

Sustainable Concepts in Mosques



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Abstract

Despite the variability and multiplicity of the constituent elements employed in the construction of the mosque, and due to the pivotal and symbolic function of light and water as the embodiment of spirituality and purity in such a holy place, these elements are utilized up to the best of their potentials. This paper embarks on investigating and interpreting the symbolic roles as manifested in the architecture of the sanctuary of the Muslim, the mosque.

Keywords: Worship, Mosque, Perfection, Light, Water

1. Introduction

Identity crisis and the increasing chaos observed in the appearance of modern cities in Iran uncover the artistic value inherent in the works of our ancestors more than ever. The historical and cultural gap between the current generation of architects and the developmental process architecture led by past pioneers of the field has brought about the illegible atmosphere in the contemporary cities. This illegibility has extended so further that to we can not make a logical connection with our past; this distance between our past and contemporary architecture is so much controversial and different, as though architecture masterpieces of Iran has been created somewhere else or by some people other than the Iranian.

In order to revive the connection between contemporary generation and this invaluable heritage, mosques as one of the main representation of art and particularly architecture in Iran culture in the past, seem to be rich with the potentials to be the point of departure. Along with the man's desire to be able to move beyond its material substance up into heavens, toward perfection, mosques has always been a comforting shelter for those suffering from the hardship of this holy journey.

Islamic arts have a religious and spiritual basis best known representation of which is manifested in mosque architecture. In this paper Islamic architecture is approached through a critical perspective based on such an attitude which makes a connection between the creator of a piece of such work and the spectator is a collection of divine holy principles.

Since God is the absolute perfection and human being, as a minute part of this perfection, by nature seeks perfection, then the human philosophy and goal of creation is set toward the achievement of such perfection and worship is seen as the most important way through. Not only is the issue of worship more significant than other routine issues of life, but also it is assumed to be the main goal of creation. The human being is a divine creature, they naturally respond to their spiritual needs, making a distinction between those human needs and their racial and ethnic inclinations. In effect, worship is a natural need of all the human kind.

Due to the prominence attached to worship as the most required spiritual need of man, manifestation of this divine concept in the shape of mosque, which in its final form is the most appropriate place for the gradual perfection of both individual and society to move beyond matter and to get closer to a divine origin, could be a response to it.

As the human are the most superior of all creatures, their place of worship and prayer should be built in its best guise as magnificent as possible; a perfect mosque representing a perfect being. The Muslim architect is, thus, bound to approximate and assimilate his piece of work to the superior being as much as possible, creating it based on the divine nature of it.

Light and water are two elements that despite their material nature, due to their transparency, brightness and immediacy illustrate and represent best the concept of perfection, and are more associated with divine concepts and holy images in human mind than their material aspects. Light and water have eternal meaning and could easily connect earthly humans to God. As water enjoys the qualities like transparency, brightness and purity, it is known as a purifying element across the internal and external borders of the mosque and this is why an elegant style of work has been applied in building mosque pond and ablution room.

Light, as an objective existence, does and does not exist at the same time; hence it is viewed more as a metaphysical rather than a physical existence; and because of this

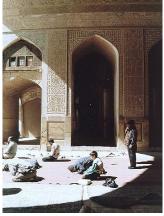


Fig 1: A mosque in Isfahan

assumption the Muslim architect uses light at the waist of dome on a space between the lower material cube and the higher hemisphere of eternity. As mosque should be a symbol of perfect human, it should symbolize some qualities like beauty, justice, freedom, humility, austerity, and generosity, in the form of some instruments like geometry, hierarchy, scale and symmetry.

All in all, therefore, the status of mosque as a holy place is taken for granted, a place which mediates divinity and is to be built beyond matter. All the abstract and physical constituents of the mosque have come together to make a form which acts as a connection between material and divine worlds moving toward perfection.

This study is an attempt to give a more detailed elaboration on the significance of these two elements, light and water, in the construction of the mosque. In the following paragraphs, first an overview on the Islamic perception of ideal man and its general embodiment in the form of mosques is given, and then we will go through elaborating on the prominence of water and light in this regard; finally we will end up with some concluding remarks.

2. Perfection, The Ideal Goal of Human Being

From the very beginning of advent of human being in the world, they have been seeking different ways toward perfection. This ideal has always been interpreted and in various ways by various peoples and societies depending on their accepted worldview. To the Muslim perfection is nothing but the holy existence of God. While they see themselves as the holies being created by God, they always confess their poverty, inability, and inferiority in comparison with God. They are highly proud of their enslavement and surrender to God as a sign of a divine graciousness. Worshiping the almighty and absolute creator of the cosmos to the Muslim is seen as the only way that helps them move up the ladder that goes up into the destined world of eternity. Mosque is seen as the place where they can take the first steps up the divine ladder toward the promised land.

