

## Islamic Architecture: Cultural Heritage and Future Challenges

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### Abstract

During the last 50 years in the trend of modernization, the Western mode started its encroachment on the territory of the great Islamic cultural heritage; as a result Egypt as a rich storehouse of architectural heritage in the world have lost much of its historic styles and the impact of modernization has led to a rupture of continuity between the inherited morphology and more recent urban structure.

Architectural culture is a localizing force that should bridge the gap which the historical conscience opened between the past and the present by creating New communities which are faithful to the traditional architecture in creating an urban environment which encourages the inspiration of the inherited cultural heritage.

The paper will try to represent the threats to local cultures, and how to achieve the cultural & urban architectural continuities, between the past, present and the future; by identifying the role of the architect and actors who are able to create architecture that will be the heritage of tomorrow. The paper will demonstrate the Future Housing project, which has received recently the Council of the Arab Ministers for Housing and Reconstruction Award in the Year 2000 as a case for its innovative approach, that integrates the Islamic architectural style, planning and environmental dimensions to preserve the treasures of the past and simultaneously to realize the promise of the future as a respond about continuity and identity.

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## **Introduction:**

The call to establish the deep-rooted Islamic values in contemporary planning and architecture is growing, day after day, as a part of the comprehensive Islamic call, a movement is emerging in response to the imminent danger of losing these special qualities through the destruction and mutilation of buildings of value. The revival of the Islamic architectural heritage has become a universal concern which can be shared by critics, architects, planners etc. to emphasize the great and effective role of revitalization in the contemporary architecture and the sustainable development. Within this intellectual framework, cultural heritage in its concept and meaning is considered functional and a must for the human existence and also functionally and aesthetically in artistic works represented in the urban development process.

Cultural identity represents the sum of our past creativity, and the results of creativity are what keep society going and moving forward ( Landry & Serageldin 2000,p.6). Over the past decade, cultural identity and creative diversity have become highly publicized issues on the international development agenda, which in it is certainly a positive sign. The language of architecture represents an integral part of manifesting a society's image of itself, and architects are both the custodians of our heritage of architectural and urbanistic forms and spaces, as well as the creators of tomorrow's heritage (Davidson, 1995,p.76). Architecture is of primary importance to all of us, from ordinary citizens to national leaders as it affects every aspect of our daily lives, as the language of architecture is more than a form; it evokes the past, prefigures the future and articulates the present for all people. Community and humanity are the ultimate goals of most much human activity, professionals with their specialized knowledge and through their dedicated service work together to serve humanity.

Cairo the legendary city of splendid architecture, which has inspired songs, poems, books.... etc. but unfortunately a city, which has lost much of its former beauty ( Oncu &Weyland ,1997,p.56 ). Unfortunately Egypt's architectural treasures are being threatened today as never before, being completely detached from its cultural and social matrix.

Egypt towards its strategic plan in tackling the urban development problems, is confronting the issue of the imbalance between the increasing rate of population and their housing affordability, which made the government to adopt a new policy aiming at establishing new communities, to play a role in extending the urban development areas and to attract people from the high density areas. A lot of new communities agglomerations suffers from their architectural character which is not representing our identity in the form of traditions and cultural heritage, thus the Ministry of Housing, Utilities and New Communities adopting new thinking in establishing new agglomerations, attract our attention to the capability of establishing new urban communities which are characterized by revitalizing our cultural heritage within the sustainable development, without negatively influencing our preserved areas character .

## **Objective:**

The article aims at expressing attempts to elevate the public consciousness with regards to the role of the Islamic architectural heritage, by achieving a degree of consensus among Egyptian intellects, despite of their varied ideologies or generations, and to shed light on current questions regarding the future on the progressive decline of Islamic cultural heritage, the major aim is not only to explain the philosophy and the concepts underlying the Islamic architectural heritage, but to accentuate its Islamic identity .

