

The Influence of Society's Cultural Aspects on Mosques' Architectural Symbolism-The Mosques Built Between “1970-1990” in Erbil city as Case study

● **Dr. Amjed M. Ali-** Ass. Prof. ●
Architectural Department-University of Sulaimani

Vian Sabr Qadir- Asst lecturer
Architectural Department- Salahaddin University-Erbil

Received : 31/8/2014

Accepted : 3/6/2015

Abstract



There are spiritual and physical symbolic values of the mosques architecture. From the birth of Islam mosque architecture appeared in a simple form but with a spiritual symbolic value, then the mosque architecture developed as Islam spread in various regions and some new elements have been added for the functional needs and numerous styles of mosques appeared as a result in the diversity of identity and culture of each region.

The research discusses that symbolism is one of the cultural aspects as it is one of the humane needs which rectifies society's identity. On the other hand the evolution of mosque architecture mentions that new elements were added for utilitarian need and lasted a period which became symbols for the mosque buildings as well, then it sheds light on the interpretation of mosque architecture with other regions that resulted in various styles of mosque architecture. Therefore, the symbolism of mosque architecture could be obtained through two points one from its key symbolic elements and the other from its relation with local architecture.

Thus, the research started to search and seeks to find the reasons for lacking a known local style of mosques in Erbil city, and the lack of symbolism in them. They even have been built in such a way that contrasted with some of the Islamic regulations. The research takes the factor of "cultural aspects" as an effective factor on appearing these kinds of mosques.

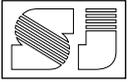
The research concludes that removing some elements in the mosque building which most of them has a desirable symbolic value and besides that neglecting local architecture in the design of mosques led to lose symbolism in the mosque buildings in Erbil city. Thus, a large ratio of the architects could not recognize the mosque

buildings as compared to some other buildings. The thesis sheds light on the cultural background of the society (governmental parties, architects, clients, etc.) that have a distinct effect on the symbolism ratio of the mosque buildings, unlike the project cost has a little bit influence, as most of the mosques which were built by the governmental parties have low symbolic value in spite of not having problems in the cost budget. The thesis concludes another important point which is the characteristics of the site (orientation, area and number of elevations) have a positive relation with the symbolism ratio of mosque, so the research recommends governmental parties and architects to take these points into consideration in the design of mosque buildings.

Introduction

Culture is the main element of society's or individual's identity. There are various cultural aspects but only some of them are influential on architecture. Some of them are related to the fundamental needs to survival which are utilitarian needs, symbolic needs and aesthetic needs. Human being after achieving utilitarian needs tries to prove his existence through his identity, in order to retain his identity he creates the products that have symbolic values. So any society's product which has symbolic value retains the society's identity, and the society has changed a part of objectivity to subjectivity considering it as a part of his identity.

On the other hand the form of mosque architecture evolved due to the spreading of Islam in various regions, therefore, the availability of materials and responses to climatic condition, cultural traditions and available technology "mosque architecture" developed and expanded



into numerous types of mosque styles. Each region has its own culture and identity also has a known style of mosque architecture which can be distinguished from other styles.

There are many mosques which were built in Erbil city throughout its history, but many of them have unrecognizable style, so the research seeks to find the reasons of appearing these kinds of mosques in Erbil city.

Thus the general problem of the thesis is determined as; "Appearing mosque models with unknown and unrecognizable styles comparing to those styles that are present all over the world", in order to specify the scope of the study, the research problem is determined as; "Removal of some elements in mosque's design in Erbil city which are built between (1970-1990), as these elements are from the key symbolic elements which symbolize mosque's architecture".

To see the mosques with unknown style and without symbolism in real existing cases, the research takes some different types of mosques in Erbil city designed during (1970-1990) as a case study to show how society's cultural aspects influenced mosques architectural symbolism, thus, it test the validity of hypothesis which are the followings:

1. The degradation of the symbols to signs and even signals in mosque architecture by the society, resulted in the deterioration of the semiotic frameworks of contemporary society as it is reflected in a semantic disorder and a loss of architectural symbolism. Thus, the cultural background of the society (governmental parties, clients, architects, master masons, etc.) effects on mosque's architectural symbolism.
2. Governmental parties' unconsciousness on the importance of key symbolic elements in the mosque architecture and neglecting local architecture in their design.
3. The project cost and site characteristics of the mosque building effects on mosque's architectural symbolism.