"Worship is not as equal as the other activities of the man rather it could in some way the purpose of creation. Worship is an inherent need. The developmental process of worship has begun from the most misleading to the right track, from the worship of idols to the worship of the unique God." (Noghrekar, 2000)

The divine activities are commonly supposed to be conducted in divine places. According to Owlia (2000) "Worship is the dialogue between man and God; that was God who allowed man to talk to him. Worship may be conducted anytime, anywhere, in any language; however, special times, places and languages are of more priority and more emphasized." (fig. 1)

Human life is interwoven with his different physical and emotional needs. But there are some moments in life when this creature feels to be in such a horrible desperateness that nothing and no one in this big world would be capable of satisfying his subconscious needs, some needs that even can not be verbalized but man feels them obviously in his innate part, in his heart. He feels to be drowning in an endless ocean in the loneliest parts of his life, but there is nobody that he would hope to come and save him from the dark death. This is the right moment when the man becomes aware of some other powers, some metaphysical beings, that although he can not observe, he feels them intuitively. This feeling of need for a divine creature to save us in that moment is common among all human beings regardless of their ethnicity, culture, religion etc. Worship seems to be the response to this natural need that is said to be standing along with but at the top of the hierarchy of all other needs. Worship in Islam is seen as the cornerstone of perfection.



Fig 2: A mosque in Istanbul

With regard to the necessity of worship as the most prominent need in the way toward perfection, in the religion of Islam mosque shines on the earth as the holy physical manifestation of this need. Mosque that in its ideal representation is the most appropriate setting for the development of self and society and the salvation of all human beings should move along with the elevation of Muslim toward perfection. (fig. 2)

3. Mosque, The Reflection of Perfect Man

"Mosque in its final form is the most appropriate place for the gradual perfection of both individual and society and for the movement of all human kind beyond their material life and to get closer to a divine life, can be completed under the conduct of perfect human." (Aliabadi, 2000)

Perfect man both is in itself an independent existence and has some moral characteristics that represent him; as the mosque is the symbol of the perfect man, it should be the representation of the man in both the aspects, that is, it should have an existence independent from its influence on the others. The mosque existence that is a composite of its design, construction, and materials should be in perfect balance in the same way the perfect man is.

The reasonable and perfect man labels useless and avoids whatever unrelated to slavery to God. Avoiding the vain is the sign of wisdom, and so the mosque also should be devoid of the vain; any component in the construction of the mosque should play a role in reflecting a holy being. Wisdom goes hand in hand with justice; the perfect and wise man puts everything at its right place and provides the chance for any talent to burgeon and obtain its deserved status. In the construction of the mosque, in the same way, every element should be placed at the most proper place and be employed in its best potency; anything-stone, wood, wall, gate, floor, ceiling etc- as the constituents of a divine symbol deserve and so should be given the opportunity to activate its potentials.

The application of natural light in the construction of mosques has been done with a metaphoric and equivocal rather than a direct and straightforward method. In this style cognition has been accounted for as a fragment of the aesthetical values of the mosque. By dissecting every spiritual and unobservable concept, this procedure has sought to represent them physically in the guise of architecture.

There are different elements employed in the construction of a mosque in order to approximate its ideal form among which light and water, as sustainable elements, are of special importance.

4. Light and Water in The Mosque, Elemnts With Dual Functions

Light and water are two symbols of spirituality and tranquility; therefore they should be placed at the focal center and heart of the mosque. Although these elements have both physical and spiritual aspects, but due to the fact that they enjoy some qualities like immediacy, purity, and transparence, they carry the concept of perfection in themselves and act as a link between the material and the divine worlds; this is the point where the spiritual aspect outweighs the physical one. These qualities can be reminders of the purity, lightness, and infallibility associated with perfect human, the being that takes his existence from the existence of God as the absolute purity, devoid of any dependence on the physical and earthly needs, desires, and wants, as pure as water, as transparent as light. Man as a being that always seeks eternity is, therefore, subconsciously fascinated by the eternal features of these elements. Light and water connect man with his eternal origin.

1 Water, Purification of Mind and Body Toward Perfection

"Before entering the mosque, reflect on water, the key to the home and worship of God, the guide to servitude and surrender to his majesty. As you wash off your external dirtiness, cleanse your sins with the water of his merci." (Aliabadi, 2000)

Water, as went before, is the symbol of purity, transparency, and immediacy and also is commonly used as a means of washing off the external impurities. Because of these characteristics of water, the ablution room (the space provided for doing ablutionary rituals), based on the hierarchical definitions of the mosque, is located at the very entrance of the mosque, where the mosque body is separated from external spaces, symbolizing the borderline role of water mediating between the physical and the spiritual atmospheres of the environment; after the room is the location of the pool in the middle of the mosque yard.

