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# Towards a Modern Theory of Islamic Architecture

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**Abstract:** This essay objectively surveys the history of Islamic architecture and highlights the role of Islamic conquers in its spread. Furthermore, it evaluates the effects of Islam and ancient civilizations such as Roman Greek and Persian on Islamic architecture. Certain features of Islamic architecture, which can be revived, are underscored in the light of modern architectural theories. To develop a modern theory of Islamic architecture, religious and spiritual aspects as well as form and environment need to be taken into account. Also, common features of modernism and originality should be highlighted.

**Key words:** Islamic architecture, conquers, architectural theories, religious, spiritual

## INTRODUCTION

Architecture refers to the science of designing and constructing buildings to meet people's physical and moral needs. Appropriate construction materials are used in accordance with the desired designs.

It is undeniable that the first written civilization appeared in ancient Iraq where it interacted with the natural environment of Southern Iraq. The agriculture of that region utilized rivers and dams. To achieve stability and security, rulers carried out some strategic projects. For example, they dug channels, built temples and improved life conditions of their retinues. This led to the rise of city and architecture which developed from 2800 to 2400 BC.

The Greek Architecture dates back to 444 – 429 BC. It was influenced by the Pharaonic and Persian architecture which paved the way for the Roman Architecture (753 – 509 BC). It can be noticed that the Pharaonic architecture interacted with the prevalent architectures of that time. In fact, the Pharaohs were known for their architecture, city planning and temples.

Unlike other architectures, Islamic architecture originated in the Arabian Peninsula. It involves city planning along with its squares, streets, style of accommodation, economic and climatic conditions in addition to the social customs. According to this model, the mosque is usually situated in the city center and minarets are high enough to guide coming passengers.

Then, the Islamic architectural revolution spread throughout the cities of the ancient world such as the Roman, Greek, Byzantine, Asian, North African and Central Asian cities due to the Islamic conquers. New cities such as Sammerqand, Bukhara, Istanbul, Qurtoba and Grenada were established. Later, they contributed to the expansion of Islamic architecture and civilization.

Islamic architecture came into contact with the Byzantine, Hellenic, Sassanid and Persian civilizations which were conquered by Muslims. Impressively, Islamic architecture is unified despite the long distances that separate the Arab states. This can be attributed to the unity of intellectual source in the Islamic civilization.

### *Islamic Architecture: Philosophy and Development:*

Islamic architecture extended from the 7$^{th}$ to the 19$^{th}$ century. Muslims intelligently communicated with other cultures by maintaining rather than erasing them. They steered those cultures to serve Islam and cope with the mainstream in the Islamic World. For example, statues and pictures were forbidden in the architecture of mosques, so Muslim engineers alternatively mastered columns, mosaic, foliage and engineering decorations. They also paid special attention to rchitectural and aesthetic designs which revolutionized Islamic architecture. Today, architecture is considered a reflection to civilization and an open book in which the history of a nation is recorded.

Islamic architecture has innovated special ornamentations, colors and engineering units which can be adopted anywhere. The triangle, square and circle for instance are facts because they comply with mental concepts. A new concept of unity has merged in Islamic architecture. It calls for unity as a base for life cycle.

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This was reflected on intellectual aspects, art and architecture.

Unity in Islamic architecture is not only determined by the engineering frequency pivot, but also by the vacuum at a particular point such as the Kaaba or the fountain in the mosque nave. Here, the dynamic power unifies parts and maintains their sovereignty to incorporate with the whole.

The principle of unity in Islamic architecture is applicable on horizontal projections as well as on radial star-shaped decorations and walls which surround the high gateway whose doors can be rectangular, pointed or circular.

The charm of walls in Islamic architecture will be attained if aesthetic standards and sensible perceptions are met. Certain ornamental elements such as oriels, Muqarnasat (i.e. hive-shaped designs), sculptures and Arabic calligraphy which are inscribed on stones have contributed to the rise of a new architectural pattern.

***Features of Mosque Architecture:***

Islamic architecture heavily depends on engineering and aesthetic principles. We should make it clear that Islamic architecture had originated and then its features were inferred accordingly. However, the religious aspect is the most distinctive feature to which Islamic architecture is indebted. It is represented in the Islamic aesthetic mentality.

Mosque has been the first house to be built on the basis of piety. Muslims congregate there under one dome yielding to and fearing of Allah. Consequently, architects have set a number of criteria that mosques should meet since the early age of Islam. These criteria include:

- communication among prayers
- having no columns in the mosque nave
- having no direct entrance into the nave
- having several openings for illumination.

Roman Architecture for instance influenced Islamic architecture particularly in the field of stone columns. This is a normal matter as it shows how dynamic and vital the architecture is. In fact, Islam urges its followers to communicate with other nations because static cultures will definitely die.

