Research Paper

Analyzing the Post-Globalization Reconciliation in Architectural Ideologies: A Case Study in the United Arab Emirates

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Abstract
The present study analyzes the post-globalization reconciliation in architectural ideologies in the United Arab Emirates (UAE). The UAE experienced an unprecedented boom in urban development starting from the latter half of last century mainly due to the unparalleled economic growth in their history. This brought in star architects around the world who contributed to designing large-scale buildings there. Considering the globalization in architecture, this trend produced some exceptional stand-out buildings boasting dazzling philosophical back stories. However, after the initial burst, there has been some noticeable evolution in the ideologies. The concept of globalization faced the pressure of localization. There have been a significant number of studies on these new buildings. However, they mostly talked either about the philosophies of the star architects or about the mesmerizing architectural and engineering details. Only a few research has been done on the reconciliation and evolution of the ideologies over time. This study attempted to draw attention to certain ideological evolution that has been evident by analyzing certain large-scale new buildings. The socio-semiotic theory has been used as the analytic method, by which hermeneutic interpretation was drawn after investigating the expressive and explicit architectural elements of the buildings. Categorical and purposive sampling methods have also been used to select the precedents. Data were collected through archival records, books, and various electronic resources. After rigorous investigation, this study found several 'localization' ideologies significantly reacting to the initial ideology of globalization. This study concludes that though this kind of reaction may not be an unheralded one; however, the grandness of those new buildings has given the ideologies a new dimension. It remains to be an interesting question where this ideological transformation will head to.

Keywords: Globalization, Localization, Architectural ideologies, the United Arab Emirates.

1. INTRODUCTION[1]

The United Arab Emirates (UAE) had gone through rapid modernization during the second half of the last century. The momentum is still on. The architecture of the UAE is one of the fields that experienced the impact of this momentum significantly. Empirical observation shows that a variety of dominant modern major styles co-exists side by side in the major cities of UAE. Arguably, globalization contributed to the diversity of this development. Globalization, on one hand, is seen as a phenomenon that can create a common global culture and attempts to homogenize identities and lifestyles. On the other hand, it can be interpreted as a phenomenon that emphasizes differences and supports locality. Globalization is an inevitable consequence of modernization. However, the scale of this kind of growth is bigger and the speed of it is faster now because of the modern easier and faster

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communication of information and transportation. Thus, modernization has established a network of global relations between near and far communities in such a quick period of time (Dicken, 2009). Dicken points out a new type of globalization process has begun in which global elements are intertwined with local elements, and the spread of a global culture and way of life is very fast compared to previous eras and it comes from a specific center (Dicken, 2003).

2. GLOBALIZATION AND LARGE-SCALE NEW DEVELOPMENT BUILDINGS

The new millennium is facing tension between the forces of globalization, which has been widely discussed as the distinctive trend of the present moment, along with its influence on local architecture and efforts to secure local identity and specificity through architecture, where globalization is seen as a multidimensional phenomenon. Architects very often find themselves at the center of two opposing forces that arise from the opposition of past or present cultures and architectures with their values and modes of expression (Canclini, 2001).

International style is one of the initial instances of globalization in architecture that emerges in the 1920s, distinguished from others with its open plan, the form of objects according to their functions, large enamel, and having no decoration. It was glorious from 1930 to 1960. Nowadays, its characteristics are still evident in world architecture (Giddens, 1990).

Globalization and its relationship to local settlements vary. Global values or trends affect local values more than others because of the strong disparity between measures. Therefore, local values and lifestyles are looking for such opportunities to continue their existence, and may result in hybrid formations. In his book Globalization and Culture, Tomlinson defends the basic concept of 'interconnectedness'. As he argues, globalization is not about moving people from places, but about transforming those places (Tomlinson, 2004).

For Robertson (1994), globalization is the increasing interaction between four different levels of life: the individual, national societies, the world order, and the human community. Moreover, Giddens (1990) argues that globalization makes places small and warm so that they can be reconstructed and restored, which allow the region to be recreated. However, the area does not need a rest. This is the result of the natural environment (Tomlinson, 2004).

Over the past two decades, many developed countries such as the United States, as well as developing countries such as the UAE, have undergone large-scale privatization of public spaces, which has led to the intensive and modern construction of residential communities. This process can also be observed in many cities applying principles of neoliberal and modern policies and theories in architecture, which, in turn, affected the support and expansion of capital for the upper social classes and the weakening of the welfare of the poor social classes as part of the processes of globalization (Ohmae, 2005).

This process is simultaneously demonstrated by high-rise buildings and/or building units that correspond to urban renewal projects. Tall buildings have been used in architecture as a sign of power, wealth, dominance, prestige, and religion. Zaha Hadid, Frank Gehry, Daniel Libeskind, Jean Nouvel, Rem Koolhaas, Norman Foster, Santiago Calatrava, and Renzo Piano are parts of this group of architects. High-rise or tall buildings are not only a typology of modern urban structure but also objective expressions of signs of the social, economic, political, and even religious power of the city in the context of globalization (Ohmae, 2005).

To keep the entity and outreach, the architects must initiate in-depth discussions on architecture that reflect current trends in popular. They have to come to conclusions as well as carry out conscious evaluations. Two elements could be proper to start the discussion: 1) Analyzing architecture evolution within globalization movements, demonstrated with the instances sorted out, and 2) Objecting to globalization and regionalism schemes in order to indicate how globalization changes the architectural pillars (Ohmae, 2005).