So the aim of the research is:

To find out how society's cultural aspects effects on changing architectural symbolism of mosques. So Finding out causes, merits and demerits of the different types of mosques which have been appearing in Erbil city, will be concerned in this research.

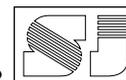
To test the research hypothesis, the research depends on an inductive methodology through two methods; the first is preparing questionnaire and the second is analytical method which includes two stages, first is general surveying on whole mosques which are built in Erbil city

especially which built between "1970-1990" and second is graphical analysis for the selected samples of the mosques which were built in Erbil city between "1970-1990" with respect to their symbolism ratio and type of their ownerships. Then it tests the validity of the hypothesis through analyzing the questionnaire and the symbolism ratio of each mosque by using statistical program (SPSS).

1.Society's Cultural Aspects and the Architectural Symbolism

Culture in the sociological field can be defined as "the ways of thinking, the ways of acting, and the material objects that together shape a people's way of life" (Macionis and Gerber, 2010, P. 59). So culture is a term used by social scientists for a way of life. Every human society has a culture. Culture includes a society's arts, beliefs, customs, institutions, inventions, language, technology, and values. A culture produces similar behavior and thought among most people in a particular society (Al-Jurf, 2003, P.3). "The culture of the individual is dependent upon the culture of a group or class, and...the culture of the group or class is dependent upon the culture of the whole society to which that group or class belongs. Therefore it is the culture of the society that is fundamental, and it is the meaning of the term "culture" in relation to the whole society that should be examined first" (Eliot, 1949, P.19). As sociologists and anthropologists have described several aspects of culture which are significant for the understanding of cultures including: (Kenney, 1994, P.6).

- a) Conditions for Growth: Eliot described three conditions he felt were essential for the survival and growth of a culture. The first condition, "organic structure," refers to the "hereditary transmission of culture within a culture." The second condition states that a culture needs to be "analyzable, geographically, into local cultures" (Eliot, 1949, P.13). Cultures respond to their regional context in terms of use of available resources, natural surroundings and terrain (Kenney, 1994, P.7). The third condition Eliot describes is a "balance of unity and diversity in religion" (Eliot, 1949, P.14).
- b) Analysis of Language: Language is an important aspect of culture which may provide invaluable insight into a society (Kenney, 1994, P.8).
- c) Universal values: Another important aspect of culture is universally held values.



Anthropologists have proposed the possibility of the existence of universal values which may be shared by all cultures. Some of these values include the fundamental need for survival (Laszlo, 1972, P.106). Thus, there are various complex needs of human beings which are classified into three major needs:

1. Utilitarian Need: This is a basic need for survival.
 2. Symbolic Need: This need determines the individual's awareness for his position between the stuffs; therefore, it determines his identity and shows, supports, regulates and compose individual's awareness for his existence.
 3. Aesthetic Need: The essential function of this need is to break down the boredom which resulted in exact repetitions of the product (الجارجي ، 2006 ، ص . 261).
- a) Relationship to Nature: Another important cultural aspect referred to by Rapoport is how a society views its relationship to nature. Rapoport has defined three major classifications of this relationship. The first is called "religious and cosmological". The second classification is called "symbolic," where humankind and the natural surroundings are "in a state of balance." The third classification which Rapoport describes is called "exploitative" (Rapoport, 1969, P.75).

Thus, architecture is a manifestation of the cultural context in which it resides. The form and relationships of buildings and spaces act as a kind of "cultural marker" that can be read, similar to the way one might read a newspaper or road map for information, to describe the way of life and social status of its inhabitants (Greaves, 1949, P.29).

While symbolism in architecture could be attained by the features which are found in the buildings to indicate the individual's identity, as the individual consider this symbolism as a rectifier for his identity (الجارجي ، 2006 ، ص . 262). Individual's identity consists of many intellectual ingredients that utilize them for the requirements of his body with the interaction and dealings of the social and natural environments. Identity represents the spiritual and materialistic aspects of a human being or an object in the world (Atashin bar, 2009, P. 45). The symbolic value of the product is determined as much as individual's identity is linked with it and associated with the product's form (الجارجي ، 2006 ، ص . 264).

