

The Spirit of Time and Lighting in Religious Spaces Case Study: Sheikh Lotf Allah Mosque in Isfahan, Iran

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ABSTRACT

Sheikh Lotf Allah mosque is the most beautiful and splendid building in Isfahan that built in Saffavi age. The style of lighting is unique and there is an exact relation between time and light in designing the spaces. The mosque is a space for praying and gathering for Moslems and the religious identity reached its zenith during the Prayer. The aim is to investigate the concatenation of light, kinds of light that enter to spaces and decorations that connected with time and light. The type of Lights is based on Suhrawardi's Thoughts. The methodology involves personal natural observation and Documentary methods. In the rising time of the sun, the scintillations of sun illuminate Shams Sura on rim of dome and in the going down time it illuminates the Lail Sura. Shams mean sun and Lail mean night in Koran. The mosque related 45 degree from the east part of Naqsh-e Jahan square because of pray time and Mecca. It caused visitors passed the dark entrance and entered to central space after a long corridor. This building and its spaces are alive and singular forever and the durability secret of mosque is forever identity and timeless way of constructing.

KEY WORDS: Lighting, Time, Space, Mosque, Sheikh Lotf Allah, Esfahan

INTRODUCTION

Islamic architecture especially in Iran emphasize on light. Inside the mosque seem like light which are crystallized like material forms and is reminder of Noor verse. In Iran, because of intense shine of sun beam in most of this land and air limpidity in high regions, experience of light and need the live in bright spaces has been as a part of Iranian life throughout history. One of most important architectural kinds throughout history have been religious architecture, as important part of world architectural lasting works has formed from mausoleum and temple spaces. Many of Iranian philosopher thoughts as an spirit of place in Iranian architectural framework have revealed, such as mosque (Najm Abadi, 2002).

mosques architecture as temple space especially Islam religion are considered as most important Islamic architectural appearance that has special variety and diversity in wide areas of Islamic regions because mosque is good place and combination made of framework (Architecture) and meaning (God) in Islam culture Light is prominent element of Iranian Architecture, not as physical element, but as a symbol of divine sense and existence. Light in different day hours give a variety of glitter to rural areas. Light is most transparent, most soft, most simple and most cheap existing structural materials in creation qualities and needed items for human, and it give the opportunity to characterization and give the life to routine activities and exhibition of life invariable imaginations and mental conditions. Thus, Lighting is most proper structural material which can give form, beauty, pleasure and comfort to our routine activities. So far, many studies on the impact of Suhrawardi's thought on space and light has not been created. Some scholars investigate about Ishraq School. Corbin (2000) studied the History of Islamic philosophy. Seventh part of book is about Suhrawardi and the Philosophy of Light. The results indicate that 'victoriality' of the Light of Lights, there proceeds from it the being of light which is the first Archangel, whom our Sheykh calls by his Zoroastrian name of Bahman. The relationship which eternally unfolds between the Light of Lights and the First eminent is the archetypal relationship between the first Lover and the first Beloved.

Nasr (1972) investigate the Spread of the Illuminations School of Suhrawardi in different political systems in Iran from past and present it to western societies. Strangely enough Suhrawardi was never translated directly into Latin and was never able to help fortify and sustain this tradition. His name was never officially known to the West because he appeared on the scene at the very moment when the first major period of translation in Spain was drawing to a close.

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METHOD

The methodology was descriptive - analytical and preparation of information and documents had been performed with documentary and field Methods. In documentary part necessary information has been collected through books, maps, and internet base and field studies, photographs and videos has been performed in field of paper subject by the author.