Inventivity, creativity and imagination start with the search for new processes and solutions or with the reformulation of old ones and though the purpose of the study is to

tackle the challenges opposing the contemporary Egyptian cultural changes and set up an environment not only corresponding to the situation of transition, but also able to go beyond this appropriate environment for change and progress. The study identifies as well the characteristic architectural outlines of the past ages that could guide the planner and the architect in their present and future work, as well as the attempt to bridge the gap between the past and the present for a promise future.

The study brings some light on the search for new processes and solutions for the establishment of the new communities within the urban development policy to accentuate the revitalization of the Islamic architectural heritage identity, by demonstrating the Future Housing project as a successful pilot project and identifying the learned lessons which can be adopted by the government housing policy within its sustainable development strategy.

### **Islamic Heritage:**

In the Islamic countries, the need for expressing local cultural identity through architecture is growing stronger, more than two hundred Islamic monuments, covering less than two square hectares, still stand today in Cairo. This impressive proportion is dwarfed, however by the number cited in the 1951 survey of Islamic monuments of Cairo. A question raised more than hundred and fifty years ago, when the Comité De Conservation Des Monuments Arabes was established is still valid: How can Cairo maintain its Islamic architectural heritage and accommodate the modern needs of its inhabitants at the same time?

To confer the Islamic appellation on architecture, needs an intellectual re-examination of both historical and contemporary architecture. Islam being a living course that rectifies the life of the individual as well as the community with its values; truly the architecture produced by the individual or the Islamic community is to express spontaneously such values, manners and rites. This means that the architectural form being linked with the spiritual content, is a corner stone in building up the architecture of Muslim community.

The history and heritage of Egypt Islamic architecture and to some extent, those of the entire Arab region, its size, splendor, power and functions have been a reflection of the fact of interest for the past centuries (Saqqaf, 1987, p. 209) and the survival of the Islamic architectural heritage has become a universal concern which can be shared by all the actors involved in the urban development process. Islamic architecture reflects a strong aesthetic value, manifested in the facades and gateways of buildings, the colorful designs, the different arches and geometric shapes, the beautifully carved stones and pillars. The respective regional style of Islamic architecture shows inner affinities which are clearly based on related traditions, patterns of use and corresponding structuring principles (Bianca, 2000, p.10).

In asking the questions about continuity and identity we have to define, first of all, what exactly is specifically Islamic in the inherited environment:

Three factors have shaped the built form of Islamic cities and of these, two are not culture – specific, as mentioned by Abdulaziz Saqqaf in his book (The Middle East City).

### **Climate determinants:**

The first is the climate characteristic responses, such as the introverted courtyards, the use of roof terraces, wind catchers and the close packing of cubic volumes to maximize shading. Vernacular architecture in the Islamic world came forth as a perfect response to the living conditions of both the natural and social environment, based on age-old regional experiences with local building material and appropriate techniques of climate control.

### **Material constraints:**

The second factor is the preference of certain building techniques and materials which gives protection against the extreme heat and humidity of the summer and the cold winter nights, owing to their low thermal conductivity such as wood, brick and using vaulting and arcades as a rational technique choice.

### **Cultural factors:**

Putting aside the parameters of climate and material constraints, we can identify the third factor which represents determinants within the religious practices and legal traditions of Islam and a life style based on certain roles and traditions in the Islamic society. Construction of the Islamic neighborhood starts with the dwelling unit of the family that keeps to Islamic values, which is reflected in its architectural design as well as its structure taking a balanced form that fulfills our requirements of equipment, as also carries out requirements of privacy, dignity, health and security, within the family means (Saqqaf, 1987,p. 7-8).

### **Housing problem:**

Recently, there has been a great deal of discussion in design, architecture, and construction circles on sustainable communities and sustainable development. One of the most essential needs of people every where in the world is adequate housing. This is recognized by the United Nations and is emphasized; thus governments are encouraged to facilitate their citizens acquisition of adequate shelter (Urban Development in Egypt, 2001,p.40). Housing, along with food, is the two basic necessities of life. If major efforts have been made in recent years in Third World countries to overcome hunger and malnutrition, in the field of housing however, the situation, can only be resumed as dramatic. Indeed, accelerating population increases and uncontrolled urban migration outstrips the provision of new dwellings. This has resulted in an alarming escalation in homelessness and overcrowding and a constant deterioration in the quality of life of the majority of the people.