Therefore, each society has its own culture shaping its architecture and this architecture indicates the society's culture. Architecture is a

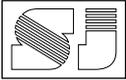
manifestation of culture that meets the human needs to shelter and artifacts and provides close relationship with culture (Kiani, 2007, P.55). Thus, cultural characteristics of each era can be identified by its architecture. When architecture is established under different political, social and cultural conditions of a period, the subjective ideas should be manifested objectively by culture since each society has own culture forming by architecture, so the architecture plays determinant role in this transformation process. (Habibi, 2007, P.36)

In terms of architectural form, styles from various periods of history are often borrowed through the process of diffusion and reinterpreted by the secondary cultural system. Over the course of history, various architectural forms and styles have been reinterpreted to accommodate various cultures. As a result, "no architectural style or type is 'pure' in an absolute sense...Complex architectural styles are agreeable combinations of mainly borrowed elements (Greaves, 1949, P.29).

On the other hand identity of Islamic architecture starts with a mosque, but not due to this fact that a mosque is the first spiritual building but due to this that a mosque in its physical performance is a place for worship but in its metaphysical performance and spiritual and mystical revelations as Robert Hylan Brand in Islamic architecture book stated, is the revelation of all Islamic architecture mysteries" and it is one of identity maker factors of Islamic cities, an identity that based on cultural aspects is meaningful process on other meaning resources of the city. (Naqizadeh, 2008, P. 21)

2. The Symbolism of Mosque Architecture

Mosque is the revelation center of spiritual identity of Muslims and it is the most important urban and architectural element and is the actualization of the best forms and interests of Muslim architects. The most important characteristics of the mosque building are dominant appearance, magnificence, symmetry, unity, harmony, centrality and balance (Hojjatollah, 2012, P.930). Thus, identifying the elements, components and spaces of mosques with symbolic meaning is a fact by which exact meaning of urban identity is presented that should be taken into attention in design, planning and evaluation. In "mosque, different elements are considered that each has special applied role and they are consisting of spiritual value hierarchy that got the special expression in abstract thought. These elements are justified when they



are the tool to reach spiritual soul in materialistic space not as objective” (Soleimani, 1997, p.24).

There are various classifications for the mosque elements which some of them are shown in below:

- a) Ardalan (1980) specified eight elements as the generic forms which establish the language of mosque’s architecture which are: Mihrab, courtyard, minaret, dome, gateway, portico, plinth and ablution place, etc. (Ardalan, 1980, p.23)
- b) Holod (1980) has defined these as symbolic elements: Minaret, dome and calligraphy or epigraphy (Holod, 1980, p.4).
- c) Al-Amry (1988) classified elements to: Main functional elements (Enclosure wall, gateway, portico, prayer hall, court, ablution place) and main symbolic elements (Minaret, Mihrab, Minbar, dome, vaults, Iwan, columns, arches, water elements, Mihfal) (العمرى، 1988، ص 7).
- d) Bloom (2002) considered these as symbolic elements: Orientation, dome, minaret (Bloom, 2002, P.1).
- e) Abdul-Fatah (1980) has classified to : Constant elements (courtyard, portico, Qiblah wall and Minbar (pulpit) and variable elements (minaret and ablution places) (الجبوري، 1988، ص 7).

The elements that would be taken for the practical part are: pulpit (minbar), niche (mihrab), orientation, minaret, dome, calligraphy, courtyard, portico, ablution place and gateway.

The number and variety of forms are not products of an Islamic world view but the outcome of varying regional and cultural interpretations. Changing attitudes and a plurality of traditions have found different expressions in various phases of Islamic history. There is no doubt that universal Islamic values are incorporated into the life of every Muslim society. These values in the form of social behavior, emanate from the Quran and Traditions (Kuban, 1980, p.13). Forms are transient, thus the perception of any continuity of form is not a religious but a cultural attitude. If the Quran and Traditions had prescribed physical forms, nobody could ever have added to Mecca (Kuban, 1980, P.13). thus, each region had its own traditional and craft related skills and building methods, and these local factors, combined with extreme differences in climate, gave rise from the beginning to highly disparate styles of mosques, many of which were of course influenced by contact with existing local cultures, see figure (1-1). (Frishman and Khan, 1994, p.12)

Those who try to compare only the final appearance of the two bottom diagrams may find nothing in common between them- as do many

observers who limit their review of the architecture of Muslim societies only to the physical manifestations of the buildings. Yet the common thread (middle diagram) is certainly there and indeed contributes much to the final outcome. (Serageldin, 1990, p.13)

There are many classifications for the mosque styles such as :