These spaces specified for the ablution room and the pool, are both located in a way that they come before the main part of the mosque, that is, one has to pass along them to get through into the main space of the mosque. This separating role of these water generated rooms is in fact the physical symbol of a spiritual characteristic associated with water, that water is the border and the link between the outer world and the inner world; in Islamic views in order to move beyond the former and get into the latter one has better purify himself and wash himself off all his sins and impurities



Fig 3: A mosque in Yazd

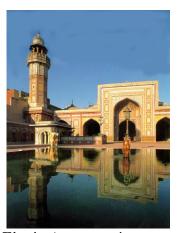


Fig 4: A mosque in Lahore

This pool is analogous to a big mirror with two functions, one pragmatic and the other symbolic; it has a pragmatic role in the sense that the water contained in the space is used for doing activities like performing the ablutionary rituals. The water pool also is the symbol of the divine status and purity of the mosque and the prayer; as could be seen in the two preceding figures, when one looks into the pool water, he can see the pictures of the mosque as well as himself in the big water mirror, eliminating the earth as well as the distance between the mosque and the sky i.e., there is no picture of the floor of the mosque; the mosque looks flouting in the sky. This is in fact a symbol of the common belief among the Muslims that truly spiritual and Islamic reality in the world stand higher than any physical and earthly reality; in this case the mosque and the Muslim are pictured high in the sky-the symbol of elevation. Visitors to the mosque also take advantage of the mirroring quality of the pool in order to assure their purity before going into the inner section of the mosque.

2 Light, The Interface of The Spiritual And Material Worlds

"Mosque is the house of light on one hand, and the light of God on the other. The structure of the mosque should place light in its heart, like the light in the heart of Muslim." (Navaee, 2000)

"Light as a divine quality stands in contrast with darkness. Light is a divine spirit that permeates into the darkness of matter and grants it dignity to accommodate in it human soul, that has its origin in light." (Hosseini, 2000)

As it is illustrated in the following figure, the lighting system of the mosque is designed in a way that while light from the sun gleams into the internal and relatively dark space of the mosque through the geometrical grids of blind, it creates some virtual forms that seem to be moving around as the radiation angle changes. Sun light, that in our daily life is treated as though it does not exist, as something taken for granted, via this mechanism puts on some virtual characteristics that make it seem something objective, physical, and tangible, something that has form and moves around. In this state, therefore, light for human being comes to existence in a new way, while he has not already noticed and realized its existence in this way. This could be an analogy of the way people treat unobservable, spiritual and generally all metaphysical concepts.

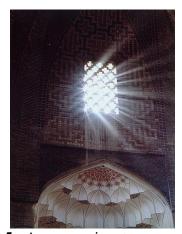


Fig 5: A mosque in Isfahan

Light, as an objective reality in the world of matter, enjoys the quality of immediacy, that is, it exists and does not to exist at the same time, and so is more

associated with its metaphysical than physical aspect, seen as an element connecting the external world to the inner world; that's why in the construction of mosque, the Muslim architect applies light to the waist of the dome on the mediating part between the square (material world) and the semicircle (inner world). (fig. 6)



Fig 5: A mosque in Istanbul

5. Conclusion

With regard to the fact that mosque is known to be a sacred construction in Islamic architecture, in order to create a meritorious and qualified atmosphere elements with divine and eternal connotations are required to be employed in the structure of it. In contrast to the other natural elements, that the quality and quantity of their utilization in the body of mosque often changes in the course of time, light and water, due to the priority of their metaphysical aspect over their physical characteristics, have always been two inseparable constituents of the mosque body. In addition, the optimal, qualified, and proper use of these natural elements in the history of the mosque architecture has led to the creation and elevation of some sustainable concepts used with the purpose of reflecting the Islamic ideals mosque embodiment.

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References

Aliabadi, M. (2000), *Effects of grace in the mosque*. Collection of articles: conference of architecture, past, present, future (Arts University of Esfahan) 1: 315.

Hosseini, M. (2004), *The ontology of form system*. Collection of articles: the second conference of Iran architecture and urbanization (Argo-e-Bam), 1: 112-133.

Navaee, K. (2000), *Mosque, the icon of perfect man*. Collection of articles: the conference of architecture, past, present, future (Arts University of Esfahan) 1: 667.

Noghrekar, A. (2000), *Mosque, the perfect sanctuary*. Collection of articles: the conference of architecture, past, present, future (Arts University of Esfahan) 2: 222.

5th SASTech 2011, Khavaran Higher-education Institute, Mashhad, Iran. May 12-14.

Owlia, A (2000), *Worship and creation of space*. Collection of articles: the conference of architecture, past, present, future (Arts University of Esfahan) 1: 50-51.