Governments in the Third World have contended to improve the built environment by purely technical methods primarily aimed at a high volume of constructions without regard to cultural and social factors. Their housing programs have been determined, not by a thorough analysis of real housing needs, but by the meager financial means at their disposal and by productive capacity of their construction industries. The dwelling areas that have since arisen tend to be little more than lifeless settlements, drawn up by professionals who are lacking in design sensitivity and unconsciousness of the cultural identity and social habits of the residents for whom these dwellings have been built.

In contemporary history, particularly since the twenties, the Islamic countries have undergone experiences and changes in the built environment that pose interesting problems and provide a valuable case study for understanding traditional and contemporary phenomenon of socio-cultural aspects of built form. Today decisions by governments in the Islamic countries are more impacting, and are usually based on proposals and recommendations developed by foreign consultants. The consultant's views, however are chiefly Western imports, and their input for the most part ignores or is sensitive to local traditions and trends.

Egypt's housing problem began to assume drastic proportions in the early 1960s, over urbanization in Egypt in general, and in Cairo in particular, has reached alarming levels where the mounting housing pressures present a very challenging puzzle. The combination of a number of factors worked to bring about marked deterioration in cities, some of the most important being the ongoing rise in density levels and the informal expansion of established areas, which led to the exacerbation of the problems confronting the established urban centers. Egypt's past and future, which appeared as a small crack in the early nineteenth century, had widened into a gaping fissure by the end of that century. The city's physical

duality was but a manifestation of the cultural cleavage Architectural chaos looms and the anarchical pattern of building heights, styles, all together disturb the skyline and the image of the city, thus the architecture in Egypt today faces decline and deformation, to the detriment of the outward appearance of the city, and hence the loss of cultural artistic values (Abu-Lughod, 1971,p. 98).

Egypt pressing urban problems prompted concerned state officials to consider new comprehensive strategies for urban development. In this spirit, the Ministry of Housing, Utilities and New Communities adopted a new strategy for urban development that has main objective to develop desert areas (Urban Development in Egypt, 2001,p.10).

### **Urban Strategic development and New Communities:**

Urban development reflects the real economic, social and cultural situations and in the same time is a reflection to the inherited customs and in the prevailing behavior between the community, as it is considered a reflection to the extent of laws application and implementation .The urban systems being diversified in Egypt and the mix of its architectural styles, the political and the economic systems had a great influence in that according to the behavioral attitudes and their social and economic conditions . The urban problems in Egypt were diversified so the city densities increased and the pressure on the basic infrastructure increased which led to the emerging of informal settlements.

Confronting the urban problems represented in the ongoing rise in density levels and the informal expansion of established areas, it was a must to change the concept of the urban development by adopting a new strategy based on developed and comprehensive plans. The Ministry of Housing, Utilities and New Communities adopted a strategy for urban development by establishing New Communities in the desert around Greater Cairo like ElObour city, with the aim of making them working as new growth poles situated at a long distance form the Nile Delta and Valley, to put an end to the urbanization of agricultural land and to bring about a more rational distribution of the Egyptian population (Urban Development in Egypt, 2001,p.16).

The establishment of new communities seeks to achieve the following objectives:

- Providing desert lands for the establishment of new communities. This way, the government addresses the rising demand for adequate housing as well as preventing the encroachment of informal settlements on agricultural land.
- Alleviating pressure on the Cairo agglomeration unit.
- Enhancing the aesthetic dimension of the built environment, to create a permanent sense of beauty.