1. Frishman and Khan (1994) classified mosque styles into five styles: Hypostyle Hall with Flat Roof Mosque Style, The Dominant Central Dome Mosque Style, The Layout with an Iwan Mosque Style, The Layout with an Iwan Mosque Style, Triple-domed Mosque with Large Courtyard, Detached Pavilions Mosque with Walled Garden Enclosure (Frishman and Khan, 1994, P.12).
2. Prochazka (1986) has classified them into six styles: Primitive mosque, Early Arab mosque, Turkish mosque, mosque of Iran, mosque of South East Asia and mosque of the Indian subcontinent (Prochazka, 1986, p.5).
3. Al-Shafiiy (1980) has classified into three styles: Prophet’s style, Iwan style and Basilica style which influenced by Haghia Sophia church (الجبوري، 1998، ص 12).
4. Ardalan (1980) classified them into six mosque typology: Hypostyle, Hypostyle with dome accent, Hypostyle with domical vaulting, Four-Eyvan (four- Iwan), Central Dome and other (Ardalan, 1980, p.23).

On the other hand there are various types of mosques according to their ownership, mosques are designed under different conditions and design directions as they are: the state as client, local authority, institutions, rural communities, individual patrons and communities “Abroad” mosques. (Khan, 1990, p.112)

3. Practical Part:

3.1 Data Collection and Measuring Tools

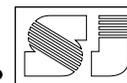
This part discusses the procedures and stages that the research has followed in the case study aiming to test the hypothesis of the research and to achieve the research goals.

1. General Survey:

This stage consists of collecting data about the whole mosques which were built in Erbil city especially which have been built between “1970-1990”.

2. Questionnaire:

The questionnaire is composed of some questions about the mosque’s symbolism and society’s culture, which it depended on the statistical method for unloading data, some of



- the questions were in the form of (Semantic Differential Scale) , some other questions were asked to answer by “yes” or “no”, and the rest of the questions were in the form of selections to the given alternatives, therefore according to the type of data the type of tool was determined.
3. Graphical Analysis for the Selected Samples: This stage analyzes the selected samples by graphical analyses which depend on the indications that were found in the theoretical part. It deals with the style, type of their ownership, key symbolic elements, specification of mosque building and its relation with local architecture then according to these the ratio of symbolism is found for each sample.
 4. Measuring Tools which used in the Research: The research used different types of measuring tools in order to test the hypothesis. The research analyzed questionnaire and graphical analyses of the selected samples by using (Spearman Correlation), (Pearson Correlation), (Chi-Square Test), (ANOVA One Way Test) and (Independent T-Test) in the statistical program (SPSS), and it would be significant if the P-value is less than or equal to 0.05 while if it is bigger than 0.05 it would be not significant.

3.2 The Research Limitation

The research tries to study some important scopes in architecture that are (society's cultural aspects, mosques architecture, symbolism, key symbolic elements of the mosque). It seeks to find the causes which led mosques to lose their symbolism, appearing of unknown style and the absence of our own local style of mosques.

The case study of the research takes the mosque buildings which built during the time period of (1970-1990) due to the followings:

- To control the size of the case study in number; (if the mosques in all periods are taken, a large number of mosque buildings have to be analyzed which would make the case study so big).
- From this time period a large number of mosques had been built in Erbil city because rural people emigrated to urban, thus, population density increased. Also many people martyred in the Iraq and Iran war so their families built mosques for them (البرزنجي ، 2001 ، ص . 181).

3.3 General Survey

3.3.1 Mosques in Erbil City

There are two hundred sixty seven (267) mosques (mosque and “Friday mosque”), twenty four prayer places and twenty nine hospices “dervish convent” in Erbil city. There are sixty four mosques which are built before 1970 and ninety eight mosques which are built after 1990 until 2013.

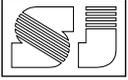
3.3.2 Surveying of Mosques Built Between (1970-1990)

The surveying process is done for the mosques which are built between (1970-1990) as it concludes the largest number of mosques in Erbil city as shown in table (2-1).

A large ratio of mosques which were built in this time period were between “1978-1984”, the distribution density of these mosques are accumulated in some quarters only, unlike the other periods as distribution density of mosques are approximately disseminated in most of the quarters. This represents that the emigration of people and the mosques which were built for the people who martyred in the war affected in the augmentation of mosques buildings in this period. The mosques which were designed by architect are 14 % , while most of them 86% not designed by architects the owner built it according to his experience or even changed his house to the mosque.

