

## A BREIF SURVEY ON THE PRINCIPLES OF IRANIAN ISLAMIC ARCHITECTURE

Bahareh Hosseini<sup>1</sup>, Atefe Zand Karimi<sup>1</sup>

<sup>1</sup>*Shahid Beheshti University, Iran*

**Keywords:** Iranian Islamic architecture, Culture, Principles of Iranian Islamic architecture, Iran, traditional buildings

### Introduction:

This essay is a brief study on the principles of Iranian Islamic architecture, to extract the major points and challenge them from different points of view. After introducing Islam into Iranian territory outstanding architectural landmarks affected dramatically by this newborn religion. Iranian architecture did not lose its identity in confront with Islam ethic, but Iranian architects re-created the buildings based on local culture and civilization with adaption to Islamic point of view. Previous buildings changed to follow new orders and new ones such as mosques, Islamic schools and new kinds of tombs were created to join and enrich the architecture of Iran.

The word Islamic architecture refers to a kind of architecture that has been built in Islamic territories. This kind of architecture was created in the country of Iran when the religion of Islam was introduced to the world in around 600 A.C. and flourished in duration of almost thirteen centuries. [1] In spite of racial and cultural differences among people of different parts of the country, some new kind of architecture was created which had extensible unity in all of its parts. It means that all of the buildings in the category of Islamic architecture placed in different territories of Iran possessed similar features. However aside this unification, there are some slight differences which are derived from the local cultures and life style. [2]

So Iran as a country that is being intruded during centuries for its strategic location in the Silk Road find a new opportunity to develop its architecture and aesthetic fields. Efflorescence of cities such as Isfahan, Yazd, Kashan and Shiraz are signs of the huge impact of Islam on Iranian's life. Many different reigns have ruled Iran during this period. (1-13 century in Hijri calendar) [2] Consequently these political terms have had impacts on the architecture of this region of the world, but they do not mainly influence the architecture of Iran.

As it is mentioned above some principles dominate the Iranian Islamic architecture seem to be derived from beliefs that the religion of Islam brought and vernacular culture at the same time. Architecture in Iranian territories in which the climate is hot and arid possesses its own specifications. It is dependent on the climate, religion, worldview and above all culture that has had the greatest impact on its architectural features. Being humanistic and proportional, abstinence from inanity, having structure as aesthetic elements, self sufficiency, introversion, purity in shapes and volumes, having symmetry and being colorful are some of the origins that can be found in any building of Iranian Islamic architecture. All of these principles are legislated for one purpose and that is to build an excellent building. [2] Terminology wise if we concern the word "Architecture" that is driven from ancient Greek word defining something more than sheer to build a building, implicates on a higher meaning which is to build perfectly, like other aesthetic works. [3]

In the regard of some meaning-oriented critics like Henry Corbin (1973) that consider this world one of two which god has designed, the artist's main duty is to discover mysteries of the other and the so called hidden world. He should seek spiritualism in his works in order to disclose them. [4]

Considering this, the aforementioned features are accepted as uniform and essential principles for architecture in all parts of Iran. These principles exist from generalities to the smallest details of the design. It has been studied in this article to introduce these features in a concise and meaningful manner as follows:

### **1. Humanism and Proportionality**

Humanism in Islamic architecture is the heed of human proportion between building elements and human body and his physical and emotional needs. The past architecture has always been an art that had tangible relation with daily life. In Iran architecture has been suitable for humans and respects his beliefs and personal ambitions. [5]

Humanism in Iranian architecture is obvious when we have a look at spaces and its details. For instance a single space like three-door room which is prevalent in traditional houses is as large as it is comfortable for an average family to live. Community spaces (called *talar* in Persian) are also designed to remind an Iranian family glory for the guests who are about to come in. (Fig. 1) Details are also designed proportionate for a person who utilizes the building, for example plinths in most mosques are high at a level that makes comfortable for a person to lead on.