3. BRIEF HISTORICAL BACKGROUND OF ARCHITECTURE IN THE UAE

The historical background of architecture in the UAE urban development concurred with the tendency and necessity for a new reality to be born, finding its way and moving forward with the revealed structure of the civil government. Prior to the acquisition of enormous wealth resulting from oil incomes, the original fabric of the city was architecturally modest in content and composition. In the cities located in the east of the Arabian Peninsula, an amazing phenomenon emerged among the polished concrete structures next to green spaces of the streets modified, which have a well-known direction, reminiscent of skyscrapers typical of urban scenery of large cities throughout the world (Heard, 1982).

Even with decades of construction, the style of architecture is still declining towards a metaphor. It is

particularly noticeable in the visible treatment, where brackets are chiefly used to denote Islamic/Cultural traces. Composed forms exploited to express facades revealed by national and international architectural designs are still incomprehensible or artificial (Mitchell, 1978).

It is no longer possible to judge the choices made by the new countries to build new cities in slender borders of the regions or apart from the whole Islamic/Arab urban heritage synthesis, general urbanism and in isolation from will of nature. With respect to the national position, it does not matter how recent or advanced it is. Thus, moving towards technical development should not require the removal of ethnic principles and observing certain practical and artistic content in designing the cities (Bosse, 2007).

3.1. Climatic Conditions

Historically, the population of the United Arab Emirates has been uneven (Giddens, 1990). Climate is the reason for this disparity. Before there was electricity in the 1960s, people in this region spent hundreds of generations learning to live in conditions that others would barely tolerate (Longrigg, 2008).

Things have changed, and these days, tourists visiting the UAE in the summer may feel a little bit of annoyance while moving from a car with an air conditioner to a convenient hotel, but they will not tolerate the typically hot and humid weather in May through September. When the temperature frequently exceeds 45°C and the humidity on the coast exceeds 90% (Longrigg, 2008).

However, the unsettled conditions of the region were not due to the hot and humid weather, but the drought had made life difficult for the people of the whole region. Ensuring the availability of drinking water, the possibility of animal husbandry, and agriculture are considered the requirements of lasting residence in an area.

In the traditional society, the presence of water played a very prominent role because it was one of the most effective parameters in people's lives and residences. Lack of water makes it impossible to use the large outdoor spaces optimally.

Since there was no river in the whole region, the water resources of the area consisted of rainwater, wells, or springs. The city of Abu Dhabi was formed in 1760 along a narrow water source on the shore of a marshy island named Sabkha. Among the grounds for the establishment of a new center either economically or politically on this island for the Bany Yas, a tribal confederation is that the natural channel running through the shallow coast lets the boats can move towards the north coast of the island (Damluji, 2006).

The history of traditional settlements and economy is clearly described in the next sections as being largely dependent on access to water and tactical location across the trade paths or at the intersection of trade paths.

3.2. Conventional Habitats

There are different tribes in the United Arab Emirates. At the beginning of the last century, four major tribes emerged in the so-called Trucial States (Lorimer, 2010). As time goes by, there were modifications in the tribes, due to being united or separated and being autonomous, ruled by the Sheikh of the tribe. Elders were the arbitrators in the societies or the united individuals during disputes.

The social and political structure of these tribal divisions was visible in most settlements, with groups of houses separated from each other by empty stretches of sand, gravel, or beach, depending on the geographical location of the settlement. These areas are usually inhabited by members of the same sub-tribe.

The extended families in the colony, in turn, tried to keep their distance from others in the neighborhood, no matter if they are associated. There are separate tribes living in the different parts of Trucial Coast having independent mosques in the neighborhood (Hakim, 1986).

Although settlement patterns were somewhat similar across the region, the emergence of cities and villages varied, with houses built of different materials according to the possibility of local conditions. Stones were only found near the mountains. Passes Mud was also unavailable in remote sandy deserts and there were not enough supplies on the coast of the Gulf of Mexico. Date palm trees were mostly used in the construction of houses since they were found and grown in the UAE in places where there was water (Davidson, 2007).

3.3. Changes since the 1960s

In this period, the conditions of life in the country changed forever. The construction industry is no longer constrained by restricted construction materials such as rock, clay, coral reefs, and date palm trees. Chandala wood was the only material imported from India. Over time, a large number of homemade machines were introduced into each emirate and the so-called "slag blocks" of cement, gravel, and water were produced on the site.

All over it was covered by cement and led to the new appearance of modern homes. During the 1960s,

a chronic shortage of timber was one of the obstacles to the construction of two-story buildings. This was moderately resolved through efficient management of imports, and finally, through using concrete (Damluji, 2006).

Studying urban architecture in the United Arab Emirates becomes compelling given the background and circumstances resulting from it. A prominent development was the granting of an open license to architects and their clients to develop these cities. It seems that the degree of expression of wealth in architecture has become the main criterion by which architectural projects have impressed and delighted clients. The excessive use of materials such as marble and granite in the construction of public places, especially hotels, represents the luxury of building materials that characterized an obvious clear feature of excess in capitalist architecture in the 1980s (Damluji, 2006).