3.4 Preparing of Questionnaire

The questionnaire is composed of two parts; the first part is related to the symbolism in the mosque buildings and the second is related to society's cultural background in building mosques. Since this research clarifies the influence of society's cultural aspects on mosques architectural symbolism as architects design the mosques so they are one of the responsible ones for losing and changing local style of mosques and they are the best ones who understand the symbolism and distinguish the styles from each other. At the same time architects can find out the bad changing done by society, therefore the research population was specified to be the whole sampling for the governmental parties which has relations on the design of mosque buildings, so 125 questionnaire forms were delivered 93 of them were returned back. So the questions were the followings:



- In a general question about the mosque building, the answered samples were; 95.7% of them thought that mosque is a functional and symbolic building, while 4.3% of them thought that mosque is a functional building. The answers show that most of the architects' opinion on mosque building as a whole is a functional and symbolic building.
- In a question about key symbolic elements of mosque building, the questioners were asked to choose key symbolic elements of mosque building and put them in order according to their importance. They have chosen orientation, minaret, dome, niche, pulpit, courtyard, water, gateway, portico and decoration as the top ten key symbolic elements.
- In order to check the research problem a question was asked architects if they can recognize mosque building and the question was composed of four groups (Group A, Group B, Group C, Group D) as shown in figure (2-1), each group contained one mosque building and two other buildings so the results were as follow; 75.54 % couldn't recognize the mosque buildings, while 24.46% chose mosque buildings.
- Therefore, most of the architects couldn't distinguish between mosque buildings with any other buildings which represents that mosque buildings have lost their symbolism and this is because there isn't any known style of mosques in Erbil city and some of the architects are affected by those mosques and adapted with them.
In order to clarify this absence of symbolism and bad changing that have been done in mosque buildings some other questions were asked respondents about having local mosque's style or appearing unknown style of mosques.
- According to the questions that were asked, there is not any relation between the answers of having local mosques style and the usage of mosque's style, as nine of the architects whom said that, they will use local mosque's style in their design at the same time five of those believed that we do not have our own local style. On the other hand eighty architects answered that, they will use mixed style (local and international style) in their mosque's design, while sixty two of them said that, we do not have local mosque's style as shown in table (2-2). These represents that there is confusion in the architects mind about having local mosques style.

In order to investigate the causes led to lose symbolism in the mosque buildings some other questions were asked architects:

- There is a relationship between the answers of intervention's level and the causes which led mosques to lose their symbolism and meaning as shown in table (2-2). In order to investigate the causes led to lose symbolism each of the causes evaluated separately as 37% of the architects believed that cultural background of the executers, the government and the cost are all the causes, 32% of the architects thought that the cultural background is the cause, 17% thought that government is the cause and 15% of the designers thought that the project cost is the cause. On the other hand the designers answered that the clients' intervention in the design of mosques were as the followings: 71% of them intervene in the plan, form and cost of the mosque's design, 17% of them intervene in the plan and form components, while 12% of them intervene in the project cost only. As the intervention in the project cost has the minimum ratio so it represents that the cost is not so influential as compared to the cultural background of the clients on the mosque's architecture as they would understand the importance of the symbolism in the mosque's architecture and execute the design as it was.

3.5. Graphical Analysis

3.5.1 Selected Samples of the Mosque Buildings Built between "1970-1990" in Erbil city

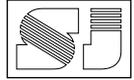
This stage includes graphical analysis of the twenty selected mosque buildings in Erbil city from sixty eight mosques.

These points have been taken into consideration in choosing the samples:

1. The built date of the mosques; in order to take samples in each year as far as possible.
2. The plot area of the mosques; so that buildings with different dimensions would be analyzed.

3.5.2 Analyzing Mosque Buildings

This part includes graphical analyses of the mosque buildings in Erbil city during the period of (1970-1990), where these mosques will be analyzed according to plan, photographs and site visits to determine the relative level of emphasis of the ten key symbolic elements and the regularity of adherence to a typology of spatial



organization and finding out their symbolism ratio.

First of all the mosques were analyzed according to the known styles if they were related to any known style or not depending on the first stage as it clarified all the elements, then it mentions the type of their ownership in order to check out if it was designed by architects. As the symbolism of the mosque buildings could be gained through its key symbolic elements and its relation with local architecture as discussed, so the thesis took these two points into consideration and analyzed each key symbolic element in accordance to their form, dimension and detail by giving them score, thus the higher scores were given to those forms and details which are found in local architecture and in accordance with the Islamic regulations and their characteristics which were (dominant appearance, magnificence, symmetry, unity, harmony, centrality and balance), see figure (2-2) to (2-16)

Evaluation Table of the Symbolism Ratio of Rashad Mufty Mosque:

It is evaluated according to the key symbolic elements in accordance to their relation with local architecture and Islamic regulations, see table (2-4).