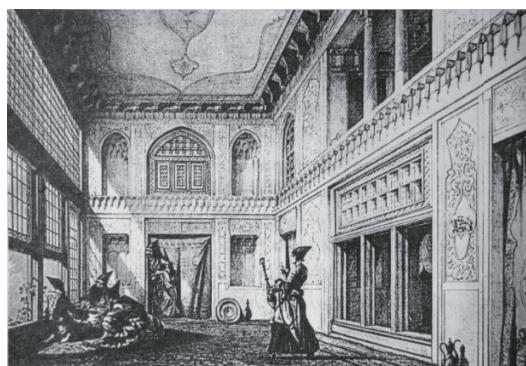


Fig. 1: Interior of an Iranian House

### **2. Abstinence from Inanity**

It has been tried to abstain from frivolous and building supernumerary in Iranian Islamic architecture. In holy Koran we see: "believers, who they abstain from inanity." If European countries have had arts pertaining to architecture such as painting figures or sculpturing or detailing just for the sake of beauty, in Iran architects never used them as sheer ornamentation. [1] They used everything for a certain reason in order to make the space suitable for living. Even when they used ornamentation under the vaults they want to have humanistic proportion by the means of it, or they built colorful windows in order to prevent sun glare and its heat enter the room. Therefore Iranian architects didn't just consider the beauty of elements but their efficiency and utility.

### **3. Structural Considerations**

The Persian word "*Niaresh*" have been used in Iranian architecture a lot. It means the knowledge of static, building technology, and material science. Iranian traditional architects had a sensible notion of structure. They did not discrete structure from beauty. They have gained a lot of information about construction methods by experience and transfer it chest to chest. [6] The common usage of masonry walls, arch-shaped ceilings and the subtle double-layer vaults are well-known in Iranian architecture of that time. (Fig. 2-4)

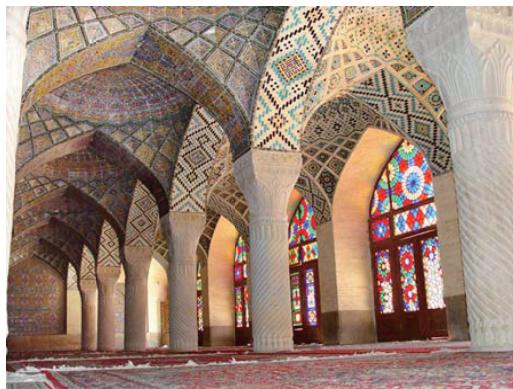


Fig. 2: Seraglio (*Shabestan* in Persian) of the Nasir ol molk mosque, Shiraz

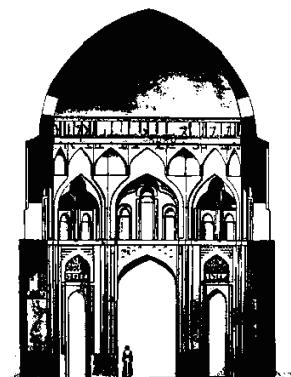


Fig. 3: The Tajol molki dome, Isfahan, one of the greatest examples of its kind.

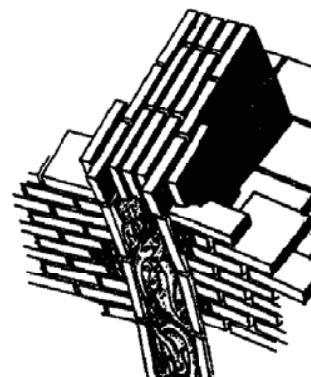
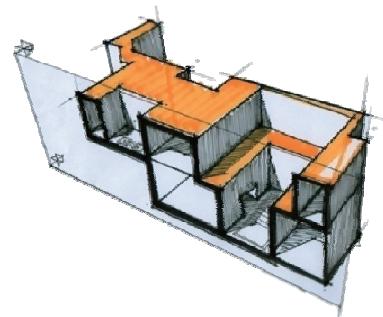


