop or folk architecture because it used decoration and colors that appealed to the users. Postmodernism is more understandable than modernism for a less sophisticated user. It is embodied in ornaments, sculptural forms, and - if needed - materials that perform trompe l'oeil, while using historical forms like gabled roofs and pediments.[71]

Example

> This was seen to be a kind of bad-boy behavior, having an absolutely ornamental top,[72]
> Barry Bergdoll

In 1984, Johnson and John Burgee designed the AT&T Building (now the Sony Building) in New York (fig. A.7). It was a revolutionary act in the face of modern architecture. It was not the first postmodernist building. However, it was the most publicized. A 37-story skyscraper featured ornaments instead of a minimalistic approach, granite gladding instead of glass facades, and a pediment instead of a flat roof. The architects intended to mimic masonry construction by using granite. False joints were used for the same purpose. The AT&T chairman himself wanted to create something more than just a glass box. The building interacted with the city's urbanism, with retail outlets and a public plaza on the ground floor (fig. A.8). The architects raised the office floors 18 meters to create this plaza, which was surrounded by arcades inspired by the Galleria in Milan.

Conclusion

The significant difference between postmodernism and traditionalism lies in the motives behind using each style. The postmodernists' motive is based on creating meaning for the user and breaking away

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[71] Rahmatabadi, "Physical Order," 410-417.

[72] https://www.dezeen.com/2015/08/28/postmodernism-architecture-att-building-sony-tower-philip-johnson-john-burgee-new-york/ (accessed 5, November, 2020).

from monochromatic modernism. Traditionalists, on the other hand, do not use symbolism; their approach is straightforward. They bring elements from the past, sometimes devoid of their meanings, to create a sense of nostalgia. If I were to put the regionalist movement's styles on a spectrum, there would be vernacularism at one end and postmodernism, then traditionalism at the other end. Vernacularism and postmodernism are the extreme forms of the anti-modernist movement, while regional-modernism is a moderate form of modernism. It connects the principles of modernism with the symbolic, cultural, and environmental aspects of the place to the functionality and dynamism of modern architecture. I believe that regional modernism is the spirit of the age. Applying the international style with local interpretation is the key to architecture that communicates with society and gives the users a sense of belonging.

Deconstructivism

Background

In 1967 the French philosopher Jacques Derrida in his book *De la grammatologie* used the term deconstruction for the first time. This book was the foundation for deconstructivist philosophy. Derrida chose the term "deconstruction" as an alternative to Heidegger's "destruction." The ideas presented in his book were unique at that time. The deconstructionists based their ideas on such philosophers as Nietzsche and Heidegger. Derrida's approach in his philosophy was based on doubt. He doubted Western philosophy[73] including the convictions of Plato. He rethought the whole concept of Western metaphysics.[74] He also tried to deconstruct logocentrism, which goes back to ancient Western philosophy. His strategy in the philosophical and literary approaches was to refute any prior rules by questioning their basic foundations.[75]

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[73] Hoteit, "Deconstructivism," 1-13.

[74] Gür, "Deconstruction," 32-45.

[75] Shastri, "Deconstructivism," 10389-10393.

Deconstruction and Architecture.

> It is not simply the technique of an architect who knows how to deconstruct what has been constructed but a probing which touches upon the technique itself, upon the authority of the architectural metaphor and thereby constitutes its own architectural rhetoric.[76]

The first encounter between deconstructivist philosophy and architecture occurred in works of Peter Eisenmann and Bernard Tschumi. Peter Eisenman, as a theorist and an architect, made the translation of philosophy into architecture easier. Eisenman and Tschumi collaborated with Derrida in designing the Parc de la Villette (1982) (fig. A.9).

The term "deconstructivism" came to light in the late 1980s. An exhibition at the Museum of Modern Art showcased Peter Eisenman, Daniel Libeskind, Frank Gehry, Zaha Hadid, and many other architects who adopted "deconstruction" in their architecture. The exhibition curators Mark Wigely and Philip Johnson chose the projects that dismantled the idea of pure form. Mark Wigely classified the projects as deconstructivist architecture. The projects exhibited had different shapes and approaches. However, they all shared one approach, which answered the question, "Could architecture be freed from the prevalence of the principles of classical aesthetics?" Deconstructivism is also considered a part of postmodernism. However, postmodernism as a movement was a resurrection of the past, not a new idea in itself. Deconstructivism exploded the buildings, creating an unorthodox experience that was utterly detached from the past.[77] The rise of computer technology in the 1980s helped the deconstructivists bring their ideas to light. Creating sophisticated masses with interlacing geometry and connecting them with the structure would have been an impossibly tough job without computer technology.

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[76] Hoteit, "Deconstructivism," 1-13.

[77] Ibrahim, "Deconstructivism," 16– 34.

Features

> The interrogation of pure form pushes structure to its limits, but not beyond … Moreover, forms are disturbed and only given a functional program. Instead of form following function, function follows deformation[78]

The aim of deconstructivist architecture is liberating architecture from rationalist and pure functional forms. Deconstructivism broke the rules of modernism, such as the concept of "form follows function." What makes deconstructivist architecture significant is what Johnson describes as the "pleasures of unease": diagonals, arcs, and warped planes are visual features of such architecture. They violate the cubic and rectangular geometry of modernism. Many samples of deconstructivist architecture look like an explosion of forms or building elements.

The so-called follies are one of the prominent features in many deconstructivist buildings. Follies are buildings or elements that do not have useful functions.[79] Deconstructivists do not rely on the symmetry or consistency in their buildings. As a rule, they prefer raw materials to highlight the masses used, like metal, glass, and stone. The choice of materials is similar to that of modernism. However, deconstructivists can go the extra mile, as in the Guggenheim museum where Gehry covered its elevation with titanium.

Example

Guggenheim Museum Bilbao

Upon visiting the Guggenheim museum in Bilbao (1991–1997) (fig. A.10), Sue Ward noted that it had a metallic grey reflection. When the weather brightened up, it showed a bronze reflection. This illustrates how dynamic the building is.[80] Frank Gehry was it architect.

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[78] Martins, "Deconstruction," 2-10.

[79] Ibrahim, "Deconstructivism," 16– 34.

[80] Ward, "Big is Beautiful," 60-62.

The design is a showcase of curvilinear masses. Computer technology helped produce the distorted forms of the building. Its exterior looks like a metallic boat. The building is on a riverside site which reflects the history of Bilbao's port. It has become part and parcel of the city, as if it was always meant to be there. The architect displayed a play of masses that became his unique signature. The building has load-bearing walls. But also used a column system, which relates to Eisenman's approach in many of his buildings.

The interior of the building also has interlacing curves, which were designed with the help of airplane designers.[81] This shows how Gehry created his own architectural rules rather than following traditional ones. The building looks like it is in harmony with its surrounding environment, as Sue Ward noticed. It defies both gravity and the cubic stereotype. Gehry also used follies in his design (fig. A.11) such as the spider artwork at the entrance of the building.[82]

Conclusion

It is evident that all the theories that have emerged since the late 1970s are reactions to modernism. Modernism was the base on which every variation that occurred in the 20th century was built. Modernism showed expression of new technologies, clean lines and simple forms. Modern regionalism added a layer of regional influence on modern architecture. Post-modernism brought symbolism, colors, motifs, ornamentation and a layer of abstracted historical influence to life. Traditionalism brought historical forms, ornamentation and motifs to mimic historical buildings. Deconstructivism stood out by questioning all the constants and reconstructed them. These approaches provide a variety of solutions to modern mosque building, too. What determines the approach for architecture is the socio-political, cultural, and economic environment that surrounds it. In the coming chapters I will show how these approaches were adopted in the contemporary mosque architecture of Egypt and Iran.

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[81] https://www.youtube.com/watch?v=RpzGuw1tZeE

[82] Ibrahim, "Deconstructivism," 16– 34.

II. The Egyptian Socio-Political Background

The intersections between architecture and politics can be seen as twofold: the first involves architecture's role in the economy; the second, its role as a cultural object.[83]

This section will illustrate the political, social, and economic factors that surround the cases I will study. Knowing the surrounding environment will help in interpreting the reasons for the approaches selected.

From a Revolution to a Revolution.

The main aim of the 1952 revolution was to eliminate colonization and royal rule. The leaders of the revolution succeeded in achieving the liberation they demanded. Their aim to achieve political and economic independence was fulfilled to a certain extent. However, they did not gain independence from the Western conception of progress. Social and cultural aspects of independence were divided. The revolution was torn between two sides: 'the Western reformation' and 'returning to the roots reformation.' In the end, the first path was chosen. The Arab Nationalism movement that Nasser led did not have a vision for the national character. Nasser just wanted to catch up with the West, but with little success. Galal Amin criticized the quality of education then: "It was considered important to graduate a large number of engineers, but not to spend time choosing a kind of architecture that would be in harmony with the country's architectural and social traditions or with the environment."[84] Along the same lines, Al-Azhar was turned into a replica of modern national universities where deans got their doctorates from Western universities. The model that Nasser adopted was Socialist. It strengthened the public sector and the government's finance. The government was the main patron of all major architecture.

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[83] McLeod, "Architecture and Politics," 22-59.

[84] Amin, *Whatever Happened.*

But Egypt suffered from economic imbalances during the rise of its modernism movement. Between 1975 and 1985, the state budget imbalance kept growing due to insecure sources of foreign exchange and external debt growth. Egyptians working abroad, the Suez Canal, and oil exports were the only sources of foreign currency. In general, sociologists pointed out the decrease in the quality of life in the city. The Westernization of social life was one of the very significant changes in Egyptian society during that time, which became even more noticeable with the open-door policy in the early 1970s. The respect for the foreign grew stronger in parallel with condescension to local ideals. All these changes also affected architecture. The deteriorating economic status of the state produced low-quality architecture manifesting the effects of ongoing westernization. Westernization shifted the architects' and society's focus to a non-sustainable and non-regional type of architecture that would cost more money and have less environmental sustainability.

The open-door policy of al-Sadat continued in Mubarak's period until 2011. 2011 was a critical year for Egyptian history. Demonstrations organized by the young generation broke out. The result ultimately was the stepping down of the president. After Mubark's resignation the country was handed to the Supreme Council of the Armed Forces. In 2012 Mohamed Morsi - the representative of the Muslim Brotherhood - won the presidential elections. Morsi was deposed by the demonstrations of the 30th of June. Then, al-Sisi won the presidential elections in 2014. The government of al-Sisi declared the Muslim Brotherhood to be terrorists, and the war against terrorism broke out. After years of socio-political instability, Egypt faced many challenges during al-Sisi's rule.[85]

Politics and Economics under al-Sisi.

The Egyptian revolution made the Egyptian economy suffer. Social unrest, turbulent government, and vague investment opportunities all impeded the economic growth after 2011. The unemployment rate rose at the end of 2010, while tourism collapsed. Along with the poor economic status terrorism became a threat to al-Sisi's regime. Therefore, security and legitimacy become the main priorities for al-Sisi's

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[85] El-Bendari, *The Egyptian Revolution*.

government. His regime faced the Muslim Brotherhood with force and violence dismantling any organizations affiliated with them, and jailed their leaders under repressive measures. Al-Sisi's reign has evidently been influenced by Nasser's regime. Nasser created mechanisms that allowed the state to control trade unions and put citizens under surveillance. Another similarity is in the militarization of the regime. In the 1952 revolution the military forces presented themselves as the only savior of the country. Al-Sisi applied the same concept. Nasser and al-Sisi placed the military at the center of the system. The military became the hope for regaining the nation's dignity and economic prosperity, and the only source of legitimacy.[86]

The regime's target, in parallel with stabilizing interior security, is economic reform. Al-Sisi's goal is to make the Egyptian population live on one hundred percent of the land instead of the current six percent. These targets have resulted in the plans to build forty-eight new cities, eight airports, fish farms, and renewable energy projects.

Education and Nationalism

Egypt has been a nationalist country since English colonial times. The British promoted Arab nationalism to defeat the Ottoman Empire. Nasser and the Free Officers adopted this ideology and promoted nationalism as a part of their politics. They also adopted Islamism after initially supporting communist political movements. The Nasserite textbooks promoted national identity and also national liberation movements across the world. Mubarak's reign witnessed more Islamization in education curriculums. The Islamization movement appeared in Islamic prayers that followed the flag salutations in schools. However, after the terrorist attacks in 1990 the state repressed Islamist movements. In the 2000s the state supported the new 'moderate' Islamic preachers, like Amr Khaled, against Salafi and radical Islamic influences. During al-Sisi's period, the aim has been to clear education of all the topics that might

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[86] Ardovini, "Egypt's Unbreakable," 456–475.

incite violence. The textbooks promote non-oppositional Islamist ideology, which focus on nationalist themes in Islamic history.

Al-Sisi's regime and Religion.

Al-Azhar is one of the most respected and oldest centers of Islamic studies. It is one of the few organizations to teach the four Sunni *madhab*s. It is considered the lighthouse of moderate Islam. Therefore, it has always been the aim of authoritarian regimes to dominate al-Azhar. Nasser's regime took over al-Azhar and put it under state control in 1961 gaining more power to influence the Islamic world. The Ministry of Endowments (*Awqaf*) has always been a pressure card on al-Azhar, which was used to reduce al-Azhar's control over the mosques. Mubarak used the Ministry of Endowments to control Islamic lessons in mosques. Similarly, in al-Sisi's reign, shaykhs who give lessons in mosques must be trained by al-Azhar. This rewarded al-Azhar for its cooperation with al-Sisi's policies. [87]

One of the points that gave al-Sisi's regime legitimacy was the war against terrorism. Al-Sisi's government took the role of the defender of moderate Islam. When al-Sisi started his war on the Muslim Brotherhood in 2013, he took al-Azhar's Shaykh Ahmad al-Tayyeb to sit by his side. That scene gave al-Sisi the legitimacy to declare war against the radical Muslim Brotherhood. As a result, the state banned unregistered preachers, while al-Sisi used any opportunity to demonstrate his religiosity; for example, when giving a speech about the Suez Canal expansion, he called it "a gift from God." However, al-Azhar denounced many of al-Sisi's opinions on religion. This created the spark leading the regime to exercising tighter control over al-Azhar, which in turn began to struggle to preserve its position. For example, al-Azhar sued some modern Islamic thinkers, including Islam Behairy. On the other hand, it preserved the oppositions between the two religious authorities: Dar al-Ifta' and the Ministry of Endowments.[88]

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[87] Banoa, "Regulating Religious," 1604–1621.

[88] "Sisi versus the Sheikhs."

Thus, al-Sisi's regime aimed at gaining religious legitimization by counteracting the Muslim Brotherhood's religious influence. The regime began to call for a modern version of Islam. In its turn, al-Azhar faced pressures from al-Sisi's regime to reform and modernize. Al-Azhar's shaykh's unsupportive statement for the violent repressions against the Muslim Brotherhood created a challenge for al-Sisi's regime. Such lack of support posed a threat to Al-Sisi who pushed the media to pressurize al-Azhar to modernize and cooperate. Al-Sisi's government also made many appearances with Sufi shaykhs, including overseas ones. Such appearances were intended to demonstrate that religious legitimacy does not depend only on al-Azhar. The state launched campaigns to spread modern and moderate Islam. Al-Sisi spoke of the need for a revolution in Islamic discourse. The regime allied with the Salafis, assuming the guiding role to correct moral and religious values. Similarly, the authorities launched anti-atheism and anti-homosexuality campaigns,[89] arresting LGBTI supporters in a concert for the 'Mashroa' Leila' band.[90]

The Egyptian mosques I will analyze were all built after 2011, as I consider this a watershed for changes in Egyptian society. Therefore my definition of contemporary mosque architecture in Egypt will be confined from 2011 to the present.

Cities under Authoritarian Regimes.