Architects and designers did not include the historical glory and civilization of several thousand years of the Middle East in the construction, and ignored it and explicitly imitated the Western models in the design of buildings (Heard-Bey, 2005). Since the experience of industrialization had not occurred in this region and this experience was specific to the West, which means that the Western model was available like a ready-made product and did not require cultural research. The attitude of being rich means industrialization also casts a shadow on architecture and shows itself in the spread of consumption culture and poor architecture (Kay & Zandi, 1991).

4. MODERN STYLE IN THE UAE

With the production of oil in the 1960s, followed by the establishment of the government in 1971, the UAE has executed extensive material programs to change the appearance of the country, and these programs have transformed the appearance of the country. In this change, not only smaller places, commercial towns, and ports have changed, but also completely new cities have emerged.

4.1. The Different Phases of Construction

In 1971, Abu Dhabi became the capital during the different phases of construction in the UAE. The design of the city is in the form of a main longitudinal rail network artery adjacent to the island, and other equally important transit across its entirety. The areas bounded by these major roads constitute upper lands, including Urban development occurred. Basically,

along the perimeter of large apartment complexes, high-rise buildings of up to twenty floors were built, and low-height buildings of about 7 floors were placed in the inner sections (Acuto, 2010).

Commercial/residential premises design took place in most cases exploratory conformation. Lack of historical reference to the architectural quality along with the tendency of the owners. Local and regional symbols such as arches were visible in architecture. Desire to express individuality led to architecture processing, which, in most cases, has a diverse appearance and is devoid of harmony, volume, and proportion. Images of local and regional heritage, such as the arch, dominated the architectural treatment and height solutions (Suisse, 2008).

After the initial excitement subsided, foreign architects entered the UAE to design buildings, and this was the beginning of the emergence of buildings that were formed by a different understanding of aesthetics, different approaches to architecture, and different architectural philosophies.

Besides, legal prerequisites to the Arabic/Islamic facades, there was no other way but to place elements including the arch and other existing elements in this architecture. In some cases, this has left an unfavorable impression on the height of the buildings (Elsheshtawy, 2008).

Little by little, permission was issued to build taller buildings and more funds were allocated for this work. Materials including glass walls, granite and marble, ceramic tiles, glass fiber reinforced concrete (GRC), precast concrete, and aluminum panels were used. Although these materials were used in construction in a limited way before, it wasn't to this extent.

The architecture that is presented, even the materials that are used, including colors, patterns, glass, and other elements, all represent the personality of the architects. They also show their taste in choosing the architectural style. In the majority of cases, this approach was oversimplified, meaning that their understanding of the heritage, the progress of modernity, and globalization of the region was not deep.

Arabic/Islamic motifs such as arches, cupolas, and wind catchers were used in the design of Madinat Zayed Market, a newly designed central market. The exploratory character of architecture spreads and creates overstated instances of architectural explanation. The golden and aluminum glass represents wealth, where blue glass corresponds to the blue sky and green glass reflects the green scenery. Colored glasses, pink and brown, have been used to emphasize these items. And the elements in traditional architecture, including arches, columns, capitals, and lattices have been used in different ways in various

places. Towers and wind catchers were used to show regionalism (Ponzini, 2011).

Since the complexes were near, so they had allocated little space for styles, functions, materials, and colors were obtained without enough space or visibility vice versa. To the first period of residential/commercial building construction, the quality of architecture was about the plan, detail, and finish. Buildings include oil companies (ADMAOPCO /ZADCO, GASCO /ADGAS), the legal office of telecommunications company (Etisalat), and community centers include Cultural Complex and hotels such as Abu Dhabi. Grand Intercontinental Hotels are representatives of this category.

Most of the buildings in this group were built on much larger plots than described. In the first group, giving enough flexibility to the designer, size, and construction forms was important. Another advantage is that large international architectural collections usually take part in designing the complexes, completely efficient design and supervision costs may be required to let them devote the necessary time and attempt to produce build quality.

Furthermore, the cost of standard construction was significantly more than three times higher in comparison to what was expected which obviously improved the build and finishing quality (Ardalan, 1997).

Compared to the first group, the buildings of the second group were bigger. Architecturally, they had simpler designs and this simplicity made them attractive. It could be said that each of them was separate and stood out alone with the large space that surrounded them. In the second interval, modernity was more visible, but the local identity was still neglected. The ever-increasing wealth of the UAE made it possible to take higher and newer steps in construction for Nin to take a look at regionalism.

Regionalism was a major force in this period and guest architects were required in such a way as to make the UAE a special place that could represent the specifications of the region. The socio-geographical, climatic, and morphological characteristics were the manifestation of this identity and this sense of belonging was evident in the environment. Regionalism was a kind of opposition to westernization and finally arose with the secular ideologies imposed by the states. According to this theory, one should be resistant to external and internal impacts. It retained the meaning of localization. It was believed that the culture should not be allowed to fall apart, the regional form should be preserved and it stood against colonialism, modernity, and globalization.

4.2. Contrast of the Modern Architecture

Matching historical architecture with the need for restoration or replacement is considered a kind of moral and physical destruction. The reconstruction of these buildings may lead to their total change or raising of their roofs for new functions.