Fig. 4: The detail of the Nezamol molki dome, Isfahan

#### 4. Self sufficiency

Iranian architects have always tried to procure essential materials from local areas and built the building in a way that it would not be dependent on getting material and method from somewhere else. So in this way the building procedure wouldn't take long and the building was more compatible with vernacular nature. As a result it was also always possible to obtain supplementary material in order to repair the building in the case of renovation. They believed that material should be indigenous and it should be tried to benefit the vernacular facilities as possible. [6] For instance the usage of clay which was the most available material in the plateau of Iran was the basis of multiple generations of bricks and tiles and different kinds of mortar used in the construction process. The optimization of formation according to available vernacular facilities is one of the other examples regarding to self sufficiency in these buildings. (Fig. 5, 6)

Fig. 5, 6: Vertical extention of one of the traditional houses in the city of Yazd in order to reach under ground water and supply lower stages sun light.



#### 5. Introversion

Basically people beliefs had a great impact on establishing unified features in Iranian traditional architecture. The most stable and sturdy point about Iranian Islamic architecture is the issue of tendency to the inside and in general introversion. The main aim of the introspection is to divert the attention to the inside and refuse outside, in such a way that it is not possible to understand the building from outside. [7] In this status one should stand within the building in order to understand the main story of that building. For instance when one walk through Yazd or Kerman's streets he just recognizes the simple and earthen crust of the outer side of the buildings. (Fig. 7) But as soon as he enters one of them, he might

find highly decorated interior facades. The misleading point is that it seems that introversion is due to the need of having privacy in buildings such as houses, but we find this point also true about the public spaces such as mosques and forums (*bazzars*) which needed no tendency to get private. (Fig. 8, 9) In fact the notion of inviting the visitor to the inside provides the feasibility of augmenting the influence of the space to him since the when he wants to try the spatial experience he would find himself completely wrapped.



Fig. 7:  
Outlook of  
one of the  
alleys in the  
city of  
kerman

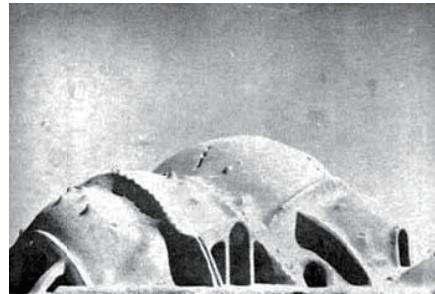
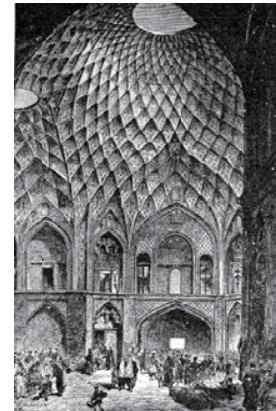


Fig. 8, 9: The exterior (left) and  
interior (Right) of Amino dole forum,  
Kashan



In the notion of subjectivism, the outside of the building has no appearance but the interior space has all the decorations and attractions. This organization manner of the buildings decrees some spatial disciplines and that is a central courtyard in Iranian Islamic architecture. The order of courtyard in the middle of the building and forming other spaces around it is famous in Islamic architecture for the privacy it brings. (Shown in figures 5 & 12) [8] But as mentioned above the impact of introversion is not only the privacy it brings; it causes the building to find two different aspects, two aspects that are totally in contrast with each other. This contrast is one of the features of Islamic architecture. Eventually it affects the space order for open and closed spaces that finally leads to separation of the buildings in two or in some cases three domains: public, private and in between spaces. [9] As a result the relation between inside and outside get more complicated. In traditional Iranian houses which the privacy is crucial the most intricate cases of access systems are seen. [10]

Consequently the perspective of the cities also changes because of the introspection. City textures became a collection of closed and open spaces that periodically duplicated as Figure 10 shows. [11] There is another prospect attributed to introversion that justifies it as a muniment against intruders. Having strategic situation between Middle Eastern countries cities in Iran never felt secure from attack. They usually beleaguer themselves behind great walls surrounded the city, let alone leaving their houses being exposed.