Rashad Mufty Mosque is the Friday mosque which built in 1981 by the state, its area is about 5000m². It has all top ten key symbolic elements and it gained the highest symbolism ratio. It could be recognized as a mosque without any signs (nameplate and etc.), so the mosque as a whole is symbolic, because a representation sign is not needed to signify it.

3. Findings

So each mosque building is analyzed separately as the above one and the below table (2-5) shows data on each of them:

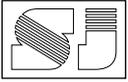
- The finding out of the (Pearson correlation) which is shown in the table (2-6) is the following:
- There are positive relationships between each of these items, for example whenever gross area of mosque buildings increase their symbolism increase too, see table (2-6). From twenty analyzed samples only three of them have gained more than 50% of the symbolic ratio.
- The finding out of the (Spearman correlation) which is shown in the table (2-7) is the following:

- There are positive relationships between each of these items, for example the mosques which designed by architects have higher ratio of symbolism than other mosques, see table (2-7).
- The finding out of the (ANOVA One Way Test) which is shown in the table (2-8) and (2-9) is the following:
 1. There is not a signified difference between the mosque's symbolism ratio and the type of their ownership, see table (2-8).
 2. There is a signified difference between the symbolism ratios of the mosques and the number of elevations that they have. Thus, mosques that have more elevations their symbolism ratio is more than other mosques, see table (2-9).

5. Conclusions

5.1 Conclusions of Theoretical Part:

1. Human beings try to get the things that are necessary for their life and start to get the basic needs at first like shelter and other things in a simple form, after that they try to perform their identities and existence by the symbolic products, then the individuals try to modify the products in a better way to create new things which have the aesthetic value as this is one of the humane need.
2. The main element of the identity is the symbolism which obtained from the cultural aspects of the society, as in Islamic architecture the mosque building is the identity maker element of Islamic cities, so it should be one of the most obvious symbols of culture of each Islamic community.
3. Mosque is the most important urban element and the common characteristics of the identity of all Islamic cities that should be taken into attention and ignoring it leads into unknown Islamic city. So mosques are considered as urban identity elements by their identity elements which characterized with dominant appearance, magnificence, symmetry, unity, harmony, centrality and balance. Therefore, these elements are saved in mental image of each society's members and ignoring those leads to identity crisis of mosque's architecture in community's memory.
4. The form of mosque is not a religious attitude. But the practical aspects of religious regulations influenced on the development of forms and led to add new elements which lasted over a period of time and became symbols.



5. The mosque architecture has two symbolic value one from its sacred spiritual and the other from its elements.

5.2 Conclusions of Practical Part

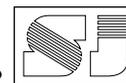
1. A large ratio of the mosques which were built within the case study's limitation has very low symbolic value. As the symbolism of mosque's architecture could be gained from its key symbolic elements and from its relation with local architecture. This represents that removing some elements in the mosque building which most of them has a desirable symbolic value and besides that neglecting local architecture in the design of mosques led to lose symbolism in the mosque buildings in Erbil city.
2. As a result of low symbolism ratio in mosque buildings, a large ratio of architects could not recognize the mosque buildings compared to any other type of buildings, besides that architects have also a confusion in their mental image, as from one side they believe that there is not local mosques style on the other hand as they answered; they would use local mosques style. Therefore, the thesis concludes that local mosques style is not well known.
3. The thesis concluded that the cultural background of the society (governmental parties, architects, clients, etc.) have a distinct effect on the symbolism ratio in the mosque buildings, unlike the project cost has a little bit influence.
4. A large ratio of the mosques which were built by the governmental parties within the case study's limitation have very low symbolic value, as they have not any difference with the mosques which were built by the inhabitants in spite of not having problems in the cost budget as well. This represents that governmental parties have not consciousness on the importance of key symbolic elements in the mosque architecture and besides that they neglected local architecture too which led to lose symbolism in the mosque buildings.
5. The thesis concluded that (orientation, area and number of elevations) have a positive relation with the symbolism ratio of mosque, while the type of the street that it lies on has not relation with the symbolism ratio that means if the mosques lay on the main streets or on the branch street in the quarters could gain the symbolic value.