### **El Obour City (Future Housing project)**

As Lynch mentioned New towns are built to populate empty lands, for better service efficiency, health and amenity, to improve the housing supply and to help control the growth of large centers (Lynch, 1985,p.52). El Obour city is located Northeast of Cairo and circumscribed by the agricultural road linking Cairo and Ismailia via Belbeis, the desert road from Heliopolis to Ismailia, and Belbeis – El Robeiky Desert Road between Bilbeis and Tenth of Ramadan (El Obour Master Plan Study, 1983,p. 1). The city is considered one of the new urban communities which is characterized by its location situated at a long distance from the agriculture lands, and achieving the concept of extending the city to the desert area. In

February 1998 the Ministry of Housing, Utilities and New communities called for a new social contract between the capable / wealthy / poor groups of the society as regards housing. In March 1998 a non - governmental organization named Gameyet El Mostaqbal (Society of the Future) was especially established to supervise implementation of the project (Egypt Shelter and City Development Strategies, 2001,p.6). This project was launched under the auspices of Egypt's First Lady, Mrs. Suzanne Mubarak. Seventy thousand units were to be constructed in the New Communities where land is serviced and sufficiently available (Urban Development in Egypt, 2001,p.48).

### **The Architectural Competition:**

Architectural competitions, as an educational medium have been applied in different architectural schemes, much as architectural contests are said to be a demonstration of middling architectural thinking, they are still the most suitable method to pick distinguished projects, whenever given arrangement rules, competent juries, proper scientific presentation, and then exposition, announcement, and making room for constructive scientific criticism, in this manner, the scientific and professional benefit of such contests becomes complete.

In order to increase public awareness, revitalizing the aesthetic dimension of the Islamic culture, and creating a forum for examining the appropriateness of contemporary architecture throughout the extremely diverse of community of Muslims world wide, and offering better quality of final products and awareness of the large Muslim communities with the enormous increase in the quantity and quality of the projects built by Muslims: the Council of Arab Ministers for Housing and Reconstruction established an architectural prize dedicated for the best implemented housing architectural project that encloses within their design new models of Islamic cultural heritage built form and of direct interaction with traditional modes of building needs , in order to sustain and take advantage of the heritage know-how , to incorporate the basic principles of the Islamic traditional design with the contemporary architectural language .

The competition aim was to promote the highest standards of design, and appreciation of quality design to develop links between contemporary architects and their attempts to revive the Islamic architectural heritage by introducing a developed and identifiable architectural character that would adequately belong to the local environmental conditions and to the behavioral patterns of the population of a locality of each Arab nation, the competition aimed also at challenging the designer's ability to formulate a design language and manifest his/her intentions through the design of, not one, but a group of elements that perform different, but complimentary functions.

The jury was concerned with recognizing those projects that had a great interest of the Arab world in revitalizing the Islamic cultural heritage in the contemporary architecture for the implemented projects. The Future Housing project representing the Egyptian implemented projects has received the Council of Arab Ministers for Housing and Reconstruction Award for the year 2000 for its innovative approach that integrates architectural, planning, cultural, technological and environmental dimensions.

### **Project idea (concept):**

The Ministry of Housing, Utilities and Urban Communities introduced a new policy that aims to improve architectural taste. To realize that, it organized specialized compositions for developing good models for its new projects.

The project is exemplary of the success for cultural sustainability which shows how new modes of thinking can help regenerating cities, facing the challenge of survival by creating new communities which are faithful to the traditional architecture in creating an urban environment which encourages the inspiration of the inherited cultural heritage, by developing appropriate styles and forms which are the expression of indigenous cultures, which are in harmony with residents life-styles, and which are not mere replica of forms methodologies, and techniques imported from abroad.

An eclectic approach, adopting available typologies, construction techniques and modes of ornamentation to meet the emerging new architectural needs, an architectural vocabulary based mainly on the traditional architecture was developed and has been successfully used, this way manifested in the facades and building entrances, the colorful designs, in the different arches and geometric shapes (Fig.1). Technology, materials, labor force and professionals used to carry out the work were essentially local, in addition this pattern established a framework for local urban development based on a deep awareness of local resources. The project was faithful to the traditional architecture in creating an urban environment, and architectural forms expressing cultural identities which encourages interaction between people, and their environment.