It is important to understand how authoritarian regimes use architecture. The samples of architecture under analysis in this thesis were produced in countries with authoritarian regimes. Authoritarian regimes aim to gain control over all aspects of the state. They attempt to form a political culture where the citizen has to support the institutional structure and its political value orientations and authorities. The cities that authoritarian regimes build serve the same purpose. Thus, the design of their cities should help to gain control over the masses. Dictatorships and totalitarian regimes attach

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[89] Sobhy, "Secular Façade," 805 – 824.

[90] Walsh, "Egyptian Concertgoers," https://www.nytimes.com/2017/09/26/world/middleeast/egypt-mashrou-leila-gays-concert.html.

significance to the built environment. According to Dorina Pojani,[91] the common feature of authoritarian designs - especially in 20th century Europe - was an obsession with the symmetry, large size, and iconography, such as swastikas, axes, and five-pointed stars. Such elements encouraged the masses to act as one homogeneous group. Twentieth-century European regimes preferred a modernized neoclassicism style, which invoked a logical, heroic, sanitized, and permanent image in the minds of the masses, while monumentality and symmetry depicted an image of discipline and order.

Each regime created designs that carried the statement the regime wanted to deliver. For instance, the Spanish Falange favored stone, granite, and concrete to evoke a sense of nationalism. Mussolini wanted to liberate the people from the past. Therefore, he cleared the buildings of any past signs and employed new materials, like concrete. Communist countries adopted the functional modernism approach to reflect their ideology. [92] A government's authoritarian designs and approach to urban planning can be seen in the development of Taksim Plaza in Istanbul. Recep Tayyip Erdoğan carried out a plan over strenuous populist opposition, for the development of Taksim Plaza, turning the plaza into a commercial area. The reason behind this development was to tame a politically active space. Politics influenced architecture. Will contemporary Islamic architecture show this influence? This will be tackled in the coming chapters.

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[91] Pojani, "Cities as Story," 207- 215.

[92] Ibid.

III. Al Fattah al-'Alim Mosque

(A Copied Tradition)

Patron: The Egyptian Armed Forces

Designer: The Egyptian Military Engineers.

Location: The New Egyptian Administrative Capital.

Completed: 2019.

Area: 455,500 m^2.

- Modern building techniques

- Traditional motifs

- Gigantic structure.

"قُلْ يَجْمَعُ بَيْنَنَا رَبُّنَا ثُمَّ يَفْتَحُ بَيْنَنَا بِالْحَقِّ وَهُوَ الْفَتَّاحُ الْعَلِيمِ"

Say our Lord will gather us together and will, in the end, decide the matter between us (and you) in truth

and justice: and He is the one to decide, the One Who knows all (Quran 34:26).

This verse gave the complex its name. According to the background information mentioned

earlier concerning the characteristics of Al-Sisi's rule, it is evident that the regime intends to emphasize

its profound connection to religion.[93] It is a statement to Egyptians that God is the one who will judge and

show the truth. This shows that the country's leaders are confident of their decisions and are waiting for

God's judgment. Hence, the regime has connected its politics with the mosque.

Introduction

Al-Fattah al-'Alim complex is the foundation stone of the new Egyptian administrative capital.

The Egyptian authorities ruled by al-Sisi chose the place of worship to be the nucleus of the new capital.

The government claimed that they followed earlier great civilizations which gave priority to places of

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[93] "Sisi Versus The Sheikhs."

worship in their new cities. The mosque is the fourth largest in the world. Its main designer is the

administration of the military engineers. Construction took two years.[94]

Background

Its location is at the entrance of the new Egyptian capital and in the middle of the new Ring Road

(fig. B.1). The complex is built on a plot of 445,500m^2. The fence that surrounds the perimeter is

3,150m^2. The commencement date was 1 January, 2017. The contractors who worked on this project were

'Aal Rashdan for Contracting' who built the basement level, 'The Arab Contractors' who built the main

prayer hall, 'Archirdon' who built the multi-purpose halls, and 'Hassan Allam Contractors' who worked on

the plazas and the surrounding routes. The complex consists of a mosque, ablution area, a library, the

celestial messages museum, an administrative area, and a services area.[95]

The government wanted a mosque that would reflect Egyptian and Islamic character in a

contemporary interpretation. Military engineers came up with the idea of designing a mosque inspired by

Fatimid architecture, suggesting that it was the Fatimids who built old Cairo and thus called for a revival

of their architectural style in the new capital. The architect I interviewed claimed that their main

inspiration was the al-Hakim Mosque.[96] However, I cannot see a reason why a national mosque should be

based on Fatimid architecture. For instance, Fatimid mosques in Egypt did not have a covered prayer hall

with a central dome. These contradictions will be analyzed in more detail in the relevant section of this

research. Finally, the mosque designers envisaged a contemporary interpretation in construction and

decorative techniques.

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[94] Personal communication with the architect Bahaa Shawky.

[95] Ibid.

[96] Ibid.

Concept

I believe the conceptual and philosophical part of the design was not given much attention. The only statement that this mosque gives is power and dominance. These reflect the new image that the Egyptian government wants to deliver through new mega-projects, including the new capital. The gigantic scale of the mosque at least created a landmark. The government used symmetry and scale to deliver its message.[97] It needed to gain trust and approval from the masses by building this huge new mosque to gain religious legitimacy[98] in the traditional style. Although the new Egyptian capital is meant to be a symbol of the high-tech, developed future of Egypt,[99] this mosque does not reflect this characteristic at all.

Plan

The mosque has a 90 x 71m rectangular plan (fig. B.2). It has no columns, except for the piers of the octagon that carry the dome. The diameter of the octagon is 43.75m. The only visual obstacle for worshippers is the eight piers of the dome. This reminds me of the Dome of the Rock (fig. B.3).[100] The difference between both buildings is that the Dome of The Rock's plan is octagonal on the exterior, unlike that of Al-Fattah Al-'Alim. Perhaps there was an influence from the Dome of The Rock. Also, the mosque of Abu al-Abbas al-Mursi at Alexandria could have been a possible inspiration. The latter has eight piers in the center, which looks very similar to al-Fattah al-'Alim.[101]

The multi-purpose halls are on the sides of the mosque (fig. B.4). These halls were made for weddings or commemorative events. They are rectangular with projecting entrances. It is obvious that the

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[97] Pojani, "Cities as Story," 207- 215.

[98] Masbach, "Architecture and Nationalist," 92- 111

[99] Serag, "The New Administrative," 1- 10

[100] Ettinghausen, *Islamic Art.*

[101] Turchiarulo, "The Construction," 1085-1092.

concept of a projecting entrance mimicked the al-Hakim mosque, as the architect insisted that his main inspiration was Fatimid architecture.

Accessibility.

The mosque rises on two levels accessed by two staircases on the sides of the mastabas. It has seven entrances. The main (northern) entrance contains three projecting vestibules. The side entrances lead to two large vestibules and two small ones. The large vestibules are the entrances to the halls for formal occasions. The small vestibules are the women's entrances, which lead to the balcony level (women's prayer hall) (fig. B.5). The qibla wall has beveled corners. Perhaps it was an inspiration from al-Rifa'i mosque's beveled corners.

The main central entrance faces the mihrab. The projecting entrance acts as a vestibule. Each projecting entrance is topped with a small dome. The dome above this is decorated on the inside with stained glass vegetal patterns (fig. B.6). The balcony level on the sides flanks the entrance. It functions as the women's prayer hall.

The daily prayer hall for men and women are located in the basement, and this is an unusual feature. The basement also includes a service area, Quran teaching halls, meeting halls, offices, a library, the ablution area, and rooms for generators. The complex has a vast outdoor plaza, and a processional route facing the northern entrance. The processional route that lies on the north side of the mosque is a military feature, whose origin goes back to the Pharaonic times.[102] A processional route cannot be found in any historic Cairene mosque.

The Dome

The diameter of the dome is 32m; its height above ground level 44m. It is surrounded by four smaller domes with a diameter of 11.75m and a height of 9m.[103]

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[102] Abdel Razeq, "Representation," 1-11.

[103] Personal information from a Powerpoint presentation provided by the architect Bahaa Shawky.

The ribs on the domes (fig. B.7) are like Mamluk ones, such as the dome of the Mausoleum of Umm al‑Sultan Sha'ban (fig. B.8).[104] The architect mentioned that the original design of the domes was meant to have geometric patterns, which affirms its Mamluk inspiration. However, to cut cost it was changed into a ribbed design. Apparently, there were no set guidelines for the design. The architect seems to have copied from the available designs in al-Mu'izz Street. The proportions of the dome resemble Ayyubid ones, in particular that of the mausoleum of Sultan Salih Najm al-Din Ayyub (fig. B.9).[105] The interior of the dome has GRP (Glass Reinforced Plastic) patterns (fig. B.10)[106] which are like the stone carving on Mamluk domes. The ceiling forms an octagonal star with the main dome in the center. Stained glass decorates the triangles in the octagonal star. It is used to provide indirect lighting for the space below the dome (figs. B.11-14).

Like most domes in modern mosques, it does not have a transitional zone. This was possible because of the available contemporary structural techniques. A concrete dome does not need a transitional zone. Concrete domes also have worse acoustic characteristics than brick and stone domes.[107] This also shows how the architect was more concerned about its form and visual impact. Using a dome was not the only contemporary solution. However, it was the only traditional solution.

The Minarets

The minarets are visible from afar from the east ring road. They are very similar to Mamluk ones. There is no obvious inspiration from any Ayyubid or Fatimid mosques. They are 90m high, which is intended to be lower than the minarets of the al-Masjid al-Nabawy mosque (104.5m high), to honor one of the most important locations in Islam.[108] The minarets are made of GRC (Glass fiber reinforced

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[104] Cipriani, "Construction Techniques."

[105] Ruggles, "Visible and Invisible." 63- 78.

[106] "Malhamat tashyeed."

[107] Moustafa, *Contemporary Mosques*, 56.

[108] Personal communication with the architect.

concrete)[109] and assembled over a steel core. Each has five tiers, resting on a square base cladded with crema tamada marble. The square base narrows to another square clad with GRC. The following octagonal tier has keel-arched recesses. The fourth level is cylindrical, and it is decorated with a chevron pattern. The chevron is also found on the decorations of Mamluk minarets and domes. In fact the minarets of al-Fattah al-'Alim are very similar to those of al-Mu'ayyad Shaykh Mosque (fig. B.15).[110] Perhaps the architect considered the minarets of al-Muhayyad Shaykh Mosque Fatimid, because they are built over one the Fatimid gate, Bab Zuwailah.

Along with cutting the cost the architect's other priority was the functionality and durability. The crescents over the top of the minaret are made of stainless steel coated with PVD (Physical Vapor Deposition) coating. PVD ensures durability and protects the crescents.[111] As noted, the mosque incorporates traditional elements. However, they were executed with contemporary materials which in addition to providing durability enables a speedy construction. The designer chose expensive solutions like the PVD coating for the crescents to ensure their durability, while cheaper solutions were mostly used for the decorative features.

The Multi-Purpose Halls

The primary purpose of the multi-purpose halls is to attract users to provide an income for the complex. The frustrating part about them is that their interior is in a pseudo neo-classical style (fig. B.16). This interior clashes with the Mamluk star patterns in the recesses. The flooring has a pattern of interlacing circles (fig B.17). There is no evidence where the inspiration for this pattern came from. The use of different patterns with different proportions in these halls gives the halls a disturbing experience. The ceiling is covered with gypsum board panels, arranged in a square paneling design.

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[109] Personal communication with the construction engineer.

[110] Behrens-Abouseif, *Cairo of the Mamluks*.

[111] Personal communication with the construction engineer.

Materials Choices, Economy and the Spirit of the Time.

Al-Fattah al-'Alim mosque is a showcase for how modern materials can be used to save time and resemble older mosques. However, as I mentioned earlier Egypt has been passing through an economic crisis. Therefore the architect chose sometimes to cut cost.

One of the advantages of this building is that most of its materials and artisans are local. The choice of local materials controlled the cost effectively.[112] The materials used in the dome's construction are steel frames which make the dome lighter and ease its construction. It is much faster than the traditional use of stones in domes. Also, it enabled the architects to cover larger spans.

Concrete piers and ceilings were used for the construction of the main hall and the multi-purpose halls. GRC panels – glass fiber reinforced concrete – in the minarets eased the decorative process and also made them safer and lighter. The GRC and GRP were substituted for stucco and stone carving. Laser-cut metal panels in the shape of Islamic geometric patterns were used to protect and decorate the windows and doors. These panels substitute for wood carving or *mashribiyya* screens in older buildings. The laser-cut metal panels were painted with electrostatic sprayers. The mosque exterior was covered with *helwan* stone in blocks 40 x 80cm. The designers chose this stone in particular due to its durability and its low cost. The entrances are covered with imperial bronze and beige marble, which are more expensive than *helwan* stone. These marble types are all local. The patterns on the exterior elevations are all made of GRC. They include lozenge patterns, and one tier of *muqarnas* crowns the whole elevation including the entrances.

The floors and the dados of the mosque's interior are covered with crema tamada marble and imperial bronze marble for the floors. The stucco-like dados are made of GRP. The columns are also made from solid pieces of imperial bronze marble. Some skirtings are covered with granite.

The approach taken in the choices of the materials in the multi-purpose halls is different than that of the mosque. There imported materials were used. Most of the walls are decorated with MDF (medium

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[112] Personal communication with the construction engineer.

density fiberboard) topped with oak wood veneer. The Islamic star patterns in the recesses are made of CNC (Computer Numeric Control Devices), cut metal sheets coated with electrostatic paint. The wall coverings here are all done in modern materials, instead of the traditional stucco wall decoration, or solid block wood revetment. The marble flooring incorporates crema marfil marble inlaid with dark and light emperador marble. The origin of its pattern is unknown. The choice of materials in these multi-purpose halls was intended to add a sense of luxury, to attract people to hold their events there.

The outdoor plaza's flooring in front of the main entrance is made entirely of marble. The designer chose repeating geometric Islamic star patterns as the main decorative motif (fig. B4 & B.18).[113] Star patterns were used in Fatimid, Ayyubid or Mamluk flooring. I believe their use here was to give a nostalgic effect for ordinary users. However, the design is not even an authentic adaptation of traditional designs. Crema tamada, imperial bronze marble and granite are produced at the Egyptian Armed Forces marble factories. Therefore these choices helped in cutting costs. The laser-cut panels, GRP, and steel construction are all contemporary building techniques that were used to mimic the traditional look and feel of the old mosques.

Interior

The interior of the mosque is intensively decorated. The *muqarnas*, soffits, spandrels, and parts of the ceiling are decorated with arabesques. It has 48 windows with stained glass mosaics on the eastern and western sides. The corbels are made of brass with *kufic* inscriptions and arabesque patterns. The height of the windows reaches five stories (fig. B.19, 20 & 21). The Quranic inscriptions that revolve around the octagonal drum of the dome are carved in beech pine wood (fig. B.22). The inscriptions contain this Quranic verse from the *Sura* of *al-Baqara* (2:257)

اللَّهُ وَلِيُّ الَّذِينَ آمَنُوا يُخْرِجُهُم مِّنَ الظُّلُمَاتِ إِلَى النُّورِ ۖ وَالَّذِينَ كَفَرُوا أَوْلِيَاؤُهُمُ الطَّاغُوتُ يُخْرِجُونَهُم مِّنَ النُّورِ إِلَى الظُّلُمَاتِ ۗ أُولَٰئِكَ أَصْحَابُ النَّارِ ۖ هُمْ فِيهَا خَالِدُونَ

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[113] Personal information from a Powerpoint presentation provided by the architect Bahaa Shawky.

Allah is the ally of those who believe. He brings them out from darkness into the light. And those who disbelieve - their allies are Juggernauts. They take them out of the light into darkness. Those are the companions of the Fire; they will abide eternally therein.

This verse shows the difference between the two roads a person can take (the paths of darkness and light). The use of these verses in particular probably symbolizes the radical Islam movements' path, that is reflected here as the path of the darkness. As I mentioned earlier, al-Sisi's regime sees itself as the supporter of moderate Islam, but not radical Islam.