SUHRAVARDI AND ILLUMINATIONIST PHILOSOPHY

"Shahāb ad-Dīn" Yahya ibn Habashi as-Suhrawardī also known as Sohrevardi was a Persian philosopher, a Sufi and founder of the illuminations philosophy, an important school in Islamic mysticism that drew upon Zoroastrian and Platonic ideas. The "Orient" of his Oriental Theosophy symbolizes spiritual light and knowledge. He is sometimes given the honorific title Shaikh al-Ishraq or "Master of Illumination" and sometimes is called Shaikh al-Maqtul, the "Murdered Sheikh", referring to his execution for heresy. In most of religions, light is symbol of divine sense and source of all purities and goodness and deliverance of human from ignorance and spread of insight in his/her existence is always ultimate purpose. Thought of light nobility like material appear three times during evolution world view in Iran. Two times in religious form (Mzdysna and Mithraism) and one time in philosophic and Suhrawardī's allegories (Roohbakhshan, 2006). He considers position and kinds of light in philosophy of Ishraq in detail of nature. « Ishraq » mean illumination and inward light, « Moshregh » mean light emission and « Mashregh » mean east and derived from « Shargh » mean sunrise which all of them communicate with light. The place that sun rise is « Shargh ». Unity between radiation and Shargh in word « Ishraq » connect with symbol of sun which its rise is of east and shine all things. Science and arts which it can refer to role on light, is architectural art that detailed discussion allocated for it in field exploitation process of natural light. In Architecture, light is one of parts which is considered alongside elements and meaning such as structure, spatial order, materials, color and etc, and should perform its role as a separate element in design (Pirniya, 2006).

Light can give us opportunity to creation of compatible and intelligent environmental systems to rebuilding of artifact environment. Light is a subject which has gave special feeling and meaning to life and architecture in every stretch of time one of most important characteristics of natural light is its continuity and change during day which cause condition movement and change in different hours.

Light which emerge in the Space

- light which is sighted for escape from darkness in space and give good feeling to everyone.
- Deep and effective light in space which rate to person heart and its effect is long term.
- Light which its effect is very short in space, painful but delightful.
- Effective light which its intensity wind persons and seems to be pending.
- Light which cause sensuality and body movements.

Light which has no emergence in architectural spaces

- Light which its effect is very much and become zealous.
- Light which shine to beginners and is transitory.
- Light which has special weight and is intolerable.

THE CASE STUDY

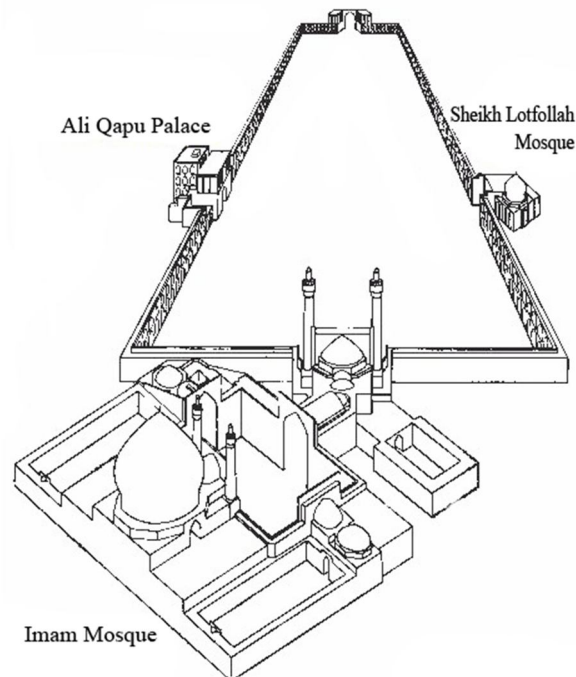
Mosque has been Moslems spiritual identity manifestation center and one of the most important architectural and urban elements and from important centers for creation of Moslem architect's taste and talent. Sheikh Lotf Allah mosque has located in eastern section of Esfahan's Naqsh-e Jahan square (Imam square) and in front of Ali Qapu great building in 1028 lunar Hegira, first Shah Abbas commanded that it was built which is most beautiful and most splendid building of Saffavi era. since square was not along holy axis, architect was forced to change the whole mosque building to 45 degrees and located its axis to the Mecca, which caused mosque prolongation was not equal with square and arrive to courtyard of mosque through dark hallway. Architecture of this mosque is that light shine to Shams Sura written to the dome of time of sunrise and shine to Lail Sura which is on western section at time of sunset. No one can enter the mosque is a conscious state or thinker. Unless the motion and the feeling of getting to lose. This mosque doesn't have any weakness because of all the elegance and perfection. Worshippers must be

entered from behind and in front of the altar to the nave. For this reason, corridors twist and made to come before the chorus is where the dome (Bemanian,2010).