Vernacular architecture in the project came forth as a perfect response to the living conditions of both the natural and social environment based on age-old regional experiences with local building material and appropriate techniques of climate control, the houses are designed to maintain a good micro-climate in the interior, fresh air will ventilate the houses eliminating the need for air-conditioning systems. Climatic building design systems have been adopted throughout the whole project, utilizing natural materials and taking into consideration tough desert conditions, all the while applying contemporary technological methods. The fronts were conceived as a visual substitute for the previous city walls, the elevations were given a strong mural character with relatively small window openings, the designer utilized familiar elements that have been modernized to achieve a contemporary look to the building, which established a sense of belonging and strong emotional ties between society and the built environment, and the ability to produce an image, and a probability of evoking a visual message to society that can be memorized easily.

The architect aimed at fulfilling the individual requirements of the residents especially privacy, openings were particularly strict concerning the risk of strangers looking from the street or from adjacent buildings into the interior, any visual intrusion into the family sphere had to be excluded, the openings were veiled by lace like wooden lattice work (mushrabia) that filters light while increasing ventilation and allows one to look outside without being seen. The design concept stressed the sense of community interaction and at the same time maximum privacy for the living environment of each housing unit.

Bright colors were used in the elevations to create a silent atmosphere for the external walls and also to reflect the sun rays as an environmental treatment, as well the architect used different tones of the brown colors in the (Ablaq) manner (Fig.2, 3), which is inherited from the architectural Islamic heritage. Dealing with traditional Islamic architectural heritage vocabularies, pointed arches were used and wooden cladding in covering the balconies, Islamic ornamental units such as (mafrouka) were used in the ornamentation of the balconies and openings (windows – doors). Also colors of painting and openings were derived from the Islamic heritage to link the past with the present which was marvelously articulated (Fig.4).

The project is one of the rare buildings that has managed to successfully marry a traditional style of architecture with a modern techniques which explained the trials of the contemporary architects, that aim at the revivalism of the Islamic architectural heritage.



Fig.2

Architecture vocabulary based on traditional architecture



Fig.1

Bright colors

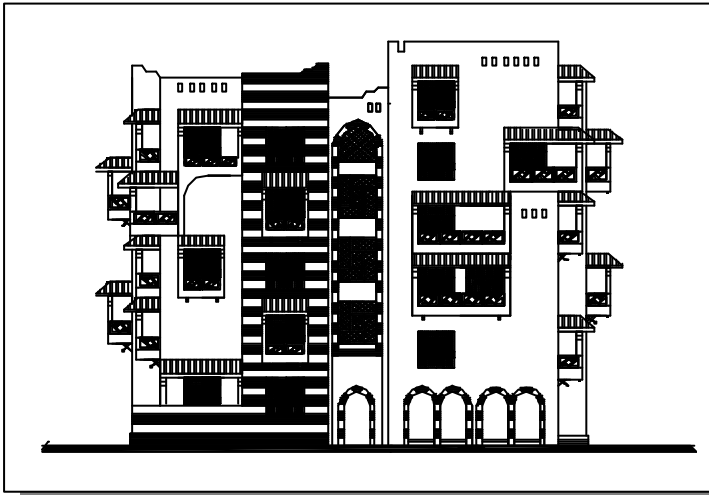


Fig.3

Abalaq manner inherited from the Islamic heritage



Fig.4

Pointed Islamic arches

## Conclusion:

Revitalization is a clarion call for imaginative action in developing and running urban life and shows how to think, plan, act creatively in addressing urban issues and connecting us to our histories and collective memories. From the inception of the Award we have been concerned to inspire a new sense of direction, stimulating fresh thinking and creativity at the same time as appreciating the value of historical tradition and what can be learnt from the past. The award as well has established the case for seeking to invigorate the built environment of the Islamic world; and also we have raised the level of consciousness about these issues both among members of the public and within the architectural profession, especially the younger generation of architects working in Islamic countries.