Quran 2:255 is also present:

"اللَّهُ لَا إِلَٰهَ إِلَّا هُوَ الْحَيُّ الْقَيُّومُ ۚ لَا تَأْخُذُهُ سِنَةٌ وَلَا نَوْمٌ ۚ لَهُ مَا فِي السَّمَاوَاتِ وَمَا فِي الْأَرْضِ ۗ مَنْ ذَا الَّذِي يَشْفَعُ عِنْدَهُ إِلَّا بِإِذْنِهِ ۚ يَعْلَمُ مَا بَيْنَ أَيْدِيهِمْ وَمَا خَلْفَهُمْ ۖ وَلَا يُحِيطُونَ بِشَيْءٍ مِنْ عِلْمِهِ إِلَّا بِمَا شَاءَ ۚ وَسِعَ كُرْسِيُّهُ السَّمَاوَاتِ وَالْأَرْضَ ۖ وَلَا يَئُودُهُ حِفْظُهُمَا ۚ وَهُوَ الْعَلِيُّ الْعَظِيمُ

Allah! There is no god but He, the Living, the Self-subsisting, Eternal. No slumber can seize Him nor sleep. His are all things in the heavens and on earth. Who is there can intercede in His presence except as He permitteth? He knoweth what (appeareth to His creatures as) before or after or behind them. Nor shall they compass aught of His knowledge except as He willeth. His Throne doth extend over the heavens and the earth, and He feeleth no fatigue in guarding and preserving them for He is the Most High, the Supreme (in glory).

Thuluth script was chosen for the interior inscriptions. The architect said that Ottoman Qurans inspired his choice of *thuluth*, which is inaccurate. However, *naskhi* inscriptions were used above the entrance.

One of the striking Mamluk inspirations in the interior is on the mihrab. The mihrab is made of various types of imported marble, including dark-*emperador*, light-*emperador*, spanish black, and green onyx. It has the most expensive types of marble of all those used in the mosque. The architect said that he wanted the mihrab (fig. B.23) to be like the one in the al-Azhar Mosque. Ironically the mihrab that this

one mimics is the Ottoman mihrab in the extension of 'Abd al-Rahman Katkhuda (mid-eighteenth century).[114]

The architect told me that the design of the minbar was taken from that of Saladin, the Ayyubid leader. It is made of wood and inlaid with pearl. However, it looks rather Mamluk. The star design and the use of *kurdi*-like motifs on the entrance are typical Mamluk features (fig. B.24, 25, 26 & 27).[115] The minbar of Saladin on the other hand contained many arabesque patterns, and the entrance was topped with a polylobed arch.[116]

One of the exciting features of the interior is the wooden partition (fig. B.28) of the women's prayer hall. This was supposedly inspired by Fatimid woodwork. Perhaps its arabesque motifs were inspired by Fatimid woodwork which also combined arabesques with *mashribiyya*, and by Mamluk star patterns. However, Fatimid woodwork, like in Fatimid door from the complex of Qala'ūn, was usually divided into small rectangular panels and usually incorporated animal figures, which are not present in these partitions.[117] Another impressive interior feature is the 15m diameter brass chandelier, making it the largest chandelier in the world.

Concept Analysis

If we go back to the architect's supposed original concept would we find any Fatimid features? When Fatimid architecture in Cairo is mentioned, the first thing that may come to mind is projecting entrances with keel-arched recesses on the sides. Al-Fattah al-'Alim Mosque and has projecting entrances, but they are not flanked with any Fatimid decoration. There are no inscription bands that revolve continuously around the building. There are no keel arches, except for those on the minarets. Neither are there any Fatimid rosettes.

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[114] Rabbat,"Al Azhar Mosque," 72- 92.

[115] Pauli, Mamluk Art Objects.

[116] Abweni, "Reconstructing Salah al-Din Minbar," 307-316

[117] Al-Sulaiti, *Fatimid Woodwork,* 127 - 181

Al-Fattah Al-'Alim Mosque and Al-Shurta Mosque in New Cairo (Two Mosques Built Under the Same Authoritarian Regime)

I would like to compare al-Fattah al-'Alim Mosque and al-Shurta Mosque. Both were funded and built by Egyptian governmental authorities. They both show the abilities and the vision of the regime. The Egyptian Armed Forces funded al-Fattah al-'Alim Mosque. The Egyptian Police funded al-Shurta Mosque. The first difference is that the Al-Shurta Mosque was designed by an independent consultancy office (Dr. Hakim al-Afifi). Al-Fattah al-'Alim Mosque was designed by the department of Military Engineers (The Egyptian Armed Forces). Apparently, the reason behind this is that the latter mosque is a statement of Egypt's future (under president al-Sisi). This mega-project, which is considered the beginning of the new era in Egypt, was supposed to make the public trust the military engineers. In her thesis, Leena Sadek stated, regarding the Shurta mosque:

> It invokes images of the Mamluk era when mosques were built as an illustration of the patrons' power and in a way where they challenged the surrounding mosques. Each patron built his mosque to exhibit his ability to sponsor a better, more expensive building, causing ever more grandiose edifices to be erected.[118]

This analysis that Sadek provided is also valid for al-Fattah al-'Alim. However, the case is different from that which Sadek was analyzing. Al-Shurta Mosque was built in the middle of a residential area. The location was very questionable because another grand mosque lies within a walking distance of the al-Shurta Mosque. Al-Fattah al-'Alim Mosque does not have any mosques near it. However, another Islamic complex is being built in the new Egyptian capital. It is much larger than the al-Fattah al-'Alim complex. Therefore, the question that arises: why did the authorities not build just the second complex instead of al-Fattah al-'Alim? I believe neither complex was necessary. This is reinforced by the fact that two grand mosques were built before it in a brief period (al-Shurta Mosque completed in 2017 and al-Moshir Tantawi, the military mosque completed in 2015).

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[118] Sadek, *Politics.*

The mosque does not serve a necessity in terms of providing a space for worship, due to the existence of another large mosque in the same area.[119]

Al-Fattah al-'Alim does not serve as a necessity because it is located in a very remote area. As of this date, the location of the mosque is not easily accessible from the inhabited areas around the new capital. Another reason that prevents it from serving a necessity is that it has a basement daily prayer hall. This means that the main prayer hall is not meant to be used by the public on a daily basis. The architect's words support this point[120]. Hence; the mosque's purpose is more of a political statement than a functional mosque serving daily users.

Al-Shurta Mosque is finished in a washed white finish that is composed of white marble and white paint. Al-Fattah al-'Alim Mosque has the same color palette used in the al-Shurta Mosque (washed white finish surrounded by sandy desert colors). Al-Shurta Mosque took geometric Islamic patterns as its central decorative theme. The same theme was used in al-Fattah al-'Alim Mosque. The most prominent element in both mosques is the dome but their proportions are different. The Al-Shurta mosque dome has a squashed bulbous shape. It has the same pattern that is found on the Safavid Lutfallah Mosque in Isfahan. Al-Fattah al-'Alim mosque closely resembles Ayyubid domes. The ribs on the domes are borrowed from Mamluk domes. Tile mosaic is used intensively in the al-Shurta Mosque.[121]

Al-Fattah al-'Alim only has Mamluk- and Fatimid-inspired arabesque decoration. Both mosques are similar in terms of modern building materials like GRP and GRC. However, the interior of the dome of al-Shurta is decorated with *azmaldo* (tile mosaic), and al-Fattah al-'Alim with stained glass. Al-Fattah al-'Alim mosque shows a pure Mamluk influence (even if the architect insists on naming it Fatimid and Ayyubid) using GRP and GRC that imitate stucco, stone-carved motifs, and marble mosaics.

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[119] Ibid.

[120] Personal communication with the architect Bahaa Shawky.

[121] Sadek, *Politics.*

Nevertheless, there is a vast difference in the choice of materials of both mosques. Most of the materials used in the al-Shurta Mosque are imported, which is very costly. The use of imported materials created a sense of luxury for a place that holds events for wealthy users, attempting to increase the revenue of the building. However, most of the materials used in al-Fattah al-'Alim are local materials. This is a significant advantage of al-Fattah al-'Alim mosque in comparison to Al-Shurta Mosque. On this point, Leena Sadek comments:

> The large-scale import of materials for such a massive and extensive building project must have been costly. In the interest of preserving the nation and expanding its economic growth, particularly at a point of such dire financial circumstances in the country's history and the struggle of its people, this enterprise seems far from sensible. [122]

In the end, both mosques should reflect Egyptian identity. Instead, both mosques represent Egyptian authority. Regardless of the design philosophy and the application, Al-Fattah al-'Alim is more of an expression of Egyptian influences than al-Shurta Mosque. Al-Shurta could fit well in Iran, being a distorted version of Persian architecture. The stylistic features in the al-Shurta Mosque and the statement it provides do not relate to Egypt at all.

Conclusion

It is ironic that Fatimid architecture was supposedly the guideline for the new mosque, while there are only two Fatimid congregational mosques still standing in Cairo. It would have been more realistic to take Mamluk architecture as the guideline for such a traditional conservative design – which in fact is what they did. Although Al-Fattah Al-'Alim displays many Egyptian Islamic features, they are not used in a specific, clear manner. The combination of features from different eras creates a mosque of mixed identities. The use of contemporary building technology helped to create a massive structure in a short period. However, it did not create a modern mosque; it created a replica of older mosques in contemporary materials. The architect said that there were many solutions chosen to cut cost. However, the intense decoration of the building show little concern for the cost.

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[122] Sadek, *Politics.*

The mosque is a statement by the regime as the promoter of moderate Islam.[123] It is a manifestation of authoritarian architecture in terms of using scale, symmetry and symbolism. The critical economic status of Egypt forced the architects to use local materials and local artisans. I believe this design fell into the trap of using old elements, without questioning or reinterpreting them as an authentic representation of contemporary culture. The patron decided that the mosque had to be a nucleus of the city, as was done in the old Islamic cities. However it turned out to be located on the outskirts of the city. If I analyze it from Serageldin's perspective I would consider this mosque a populist one. It is a building that enforces the image of the conservative regime. I would say that al-Fattah al-'Alim took the 'Arabian Nights' model, as Tajuddin called it. The complex is intensively decorated like the Bhong mosque.[124] It does not have any role in the society and does not reflect authenticity. If I analyze it from Abeer al-Lahham's perspective, I would use her term and call this mosque traditionaliest. The designers emptied the features of their original use and meaning. They used a pastiche version of Mamluk architecture. It does not fit the needs and the spirit of the time. The next case-studies will include two mosques built by private patrons. Both were built using different approaches.

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[123] "Sisi Versus the Sheikhs,"

[124] Serageldin, "Architecture as an Intellectual," 16-30.

IV. The Great Mosque of 'Izbat Al-Nakhl

(Form Follows Function)

Patron: The Great Mosque Foundation.

Designer: Osama Muhammad Ali Farag.

Location: 'Izbat el Nakhl, Cairo, Egypt.

> Architecture knows history, and history knows architecture. Culture is its inspiration. Philosophy is its
>
> religion. It talks about time. The place invokes it; the place becomes a pillar of it. The human made it, and
>
> it makes the man.

The architect used this quote in an interview citing his professor Muhammad Gabr.[125] This quote was meant to show how architecture affects place and culture. Also, he wanted to show how architecture is affected by culture and philosophy. In the next paragraphs we will see whether the architect applied this quote in his design or not. Also, I will show the features of the building to see which approach the architect took in his design.

Background

In English, *'Izbat al-Nakhl* means "the land of palm trees". It is a district that lies on the outskirts of Cairo. Established in 1900, it was developed under the reign of King Farouq. It used to be full of palm trees until the appropriation of the landlords' agricultural plots in 1960, after the revolution of 1952. Since 1960, the place has become a densely overpopulated district with many informal settlements. The 'Izbat al-Nakhl Mosque is located in one of the busiest areas in the district. It faces an underground station and is surrounded with informal market places on three sides of the building.[126]

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[125] "Al-Jami' al-Kabir."

[126] "The Great Mosque in Ezbet Al Nakhl."

The History and Context of the Mosque.

        The mosque is constructed on the plot of an older one that was built by Princess Ne'mat. That mosque was demolished by the government in 2003, in accordance with the urban development plan for the area. After the demolition, a charitable foundation was established in 2004 to build a new mosque. The size of the first plot bought for the new mosque construction was 200m^2. In 2009 the mosque design process began. Acquisition of adjacent lands lasted from 2009-2019, the plot reaching 2,700m^2. The Great Mosque Foundation continued to acquire adjacent lands for their own purposes, for example, to provide more space for hosting charity activities.[127]

        The surroundings and the project's circumstances were challenging to the architect. Farag[128] pointed out five design challenges namely (1) various needs of the stakeholders, (2) the mosque location, (3) flexibility, (4) historic revival, and (5) aesthetics. The first challenge was in satisfying the need of the Great Mosque Foundation for a building that could accommodate 4,500-5,000 worshipers. This demand was met by designing a 5,000m^2 prayer hall. Other demands included two multi-purpose halls, a 2,000 m^2 medical center, and 600m^2 toilets. The total building area of the mosque project was 9,000 m^2. However, the area of the land available was only 2,700m^2.

        The second challenge was caused by the site's location in one of the most crowded places in Cairo. It is surrounded by a metro station, a transportation station, and a market. Such amenities are major sources of noise and pollution in the area. Hence, the architect had to find a solution to the problem of ambient noise to create a peaceful and serene environment for the worshippers who desire to find a haven of tranquility.

        The third challenge was related to flexibility. The architect had to provide on the fly solutions to deal with the continuously growing land plot and ensure a harmonious design.

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[127] Ibid.

[128] "Al-Jami' al-Kabir."

The architect stressed the importance of historic revival.[129] It was another architectural challenge. The site's rich history inspired the architect who wanted to revive its historical memory,[130] creating a design reminiscent of the palm tree fields that once flourished in the area.

The fifth challenge that faced the architect was in the informal built environment around the mosque. Most of the buildings that surround the mosque are unfinished. Creating a landmark near such high rise unfinished buildings was a great challenge, since the exterior aesthetics of the mosque should convey its majestic character.

The Plan

The whole layout of the complex is irregular to match the shape of the plot. The rectangular prayer hall, which rises from the ground level to be on the first floor, has four central columns (fig. C.1). A multi-purpose hall is situated on the ground floor, together with the ablution areas for men and women and the main prayer hall (fig. C.2). The men's ablution area is on the western side of the prayer hall, while the women's ablution area is on its north-eastern side. The imam's room is behind the qibla wall.

The main entrance of the mosque is on the eastern side. Farag designed a bent entrance (fig. C.3), similar to Mamluk examples.[131] The bent area is a semi-outdoor one that prepares worshippers for the prayer hall. [132] What distinguishes this bent entrance from Mamluk ones is the tower on the left side of the entrance. It does not look like anything in Cairene Islamic architecture. The rest of the mosque floors are mezzanine ones floors (fig. C.4), which overlook the main prayer hall. The mezzanine is distributed between men' and women's prayer halls. However, they are not yet finished. The use of mezzanines is a creative solution for connecting the floors and also lets natural light into them (fig. C.5). However, it does

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[129] Personal communication with the architect Osama Farag

[130] "Al-Jami' al-Kabir."

[131] Malhis, "The Spatial,"

45–72.

[132] Ibid.

not provide enough light for the whole area of the floor. The three top floors above the mezzanine area accommodating a medical center are not connected to the mosque. There are minarets on either side of the qibla wall.

The architect designed a flexible plan that focuses on the prayer hall. This is revealed in its ability to accommodate more areas without affecting the mosque's function. It is manifested, for example, in the east and west courts whose locations are not selected for environmental reasons only. The western court could be extended to connect the complex with any additional function in the future.

The plan does not show any signs of influences from older Islamic architecture. However, its layout and spatial composition are similar to Mamluk madrasas, despite their lack of a court and iwan system.[133] The similarity lies in the way the building fits in the irregular plot while being able to serve its function. The adaptability of the plan within the context is evident in many Mamluk madrasas.