Fig. 10: Aerial view of traditional (right) and  
contemporary (left) urban fabric of Yazd shows the  
deterioration of spatial sequence in Iranian traditional  
cities.

## 6. Purity in Shapes and Volumes

The Iranian traditional architecture had strict regulations in correspondence to using shapes and volumes. In the general form of Iranian Islamic architecture, seeking out perfection and achieving the best design is evident in the selection and combination of shapes. [12] Each used element in Islamic architecture is pure and geometrical. Elements like pool, garden, courtyard, elevation, plan and volumes of building are created with shapes that are geometrical and pure. Even when one could not design in "right angles" due to the limitations he would skillfully design the interior in a way that every single key space feels like being geometrical. The architect of the Friday mosque of Yazd masterly knew that. (Fig. 11, 12)

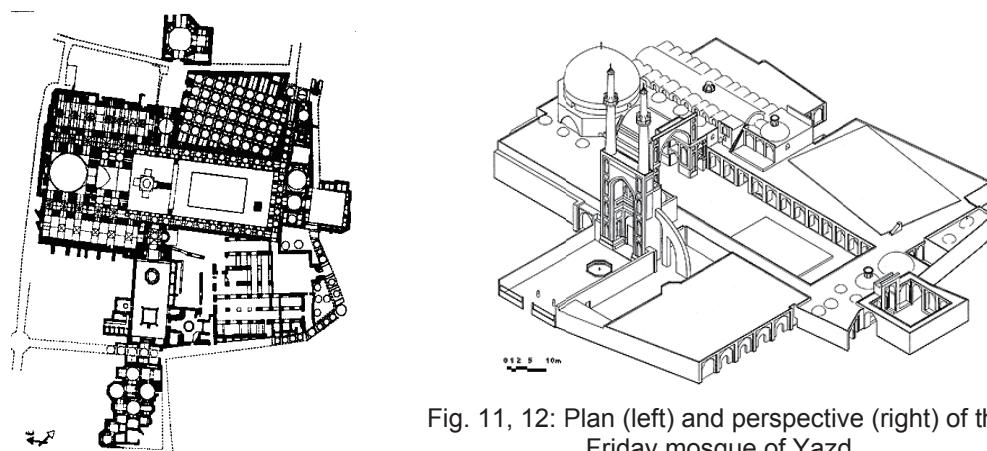


Fig. 11, 12: Plan (left) and perspective (right) of the Friday mosque of Yazd

Patterns in this kind of architecture may be divided in two groups: the geometrical patterns which mentioned, and the patterns of arabesque which is a combination of different signs in the form of round, soft, ringlets and is intertwined and wavy which at first glance seem to be herbal.

## 7. Symmetry

Having symmetry is one of the features of traditional Islamic architecture which the notion of modernism totally refuses. [13] In a space or plane with symmetry and perpendicular axes the central element seems more important than the other elements. (Fig. 13) The interesting thing is that not just physical elements makes symmetry. Ingenious Iranian architects have used water to bring another kind of symmetry in which the building and its virtual twin play the roles. (Fig. 14)

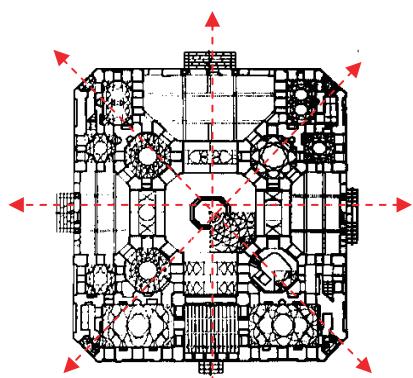


Fig. 13: The symmetrical plan of the Hasht-Behesht grange, Isfahan



Fig. 14: Reflection of Chehelsotun Palace in the pool, Isfahan

## 8. colorful space

Another interesting feature of Iranian Islamic architecture is the extensive use of colors in the buildings. A variety of limited and splendid colors usually wraps the whole interior of the buildings. [12] This is not like what we call "decoration" today; it is like giving a final spatial quality to a world of strict regulations. The designer wishes to express his feelings through colorful and abstract patterns. By the means of a thin layer of color whether be painted on the wall or a tile the characteristic of the space changes hugely; what Iranian Islamic architects discovered in order to bring their imaginary gardens to their earthenware buildings.