The resulting threat to the unparalleled repository of Islamic heritage is now well known, and the choice of Cairo, as the site of the 2000 Council Of Arab Ministers For Housing And Reconstruction Award for architecture has done much to focus attention on this fact as well, which helps in developing a clear toolkit of methods to revive our cities and to

analyze the crucial steps and ways of thinking of the continuity and sustainability of Islamic architecture, that could be sustained through the compromise between values and traditions as constants, and between building materials and technologies as variables. The question is how to sustain such heritage qualities and integrate them into a contemporary design language to absorb and assimilate foreign cultural influences without losing identity.

Applying this style of thinking opens a richer range of possibilities and a wider resource base of ideas with which to work. It allows policy makers to research and map with a greater chance of discovering the uniqueness and specialties of a place rather than merely seeing a partial picture of problems and opportunities. New communities provide a good opportunity for the new approaches to sustain the resources of the past helping to revitalize the treasures of the past and simultaneously realize the promise of the future, and this understanding can then be used in developing policies and strategies for recycling the positive and useful traditional experiences into contemporary practice, which emphasizes that the Islamic architectural intellectual reasoning can still be valid today in spite of changes introduced in the function and materials of buildings. So we can say that there is still a room for hope that architects and decision-makers will be discerning and critical enough with respect to the crucial issues of cultural transformation and evolution.

So the question is how do cities become more creative and innovative?

How can we implement new ideas and anchor them in reality?

### **Recommendations:**

The issue at hand therefore, is to plan our cities by incorporating something of the old and the new, that is making the new meaningful related to our heritage, by introducing new understanding that will redefine the role of the architect and the planner in relation to the process of change, to the idea of building as process rather than a building as product.

The participation of architects in the revival of civilization values in the modern architecture stimulates the architect's human aspects with the technological building development. It is the task of the architect to preserve the treasures of the past and simultaneously to realize the promise of the future and his effective role and his social obligation to find a way to connect with the local regional heritage and at the same time to work within an international framework. The architect's task lies in matching different views on how to construct new urban communities without killing the deep meaning of culture to create tenable compromises, and the desire to revitalize the aesthetic dimension of the built environment as it would create a permanent sense of beauty, correspondingly elevating the public's taste and performance standards.

New communities we believe are the cornerstone of building a new future that we aim to play a role in setting new horizons never known to us before which, when married to our ancient and deeply rooted civilization and culture, will enable us to have a brilliant, promising future. New models of built form and of direct interaction with the traditional modes of building need to be established in order to sustain and take advantage of traditional know-how, by making better use of the scientific, technical and architectural tools available today, responding to the changing world, and adapting its preoccupations and processes to develop a new paradigm as the new millennium starts.

A crucial issue is getting planners and decision-makers at every level to make our city more livable and vital, city that do have certain distance features, for the Islamic architectural revitalization in general, cannot materialize without collective effort which brings together institutional decision-makers, international organizations, financing agencies, architects, historians and professionals of various other disciplines, researchers, committed citizens and

opinion-makers and the community concerned and their representatives , and putting realistic guidelines regarding possible solutions that are neither arbitrary nor imported uncritically .

What is needed is to spread confidence that creative and innovative solutions to urban problems are feasible to absorb and assimilate foreign cultural influences without losing identity, and the viability reconciliation between Islamic architecture as a cultural paradigm and modern civilization as an ideology of progressive technical development .If these considerations are kept in mind, perhaps new construction can add value to the city without negating the existing, irreplaceable assets of historic architecture .The challenge for the future is to develop processes of production, which can be guided by performance type design criteria, which are derived from the culture's value system.

As John Ruskin mentioned, When we build, let us think that we build for ever, let it not be for present delight, nor for present use alone, let it be such work as our descendants will thank us for, and let us think, as we lay stone on stone, that a time is to come when those stones will be held sacred because our hands have touched them .

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