Concept and Massing

The design process of the mosque began with creating a volumetric model (fig. C.6).[134] The model was an essential step in the design process. The choice of a vertical complex was necessary to cater to both the context and the client's needs. Given the small size of the plot, the architect needed to design the mosque vertically. The building is six stories high, with an average story height of 4.5m. The prayer hall height is 26m; the 36m tall service building is placed at the back of the prayer hall. This arrangement helps create an ensemble of similarly finished units that unite the complex. It also helps to conceal the unfinished facades in the background.[135] According to the Egyptian Building Code,[136] a mosque prayer

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[133] Ibid.

[134] "The Great Mosque in Ezbet Al Nakhl,", and affirmed by Personal Communication with the Architect Osama Farag.

[135] "The Great Mosque in Ezbet Al Nakhl."

[136] Al-Lajna, "al-Kud al-Masry."

hall should not be surmounted by any other activity. Therefore Farag raised the floor of the prayer hall to add a sense of grandeur to the entrance. He also wanted to separate the prayer hall from the street by raising it. The prayer hall design did not plan for any windows or openings that would face the street directly; instead, all the openings are located at the top of the building. This also helps to address the problem of ambient noise. Steel covered with blue polycarbonate sheets were used for the domes (figs. C.7-8). Polycarbonate was selected for its durability, its ability to bend, and its easy maintenance. The prayer hall has six semi-domes, two small domes, and a prominent central dome.

The design, the hierarchy, and the use of the semi-domes look very similar to Ottoman mosques. At first sight, the complex gives an impression that it is an imitation of the Muhammad Ali Mosque. However, the architect denied that his intention was to copy Ottoman models: he used the domes and the semi-domes merely for functional reasons. The columns carrying the domes are supposedly an abstraction of palm trees.[137] This is an allusion to the palm trees that used to be in the district (fig. C.9). The connection between the 'palm tree' columns creates arches. Unfortunately, the patterns on the columns do not continue on the arch spandrels, and this interruption hinders the resemblance to palm trees. The pencil-shaped minarets seem also Ottoman inspired. The architect justified the use of the conical top by mentioning its effectiveness. It is functional during rain (fig. C.10), like pitched roofs it does not let water stay on the surface. However, this is hardly a valid argument. Many solutions could have been used to fulfill the same function. The architect probably simply chose the pencil-like minaret for its similarity to Ottoman architecture.

The complex design faced many constraints in terms of the regulatory requirements of the building. Given the size of the mosque, it needed to have four emergency staircases. Two of the minarets are used as emergency staircases. But this is not very functional in the case of an emergency, as the minarets are detached from the upper mezzanine floors. However, it satisfied the regulations of the Egyptian code of building. The mosque administration resides above the eastern entrance. The eastern

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[137] Ibid.

entrance is the main entrance of the mosque. Placing the administration rooms on the eastern side creates another buffer zone from the side street. As a result, the architect designed buffer zones on all the sides adjacent to streets to reduce noise in the prayer hall.[138]

The Square Root System

Farag said he applied the square root (dynamic rectangle) ratio to the mosque design (fig. C.11). He justified using this ratio because of its higher accuracy compared to the golden ratio (1:1.6). Many Islamic patterns were based on the square root calculations that were initially inspired by astrology. The architect claimed that one of the patterns on the dome was formed by the intersection of the orbits of Mars, Saturns, Jupiter, and Uranus.[139] However, this seems very unlikely. He also claimed that he applied the square root ratio in the position of the domes, their height, and the shape of the arches, and that the arches were formed by equilateral triangles based on the square root ratio, which was used by the Mamluks. Loai M. Dabbour has shown how a proportional system was used in Mamluk decorative motifs.[140] It also had other applications in domes based on the eight-pointed star. However, there is no evidence of its use in arch proportions. The arch profiles here are not similar to any in Cairene Islamic architecture (fig. C.12).[141] The sharply pointed arch above the entrance vestibule for example is very different any Mamluk or Ottoman examples. According to him,[142] he designed the flooring of the mosque by also applying the square root ratio. It allowed a 141cm space between each line of worshippers. Such a pattern supposedly helped to create harmony (fig. C.13). Unfortunately, the diagrams the architect provided do not elaborate exactly how he used this ratio.

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[138] Personal communication with the architect Osama Farag.

[139] Dabbour, "Geometric Proportions," 380- 391.

[140] Ibid.

[141] Personal Communication with the architect Osama Farag.

[142] Ibid.

Interior and Materials.

The primary materials used in the mosque are *hashma* stone, blue polycarbonate, and marble. The elevations are clad with *hashma* stone on all sides. The main decorative element on the walls is stripes made from carved *hashma* stone. The entrance door is made of tempered glass (fig. C.14). The interior of the mosque is covered with *hashma* stone. Small vertical rectangular decorative carvings are evident around the interior (fig. C.15). The palm tree decoration (fig. C.8) on the columns is made from *hashma* stone in a dual finish: smooth and rough. The palm tree motif used in the columns is also present at the Mosque of Shaykh Zayed in Abu Dhabi (fig. C.16). However, the approach adopted in the Great Mosque of 'Izbat al-Nakhl is much more abstract.

The mosque interior gives the impression of an Ottoman one. The central dome surrounded by four semi-domes creates a very similar impression to that of the Muhammad Ali Mosque. The difference between the 'Izbat al-Nakhl Mosque and Ottoman mosques is in the source of the light. Ottoman mosque lighting comes from windows in the transitional zones or in the qibla wall.[143] The lighting of 'Izbat al-Nakhl Mosque however penetrates from the transparent domes themselves, as mentioned earlier. The interior of the dome is decorated with a steel ribbed octagonal star motif (fig. C.17).

The entire flooring of the mosque is made of marble with unusual patterns. The patterns on the ground floor are formed of octagons in a circular composition of eight roundels around a central one (fig. C.18). The roundels have square motifs with octagons in the middle. The circular composition is like Mamluk floor patterns, as in the Sultan Barquq complex qibla *iwan* (fig. C.19). The marble types used in the flooring are perhaps dark emperador, light emperador, and crema marfil.

The Mihrab

The mihrab is unique (fig. C.20). It is made of *hashma* stone and adorned with small squares. It is surrounded by a massive glass arch. The contrast between the rough stone and the glass adds to the mihrab's grandeur. The choice of materials helps in creating harmony in the interior.

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[143] Blair, *The Art.*

Ventilation, Lighting, and Insulation.

The Dome

As mentioned earlier, the dome is made from steel and serves as a natural light source in the prayer hall. This is valuable in saving electricity. Blue polycarbonate is used on the domes to add color to the interior, which, according to the architect, creates a sense of serenity.[144] The dome rests on first rectangular and then diagonal corbels, unlike older Islamic zones of transition. The corbels create an octagonal transitional zone. The dome has a shallow drum, also with windows, which further helps enhance the luminosity of the interior and allows air circulation.[145]

The Minarets and Courts

The ceiling is not the only source of ventilation: the two courts (fig. C.21) serve the same purpose. The east-west court system creates a pressure difference, which results in cross-ventilation in the prayer hall (fig. C.22).[146] The courts function as buffer zones suppressing noise and generating additional ventilation. The minarets have a role in ventilation, too. Their shafts work as wind-catchers (fig. C.23). Their openings are oriented towards the wind-direction and lead the air flow to the prayer hall. Also, the conical tops of the minarets have skylights (fig. C.24). They help to keep natural light in the interior of the minaret in case of maintenance (fig. C.25). The architect said that this was one of the reasons he chose the pencil-shaped minaret. However, a dome would have served the same function. [147]

The Arches and Qibla Wall.

The use of arches in this mosque is very similar to that in Ottoman architecture. All the windows in the arches of walls are made of blue glass, allowing daylight to infiltrate the prayer hall and the

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[144] Personal Communication with the architect Osama Farag.

[145] "The Great Mosque in Ezbet Al Nakhl."

[146] Yang, "Natural Ventilation," 6865- 6890.

[147] "Al-Jami' al-Kabir."

administration area. The large glass arch in the qibla wall is like the Edirne Selimiye Mosque (fig. C.24) where the qibla wall is one of the primary light sources (fig. C.25).[148]

The prayer hall is protected from outside noise by situating the imam's rooms behind the qibla wall on the main southeastern elevation. Therefore, the qibla side is separated from the street by two walls with a space in between.[149] This also helps decrease the sun's rays on the prayer hall on the southeastern elevation. Most of the walls of the mosque are quite thick to insulate the interior from both heat and noise.

Conclusion

The architect succeeded in creating a perfectly functional complex. The planning, lighting, insulation, and ventilation techniques are cleverly designed and executed. However, the concept and vision of the mosque are inconsistent, even if the architect managed to create a correctly functioning prayer hall, which gives a sense of serenity.

The columns are supposed to resemble palm trees, to remind the user of the history of 'Izbat al-Nakhl. However, the architecture does not show any kind of inspiration from the surrounding area. The angular pattern that is supposed to imitate palm trees is a superficial choice. It is a pure manifestation of the concept of facade architecture.

In general, the mosque seems a deformed replica of Ottoman architecture, even though the architect himself denies such an intention. The sense that the mosque is supposed to embody is not conceptualized. The mosque does not evoke the historical memory of the place in any way. In addition, arguments have been raised that the mosque looks like a cathedral,[150] although it was erected to compete with the cathedral and other buildings in its surrounding area. The architect did not apply the quote he

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[148] Blair, *The Art.*

[149] Personal Communication with the Architect Osama Farag.

[150] Hasanain, "'Ala Tiraz al-Kana'is."

mentioned in his interview, which I mentioned at the beginning of the chapter. There is no inspiration from philosophy or culture in his design. His approach is a post-modern one. Saeid Rahmatabadi and Reza Toushmalani's "Physical Order and Disorder in Postmodern Architecture Style " showed that postmodernists deal with the building as a part of the urban fabric, and used elements that appealed to the ordinary user. Niki Amiri showed that postmodernists tend to use decorations and symbols in architecture, and that also they tend to give attention to facade design. These features are all evident in the Great Mosque of 'Izbat al-Nakhl. The use of materials on the columns to look like palm trees is a postmodern feature. The blue domes and the colorful contrast between the polycarbonate and *hashma* are also postmodern. The architect's use of traditional elements like arches, and abstracted decorative features is also postmodern. Decorating the interior with colorful marble in the basement floor is similarly postmodern. Finally, the motive that inspired the architect to create a sense of nostalgia that refers to the surrounding area's history is a postmodern concept. However, he did not create this nostalgia. The architect's use of abstracted and reinterpreted historical features created a pseudo-Ottoman building. I do not see the architect's argument of using historical features for their functionality valid. Stone and brick domes had better acoustics than do concrete and polycarbonate ones for example.[151] The lighting and ventilation problems could have been solved with many different techniques. Therefore, I conclude that creating an Ottoman style was one of the architect's main concerns, even above functionality. He created the Ottoman look and then he tried to manipulate it to serve the functions he needed. An example of successful reinterpreted traditional techniques is the Basuna mosque, which is the subject of the next chapter.

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[151] Moustafa, *Contemporary Mosques*, 56.

V. Basuna Mosque
(The Revival of Tradition)

Architecture determines the facts or superior values as artwork. Architecture gives a visual expression of ideas. Ideas make something meaningful for humans because they organize reality. Architecture as an original art represents the culture and civilization of a nation and race.[152]

Patron: Mainly funded by Shaykh Osama al-Azhary (Religious Affairs Advisor to al-Sisi).

Designer: Waleed Arafa (Dar Arafa Architecture).

Location: Basuna village, Suhag.

Completed: 2018-2019.

Area: 497 m^2

Introduction and Challenges

Building a mosque in a rural village in Upper Egypt is not an easy job. Creating a peaceful environment within a loud and polluted environment was the main challenge for the architect Waleed Arafa. The people of Basuna Village were expecting a traditional Mamluk-like design. According to Seyed Maziar Mazloomi, Syed Iskandar Ariffin and Raja Nafida Raja Shahminan, mosques with traditional or classical appearance tend to appeal to ordinary users.[153] Creating a newly interpreted design for a mosque would contradict their perception of a mosque. The distance between the village and Cairo was another challenge. It made the process of transportation of materials and the manufacturing of the features harder. Finally, the architect was limited in his choice of materials by a low budget.

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[152] Amiri, "Modernism," 1626-1634.

[153] Mazloomi, "Impact of Architecture," 235- 245.

The Concept

The main drive for Arafa was to revive Egyptian identity, not by imitating the old looks or forms, rather by following their methods.

> The design searches for possible strategies to reconnect to the tradition, often a discontinued one, of those countries, holding a rich heritage in terms of the architecture of Islam. At the same time, it aims at checking and renewing this legacy within completely new contexts. [154]

These were Arafa's own words describing the concept behind the design of the mosque. The concept is not merely confined to these words. However, it was the spark that ignited the train of thought that created this building. The mosque is an oasis of peacefulness and calm, which expresses Egyptian identity in this rural village. Arafa quoted Samer Akkach: "to speak of traditions is to speak of the immutable principles of heavenly origins and their application in different time and space."[155] Therefore, I can say that he was more prone to incorporate symbolic elements. According to him his approach to tradition should be a contextual and regional one. I will tackle these points in the coming paragraphs. We will examine which approach he took in his design, and how he interpreted tradition to fit the spirit of the time.

Background and Site Context

The mosque is built in Basuna, a small village in Sohag Governorate. The building is located in the central part of the village (fig. D.1), on a plot belonging to the Abu Stait family. The men's entrance is located on the main, southern, street. The northern entrances are considered to be mainly for women or men and women of the Abu Stait family. The northern plaza is also used occasionally for holding events like weddings. On the eastern side of the mosque there is a cemetery. Most of the surroundings are built of mud-brick, and the adjacent streets are narrow. Simple decorative brick techniques are the dominant decorative feature of the surrounding architecture.

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[154] Personal communication with the architect Waleed Arafa.

[155] 'Akkach, *Cosmology,* 10.

The previous small mosque on the same site deteriorated after heavy rain. Osama al-Azhary decided to fund a new building. It was mostly (85%) funded by Shaykh Osama al-Azhary (one of the village's respected figures), and the rest by Waleed Arafa, the architect himself, with help from friends and family. Dar Arafa (Arafa's firm) also donated the design fees. The mosque took nearly six years to build. The first element that catches the attention of the observer from the main street is the skewed minaret. It is the only visible element from the main street. After going inside the secondary street, the hidden gem can be spotted. The scale of the mosque is remarkable within its context. It gives the impression of a monolithic place of worship that adds a feeling of reverence to the observer as did Pharaonic temples. The dome is the second feature that catches the user's attention with its unusual brick-laying technique (fig. D.2).

Plan and Massing

The building has three levels (fig. D.3). The basement floor (fig. D.4) contains multi-purpose halls (fig. D.5). These could be used for special occasions, classes, or as a clinic. The basement floor also includes the restrooms (fig. D.6). The architect designed them to be on a different axis at the southwestern end of the plot to evade to the qibla.[156] The ground level has the main prayer hall, the small southern plaza and the two main entrances. The first floor - the balcony - (fig. D.7) has the women's prayer space. The southern entrance overlooks the main street. It has an outdoor area that acts as a plaza and a buffer zone before entering the mosque. The open area in front of the southern entrance has faucets for ablution (fig. D.8). The plan does not show any influence from traditional architecture. It only responded to the site, and the project's specifications. Therefore, the approach could relate to modern-regionalism.