In today's situation, it is a challenging issue to preserve historical architecture as a part of the region's heritage, and this requires diligent decision-making. This architecture should be preserved so that future generations can learn about the history of their land and its architecture through it. The task of architects is to preserve their historicity and authenticity by restoring them in new ways and completing them as well.

If we want to implement a new architecture on an existing structure, this is not possible without a theoretical foundation. Early awareness prevents subsequent mistakes. By examining the history of several hundred years, it is possible to understand how the architecture was formed and the main and combined methods of building integration can be implemented on historical architectures as well: 1) the method of coexistence or incorporation of a modern new concept in ancient surrounding, 2) the way of adaptation or adaptation to the environment, and 3) the way of contrast (Ilyanenko Yu, & Panteleeva, 2017).

The first two methods are similar in their tasks and applied techniques and are the two main methods. Their main task is the correct inclusion of a new object or a new part of an object. A historical object in the current architectural composition (Zaitsev, 2013).

The condition was to preserve the cultural and historical atmosphere as much as possible and not to see any contradiction in the architecture. By examining the buildings of different eras, we conclude that the arrival of new elements in architecture is evident. These elements show their identity, while the integrity is preserved and the historical buildings have become more valuable (Solodilova, 2020).

By using height, proportions, the similarity of forms, silhouette, organization, volume and nature, planes, vertical divisions, design of architectural parameters, color, and context in decoration, the harmony of the new architecture of the buildings with the historical space has been preserved (Glushakova, 2012).

The third method is the contrasting one; it means the contrast between buildings with new architecture and historical space. This method can be considered a kind of protest of the new age. From this point of view, architecture becomes a controversial and challenging subject. This method has its successful and unsuccessful instances. Architecture has always tried

to indicate the values of its society and era and has been able to cope with its previous environment. As old buildings exist nowadays, today's new buildings will also be there in the future. Since there is identity duplicity in architecture in terms of its social and temporal nature, contradiction is inevitable at various stages.

5. METHODOLOGY

This study is an investigation of buildings. Therefore, it was necessary to come up with an efficient analytic method. At the onset, it was decided that only the buildings designed by the Star architects will be analyzed. It was in order to keep the scale of the study under control. Star architects are famous architects who have designed well-known buildings in this era. Based on the existing literature, several notable star architects around the world were selected. As a pilot study, a certain number of buildings by the star architects built in the context they are familiar with were investigated. Later, the new buildings in UAE were analyzed. The archival records and secondary databases were the resources of information.

At this point, it is necessary to explain the method applied to analyze these buildings. Barthes, Gottdiener, and Lara's analytic methods of socio-semiotics were combined in order to come up with an efficient method of analysis (Fiske, 1994). Each building was first described in terms of certain 'signs'. These signs included Gottdiener's 'content' and 'expression' (Gottdiener, 1995).

'Content' mainly focused on the paradigmatic features such as the design motifs of the buildings. 'Expression' focused on the syntagmatic features, i.e., the elements within the buildings. According to Lara (2001), four components, namely, scale, spatial organization, structural arrangements, and facades are elements that fall under the category of 'Expression'. After collecting all 'sign' information through these two categories, they were put at the first level i.e., the 'denotation' level, following Barthes' Socio-semiotic theory (Barthes, 1985). Barthes' second level of investigation is the 'connotation' level, where these 'signs' are explained through their 'expressive' or 'explicit' meaning. After that, the information was translated into the third i.e., the 'Ideological' level, which is a hermeneutic interpretation of moving from the 'explicit' to the 'implicit'. This is how the explicit 'signs' have been interpreted into that implicit 'ideological' or 'mythical' themes, that eventually start to tell the story behind the design.

During the pilot study on the buildings by the star architects in their local context, three significant themes emerged. These were namely, a) Adaptation of traditional technology, b) Technological integration with local climate, and c) Local cultural adaptation in function and form. These themes were used in the next step of the research where the new buildings in UAE designed by star architects were analyzed.

The extra challenge added to this part of the investigation was that the star architects were mostly designing buildings in a context that they were not extensively familiar with. Therefore, using the socio-semiotic theory modified for this research allowed the researcher to test the previously identified three themes as well as to look for any new themes.

Since there were numerous new buildings designed in the UAE by star architects, it was necessary to categorize them so that we can have a controlled but diverse representation. Therefore, categorical sampling was perceived to be the initial sampling method. Based on the 'signs' i.e., the design 'content' and the 'expressions', these new buildings were categorized into 7 qualitatively characterized styles, namely: monumental style, vernacular style, regionalism style, international style, deconstruction style, parametric style, and dynamic style.

The initial total sample size was 57 buildings. At this stage, the purposive sampling method was adopted to reduce the number of samples. Purposive sampling is judgmental, selective, or subjective sampling, and is a type of non-probabilistic sampling that is selected based on the characteristics of the purpose of the study. The advantage of this type of sampling is that it is easier to generalize about the sample compared to a random sample (Palys, 2008). In this case, getting sufficient authentic information on the buildings was an important criterion to eliminate several samples. After selecting 18 buildings belonging to these seven styles, this research finally settled down to select one sample for each style in order to go deep into the investigation. Therefore, seven cases were investigated in detail.