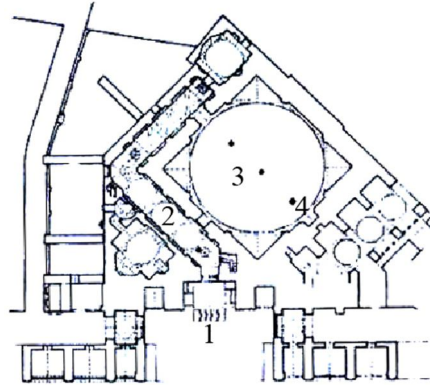
Fig. 1: Sheikh Lotf Allah mosque (By author, 2012)



Fig. 2: The position of mosque in Naqsh-e Jahan square

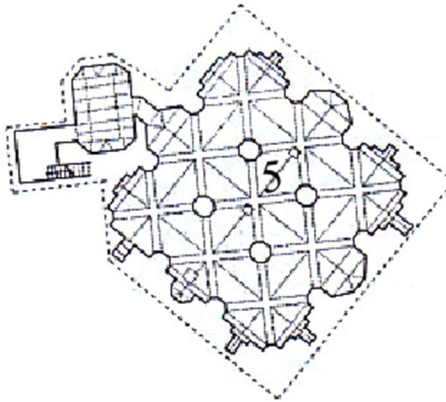


Lavished with elaborate calligraphy of Quranic verses and multi-colored mosaics, the mosque is definitely fit for a king. Every tile was laid with precision and the main dome is dominated by a peacock that changes color and shape as light reflects off of the mosque's interior. Sheikh Lotf Allah Mosque was completed in 1619 after nearly 20 years of work. Today, the mosque stands as a magnificent and detailed public work. However, when it was originally built it was a private and luxurious place of worship for Shah Abbas I and the women of his court. The Sheikh Lotf Allah Mosque has no minarets as it was a private mosque used by the Safavid royal family members, presumably they did not need to be called to prayer. It is also known as the "Lady's or Women's Mosque" as the ladies of the court could worship there in private. The tile work in this mosque is exquisite. In order to have the altar of the mosque facing Mecca and the Mosque still positioned as one of the "anchors" of the square, there is an angled corridor into the mosque from the square. Although it has not been found, rumor has it that there was a private underground tunnel to the mosque from the A'li Qapu Palace for the royal family.

Fig. 3: Ground floor plan

In comparison with other mosques, this mosque lacks courtyard, minaret and portico and is little dark because of closed four mosque's wall. thus , for preparation of light under the dome, architect has placed sixteen pairs of reticulated windows around dome which its empty and full spaces of interwove Arabesque break the direct light because of double dome .

Window's width and height is quite the size of its roots area between them which. Shikh Lotf Allah mosque's architecture is limpidity and spiritual and everybody has saws this mosque, has influenced by inner space.

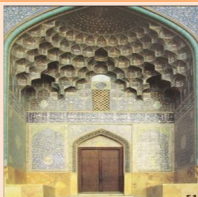
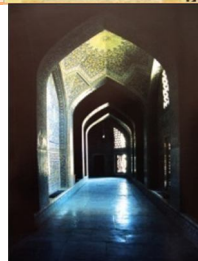
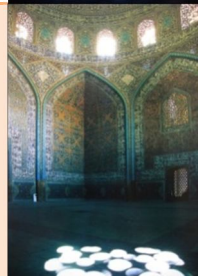
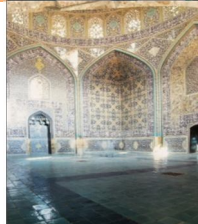

Fig. 4: Basement floor plan

CONCLUTIONS

Time is a continuum in which events occur in irreversible succession from the past through the present to the future. Space is that quantity of extension, the distance from one thing to another, the interval between any two or more objects. Light is diffused as an existence symbol in mosque space so that it is one of the founding elements of conceptual space. Architecture attempts in its conceptual genesis to freeze time, to hold onto that perfected moment of the completion of the building for as long as possible before and after the event. mosque's brightness element and mosque's light system schedule is numinous and spiritual symbol and is considered as a part of mosque's decorations .light which have diffused masterfully in building, light apertures, which is located below the dome and above the walls, instill dome's lightness feeling and its suspension between the earth and the sky into human .This is the same transparency and reach from mass to space and from material to soul. The terms on which time can enter architecture are still more limited than those set for space. It is apparent that the full dynamic implications of time represent an immediate threat to the prevailing paradigms of architecture. There are three light source in this dome : first , light which shine from the north west large entrance on the covered part of a mosque's southwest walls that has placed on it and illuminate beautifully its tiled floor , and second , light which is entered from wooden net installed in dome's

eastern wall that illuminate approximately middle of dome's courtyard and third are the same nets below the dome which is the junction of walls to dome and illuminate the space under the dome and dome's walls .