The exterior makes its full impact when the user faces the main northern entrance (fig. D.9). It shows the integrity of the masses of the building. The monochromatic yellow stone façade with the brown accents of the wooden and steel doors gives the building a strong, balanced character. The staggered wall (fig. D.10) is in front of the stairs that lead to the basement and the women's prayer hall on

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[156] Waleed Arafa – Masjid Basuna, an online lecture, https://www.youtube.com/watch?v=Lh9bzlPsoRs.

the upper floor. This wall created harmony with the recessed entrance and the staggered dome. The monolithic mass of the main prayer hall resonates with the skewed minaret. The skewed and staggered elements in the elevation create a dynamic architectural language. This dynamism is achieved by the changing shadows throughout the day. The whole exterior of the building is covered with local *hashma* stone which endures erosion and heat. The combination of *hashma* and wood in the northern elevation is a large contrast. The 3.5m wooden entrance door to the main prayer hall in the northern elevation contains the only inscriptions on the exterior. The Quranic square *kufic* inscriptions (72:18) above (fig. D.11) state:

<div dir="rtl">

وَأَنَّ الْمَسَاجِدَ لِلَّهِ فَلَا تَدْعُوا مَعَ اللَّهِ أَحَدًا

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And the places of worship are for Allah (alone): So invoke not any one along with Allah

The Dome of Praise

The architect wanted to reflect Islamic symbolism in the building. He designed the dome to carry the meaning of transition in two ways, the first structural, and the second symbolic. The dome (fig. D.12) delivers the concept of transcendence and connection to a higher entity with the user.[157] The skewed bricks were meant to look like they are circumambulating.[158] The architect said that the brick rows reflect the significance of the number seven in Islamic culture. In the Quran, it is mentioned that there are seven skies above; the creation of the world took seven days. It also has many more mentions in Quran:

(2:261)
example of those who spend their monies in the cause of Allah is that of a grain that
produces seven (7) spikes..."
(15 :87)

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[157] Klanten, *Beyond the West,* 42-45.

[158] Benetti, "Designing."

And We have certainly given you, (O Muhammad), seven of the often repeated (verses) and the great Qur'an[159]

He reflected this in the number of courses, five by seven. Perhaps the five courses were determined according to the proportions and the needed height of the dome. However, it is not noticeable to the user.

The squinches are in the shape of repeating recessed arcades. They are very basic, and abstracted. They are like those of the Ala'i Darwaza at Delhi (fig D.13), even if this was unlikely to be the inspiration for this design. The exterior of the transitional zone (fig. D.14) could be an abstraction of the undulating motif in Mamluk domes, such as those of the Complex of Sultan Faraj ibn Barquq (fig. D.15) and many other Mamluk buildings.[160]

The Minaret

Arafa took much inspiration from Ahmad Mustafa's book *The Cosmic Script*. Many parts of the building are adaptations of this into architecture, as in the mihrab and minaret. The minaret's massing (fig. D.16) is based on Ahmad Moustafa's perspective on the three dimensional shape of the letter *alif*, as the letter *alif* - in his perspective - is based on seven *nuqta*s. Also this skewed shape came from Ahmad Moustafa's perspective on the *nuqta* in the space box. This proportional-system was developed from the tenth to the thirteenth century. It controls the ratios between the letters by a series of rhombic dots (*nuqta*).[161]

The Interior

The interior of the main prayer hall is no less impressive than the exterior. It is also abstracted with minimal decoration. The mihrab (fig. D.17), the sky-lit ceiling, the dome, and the sole window in the

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[159] Sayoud, "New Numerical," 13-25.

[160] Behrens-Abouseif, *Cairo of the Mamluks.*

[161] Moustafa, *The Cosmic.*

building's eastern wall were designed very carefully to direct the users ‘eyes to certain directions and preserve their spirituality and tranquility. The mihrab's gigantic appearance, the mosque's height, the skylight in the ceiling, and the impressive dome create a delicate interplay of dynamic masses with shadows.

The qibla wall grabs the focus of the user as he enters. The mihrab is a very delicate yet massive work with God's ninety-nine names written on. They are carved in the marble in *kufic* (fig. D.18). The staggering of the mihrab gives an impression of a gigantic abstracted *muqarnas.* Surprisingly, this was not the intention of the architect.[162] It is an enlarged version of an artwork ‘The Cube of Cubes’ (fig. D.19) by the artist and calligrapher Ahmed Mostafa. However, it is inverted and modified to fit in the architectural context. The concept of this artwork is to show the multiplicity of God's names within the unity of his entity.[163] The mihrab is made of two types of stone; granite and alabaster. Both are local materials. Double black marble covers the wall around the mihrab. The door to the imam's room and the minbar is also covered with double black marble (fig. D.20). The room behind the qibla wall has a staircase leading to a balcony that overlooks the prayer hall. This balcony serves as the minbar. This is a modern space-saving solution. The mosque does not include a separate minbar.

Natural lighting comes from the skylights (fig. D.21). This was an excellent solution to eliminate outside distractions. The sole window in the eastern wall is narrow and tall, overlooking the cemetery. The architect said that it was meant to remind the worshipper never to forget his final destination. He also intended this window to symbolize the Imam's saying before the prayers, "Pray as if it is your last."[164] The window from the exterior is recessed in a slated way (fig. D.22). It helps to block the sun from the southeast and lets the northern light in.

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[162] Personal communication with the architect Waleed Arafa.

[163] The cubes' dimensions are 10cm each side.

[164] Personal communication with the architect Waleed Arafa.

The dome is one of the interior features that create a huge impact. The geometric shapes created by the squinches and the brick dome create dynamism in the massing of the interior. This dynamism is enhanced by the cubic tiers of the mihrab, and the skewed columns. The interior of the prayer hall does not have other decorative features. The walls are all painted white, and the dados are of cream-colored marble. The skewed columns are also covered in cream-colored marble.

The central dome is not the only one in the mosque. The vestibule also has s brick dome (fig. 23). The architect took his inspiration for this dome from the Great Mosque of Cordoba (fig. D.24).[165] He thinks that this architectural feature is not outdated. He used this dome for its structural and functional importance; its ribs carry its weight and enables opening windows for lighting and ventilation. Hence, it is not a superficial mimicking of traditional architecture, especially since they are of brick, not concrete. However, he changed the intersecting ribs profile from semi-circular arches into semi-pointed one. He said that he wanted the strong symbolism that the pointed arch has in Islamic architecture, as the pointed arch directs to the heavens.[166] He said he used traditional elements - like the Great Mosque of Cordoba's dome - to point out the importance of studying past methods to reach modern innovative solutions. He compares this dome to that of Abdel-Halim Ibrahim's at the entrance to the American University in Cairo (fig. D.25).[167] This kind of dome is unusual in a mosque in Egypt.

The vestibule wall that is opposite the southern entrance door is decorated with a glass geometrical motif (fig. D.26). This technique is a new interpretation of glass as a decorative motif. It is embedded in the wall, and only its thickness appears. The architect mentioned that the pattern itself is a display of the proportional system that is used in the mosque. The motif is an abstraction of the geometry of the mihrab. The same pattern, made of glass, was applied on the steel handrails that lead to the women's prayer hall (fig. D.27).

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[165] Ibid.

[166] Personal communication with the architect Waleed Arafa.

[167] Waleed Arafa – Masjid Basuna, an online lecture, https://www.youtube.com/watch?v=Lh9bzlPsoRs.

The Women's Prayer Hall

The upper floor has the women's mezzanine prayer hall that overlooks the men's prayer hall like a mezzanine. The openings in its qibla wall that overlook the main prayer hall act like *mashribiyya* (fig. D.28). It has rectangular openings on the women's side and square ones on the side of the Imam. This simple detail displays the inventiveness of every detail in the design.[168]

Innovation.

The Bricks

Arafa's innovation in the Basuna mosque can be seen in his choice of materials and the way he applied them. Firstly, the dome was built using Egyptian-made white sand and lime bricks. This kind of brick is known for its light weight. The density of the bricks is 0.5 ton per cubic meter. This relatively lightweight brick decreased the weight of the dome and made it easier to make a perforated ceiling for lighting and ventilation. The brick has good fire rating properties (4-7 hours). It also has good sound insulation properties (37-48 dB). The architect used an innovative building technique for the dome.[169] He made a steel device (fig. D.29) that had marks to adjust the arrangement of the brick tiers. The dome was built by decreasing the dimensions of the bricks until it forms the skylight. The last brick in the top tier is 5cm long. The architect said that the calculations were carried out using computer programs; these were also used to help testing the massing and the lighting of the mosque before the designs were implemented.[170]

The Roof System

Arafa created a comfortable space for the worshippers in terms of temperature, humidity, and lighting to help the worshippers feel reverence and peace in the mosque. The roof is the main innovative

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[168] Amin, *al-Sinnari House*.

[169] "Basuna Mosque / Dar Arafa Architecture."

[170] Waleed Arafa – Masjid Basuna, an online lecture, https://www.youtube.com/watch?v=Lh9bzlPsoRs.

feature that is responsible for this. It acts to provide shade, as a skylight, and a wind-catcher.[171] It thus

provided lighting, insulation, and ventilation, in addition to its great aesthetic appeal. It is also energy-

saving. Arafa built small half domes (fig. D.30) that rest on the half of the squares panels in the ceiling.

These half domes have windows that create wind-catchers, while enabling the hot air in the prayer hall to

leave from the small square openings in the qibla wall (fig. D.31).

The concrete beams of the ceiling were cast in situ.[172] The circular windows in the roof are also

innovative. The ceiling beams carry half-cut pipes. The pipes are tilted and run to in-service tanks. This

idea was to conserve water for general purposes. Hence, these sustainable techniques serve the concept of

creating a peaceful environment that enhances the serenity.

The Mihrab

The alabaster mihrab also has an innovative design. The architect used a steel frame to carry it.

However, the mihrab was too large and too fragile to be transported. Therefore the steel frame (fig. D.32)

was built in situ, and the marble was manufactured independently in Cairo.

The Mashribiyya

The *mashribiyya* is another traditional element that was used without abstraction or modification

in the northern entrance. However, the openings in the staggered northern wall are inspired by

mashribiyya according to Arafa (fig. D.33), but with a modern expression.

Conclusion

Arafa succeeded in building a mosque with a regional identity. This could be felt and seen

throughout every little detail in the mosque. The brick building techniques of the dome and the ceiling are

unusual. The environmental solutions for ventilation and lighting are also traditional. Wind-catchers

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[171] Klanten, *Beyond the West,* 42-45.

[172] "Basuna Mosque / Dar Arafa Architecture."

(*malqaf*s) could be seen in Mamluk domestic architecture.[173] Even the materials are all Egyptian. Arafa

divided the features of the mosque into three; old reused ones, old reinterpreted ones, and completely new

ones. The old reused elements are the southern entrance's dome and the *mashribiyya*. The reinterpreted

traditional elements are the wind-catchers, the skylights, and the women's entrance *mashribiyya*. The

dome is a completely new feature, according to the architect. However, I see it as an old reinterpreted

feature. The dome is old, but the way Arafa used it and built it is entirely new. It is not the first time to see

a dome with a skylight in the center. The Tabataba'i house in Kashan, and also the *tīmcha* in the Kashan

Bazaar (fig. D.34) have this kind of dome.[174] These are other parallels in the Islamic world. The Pantheon

has this kind of skylight also (fig. D.35). This is a very interesting parallel. Perhaps the architect could

have been returning to the roots of architecture unconsciously.[175] However, the way Arafa used it and

built it is entirely new. The building technique looks like Persian *hazarbaf* (fig. D.36), but the architect

did not get his inspiration from *hazarbaf*.

> Regionalism is nothing more than the adaptation of modern architecture to the region in which it
>
> develops.[176]

This quote accurately represents the Basuna mosque. William Curtis defined the regionalist's role

as an endeavor to provide an authentic architectural expression beyond the surface of memories of

societies.[177] I believe this is what Arafa did in the Basuna mosque. He responded to the needs of the

project with a sense of flexibility and dynamism. He reinterpreted tradition to create a contemporary

building that fits the spirit of the time. He did not mimic the mud-brick architecture of the village, and he

did not reuse vernacular building forms. However, his design concern was based on creating a meaningful

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[173] Raslan, "Concept of Design."

[174] Ebrahimi, "Dome`s Internal," 113-127.

[175] Sahabuddin, "Dome Form," 163-167.

[176] Meganck, *Regionalism.*

[177] Curtis, "Regionalism," 73-77.

building that represents the culture, and is adapted to environmental factors. Culture was represented in his reference to Islamic symbols in the building's features. The environmental factors were treated cleverly with the ventilation and lighting techniques. Curtis emphasized the importance of finding dynamic responses to climate for a regionalist. This was one of the main concerns of Arafa. His approach to the plan and the mosque's feature was functional. However, the decorative features he used, as in the mihrab, for instance, do not show a pure modernist approach. His use of decoration and symbolism was evident. However, it does not make the building postmodernist, as it was not based merely on symbolism and nostalgic features. Therefore, I believe his approach is that of a regional modernist.

The three cases I analyzed in Egypt showed a strong attachment to traditional influences in terms of forms, concepts or symbols. The approaches of the three mosques are quite different but they all share this attachment. The Iranian examples I will explain in the coming chapters have different approaches too. The socio-political environment played an essential role in defining the design approach of these mosques.

VI. Iran's Socio-Political Context

Introduction

Iran's borrowings of plans, proportions and elevations from Western architecture began in the Qajar period (1795-1925). The Pahlavi dynasty (1925-79) introduced industrialization to Iranian society. Steel, concrete, and glass were used in new structures, such as railway stations, factories, cinemas, and hospitals. The National Bank and the Ministry of Foreign Affairs are among early Pahlavi era buildings that reveal industrialization through the use of those materials.

During the second half of the Pahlavi period under the rule of Mohammad Reza Shah, modernism was introduced in Iran. Modernism and traditional architecture were fused during that time. Both Avicenna's tomb in Hamadan and Khayyam's tomb in Nishapur[178] are buildings that speak expressively of this fusion. The country's views changed dramatically after the revolution, which strengthened anti-Western values. The 80s and 90s of the twentieth century were marked with efforts to bring back Islamic culture. Therefore, traditional materials such as domes, bricks and tiles were extensively used to give buildings an Islamic feeling, an example being the tomb of Imam Khomeini. Later on, Iranian designs blended classical Iranian elements with modern architecture in order to add plurality to the designs. This section intends to show the approaches of mosque architecture in Iran from 2009 (after the Green Movement detailed below) in the shadow of their traditional architecture, and its socio-political environment.[179]

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[178] Grigor, *Building Iran.*

[179] Diba,"Contemporary Architecture of Iran", 70- 79.

The Green Movement

> We sing the song of flight; a good day will come when we no longer kill each other. In the Memory of brave Neda, Alive and Green.[180]

Within the last forty years of anti-democratic movements (since the Islamist revolution), new social movements emerged. The new generations have aspirations towards democracy, human rights, and freedom. They aspire to have Islam as a spiritual path not a theocracy. The first movement towards democracy took place in 1999. Students rose against president Khatami's regime, claiming the reforms that he promised during the elections in 1997 had failed.[181] The regime crushed the movement with the president's consent. The students were neither leftists nor Islamists. Their movement was not for the sake of an Islamist utopia, either. Political and social pluralism were the demands. The movement was repressed by the Revolutionary Guards. They also played a significant role in repressing democratic movements in the following decade. The second major move against the regime's anti-democratic strategies was a feminist movement. "The Campaign for One Million Signatures for the Repeal of the Discriminatory Law" emerged at the end of president Khatami's era in 2006.[182] Ahmadinejad's government repressed the movement violently. Men and women who took part in the movement were mistreated, and many were imprisoned. The campaign demands were equal rights in marriage and inheritance. The third major movement took place in 2009. Moussavi and Karroubi - who were previously reformist candidates - unleashed massive protests and initiated the "Green Movement", green alluding to the symbol of Islam. In 2009, it was the first movement that had a very large number of followers in the

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[180] A Translation of the song Ye Rooze Khoob Miad by the rapper Hichkas

https://www.youtube.com/watch?v=fqHhLy6KOMo

[181] Khosrokhavar, "The Green Movement in Iran", 39 – 77.

[182] Reisinezhad, "the Iranian Green Movement," 194-220.

Middle East. The massive demonstrations lasted for a week until severe repressions by the regime resulted in more than seventy civilian casualties.