Of the seven cases, only the Cultural Foundation Abu Dhabi was featured in detail in this study because of the limitation of spaces. This design is considered successful in terms of architecture. In its architecture, local features such as arches, vestibules, and archways are seen in smaller sizes. Its walls are covered with white cement, and Arabic tiles are used in its construction, which represents the Arabic/Islamic personality of the building without making the design look fake and artificial. Thus, this structure could be a favorable case study to be described in terms of hermeneutics and semiotics.

6. Results

Regarding the denotative level, the diagram below is an image of the Cultural Foundation building in Abu Dhabi. This building reflects traditional elements like archways, inner 3-floor atriums, small arc-shaped fenestration in design and codified by cultural dimension under the impact of the effect of localization on Vernacularism style. In terms of being demonstrative, the Cultural Foundation of Abu Dhabi is related to the community and its traditions and society. The Cultural Foundation interfered with local architecture in the design architecture of the building. The architecture of the Cultural Foundation of Abu Dhabi contributes to its social and cultural importance as a sanctuary for inspiration, a garden for the cultivation of the intellect, and a welcoming space for artistic expression and cross-cultural interaction, available to all. Over time, the Cultural Foundation has established itself as a spatial and emotional anchor for Abu Dhabi. In brief, the design of this building demonstrates the features of composition with physical and historical characteristics including the ecology and topography of climate.

The design of the Cultural Foundation of Abu Dhabi was derived from Islamic design. From the mythology point of view, we understand that the Cultural Foundation building reflects the identity, religion, and capability of the Arabs.

Gottdiener's analysis of planned architectural signs seems to be appropriate to describe the Abu Dhabi Cultural Foundation in the United Arab Emirates as a matter of social traditions. It is possible to decipher this building by studying its structure and content and the social characteristics used in it. It also expresses the ideology behind the Abu Dhabi structure as a special philosophy that has found its own place in the society and culture.

The Abu Dhabi Foundation can be considered as the meeting place of two standards of substance and appearance. It is necessary to examine these concepts separately because each sign expresses its own manifestation. It further states that the paradigmatic tomahawks of the new progress can be seen as the 'essence' of the Abu Dhabi Cultural Foundation, while the syntactic center is referred to as the 'expression' of the Abu Dhabi Cultural Foundation.

This second center involves the method of different elements within the Abu Dhabi's Cultural Foundation (Saussure, 1996). In analyzing the design and architecture of the Abu Dhabi Cultural Foundation, the above-mentioned four indicators were considered. The method of data collection and analysis is shown in Table 2. To study the signs of this structure, the four mentioned indexes were used and further interpreted in terms of hermeneutics.

Table 1. Explaining Cultural Foundation of Abu Dhabi through Barthes' Socio-semiotics
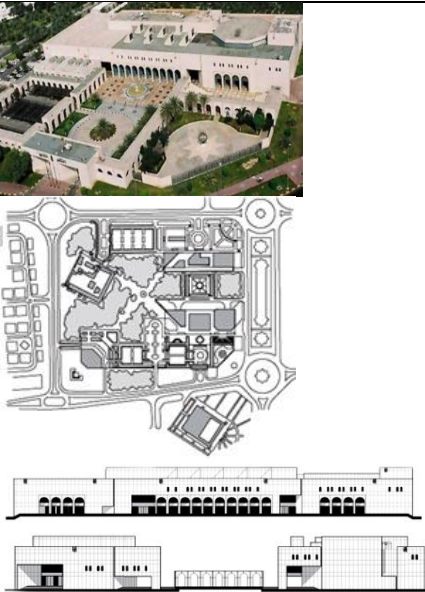
The Cultural Foundation Abu Dhabi- Architects Collaborative (TAC) Cambridge (1977-1981)			
Plan / Elevation / Views	Implications	Demonstrations	Myth
	1st order of signification	2nd order of signification	3rd order of signification
	large archways, inner 3-floor atriums, small fenestration on the higher level, massive white concrete wall, intricate arabesque tiles along the arcades, internal grid pattern, geometric design, repeating elements, open transition, visibility and accessibility, reflect traditional elements of design, symmetrical massing	- to portray local vernacular idiom with its great arched arcades - to advocate the notion of progress - interpreting local architecture into the design - To be acknowledged by local and global audiences.	- Arab vernacular (arabesque arcades as metaphor) - to evoke nationalistic sentiment - monumental grandeur appearance

Table 2. Combination of Gottdiener's Socio-semiotics and Lara's Elements

Architectural elements (Indicators): 1

Scaling (scale of the form itself, the scale of building form, elements the urban scale)

Method of Data Collection and Analysis

To obtain the urban scale, the size of the Cultural Foundation in a particular setting or the context of the city as compared with the size of other existing things in its surrounding. This was done by conducting an investigation into the building on-site.

An analysis of the Cultural Foundation's section and elevation to determine the scale of the building were also conducted by reviewing the drawings of the Cultural Foundation taken from blueprints and working drawings obtained from the architects.

Details

To attain an exact form of scale, the overall vertical height of the new development structures (roof, wall, base) was investigated.

Architectural elements (Indicators): 2

Spatial association and treatment

Method of Data Collection and Analysis

An analysis of the Cultural Foundation spatial organization was conducted by reviewing the building. Floor plans were taken from blueprints and working drawings were obtained from the architects and architectural archives.