Table1: The Sprit of Time and Light in the Mosque

Analytical spaces	Description of space	How to get light	Picture of space
(1) Forecourt	This is the first space which prepares the observers for entrance to other space with different scale and begins with retreat from eastern side of Naqsh-e Jahan square. The role of this section can considered to underline the entrance space, creation of intermediary and transitional space between exterior and interior space, and the place for stay and waiting.	After passing the Naqsh-e Jahan square with great light and brightness, arrive to transom which limit approximately the light are visible in space which has separated from square.	
(2) Corridor	Existence of this tight and dark hallway is only for habituate observer eye to darkness, because if observer pass from Naqsh-e Jahan square and then entered to covered part of mosque suddenly, is not able to observe and recognition. Most important reason of existence of this hallway is creation of difference between light and darkness .dark hallway is emphasis on numinous role and offering of new path to human's life .darkness is a like to quiet in this space for Listening the soft sound.	The whole lighting of this corridor is in the path of arriving to the covered part of a mosque by two windows.	
(3) Seraglio	This is a place for observance of prayer and staying of worshipper in mosque's spiritual and numinous space. The place is a center for manifestation of Muslim spiritual identity. After passing the hallway and turn the right, enter to the covered part of mosque. Decomposition and refining of light in windows around the dome and its reflection by bright tiles create the space which is numinous and spiritual.	The covered part of a mosque's light is provided by two light sources. First source which is designed for illuminating of altar. Second which is main light of covered part of mosque, is light that illuminates the covered part of mosque by direct shining of the sun.	
(4) Altar	Sheikh Lotf Allah mosque's altar is architectural art of matchless masterpieces and beautiful altars that can be observed in other mosques of Esfahan. This altar has decorated with delightful tiled floors and cornices. Altar is a part of mosque which should be to the Mecca and Imam stay in it of the time of observance of prayer and prepare his soul to reach the God.	Altar's light is provided by big gap in northern side and illuminate this place which is mediator between human and absolute light means God.	
(5) Underground seraglio	There are four beams in underground seraglio. Three ceiling windows provide the covered part of a mosque's lighting and ventilation. This section has pleasant air. Connection of exterior space with inside the dome is by entrance hallway and has decorated with dome's and adobe seven color tiled floor.	This dark seraglio has placed on four thick and short bases. It has very dusky winter and interestingly windows from basement are connected to the domed covered part of mosque's floor	

The role of light in Islamic Architecture is strict emphasis on manifestation. Light under take the transparency of matter and decline of building's difficulty and coldness. Light is diffused as an existence symbol in mosque's space to be one of founding element of perceptual space. Space can only accomplish the difficult journey from metaphysical ideal to physical 'reality' by being emptied of anything beyond a limited set of criteria, and it is clear that these are not enough to describe the full experience of space. Mosque's brightness and development of light system in addition to numinous and spiritual symbol is part of mosque's decorations. Sheikh Lotf Allah mosque is most beautiful and most amazing Iran's mosque. Investigation of lighting mechanism and time help us to better recognition of this lasting heritage. Religious buildings and mosques in Iran's architectural history has been point to reaching its zenith of Islamic art and architecture. In Iran's Islamic Architecture, inventive and structural aspects in

mosques spaces and creation of new space is certainly too much important. Iran's architecture in architectural elements such as arches, ceilings, dome and even cornice as a cubic and three dimensions decoration has been pioneer and could exhibit this achievement to the other Islamic countries This brightness performs spread of information well and sometimes causes development of human's thought to the beyond of matter limitations. Light can give active movement to the Islamic decorations. In different section of architectural history , two architectural aspects mean form and content affect each other and Iranian mosques architecture during history have more paid attention to the content than forms . mosque's design in current time need new thoughts and invention to can conform current new architectural forms with symbolic and conceptual worth's exist in society and introduce new patterns and relatively permanent from mosque's design to society . It seems in present time, content perception is more appropriate and valuable than form perception, for designing of mosque's symbols such as dome and minaret should deliberate in emergence philosophy of these elements. Apart from special and limited form, mosque's design should compel every person to humility and prostration against God.

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