The Green Movement was fed by the resentment by youth of the Islamist regime. The demonstrations showed the need of Iranian society for more openness. The new generations believed that they had the ability to free Iran from oligarchic rule. Social media helped the Green Movement to get organized. Unlike the violent response of the regime to the demonstrations, the Green Movement's initial intention was peaceful. According to Farhad Khorokhavar, it was the first time in Iranian history that a movement put the rights of the citizens foremost.[183] The Green Movement denied the legitimacy of the *Velayat-i Faqih* (the guardianship of the Islamic jurist). Contrary to the secularization movement (of the nineteenth and the beginning of the twentieth century), the Green Movement was not antagonistic to religion, but rather to theocratic rule. Many intellectuals who participated in the Green movement called for bridging the gap between tradition and modernity. Unlike the Arab Spring movements, the Green Movement did not succeed in throwing off the ruling regime.[184] However, it gave a clear insight into Iranian society. It showed the difference between the ideology of the regime and the ideology of the new generation who aspired to spiritual Islam that would give freedom of religious experience. This overview of Iranian society and its democratic movements may give a clearer understanding of how the ruling regime has reflected its views in architecture. On the other hand, it may also clarify architectural attempts to bridge the gap between tradition and modernity.

Valiasr, Enghelab Street Intersection

Revolution Street represented a unique juncture of the rich and the poor, the elite and the ordinary, the intellectual and the layperson. It was a remarkable political grid, intersecting the social, the

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[183] Khosrokhavar, "The Green Movement in Iran," 39 – 77.

[184] Reisinezhad, "the Iranian Green Movement," 194-220.

spatial, and the intellectual, bringing together not only diverse social groups, but also institutions of mobilization (the university) and the dissemination of knowledge and news (the chain of bookstores).[185]

Public spaces, fundamentally, exist based on their publicness and openness to all groups of people. However, states increasingly seem to prefer to confine public spaces to predetermined realms for controlled activities, in which no subversive action can be conducted against the state's authority.[186]

The intersection of Valiasr and Enghelab Street has been at the heart of street protests since 1979's Islamic revolution until 2009's Green Movement. Enghelab Street's name (Shahreza before the revolution) means revolution in English. It has been one of the most politically active streets in Tehran. The space at the intersection of the two streets embraces socio-political updates, upcoming book announcements, festivals and events. The Pahlavis designed the Valiasr-Enghlab intersection as a space that manifested the modernity of Iranian society. Since the Iranian Islamic revolution, the regime has suppressed and redesigned public spaces, including the Valiasr and Enghelab streets. It has carried out many changes to break the spirit of public spaces under the name of development to suppress protests. For example, changing public spaces into commercial ones has helped to control social interactions and promote consumerism. As Foucault once said, "The best way of controlling minds is controlling bodies."[187] This is exactly how the Iranian government has acted.

Public spaces, fundamentally, exist based on their publicness and openness to all groups of people. However, states increasingly seem to prefer to confine public spaces to predetermined realms for controlled activities, in which no subversive action can be conducted against the state's authority.[188]

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[185] Aghaei, *Politics of Public Space,* 25.

[186] Ibid, 27.

[187] Ibid, 31.

[188] Ibid, 32.

They changed the locations of the spaces where the religious and cultural activities occur. For instance, the Grand Mosalla - which was built originally to host grand religious events - has become a place to hold cultural and commercial events, such as book fairs and Islamic fashion shows. In line with the above strategy, the government carried out a development plan in 2012 to take control of public life at the Valiasr-Enghelab intersection.[189] The street has become a noisy and crowded space full of vendors and traffic, it has turned into a transitional area instead of a space of social interaction. The Tehran Municipality claimed that they were solving the traffic congestion and transportation issue, while confining the public spaces to be more easily controlled in case protests occur.[190]

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[189] Ibid, 27.

[190] Ibid, 25.

VII. Valiasr Mosque and Cultural Center

(A Revolutionary Approach)

Patron: Tehran Municipality.

Designer: Reza Daneshmir & Catherine Spiridonoff (Fluid Motion Architects).

Location: Tehran.

Completed: 2018.

Area: 25,000 sq. meters.

Valiasr Street

Valiasr Street used to be a narrow alley passing in the Qajar period (1785-1925). In the Pahlavi period (1925-1979), it turned into the Pahlavi Road to connect the Marble Palace and the Saadabad Palace. The name was changed around the late 1960s into Pahlavi Street. It was the center of cultural activities in Tehran after the City Theater construction. After the Islamic Revolution (1979), the street's name was changed to Mossadeq, and later to Valiasr (the 12th Shi'a Imam).[191]

Introduction

The Valiasr Complex's main distinguishing characteristic is that it does not look like a traditional and visually familiar mosque. The building breaks the stereotypical design of large domes and tall minarets. Instead, the architects chose the approach of a modest horizontality. Therefore, the complex respects its context and harmoniously blends with the surrounding buildings and adjacent park. It rises organically from near street level towards the qibla direction. Concave and convex strips built in tiers create a unique exterior and a peaceful interior.[192] The architects wanted to build something new

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[191] Aghaei, *Politics of Public Space,* 25.

[192] "The Groundbreaking Modesty."

responding to people's needs, as Reza Daneshmir pointed out.[193] In particular, they wanted to express a spiritual image of the religion, not the rules and the regulations that the state puts in the name of religion. This had been reflected in the grand dominant style of mosques. Were the architects inspired by any traditional or regional elements to create a 'new' building? I believe this question will not be answered positively. However, they chose to deconstruct all the known frames of the usual mosque, to create a new interpretation of religion in Iran.

The Valiasr complex (fig. E.1) lies at the heart of Tehran in the intersection of two of the most important streets in Tehran (Valiasr and Enghelab Street intersection). The complex is situated in front of the City Theater and a park. The architect intended to target the 15-40 age user groups.[194]

Prior to the Valiasr complex, another architectural concept was proposed whose purpose was to embody religious dominance in art, politics, and culture. The former design was to be executed in the classic Persian traditional style (fig. E.2) and was intended to have a 52-meter-high dome, which would have been three times taller than the adjacent City Theater. The artists and intellectuals opposed the first design expressing their concern about its negative impact on the cultural atmosphere of the area by dominating the theater.[195] After the construction of the complex began in 2007 and the foundations and basement structure were finished (fig. E.3), the new mayor stopped the project. He responded to the opposition and hired the Iranian architects Reza Daneshmir and Catherine Spiridonoff of Fluid Motion Architects to design a new complex that would suit the needs of the target users.

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[193] Personal communication with the architect Reza Daneshmir.

[194] Presentation provided by the architect Reza Daneshmir.

[195] Alsammarae, "Fluid Motion Architects."

Concept

> Valiasr is a criticism of the idea of vertical authoritarian structures of classical mosques and proposes peace
> and equality. It is the first contemporary mosque with a horizontal-structure-based spatial organization and
> has the potential to open the doors to our perception of mosques and even other designs in a new era.[196]

According to the architect, since the site's users are mainly the youth and the intellectuals, they wanted a different design of the mosque, which responded to their political and religious views. The design should match their aspirations and bridge the gap between modernity and religion, enhancing a sense of individuality and serenity. It should reflect the spiritual nature of Islam without forcing authority or dominance. Adding to this challenge, the architects had to consider the aspect of sustainability in the design and the limitations of a low budget.[197]

The complex attempts to change the image of the regime's radical Islam, which condemns and challenges art. It also challenges the idea of the ordinary ornamented mosque. The architects said that they tried to return to the roots of mosque design. Therefore they turned to the Prophet's Quba' mosque.[198] The architect's inspiration reminds me of Spahic Omar's[199] description of the Prophet's Mosque. Daneshmir explained that the Quba' mosque did not have minarets or domes, therefore, he decided to eliminate the traditional religious mosque stereotype and get back to this basic design. He also noted that the Quba' mosque did not rise high to show power. Therefore, he chose the horizontal design to represent

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[196] Personal Communication with the architect Reza Daneshmir.

[197] Ibid.

[198] Alsammarae, "Fluid Motion Architects."

[199] Omer, "Some Lessons," 115-140.

his idea. Unfortunately there is no exact evidence as to how the Quba' mosque looked like. I believe the architects' inspiration from the Quba' mosque was the concept itself, not the design. Perhaps it was just an empty justification for neglecting all the traditional elements, especially since the building adopted fluid forms. The forms the architects adopted do not show any inspiration from any historical mosque. Fluid Motion's approach for the form neglects any historical inspiration. However, the architects' words bring to mind Doğan Kuban in his *Symbolism in its Regional and Contemporary Context*:

> The Prophet's house in Medina served as a mosque. There was no minaret, no mihrab, and no *minbar*. Since the Prophet's life represents the ideal life for a Muslim, all the additional forms that are now associated with a mosque may be taken as superfluous.[200]

The Valiasr mosque and cultural center design can be seen as a manifestation of Kuban's words (a mosque that does not contain all of the usual features, such as a dome or minaret). Fluid Motion Architects[201] took the same approach, a very minimalist and humble one resembling that of the Prophet Muhammad's first mosque. They tried to minimize ornamentation and create a space that would serve the users' spiritual needs in a contemporary language.

Accessibility

The building can be accessed from two main pedestrian entrances; it also has a parking garage (fig. E.4). The entrances are on the northern and western sides. The western entrance is from Valiasr Street, and the other from the park. The western entrance has a subtle rotation; the architect mentioned that it was inspired by the entrance corridor of the Isfahan Lutfallah Mosque (fig. E.5). I believe its inspiration could be in terms of its spatial experience which provides tranquility for the user. It has two essential uses. The first is that it acts as a buffer zone– like a vestibule - (fig. E.6) isolating users from the street and the park. The second use is a psychological one. It gently prepares the user for the shift between

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[200] Kuban, "Symbolism," 12-16.

[201] Personal communication with the architect Reza Daneshmir.

the noisy world outside and the serenity of the mosque. The architect said he was inspired by the arches (fig. E.7) of Iranian mosques in the western entrance.[202] However, I do not see any inspiration from an arch. It looks like it is a continuation of the fluid design. The architect also designed the northern entrance to give the feeling of a vast tent (fig. E.8).[203] This tent-like feeling creates a sense of omnipresence. It makes the user feel that the complex surrounds them everywhere without a specifically noticeable wall. In addition to the roof design, the broad area of the mosque evokes a feeling of individuality. This feeling is one of the target audience's – youth - main needs, I believe.

Plan and Spatial Organization

The complex has four underground floors and three floors above ground (fig. E.9). The underground floors contain parking, services, and meeting halls. The ground floor contains a reception hall, classrooms, the janitor's room, the imam's office, the manager's office and the men's prayer hall. The men's prayer hall can be accessed from the stairs in the reception hall, the prayer hall closet and the shoes room are on the same level as the men's prayer hall. The men's library is on the first floor (fig. E.10), along with a storage area, and an office. The other staircase leads to the mezzanine (second) floor that functions as the women's prayer hall. It overlooks the men's prayer hall. The top floor is dedicated to women. It also contains the women's library, an office and computer room. I couldn't found any evidence in the plans for toilets or ablution areas.

Ramps access all floors. The ramps make the accessibility of the floors easy for the elderly, children, and pregnant women (fig. E.11). They make walking throughout the building relaxing and peaceful. The three-storied administrative wing of the project lies behind the mihrab. The meeting hall with a double-height ceiling lies below the men's prayer hall. The educational wing of the project occupies the western part of the ground and the first underground floor.

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[202] Presentation provided by the architect.

[203] Ibid.

Massing and Exterior

> Besides maintaining the interconnection between the park and the project, the mosque's roof (over the
> reception hall) changes its function into the mosque's courtyard or a public open space that can work
> with its neighboring theater at certain times and serve as a seating platform in the open space.[204]

The roof of the complex has a smoothly sloping surface. It rises from the ground level of the park until it reaches the height of the City Theater (fig. E.12).[205] The mass arises on the side of the qibla. giving a strong statement: "Islam respects art and culture" (fig. E.13).

According to Fluid Motion's description, they wanted to take the concept of a courtyard to another level. Instead of creating an introverted courtyard, they supposedly created an interactive extroverted courtyard (fig. E.14) on the sloping part of the roof, connecting the park with the theater and the mosque. Of course, this does not make it a courtyard, but it is inspired by it. Fluid Motion intended to create the same concept in this mosque, but in a contemporary interpretation. I would have loved to see the building this way. Unfortunately, in reality the sloping part of the roof does not reach the ground (fig. E.15). This made the roof inaccessible. This demolishes the intention of extending the public space, and makes the sloping fluid roof just a play with form. It does not serve a function other than as a roof. The gap between the architect's words and reality is indeed very frustrating. It subjects the form itself to being questionable. The form does not have any proper justification rather than imitating Zaha Hadid's fluid designs.

Creating a building that mostly lies underground raises lighting problems. The architects said they went back to the roots of Persian domestic architecture, using the skylight technique.[206] Skylights (fig. E.16) are evident in traditional Persian architecture to provide natural lighting. They have different

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[204] Presentation provided by the architect Reza Daneshmir.

[205] Alsammarae, "Fluid Motion Architects."

[206] Presentation provided by the architect Reza Daneshmir.

qualities of light and shade as the light enters at different angles.[207] Fluid Motion Architects applied

skylights on the fluid-designed roof in a contemporary look and sense. The architects reinterpreted

traditional skylights to fit in with their design philosophy. They also left empty spaces surrounding the

ramps to enhance the natural lighting on the lower floors (fig. E.17). The skylights were also intended to

be used for ventilation.[208] My argument against this design lies in two points. The first is that the

skylights are not a mere Persian feature. They are evident in architecture all around the world; they can

even be considered a contemporary solution. Here they are more inspired by clerestory windows than by

Persian traditional architecture. Therefore, there is no influence from tradition in the skylights. The

second argument is that these windows cannot be opened (fig. E.18), and they are inaccessible. This

makes them unable to provide ventilation. However, they are undoubtedly one of the beautiful features of

the design.

      The architects claimed that they used another traditional feature in the roof-openings, namely the

geometry of the *karbandi* (squinch-nets) (fig. E.19). They claimed that they were applied by creating a

spiral, which starts from the entrance hall until its peak in the prayer halls. Unfortunately, I cannot relate

squinch-nets to any of the elements of the mosque. Squinch-nets were mainly used as a structural feature.

Their inspiration or application in the Valiasr complex is not apparent.

      The finishing of the exterior is performed in washed concrete (fig. E.20). Many factors

determined the choice of the concrete exterior. The first one is the financial factor: concrete is the

cheapest choice for the exterior finishing. The second is the inspiration from the City Theater (fig. E.21).

The City Theater was one of the first concrete buildings in Tehran built following industrialization in the

Pahlavi period. However, the City Theater has a tile revetment of the concrete structure, which contradicts

the architect's intention. Apparently, financial constraint was the main determinant for this choice.

However, the Valiasr Complex undoubtedly created a self-explanatory and peaceful statement in the heart

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[207] Habib, "Light Processing," 11-20.

[208] "The Groundbreaking Modesty."

of Tehran, by the attempts to create a dialogue with the massing and the color palette of the City

Theater.[209]

Interior

The feelings evoked in the user when entering the mosque from both entrances are reverence,

calmness, and peace. Such feelings are delivered by the roof's height, its massing, and the finishing. The

walls and ceiling are painted in white plaster, the floors and the dados are in cream marble (fig. E.22).[210]

The choice of materials was defined by the color palette and the low budget. The shadow effects of the

skylights combined with the roof's form reflect the same fluid effect of the exterior on the interior. There

is no evident ornamentation or decoration in the interior. It is minimalistic, in harmony with the

undecorated exterior. The leveling in the interior and the mezzanines create transparency (fig. E.23),

which helps deliver the feeling of calm. The mezzanines and open spaces reveal the complex's large area

without enforcing dominance. The only decorative feature that could be noticed in the interior is the tiles

on the mihrab. It is decorated with traditional Persian blue tiles (fig. E.24) with the names of Allah,

Muhammad, and Ali. The shape of the mihrab is also unusual. It is a rectangular recess in the qibla wall

continuing vertically to the ceiling. However, it is the only feature in the interior that uses traditional

materials. Perhaps the architect wanted to emphasize the mihrab. However, there were many other ways

to create this emphasis, for example at the Sancaklar mosque (fig. E.25) near Istanbul, where the mihrab

has the same vertical recess concept. What is admirable about the mihrab is that its continuation to the

ceiling gives a direct visual access from the women's prayer hall.