Details

- To break down the space arrangements of this new development structures, within spaces in their affiliation are inspected.
- In this sense, the strategy for space punctuation of examination made by Hillier and Hanson (1984) was the basic as a key reference to explore how the arrangement of spatial spaces may present a level of advancement and control in perspective of the putting of the parts inside the entire spatial affiliation.
- Their study mapped the interior spaces into the cellular structure. Both of them termed these structures as genotypes, which are defined as clusters of spatial segments that are arranged in a series of sequent configuration.
- There are two essential strides for a building plan to be changed over into a colleague format to plot the life of the inhabitants that contained inside it.
- In this framework, the building game-plan was firstly disengaged into a different constituent of spaces known as cells.
- As per Hanson and Hillier (1988), the cell was conceptualized as a point, which is tended to in circles, while lines were utilized to address the change that relationship with all cells. In this sense, singular

access to the cell is conceptualized as a 'uni-permeable point', however, a cell with more than two ways is known as a 'bi-permeable point'. The point outside the cell is separated as a cross circle.

- In the second step, the spaces (of each inward cell or subdivision of cells) are then changed over into gamma maps or 'syntactic structures' to see the spatial requesting that exists between all cells. In perspective of this mapping, an illustration can be fabricated which demonstrates the flood of the internal cells whether it is symmetry, asymmetry, distributedness or non-distributedness.
- The importance of this space mapping system is that it can show the vitality of the spaces similar to their request and game plan. Additionally, it illuminates how these spaces are related to the building confounding all things considered.
- The above procedures, in any case, simply separate space in perspective of the course of action of advancement process, as opposed to investigating within space perceptually.
- Based on Hillier and Hanson's procedure, the orchestrating organization of the new progression is made as an interpretation of and mapped into cell structures or segmental diagrams starting from the area to demonstrate the building.

This is done by drawing the spaces inside the new progression consolidating with syntactic structures close by all the possible pathways, boundaries or points that may transverse or intersect the spaces. This method makes sense of if the spaces display the free stream of advancement with many extending systems (known as orbited or ring) or restricted to single growing system (known as straight and fanned) structures.

Architectural elements (Indicators): 3

Auxiliary frame

Method of Data Collection and Analysis

An analysis of the Cultural Foundation Auxiliary frame was conducted by reviewing their sectional and detailing drawings taken from blueprints and working drawings obtained from the Architects and architectural documents.

Details

- To break down the sectional and basic game plan for this new development building, there were two essential viewpoints to examine, which were the conclusion of space and the structures inside the spaces. For the conclusion of space, components, for example, spatial thickness and fringe needed to be researched. In structures inside the spaces, components, for example, physical components inside the space and how the components separate the inward spaces likewise needed to be inspected.
- In researching the conclusion of space, one needs to go through an arrangement of the progressive view of diverse areas then wire them into one single psychological picture. At the end of the day, the subject needs to move around them with a specific end goal to see or sense the space. The size and mass of the internal compositional limits, which perceptually encase the space watched. For this situation, the stature, width, length and profundity proportion of the encased volume watched.

Architectural elements (Indicators): 4

Material Expression

Data Collection and Analysis Method

- An analysis of Cultural Foundation's material expression was conducted by reviewing their sectional and elevation drawings taken from blueprints and working drawings obtained from the architects and architectural books.
- Observation on-site was also conducted to study the exterior and interior facades by examining the elements, composition, materials, and finishes used for these facades.

Details

- To review the new headway outside façade, the strategy for façade investigation created by Shatha (2004) is an imperative as a key reference. Using her technique to peruse and investigate the façade will demonstrate or dis-demonstrate regardless of whether the Cultural Foundation façade may depict the effect of globalization, Localization and confinement philosophy. Despite the fact that Shatha's (2004) concentration centered on reading the façade of homes in Amman, her works in like manner concerns investigating the suggestions and making of basic structures.

- According to Shatha (2004), remembering the ultimate objective to analyze the noteworthiness of the auxiliary façade, one should look at it in layers since the façade is addressed in the layering of consultation and joined unusualness. In association with this, Shatha (2004) laid out four basic steps to coordinating examination on the façade of a building:

- Layer 1: The basic game plan of the outside laid out in this first layer is to clarify the basic structure, which made the shape.

- Layer 2: This level enhances the articulations on the key masses of the outside so that the major volumetric alterations inside or on the basic masses and achieving a development to or subtraction from the basic shape shown.

- Layer 3: This stage focuses on appearance in more detail; it picks and deals with the geometric portrayal of piercing(s), showing the important relationship of piercings with each other and with incorporating dividers.

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- Layer 4: At this stage, the supportive and decorating purposes of enthusiasm of stone finish, areas, cornices, and materials added to give the last picture. Prior to the completion of this stage, the outside totally drew, with its minute purposes of enthusiasm appearing as in reality.

- Referring to Shatha's (2004) layering strategy, the façades of the new change researched in a more think route from all sections – the housetop, body and base fragment in detail.

- From this, the compositional treatment of four sides of the building that contained the vertical and level segments examined to see how they made and coordinated. This is basic as the course of action of the vertical and even part may shape an announcement of the supporter's impact of globalization and constrained ideologies.