6. Recommendations

1. The thesis recommends designers to seek and read more about the local architecture especially local mosque's style.
2. Taking society's consciousness to the point of view in the design of mosques, as the thesis recommends architectural designers to study cultural aspects of the society in order to investigate its relationship with architectural symbolism.
3. Formation of an academic and independent scholar staff to conserve old mosques in Erbil city especially those mosques which were built before 1950.
4. Establishing an architectural institute to set up important and trusted rules for designing local mosques style and follow up the projects.
5. Ministry of Endowments should take orientation, area and surroundings of the mosque buildings into consideration as they have influences on mosque's architectural symbolism.
6. The thesis recommends to activate the role of media especially magazines, networks and TV program to acknowledge the society about their local architecture and conserve those buildings which are symbols for their region's identity.

References

1. Al-Jurf , Prof. Dr Reema, "Readings in the American and British Cultures", 2003.
2. Ardalan, Nader, "The Visual Language of Symbolic Form: A Preliminary Study of Mosque Architecture", in Ed. The Aga Khan Awards "Architecture as Symbol and Self-Identity", Smith-edwards-Dunlap Co.,1980.
3. Atashin bar, Mohammad. "Continuity of identity in urban view", Baq Nazar journal, No. 12, 2009.
4. Bloom, Prof.Jonathan M., "The Minaret: Symbol of Faith and Power", Boston College, Saudi Aramco World, 2002.
5. Eliot, T. S. , "Notes Towards the Definition of Culture". New York: Harcourt, Brace and Company, 1949.
6. Frishman, Martin and Khan, Hasan Uddin, "The Mosque : History, Architectural Development and regional Diversity", Thames and Hudsan, London, 1994.
7. Greaves, Dr. Thomas. "Messages in the Stones: An Anthropologist Looks at Architecture", An Exploration of a Common Legacy: The Proceedings. 28-31,1949.
8. Habibi, M., "Intellectual Trends in the Contemporary Iranian Architecture and Urbanism", Tehran, TEH: Cultural Research Bureau, 2007.



9. Hojjatollah, Rashid Kolvir, "Identity Discourse in Islamic Architecture", Department of Architecture, Faculty of Engineering, University of Mohaghegh Ardabili, Ardabil, Iran, Journal of Basic and Applied Scientific Research 2(1)926-934, 2012.
10. Holod, Renata, "Introduction", in Ed. The Aga Khan Awards "Architecture as Symbol and Self-Identity", Smith-edwards-Dunlap Co., 1980.
11. Kenney, Stephen F., "Cultural Influences on Architecture", Master Thesis, Architecture, Texas Tech University, 1994.
12. Kiani, M., "Iranian Architecture (Islamic Period)", Tehran, TEH: S.A.M.T., 2007
13. Khan, Hasan Uddin, "the Architecture of the Mosque, an Overview and Design Directions", in Ed. The Aga Khan Award "Expressions of Islam in Buildings", Aga Khan Trust for Culture, Indonesia, 1990.
14. Kuban, Dogan, "Symbolism in Its Regional and Contemporary Context", in Ed. The Aga Khan Awards "Architecture as Symbol and Self-Identity", Smith-edwards-Dunlap Co., 1980.
15. Laszlo, Ervin. "The Systems View of the World: The Natural Philosophy of the New Developments in the Sciences". New York: Georger Braziller, Inc., 1972.
16. Naqizadeh, Mohammad Taqi, "Islamic city and architecture (manifestation and identities)", Mani publication, Engineering system of Isfahan province, 2008.
17. Prochazka, Amjad Bohumil, "Architecture of the Islamic Cultural Sphere", 1st Edition, MARP Publisher, Zurich, Switzerland, 1986.
18. Rapoport, Amos. "House Form and Culture". Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969.
19. Serageldin, Ismail, "Expressions of Islam In Buildings", International Seminar Sponsored by the Aga Khan Award for Architecture and The Indonesian Institute of Architects, Jakarta and Yogyakarta, Indonesia, 1990.
20. Soleimani, Mohammad, "Abstract attitude toward Mosques in Iran", Mosque architecture (Articles of mosque architecture conference, past, present, future. First vol. Art university publication), Tehran, 1997.
21. البرزنجي، عمر شيخ لطيف، "جولة في رحاب جوامع ومساجد وتكايا مدينة أربيل"، من منشورات وزارة الأوقاف حكومة إقليم كردستان، عدد 1، أربيل، 2001.
22. الجادري، رفعة، "في سببية وجدلية العمارة"، مركز دراسات الوحدة العربية، بيروت، لبنان، الطبعة الأولى، 2006.
23. الجبوري، سمعان مجيد ياس، "الخصائص الهندسية في العمارة الإسلامية - دراسة تحليلية لقواعد الشكل في عمارة المساجد"، رسالة ماجستير، قسم الهندسة المعمارية، الجامعة التكنولوجية، بغداد، 1998.
24. خياط، محمود أحمد بكر، "دراسة عن العمارة كلفة - اثر المعرفة المعمارية على العلاقة بين لغة القصد وادراك المعنى"، رسالة ماجستير، قسم الهندسة المعمارية في جامعة التكنولوجيا، بغداد، 1995.
25. العمري، حفصة، "عمارة المساجد الحديثة في العراق - دراسة تحليلية ميدانية لعمارة مساجد بغداد منذ الحرب العالمية الثانية"، رسالة ماجستير في الهندسة المعمارية مقدمة الى كلية الهندسة، جامعة بغداد، 1988.