Structure

The structural system is an unusual concrete shell (fig. E.26). A 30cm concrete slab is used for

the roof forms. The system depends on special steel frames and reinforced concrete sheer walls. The sheer

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[209] Personal communication with the architect Reza Daneshmir.

[210] Presentation provided by the architect Reza Daneshmir.

walls were essential,[211] since Tehran is threatened by earthquakes. The building's shell roof was connected to a column system that had been already executed for the former design of the mosque. The columns were used to support the places that had openings in the roof. The architect said it was crucial to use columns under the openings, as the openings weaken the concrete shell.[212] Also, the shell was essential to achieve the topographic design that the architects wanted to achieve.

Controversy

> A mosque sacrificed for the City Theatre. - Decapitated in honor of the theatre. It was an insulting, postmodern design… empty of any meaning, said the conservative Mashregh News. [213]

> While there are examples of humble religious spaces … religious buildings are often created from grand atriums, domes, and towers, which stand high to dominate the visitors. These typologies metaphorically refer to the grand nature of God. Breaking this tradition is in contrast with the religious beliefs of many.[214]

The aforementioned criticism was thrown at the mosque in Iranian newspapers. The mosque was finished in 2018. After fierce attacks and controversy, its operation was suspended. The Iranian government could not endure the change in the visual image of religion. The mosque that Fluid Motion Architects designed defies the norms. It is an Iranian mosque in spirit not in body. This is what the new generations wanted, but, unfortunately, not the government. After the controversy, the Iranian government made a law that no mosque should be built without a minaret or a dome.[215] Also, there was an attack on Catherine Spiridonoff claiming that the mosque should have been designed by a Muslim.[216]

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[211] Ibid.

[212] Personal communication with the architect Reza Daneshmir.

[213] Dehghan, "A Modern Mosque Without Minarets."

[214] Husseini, "Council Decision to use Valiasr religious and Cultural Complex."

[215] Personal communication with the architect Reza Daneshmir.

[216] Gouëset, "A Teheran , la mosquée," 59-61.

Conclusion

Unfortunately the Valiasr complex lacks a clear identity. The architects call it a mosque. The critics call it a mosque, and even the writings on it call it a mosque. There is not much attention given to the cultural center side of the project, while it occupies a very large area in the project. Even in terms of design, most of the attention and details were given to the mosque. Fluid Motion chose to neglect traditional Persian architecture in their design in terms of plan, form, ornamentation and even environmental solutions. However, they insist on its relation to traditional features. Perhaps this was how they were trying to escape the fierce opposition to the design. The skylights feature cannot be considered a Persian influence. Skylights and clerestory windows are evident in many traditional buildings everywhere in the world. Fluid Motion did not use any of the traditional forms of natural lighting, which makes it an ordinary skylight. The architect's words about the squinch-nets are not evident in the building in any way. Another traditional feature that the architects supposedly reinterpreted symbolically is the courtyard. However, the architects' words about the inverted concept of a courtyard were not applied. They claim that they made the mosque a courtyard for the surrounding spaces. Unfortunately, the whole courtyard concept was not applied when the mosque was executed. The roof of the mosque is inaccessible. This demolishes all the architects' aspiration towards an extroverted courtyard, or an extension to the plaza. Therefore, the mosque does not have any traditional influence on the design. The architects did not take a regionalist approach. Fluid Motion claimed they chose to go back to the roots of mosque architecture, claiming that a mosque no longer needs a minaret or a dome. They deconstructed and questioned the usual forms of the mosque. They needed a new message to be delivered to the users. Therefore they created a humble and fluid design. This humility is evident in the sloping roof on the City Theater's side. However, the architects were not successful in going back to the roots of mosque architecture or getting inspiration from the prophet's Quba' mosque. Of course, its breathtaking appearance and its interactive design - that is in harmony with the surroundings - showed an approach that respects the context. However, this design could fit anywhere in the world. This does not make the building either regionalist or postmodernist in any sense. It does not look like a mosque built specially for

this site. Another important point is that the architect gave more attention to the mosque than the cultural center, but the cultural center could have served the concepts the architect wanted to implement.

According to the previous analysis, the architects took a deconstructivist approach. The warped planes, the plan that is designed on many levels and deconstructed concepts look like Zaha Hadid's design for the London Aquatics Center (fig. E.27). Zaha Hadid is one of the most celebrated deconstructivists, and it seems Fluid Motion's aim was to use this new approach. It is a completely new style for Iranian mosque design, and a brave endeavor. However, deconstructing the exterior forms only does not show the best expression of deconstructivism. The architect could have avoided the controversy by responding to the socio-political environment. Fluid Motion chose to stand with the users' needs, while neglecting the government's needs. Creating a bridge between both sides could have avoided the ongoing criticism of the architects.

VIII. Imam Reza Cultural Complex

(Persian Tradition Reinterpreted)

Patron: Municipality of Tehran.

Designer: Kalout Architects.

Location: Tehran.

Completed: 2012.

Area: 6500 square meters.

Introduction

> We took the religious complex project. The young generations are more connected with cultural centers. We wanted the place to bring the younger generations' attention and connect them with the religious complexes again. We connected the concept of a religious complex and a cultural center in terms of use and design, said Saeed Reza Bariri (Kalout Architects).[217]

The Imam Reza cultural and religious complex (fig. F.1) won in the Religious Buildings and Memorials section at the 2016 A+ Awards.[218] The building is an example of contemporary Iranian architecture that uses both traditional materials and concepts interwoven with modern concepts, functions, and technologies. Its breathtaking monumental modern look and traditional elements construct a strong contemporary Iranian identity. The architect wanted to create a modern religious complex which would also suit the needs of younger generations.[219] Regarding the previously mentioned background to the Iranian socio-political environment I had presumed that this project might reflect the Iranian state's

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[217] Hosseini, "Strange Mosque of Imam Reza."

[218] https://architizer.com/projects/emam-reza-complex/ (accessed 13.12.20).

[219] Hosseini, "Strange Mosque of Imam Reza."

aspirations to create a dialogue with the youth. To what extent does the complex represent Iranian governmental strategies? Which approach did the architect take to deal with modernity (the youth's aspirations) and tradition (the conservative government)?

Background

The complex was designed by Saeed Reza Bariri (Kalout Architects) in 2012. It is located in the cultural district of Tehran at the intersection of Enghelab Street and Namjo Street.[220] The project aimed to attract different social groups from different generations. The site of the complex used to host a cinema, which had been demolished before building of the complex commenced; for some time, it was used as a parking lot.[221] Based on the case of the Valiasr mosque and cultural center – building a mosque that should dominate the cultural environment – I can say that the message in this project would be religion over culture.

Description and Plan

I believe that the design of the mosque should go in a direction that meets the different needs of society.[222]

The whole complex is **U**-shaped forming a plaza. It contains a mosque, an art gallery, a bookstore, a coffee shop, an amphitheater, and an IT center. The whole project is oriented towards the qibla direction, although it has other activities than just the mosque as mentioned earlier. The orientation of the whole project - not only the mosque - shows the project's entire dedication to religion. The mosque (fig. F.2) is the first thing that catches the eye of a passer-by. It faces an open courtyard, enclosed by two buildings. The two buildings on the side of the prayer hall host the cultural and service spaces. The underground (fig. F.3) floor has a sunken courtyard, an exhibition area, a book cafe, a VIP room, and a

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[220] Aghaei, *Politics of Public Space,* 27-38.

[221] "Imam Reza Complex / Kalout Architect Studio."

[222] Hosseini, "Strange Mosque of Imam Reza."

ceremony hall and parking spaces in the two basement levels. The ground floor (fig. F.4) contains the men's prayer hall, an IT center, a projection room, and an ablution area. I believe the mixed activities in this religious complex are an expression of modern Iran.[223]

The complex can be accessed through three entrances. The front entrance is the one that connects with the main street and leads directly to the courtyard. The second – back - entrance is from Kayhan alley. The back entrance to the prayer hall is the women's entrance, leading to the right side of the women's prayer space. The women's restrooms are on the left from the women's entrance. Thus, the women's prayer hall could be easily accessed. The zoning design of the women's prayer hall ensures women's separation from the complex without using walls. The third entrance is also at the back in the center of the prayer hall. It is the men's entrance to the prayer hall. It overlooks a vestibule - that was intended to have the shoes' closet - on its right. On the left side, it overlooks the women's staircase, which has no access from the men's prayer hall. The men's prayer hall can be accessed from inside the complex. The prayer hall is in the center of the complex connected to two corridors on the left and right sides. The area in front of the prayer hall creates a public space. The prayer hall does not have a minaret, similar to Fluid Motion's approach evident in the Valiasr mosque and cultural center. The prayer hall's walls are made of brick. The brickwork on the walls dissolves as it rises to let the light in. The walls of the side buildings are also brick. The exterior of the qibla wall and the ceiling of the prayer hall are covered with glass bricks with eight names of God carved on them.

The architect situated the book café, the exhibition, the library, and the ceremony hall on the first underground level (-4.18 m). This means that most of the areas of the project are below street level. Such a design ensures more isolation of the users from the noisy surroundings. However, this strengthens the argument on symbolism, of religion over culture, in that the prayer hall is situated above the exhibition. The exhibition space lies right below the prayer hall. The men's prayer hall is on the street level. The women's prayer space is on the upper level (fig. F.5).

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[223] Howarth, "Cultural and Religious Complex."

Form and Massing

According to the architect, unity and connection are the keywords that describe this complex.[224] The architect wanted to decrease the gap between the older and younger generations. Hence, the building has the spirit of the old - in terms of materials and techniques - interlaced with modern forms and uses. The prayer hall is the most prominent feature in the complex. The architect apparently wanted to share his appreciation of the experience of touching the Ilkhanid Sultaniyya mausoleum dome. Therefore, he tried to design a friendlier version, which looks nearer to the users.[225] He created what he called a 'shell' dome reaching the ground within arm's reach, redefining the relationship between the dome and people. However, the prayer hall does not look like a dome, or at least cannot be called a dome. The deconstructed shape looks like a series of transverse arches. I assume the architect justified the unusual shape of the prayer hall this way to get the approval of the clerics. The mass of the prayer hall interacts with users on the outside through the sunken courtyard, which is situated right next to the dome.

The Prayer Hall (The Shell)

As mentioned earlier, the mosque is the most prominent feature in the whole complex. The other components are either located underground or on the sides of the mosque. The form of the mosque was supposedly inspired by the idea of holding hands (fig. F.6). The choice of the holding hands concept was to provide a statement of unity and cohesion for the Iranian society. Hence, the mosque carries the main symbolic statement of the whole complex. The architect deconstructed the shape of the dome to fit the shape of interlacing fingers. The design of the dome shell with the side buildings is dynamic.

Unfortunately, the holding hands shape is not convincing and not evident in the prayer hall. The analogy may have been just a way to convince the state officials and the clerics to approve its radical design. There is no other evidence of inspiration from popular design.

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[224] "Imam Reza Complex / Kalout Architect Studio."

[225] Hosseini, "Strange Mosque of Imam Reza."

The walls of the prayer hall rise from solid brick to perforated brick inlayed with glass (fig. F.7) which enable natural light to enter the prayer hall. The dynamic masses of the prayer hall are unusual, and they create a sense of movement with the rising massing of the side buildings. The structure of the shell is of steel (fig. F.8) covered with reinforced concrete. The use of steel was essential to create this dynamic form. The architect said: "The main form of the *shabestan*, with the grandeur of a religious space, provides the opportunity of a unique experience to fulfill the immemorial ambition to connect with the Creator and feel the symbolic form of the dome."[226] Unfortunately, the prayer hall does not give the impression of the grandeur of a religious space. The form of the broken ceiling shatters the feeling of grandeur and does not seem to provide this feeling of unity. The use of mass was purely symbolic. The architect neglected the experience of the interior of the prayer hall, as it does not deliver any symbolism of unity. However, this structure benefits from not requiring columns and in keeping a visual connection with the *imam* in the prayer hall.

Unfortunately, the good intensions of the architect were subverted. Apparently, after the building operated a curtain was installed in the prayer hall (fig. F.9), perhaps to provide a place for women's prayer on the ground floor. The balcony's view of the prayer hall was closed using white bricks (fig. F.10) which look very odd within the modern design. Also, a very poor mihrab, and a traditional minbar-chair were added (fig. F.11). The absence of a designed mihrab and minbar might have opened the window for these improvised but very frustrating solutions.

The Alleys

The architect said that the idea of the lateral alleys in the complex came from the original use of the plot. It was used as a parking lot, as mentioned earlier, with a green space as a plaza.[227] The architect's intention was to encourage more engagement with the project for users. Therefore, he created two alleys connecting Kayhan alley with Enghelab Street. This idea strengthens the connections: the alleys serve as a

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[226] https://architizer.com/projects/emam-reza-complex/ (Accessed 22 October 2020).

[227] Hosseini, "Strange Mosque of Imam Reza."

free invitation for the pedestrians to enjoy an interaction with the project. It also makes the project user-friendly, as it eases the pedestrian's way in the city. The architect said he was inspired by the narrow high-bricked alleys of Ashtikonan in Yazd.[228] I believe this idea came from the architect's concern to create a project that interacts with its context.

The Outdoor Space

The outdoor area is divided into two levels. The architect said he wanted to create a sunken courtyard (fig. F.12), which he located in the lower level (-4.18) in front of the prayer hall.[229] The area adjacent to the street is on the pavement level. As I mentioned earlier, the sunken courtyard space looks like the complex embraces it, evoking a sense of enclosure. This was meant to make the user feel far from the crowded street. The courtyard is the main central space in the design, enjoying a visual connection with the prayer hall, amphitheater, gallery, and library. It also invites the users of these spaces to socialize and its helps to create a state of focus and cohesion inside the complex. According to Vahid Ghobadian the sunken courtyard was inspired by Persian domestic architecture where most of the doors and windows overlooked the courtyard (fig. F.13).[230] Such sunken courtyards usually contained a pool to provide additional moisture during hot summer days.[231] Perhaps this justifies the presence of the pool in the courtyard of the complex, too. Sometimes there is a significant difference in the temperature inside enclosed courtyards and outside of them. The sunken courtyard also provides another benefit, giving the buildings more stability.[232]

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[228] Ibid.

[229] "Imam Reza Complex / Kalout Architect Studio."

[230] Ghobadian, "Shape of Sustainable Houses," 110- 120.

[231] Ibid.

[232] Majidi, "Function Analysis," 55-60.

The Pool

The architect said the pool (fig. F.14) was influenced by Iranian traditional architecture. According to Ismail Zarghami[233] the pool has a profound symbolism in traditional Persian domestic architecture. It could have been inspired by the sacredness of water in pre-Islamic Persian culture. The use of pools was also significant in Persian Islamic architecture. One was used in the Chihil Sutun in Isfahan to reflect the twenty pillars, making them forty. It was also used in the Shah Mosque in Isfahan to resemble the material world's transition to the heavens, where it symbolizes calmness, silence, and reverence.[234]

Materials, Decoration and Tradition

The materials used in the complex are an expression of the interlacing of modernity and tradition. Glass, brick, and stone are the dominant materials. The decorations, the facade materials, and the inscriptions are all inspired by traditional Persian architecture. As mentioned earlier, the architect covered the shell dome with glass, as a substitute for tiles (fig. F.15). The glass has eight names of God projecting in high relief square *kufic*. The architect claimed that this technique was employed there for the first time. Although it might be the first time to be applied this way, the idea of using materials carrying the names of God is not new by any means. Also using glass as a decorative feature is not entirely new. Perhaps the combination of using glass with inscriptions was new. Unfortunately, the use of glass was merely external revetment; it does not provide a view of the interior or vice versa. It just imitates Persian tiles, although it could have been used to add more light to the interior of the prayer hall. The architect resorted to this solution to decrease costs.