- To take a gander at the new change inside façade, the four sides of the new progression encased space, the treatment, and improving culminations are assessed to see how unusually the surfaces' beautification, finishes, and organizing are shaped and coordinated on the rooftop plane, floors and divider planes. This is basic as pointless improving embellishments may in like manner shape expression to the social event of individuals

7. FINDINGS

Based on the analysis above, this study offers several interpretations of the ideologies behind the different Architectural styles of the new large-scale building developments in the UAE. It was shown that four styles were under the impact of globalization ideologies. These are the International, Deconstruction, Parametric, and Dynamic styles. The other three were identified as under the impact of localization ideologies. These are Vernacular, Regionalism, and Monumental styles.

There were both similarities and differences between the styles under each ideology. Considering the globalization ideology first, they all had the intent to express the immense power of a newly rising affluent economy. It was as if they were trying to get the attention of the whole world and announce that it is the new abode of the world elites. The grand scale and the mixture of a wide range of architectural philosophies depict this issue. They had tended towards geometrical abstraction of architectural motifs, common during the twentieth century popularized by master architects around the world. They also show the power of modern engineering and technology.

However, they had differences as well. For example, the International style tries to forcibly

simplify, unify, and standardize architectural features, which ignores self-worth and identity, and promotes mass production consumerism. On the contrary, deconstruction over-complicates the construction methods and gives an irrational appearance. It tries to express the ultimate power of construction methods and technological advancement. The parametric style, on the other hand, has more credibility and acceptability universally as they are not merely a gathering of some geometric shapes, but are contextually shapable, and thus, more acceptable to a diverse set of critics and cultures.

Considering the styles under localization ideology, they also had similarities and differences. The biggest similarity was the expression of Islamic culture, which is sometimes interchangeably used as the culture of the region. It offers a symbolic presence of national identity, and possibly a political message. They also present historical revivalism in some cases as they bring back architectural features that were borrowed from the age-old traditional heritage. Even though those heritage elements were mainly derived because of the the existing technology, modern technology may not necessarily need to represent those shapes and sizes. It is probably worth bringing back the historical features to give them a new meaning by using modern technologies.

However, they had differences as well. Regionalism is mainly inspired by the local region's social and geographical features. Social practices evolve due to necessity and also it can be influenced by neighboring societies. In the past, communication was not that easy, and a particular society used to know only those societies which were physically close. Most likely, they had more similarities than differences in terms of ethnic and behavioral traits. This probably led to a smoother morphological evolution of social practices. Due to the advancement of communication and transportation, any society today is more likely to be influenced by some other societies that are physically much further, and have more differences than similarities.

Adopting the traits of these societies has the possibility to affect the morphological evolution of the social practices more abruptly. Regionalism showed an urge to resist abrupt changes in the building styles but still was likely to seek to bridge the gap between technology and diverse culture, and act as a linkage. On the contrary, vernacular architecture insists on design features that can be shaped by local materials and resources. This might not change that fast, and therefore is less likely to accept newer building features. The Cultural Foundation building, as the case study in this research, showed several vernacular characteristics, even though it is a modern building. For example, using local materials extensively was a major feature of this construction. Finally, the Monumental style, which, by its definition, is big and monumental, tries to establish a statement of power and domination. The newly found economic affluence definitely marked this style as a local ideology.

In the initial move right after the huge economic boost resulting from the oil industry, scholars and policymakers have placed greater emphasis on the role that well-known designer buildings would play in revitalizing the city landscape and in projecting an optimistic and meaningful picture in the universal economic rivalry among cities. Considering the general backdrop of socio-economic progress in countries of the West, this reasoning presupposes that riding on the reputation of famous architects can provide a competitive edge to a city in several ways. This was the reason why there was no restriction on the star architects, as they practiced their own philosophies in creating those stand-out buildings. Thus, building with globalization ideologies became the frontrunners in shaping the urban scape of this new emerging status of UAE.