As a direct result for Islamic conquers in the Abbasid and Umayyad ages, there was a dire need for building forts and castles in cities. After that, Islamic architecture began influencing other civilizations. For example, Arabesque which was initiated by Muslim architects became very popular in Europe and Asia as it was the case in Spain, Sammerqand and Bukhara where it interacted with the indigenous arts. In China, mosques were built in harmony with local house roofs, entrances and construction materials. Later, fundamental features of mosque were introduced to other civilizations:

1. Much attention was paid to the minaret whose height reaches tens of meters and designs vary from circular to polygonal shapes. Some mosques have several minarets that can be used as beacons at night. It is worth mentioning that the designs and shapes of minarets reflect both the historical and spatial eras. Today, there are various designs of minarets in Central Asia, North Africa and Spain.
2. Dome: the first dome in Islam was built for the Holy Mosque of Jerusalem in 691 AD. Historically, the dome was first developed in Damascus in 706 AD.
3. Arch: its decorations and designs varied in the light of construction materials that were available in conquered states.
4. Columns: they are considered the most valuable architectural remains in mosques and buildings. At the early stages of mosque architecture, columns had been built by using the trunks of palm trees. Then, the industry of construction materials flourished, when stone and mud were used to build columns. As a matter of fact, the Greek and Roman architectures inspired Muslim architects to use stones as construction materials for building columns.
5. Muqarnasat: It stands for the hive-shaped decoration which dates back to the 11$^{th}$ century. Nowadays, its designs vary in accordance with the desired purpose and shape.

***Prevalent Theories in Islamic Architecture:***

At the end of 19$^{th}$ century and beginning of 20$^{th}$ century, several architectural schools appeared in the west. The focus of their curricula was on the materialistic values of the industrial revolution. The schools called for an architectural reformation in which shapes are simplified to replace former decorations which were based on visual excitement.

There is no doubt that dominant thought, significant events and beliefs of the community influence architecture. This can be observed by those who studied the history and theories of architecture. For example, Greek, Roman, Byzantine, Classical and Islamic architectures were somehow affected by the prevalent thought at that time.

Post modernism architecture breached all previous architectural concepts and became more individual. For example, ornamentations and symmetry disappeared. Also, it erased the architectural identity and constructive structure. Then, deconstruction architecture emerged. It opposes the principle of heritage resurrection. Its proponents learnt a lesson from the shortcomings of other architectural approaches such as immobility. This can be exemplified by the architects: Peter Ezman and Bernard Chomez whose works were compiled in the book entitled "Deconstruction Architecture". Thus, Deconstruction Architecture marked the collapse of aestheticism.

The intellectual integration between heritage and modernism shows the human and Islamic principles which are necessary for architectural reformation. In this regard, architecture serves as an example for other civil sectors.

The tasks assigned to the architect whether in the Islamic or western world are so tough that present, past and future should be expressed by his designs. Therefore, Islamic and modern architecture (i.e. functional and analytical approaches) need to be incorporated today. The French architect, Yuji Fjuleh Lodok, pioneered modern architecture. To reformulate the Islamic theory of architecture, demerits of the past should be skipped. During the Mamluks reign in 1259, Islamic architecture regressed because of pushing politics into architecture.

It is essential to adopt new architectural theories despite the fact that they may not fill the gaps in previous theories. Unlike architecture, science is based on the revocation of former theories.

***Discussion:***

1In his book entitled "Islamic Cities in the Middle Ages" and research paper "Islamic city and community", Eralbydos, a specialist in urbanism, highlighted the role of Arabs in the construction of cities. He stated that "Islamic Arab conquers did not demolish ancient cities". He disagreed with the European orientalists who claimed that Arabs and Islamic conquers ravaged the cities of the Mediterranean Sea.

Most oriental studies which addressed the political and economic significance of the Arab world should be neglected because they glorify intolerance. The following aspects of the Islamic architecture ought to be modernized:

- shape
- religious and spiritual aspects
- moderate architectural theories

This can be attained by identifying the perspective on which the interaction between Islamic architecture and other civilizations should be built. Furthermore, subjective criticism of the Islamic concept of arts and architecture need to be ignored. For example, prohibiting decorations does not represent the Islamic mainstream.

Besides the previous aspects of modern Islamic architecture, the following matters should be considered:

***1. Adapting with climate:***

A building should adopt with climate because it becomes a part of nature (i.e. a tree or stone) once it is constructed. This means that it is exposed to the effects of sun, rain and wind like other objects in nature. Climatic balance was taken into account in most ancient architectural civilizations including the Islamic architecture.

***2. Respect of site:***

The construction site should be respected especially when it comes to digging, filling up and uprooting trees.

***3. Ecology and Conserving Energy:***

Susan Maxman thinks that the building should harmonize with the surrounding nature, people's lifestyles and community's powers. All ancient nations considered environmental factors when they designed their buildings.

***4. Using environmentally friendly construction materials:***

The construction materials of ancient civilizations comprised stone, mud and wood. These materials were available in nature, so no energy was needed at the manufacturing, installing and maintenance stages. Also, alternatives must be found for the construction materials which have potential dangers on health and environment.

***Conclusions:***

It has been noticed that some architects are turning back to the original traditions of architecture. Their perspective is influenced by the circumstances of the current age. They achieved a tremendous success in the Arab world because they took modernism and the factors which affect architecture into consideration. They also collaborated with such prominent architects as Henning Larson, because some Islamic buildings were designed by none-Muslims.

To develop an Islamic theory of architecture in which modernism and originality are paralleled, architects need to conduct more theoretical studies. On top of that, they should improve the applied approaches of Islamic architecture and gain the support of national organizations which are charged with the responsibility of reviving Islamic architecture.

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