The brickwork resembles the *banna'i* technique of classical Persian architecture (fig. F.16). Brickwork lozenge patterns were evident in many Persian monuments, including that of the Sin Friday

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[233] Zarghami, "The Symbolic Role of Water," 121- 127.

[234] Ibid.

Mosque minaret (fig. F.17), the Shrine of Ahmad Yasavi (fig. F.18) and at the Shah-i Zinda (fig. F.19).[235]

The interior of the prayer hall is probably covered with GRP. The GRP ceiling has knotted *kufic*

inscriptions (fig. F.20) like those of many historic buildings, such as the Great Mosque of Herat (fig.

F.21). However, the architect meant to make the intensity of the inscriptions much lighter than that found

in historic buildings, as he claimed that he wanted to make it modern. The sleek LED lighting units show

off contemporary technology.

Controversy

> In the paradigm of theism, the mosque is the place of prostration and worship of God. In the paradigm of
>
> humanism, where there is no god, the mosque is the place of prostration and servitude? The ridiculousness
>
> of such an imitation here further shows that the mosque is in the style of humanism.[236]
>
> Why do such designs need explanations of their architects to be understood? Is it the duty of the people to
>
> read the mind of the architect? Or is it the duty of architects to design their national and religious identities
>
> based on the mentality of the people?[237]

Both these quotes were taken from articles in newspapers criticizing the Imam Reza cultural

complex. The complex was addressed with some criticism summarized in the quotes above. The first

quote criticizes the idea of combining a cultural center with the mosque. In the rest of the same article, the

author criticizes the adoption of a deconstructivist style, arguing that this style depends on uncertainty and

does not reflect Islamic philosophy. I believe this argument is not based on a profound knowledge of

Islamic architecture, since the first mosque (that of the Prophet) functioned as a cultural center and a place

from which to run the state.[238] Hence, the claim that combining a mosque with other facilities is

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[235] Blair, *The Art and Architecture of Islam, 1250–1800*, 37-40.

[236] http://news.aruna.ir/archives/2010/Nov/%207/2471.php (accessed 10 November 2020).

[237] Ardakani, "Imam Reza."

[238] Omer, "Some Lessons," 115-140.

considered a western approach seems invalid. My second argument is that many Persian complexes included madrasas. The madrasas are considered a cultural center in the modern interpretation. My third argument is that the building does not adopt the deconstructivist style. The architect did not question every part of the concept to reach his design. Therefore, he did not adopt the thinking process of a deconstructivist.

The second quote criticizes a change in the mosque's identity. The author thinks that the architect should preserve the mosque's iconic image so as not to confuse the users. In the end, although people perceived this complex differently, that does not change the fact that the architect created a complex that interacts with its surroundings but also uses traditional elements.

Conclusion

The Imam Reza Cultural Complex is a unique endeavor to create an appealing modern image of Islam. I believe the approach that Kalout Architects took can be called a postmodernist one. They employed user-friendly symbolism and dynamic eye-catching massing. The modern dynamic massing was covered with a traditional Persian revetment to bring nostalgia to the user. The architect used *banna'i* technique, internal alleys, a sunken courtyard, blue glass decoration, a reinterpreted structure of a dome and *kufic* inscriptions to give a traditional Persian feel. He also put the context of the building as one of the main concerns of the design process. The *kufic* inscriptions were used in a minimal approach. The architect used abstracted shapes and lines to create the forms. All of these features make this building postmodernist, especially since the building does not have many architectural treatments of climate or lighting. Indeed, the sunken courtyard could be one. However, the architect did not mention it in his interviews as one, he mentioned it as a merely traditional feature. One of modern-regionalism's primary characteristics is designing with respect to climate, which does not make the Imam Reza cultural complex a modern regionalist building. The combination of spaces and modern activities, such as an amphitheater and book café were incorporated to attract youth to the complex. All of these entertaining amenities are dominated by the massive shell of the prayer hall. They embodied the governmental strategies of

connecting every aspect of life to Islamic religious practices. Unlike the Valiasr mosque and cultural center, the complex witnessed governmental cooperation.[239] Although it does not have the usual dome or minaret, like the Valiasr complex, it provides a space for social gatherings under the shell of the cultural center and it preserves some prominent traditional Persian elements. The architect succeeded in incorporating Persian concepts in a contemporary interpretation that interacts with the socio-political environment of the time.

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[239] Hosseini, "Strange Mosque of Imam Reza."

IX. Conclusion

> The institution of the mosque has changed over the course of the centuries,
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> Nevertheless, some fundamental aspects have remained the same. The word
>
> for mosque, masjid, derives from the Arabic word sajda (prostration), thus
>
> defining the mosque as a place of prayer and submission[240]

The words of Rizvi defined the fundamental concept of a mosque. This fundamental concept remains the same. However, the approaches change. The first mosque in history was the Prophet Muhammad's mosque in Madina. In the time of the Prophet the mosque was a place for performing prayers and for other social activities. It was also a place of gathering and holding political meetings. Rizvi, Kuban, and Omer all share the same perspective on the Prophet's mosque as being the primary form. Since then, mosque design has undergone many transformations representing the patrons' and builders' cultural and political influences until it reached its well-known stereotype of dome, minaret and mihrab.

Having witnessed critical changes in the political map of the world, the twentieth century was a turning point for architecture. The modernist movement became evident in architecture since the establishment of the Bauhaus school in 1919 by Walter Gropius.[241] The new style was characterized by emphasizing massing, creating forms that follow the functions of the building, industrialization, standardization, and simplification.[242] Modern architecture was revolutionary. It found its way to represent the nations in the interwar and the post-WWII period. However, monochromatic modernism

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[240] Rizvi, *The Transnational Mosque*, 6-15.

[241] Heynen, *Architecture and Modernity*, 38- 40.

[242] Chen, "The Analysis of the Influence," 323-328.

caused a loss in architectural identity. It created a gap between users and buildings.[243] In response, such

critical movements as regionalism, traditionalism, and post-modernism emerged in the 1980s.

Regionalism was a movement that grew under the same circumstances and from the drives

mentioned earlier. However, regionalists were more concerned about the environment and climate.[244]

Regionalists aimed for an authentic architecture that spoke of its region and interacted with it.[245]

They incorporated traditional architectural solutions in a modern interpretation. Regionalism was not an

anti-modernist movement, rather it was an attempt to achieve a moderate form of modernism.[246]

Traditionalism was another movement that attempted to restore the sense of belonging to users.

According to Abeer al-Lahham,[247] Traditionalism mimiced historical forms and motifs, sometimes

emptied of their meaning or function. The traditionalists confined tradition into sets of physical and

spatial elements from the past to appeal to users' nostalgic image in their memories.

Postmodern architecture focused on creating architecture that connected with buildings' cultural

and contextual environments by incorporating historical ornamentation. Postmodern architecture

incorporated symbolism.[248] It also had colorful designs that appealed to the users.[249]

Also, in the same period (the early 1980s), deconstructivism appeared. However,

deconstructivism emerged on the grounds of the philosophical deconstruction movement led by its

pioneer philosopher Jacques Derrida.[250] Deconstructivism (architectural deconstruction) was the

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[243] Al-Lahham, "Traditionalism," 64-73.

[244] Özkan, "Introduction," 8- 16.

[245] Serageldin, "Architecture as an Intellectual," 16-30.

[246] Özkan, "Introduction," 8- 16.

[247] Al-Lahham, "Traditionalism," 64-73.

[248] Amiri, "Modernism And Post Modernism," 1626-1634

[249] Saeid, "Physical Order and Disorder," 410-417.

[250] Hoteit, "Deconstructivism," 1-13.

brainchild of the collaboration between Derrida and Peter Eisenmann.[251] Indeed, deconstructivism is a revolutionary and unique style of architecture. Deconstructivist architecture incorporated warped forms. It is considered an unorthodox experience due to its concern with forms at the expense of function and its detachment from historical styles[252]. The deconstructivists questioned every constant in aesthetics and the design process. It is based on doubting the thinking process, to deconstruct it and create something new.

These were the most dominant theories on the architectural scene in the twentieth and the twenty-first centuries. These movements also clearly influenced mosque architecture. The analysis provided earlier in this paper gave an insight into some of the renowned mosques and the approaches chosen in their design. We have seen that the socio-political environment affected their designs including the al-Fattah al-'Alim Mosque, the Valiasr mosque and cultural center, and the Imam Reza Cultural Complex.

No wonder al-Fattah al-'Alim was designed in a traditional style, as the Egyptian regime of al-Sisi took the role of the defender of the moderate Islam. The regime aimed to gain religious legitimization.[253] Therefore, the approach taken in the al-Fattah al-'Alim mosque – which is considered a national mosque – was a traditionalist approach. This reminds me of Rizvi's words:

> In the medieval and early modern periods, monumental congregational mosques were built as symbols of a ruler's power and imperial authority. In the past century, they have come to be viewed as representations of nationhood and the place of religion in modern society.[254]

The architect claimed that he used Fatimid and Ayyubid architectural influences to express the government's religious conservatism. However, the design concept was not given much attention, unlike that given to its huge size. Here the quote by Khaled Asfour that Leena Sadek used to describe the al-Shurta mosque is relevant:

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[251] Shastri, "Deconstructivism," 10389-10393.

[252] Ibrahim, "Deconstructivism," 16– 34.

[253] Banoa, "Regulating Religious Authority," 1604–1621.

[254] Rizvi, *The Transnational Mosque*, 6-15.

A common reason for establishing religious foundations among military officers and rulers was to assert the legitimacy of their rule and political domination over the local population.[255]

Most of the elements the of al-Fattah al-'Alim mosque that the architects borrowed were Mamluk, like the fluted domes, the minarets, and the decorative features, even if the architect said that they were Fatimid or Ayyubid. This supports Serageldin who showed that populist architecture (a form of traditionalism) emerges from either the patron's misunderstanding of architecture or from political agendas.[256]

On the other hand, the Imam Reza Cultural Complex tried to create a modern religious, cultural center wrapped in a traditional skin. The concept behind this design was to decrease the gap between the young generations and the traditional image of religion. The difference between the Imam Reza cultural complex and al-Fattah al-'Alim was that the latter was a national complex. Therefore the statement that each should provide is different. The Imam Reza cultural complex showed a modern interpretation of the mosque's architectural features, like the dome. Kalout architects reinterpreted the dome to create a deconstructed form of a dome. They employed traditional materials such as bricks and traditional concepts such as the sunken courtyard. According to the architects, the building symbolizes unity and social cohesion. Unfortunately, they were superficially realized. Although the forms look very dynamic and appealing, the mosque as a whole fails to represent any cohesion and unity in its interior. The sunken courtyard that the architect designed to be a melting-pot for the users seems too small to fulfill such a function. However, the complex provided newly interpreted forms with a traditional skin, which fulfilled the government's need for a community that shows Iranian character. Also, it fulfilled the needs of the youth by creating new dynamic forms with modern functions.

Another example of mosques built under government patronage is the Valiasr mosque and cultural center, which is a unique case. Fluid Motion architects were required to build a mosque that fit

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[255] Sadek, *Politics,* 94.

[256] Serageldin, "Architecture as an Intellectual," 16-30.

the aspirations of users, instead of the former design that would have been dominant over the cultural atmosphere of the area. The new architects were compelled to pay attention to the demands of the cultural community, creating a unique, unprecedented form of a mosque. The sloping fluid form of the mosque is like Zaha Hadid's work. The approach that the architects adopted for the mosque showed a disregard for standard features such as minarets, domes and ornamentation. This is the reason why it was disliked by the government and conservative critics. The architects claimed that they were influenced by traditional elements such as skylights, squinch-nets, and even the Prophet's mosque. However, all of these inspirations are not evident in its final form. Skylights are not an exclusively Persian element and could be an imitation of clerestory windows. The squinch-nets are not evident in any part of the mosque, and inspiration from the Prophet's mosque is not evident. The building could have been inspired by any secular one that does not have minarets or domes, like Zaha Hadid's buildings. The most unfortunate part about it was that it did not reflect the architect's original intention. The mosque was intended to be an extroverted courtyard, and an extension to the City Theater's plaza. Unfortunately the building's roof is inaccessible. The building's skylights should have provided it with ventilation, according to the architects. However, they are inaccessible, and fixed. The Valiasr mosque and cultural center failed to represent the original intentions of the architect, as much as it was a valiant attempt to get out of the umbrella of tradition. The designers took the deconstructivist approach, by using fluid forms and questioning traditional form and features. However, it was a timid deconstructivist attempt limited by the budget of the project. It did not question the functions of the spaces like the meeting halls and the whole cultural center part, and reinterpreting them in deconstructivist ways. It also lacked the interplay of structural elements in Frank Gehry and Peter Eisenman's work, as mentioned in the theoretical framework section. On the bright side, perhaps this will encourage other architects to repeat the same experience, but with more consciousness of the surrounding socio-political environment, to deliver a more authentic new interpretation of a mosque.

On the other hand, some mosques were not confined by political constraints, such as the Basuna mosque and the Great Mosque of 'Izbat al-Nakhl. They were commenced by private patrons. The

mosques built by private patrons can more easily reflect the architectural language of their time, as they do not have political constraints. However, it seems that Egyptian mosque architecture is still attached to traditional forms like the dome and the minaret regardless of the variety in design approaches. Arafa – the designer of the Basuna mosque - and Farag – the designer of the Great Mosque of 'Izbat al-Nakhl - adopted two different approaches. The former dealt with traditional symbols, materials, and climate. The latter dealt with the history of the site, functional solutions, and traditional forms. In the Basuna mosque, Arafa reused traditional features like domes and the minaret with a new interpretation of the forms and unusual building techniques. The new interpretation did not show fundamental morphological changes in the forms, unlike the Imam Reza cultural complex. The Basuna mosque showed new ways of application that put the environmental and contextual factors into consideration. The dome was built in sand-lime brick, and the bricks were arranged in a skewed manner. The building material deals with the hot climate of the regions, and the building technique is unusual. The dome also has a skylight in the center, which is also unusual in traditional Egyptian building techniques. Arafa provided ventilation and lighting from the ceiling. He created a skylight-ceiling with a reinterpreted form of a wind-catcher. These features are all traditional but their application is unusual.

The Great Mosque of 'Izbat al-Nakhl did not show new interpretation of architectural features. The architect chose to design the building from the inside-out. Then he wrapped the exterior with a skin that evokes nostalgia in the user. Functionality was the main concern. He reused traditional features like the dome and the minaret in an Ottoman style with contemporary materials. The materials Farag used served functionality in the first place. He covered the domes with polycarbonate sheets, to provide natural lighting for the interior. He also tried to remind the user of the site's history by decorating the piers of the mosque with palm-tree like patterns. This is similar to the approach that Kalout architects took in the Imam Reza Cultural Complex. However, Kalout architects used a more abstracted and reinterpreted approach for the forms. I conclude that Arafa adopted regionalism and Farag adopted post-modernism. Arafa's approach is the one that interacts efficiently with the society and the climate; Farag's approach is

very functional. Farag's use of palm-tree symbolism in the Great Mosque of 'Izbat al-Nakhl is abstract. The interior decoration of his mosque does not show any traditional or modern inspiration.

Finally, I hope architects build more regionalist mosques, since climate change and social mobility have become urgent issues to respond to in contemporary times. I also hope architects in Egypt experiment with more bold endeavors like in the Valiasr mosque and cultural center, especially since the Egyptian state calls for a modern version of Islam. The new interpretation of features evident in the Basuna mosque and the innovative forms evident in the Valiasr mosque and cultural center could express this direction. I hope the new designs for mosque architecture come from a true expression of contemporary circumstances.

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