However, at some point, self-identity becomes important. That is why there is a need to return to heritage and traditional culture. The UAE is an Islamic country, so Islamic elements and features play an important role in its heritage and history. Most of the buildings that are in the Vernacular, Monumental, and Regionalism styles present prominent Islamic images and use an eclectic array of Arabian features for structural details. These include arches, columns, capitals, and lactic work, which are also used extensively and in a multitude of forms, details, scales, and sizes and other features such as wind towers and desert forts have been used to reflect regionalism though often only as superficial decorative features and applicants. The process of the architectural development of localization ideologies through these three styles can be explained through a flow chart shown below (Fig. 1). The darker boxes show the impactful events, and the regular boxes show the consequences of those events.
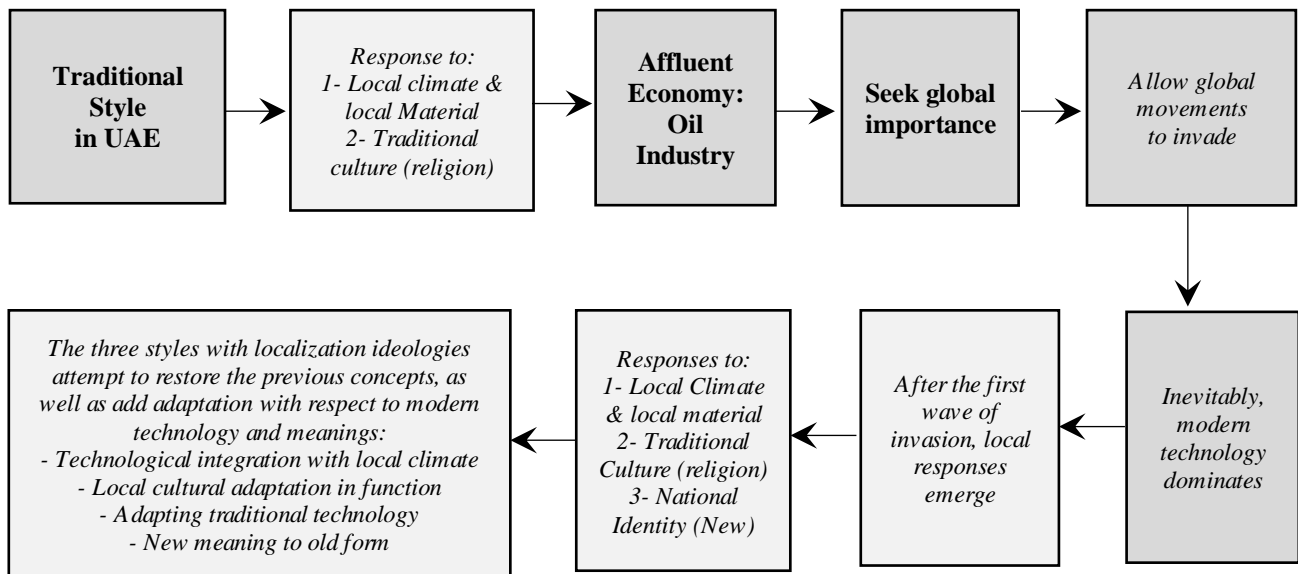
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┌─────────────┐    ┌──────────────┐    ┌───────────┐    ┌───────────┐    ┌──────────────┐
│ Traditional │    │ Response to: │    │ Affluent  │    │Seek global│    │ Allow global │
│   Style     │ →  │1- Local      │ →  │ Economy:  │ →  │importance │ →  │  movements   │
│  in UAE     │    │climate &     │    │   Oil     │    │           │    │  to invade   │
│             │    │local Material│    │ Industry  │    │           │    │              │
│             │    │2- Traditional│    │           │    │           │    │              │
│             │    │culture       │    │           │    │           │    │              │
│             │    │(religion)    │    │           │    │           │    │              │
└─────────────┘    └──────────────┘    └───────────┘    └───────────┘    └──────────────┘
                                                                                │
                                                                                ↓
┌─────────────────────────┐  ┌──────────────┐  ┌──────────────┐  ┌──────────────┐
│The three styles with    │  │Responses to: │  │After the     │  │ Inevitably,  │
│localization ideologies  │  │1- Local      │  │first wave of │  │  modern      │
│attempt to restore the   │  │Climate &     │  │invasion,     │  │ technology   │
│previous concepts, as    │←─│local material│←─│local         │←─│ dominates    │
│well as add adaptation   │  │2- Traditional│  │responses     │  │              │
│with respect to modern   │  │Culture       │  │emerge        │  │              │
│technology and meanings: │  │(religion)    │  │              │  │              │
│- Technological          │  │3- National   │  │              │  │              │
│integration with local   │  │Identity(New) │  │              │  │              │
│climate                  │  │              │  │              │  │              │
│- Local cultural         │  │              │  │              │  │              │
│adaptation in function   │  │              │  │              │  │              │
│- Adapting traditional   │  │              │  │              │  │              │
│technology               │  │              │  │              │  │              │
│- New meaning to old form│  │              │  │              │  │              │
└─────────────────────────┘  └──────────────┘  └──────────────┘  └──────────────┘
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Fig 1. The Process of the Architectural Development of Localization Ideologies

8. CONCLUSION

Today, the financial resources available to the Arab Peninsula countries have given them the opportunity to become independent from the patrimony of the Western World, and to become in their own right a center for urban experimentation that could become a new architectural reference point for the developing world.

The discovery of petroleum deposits launched a huge process of modernization. Now, the region's infrastructure and urban planning shortcomings have been overcome, this process is moving progressively toward an international auto-affirmation of a specific identity through the rediscovery of local traditions. Although there are variations from country to country, the overall phenomenon that has accompanied this development is a rapid transformation from a rural economy to an industrial one and expansion of urban centers. This urban expansion is accompanied by a proliferation of public buildings intended for use as government offices or for cultural purposes. These are ambitious projects in terms of dimension, inspiration, and degree of innovation and have been opened up to some of the most famous architectural practices in the world because of the international attention this will attract.

The reference to traditional culture is a reoccurring theme in these new developments that stem from both a desire to retain an original cultural identity and progress in the way architecture is dealing with the region's geographic and climatic reality. Designs include well thought strategies to address energy consumption issues, both through solutions that reduce consumption, along with using alternative energy sources to cool buildings and outdoor areas to reduce water usage.

Therefore, the building design is progressing into architectural solutions that make it possible to combine aesthetics, functionality, innovation, and tradition, as well as beauty, quality, and above all, financial return, and political gain. Increasingly, this aim is being achieved through non-conventional, hybrid solutions, multi-use buildings, or huge complexes that are not designed with a specific character or form, but instead, are intended for various tangible and intangible purposes.

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