### Conclusion:

What has been set down in this article was a brief introduction of what is called Iranian Islamic architecture and some of its main principles. It is an architecture that pursues tranquility and peace by the means of using spiritualism in the buildings. The thing that led to different styles was the diversity of how architects and literally people looked at the space. An Iranian Islamic architect worships his God by the means of building. He pursues a space that is perfect, a fault-free and inconvertible space. He utilizes available elements in order to satisfy the hunger of tranquility of the people he builds for. As mentioned the priority of the interior over the exterior, the seeking of the complete and geometric pattern for forming spaces and shapes, the hidden contemplation behind the simplicity of the buildings, being from and for the local environment shows that the architecture is a cultural phenomenon, an art that is in a daily correspondence with the people. As a result Islamic architecture in Iran was greatly influenced by its traditional culture, and gradually adjusted itself to the new insight of Islam religion.

### References:

- [1] Pirnia, M. *Sabk Shenacy (Methodology)*, Journal of Art and Architecture, No. 10-11, Tehran, pp. 20-36, 1971.
- [2] Haji Ghasemi, K. *A contemplation in Iranian Islamic Architecture and the way of understanding that*, Soffe Magazine, No. 52, pp. 2-14, 2012. (In Persian)
- [3] MadadPoor, M. *a Brief Survey on Architectural Spiritual Philosophy & The Future World*, Andish nameh, Shahid Beheshti University, 2008.
- [4] Corbin, H. *En Islam Iranien: Aspects spirituels et philosophiques*. Gallimard, Paris, 1973.
- [5] O'Gorman, K. and Prentice, R. *Iranian hospitality: from caravanserai to bazaar to reporting symbolic experience*. Proceedings of the Conference of EuroCHRIE 2008 Congress, Dubai, United Arab Emirates, 11-14 October, 2008.
- [6] Ghobadian, V. *Climatic Analysis of the Iranian Traditional Buildings*, Tehran University Publications, pp. 308-37, Tehran, 2001. (In Persian)
- [7] Memarian, GH. *Ashnaii ba Memari Maskooni Irani, Ghuneh Shenasi Darunghara (An introduction to house typology in Iran: Courtyard houses)*, Iran University of Science and Technology, Tehran, 1993. (In Persian)
- [8] Memarian GH, Brown, F. *The shared characteristics of Iranian and Arab courtyard houses*. In SM. a. HM. Edward B (eds) *Courtyard Housing*, Oxon, pp. 21-30, Taylor & Francis, 2006.
- [9] Ramezani, S. & Hamidi, S. *Privacy and Social Interaction in Traditional Towns to Contemporary Urban Design in Iran*, American Journal of Engineer and Applied Sciences, Vol.3, pp.501-508, 2010.
- [10] Memarian, GH. & Sadoughi, A. *Application of Access Graphs and Home Culture: Examining Factors Relative to Climate and Privacy in Iranian Houses*, Scientific Research and Essays, Vol. 6(30), pp. 6350-6363, 2011.
- [11] Shabani, M & Authors, *Achieving Privacy in the Iranian Contemporary Compact Apartment through Flexible Design*, University Kebangsaan, Malaysia, 2011.
- [12] Haji Ghasemi, K. *Searching for Meaning in Persian Islamic Architecture*, Annual MESA Conference, Washington, 1999, <http://ilex.ilexfoundation.org/confer/mesa.html>
- [13] Meiss, P. *Elements of Architecture: from Form to Place*, E & FN Spon, London, 1992