أثر الإعتبارات الثقافية للمجتمع في رمزية عمارة المساجد المساجد المبنية بين عامي "1970 - 1990" بمدينة أربيل حالة دراسية

د . أمجد محمد علي - استاذ مساعد

قسم الهندسة المعمارية - جامعة السليمانية

فيان صابر قادر - مدرس مساعد

قسم الهندسة المعمارية - جامعة صلاح الدين

المستخلص :

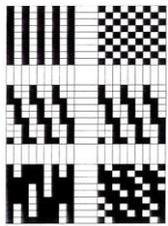
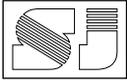
تتكون عمارة المساجد من دلالات روحية وقيم رمزية، إذ لم تخلو في بداية ظهورها من تلك المعاني ولم تكن بساطة مظهرها الخارجي مانعاً في تبين تلك القيم، بعدها تطورت عمارة المساجد مع إنتشار الدين الحنيف في بقاع مختلفة، وبهذا تم إضافة كثير من العناصر الجديدة لتلبية الإحتياجات والمتطلبات الوظيفية المتنوعة لتلك المجتمعات. ومن هذا المنطلق أصبحت التعددية في أساليب بناء المساجد نتيجة مسبقة لتنوع الهوية وإختلاف الثقافات حسب المناطق.

لذا يناقش البحث الرمزية كإحدى الجوانب الثقافية والتي تعد من إحدى إحتياجات الإنسانية لتقوية هوية المجتمع. ومن جانب آخر فإن إدخال العناصر الجديدة لإغناء عمارة المساجد جاء أساساً لتلبية الإحتياجات النفعية، ولكن مع ديمومتها عبر الزمن تغيرت لتكون رمزاً لعمارة المساجد. وكذلك يحاول البحث تفسير وجود أنماط مختلفة من المساجد نتيجة تداخل عمارة المساجد مع العمارة في اقاليم أخرى، لذا يمكن الحصول على الرمزية في عمارة المساجد من خلال تواجد جانبيين، الجانب الأول وجود عناصر الرمزية لعمارة المساجد والجانب الثاني مدى علاقة تلك العناصر مع عمارتها المحلية.

ولذا بدأ البحث بدراسة وإيجاد الأسباب الرئيسية للنقص في النمطية المحلية المعروفة لمساجد مدينة أربيل، وقلة الرمزية فيها حتى أنها تتعارض مع بعض الأنظمة الإسلامية في بناءها. وأخذ البحث "الإعتبارات الثقافية" بنظر الإعتبار كعامل رئيس وفعال في ظهور هذا النوع من المساجد.

واستنتج البحث أن إستبعاد بعض العناصر التي كانت ذات قيمة رمزية عالية في بناء المساجد من جانب وإهمال العمارة المحلية في تصاميم تلك المساجد من جانب آخر أدت الى فقدان الرمزية في تلك المساجد (عينات البحث)، لذا فإن الكثير من المعماريين لم يتمكنوا من التعرف على المساجد حينما قورنت بأنواع أخرى من المباني. ويقوم البحث بإظهار التأثير الواضح للخلفية الثقافية للمجتمع (الجهات الحكومية، المعماريين، أرباب العمل... إلخ) في نسب الرمزية الموجودة في المساجد، على العكس من كلفة المشروع التي لها تأثير قليل في تلك النسب، إذ ان معظم المساجد التي بنيت من قبل الجهات الحكومية إتسمت بنسب قليلة من الرمزية رغم ان تلك الجهات ليست لديها مشكلة في كلفة المشروع. ومن جانب آخر يستنتج البحث النقاط المتعلقة بخصائص الموقع من حيث (التوجيه، المساحة، عدد الواجهات) والتي لها علاقة طردية مع نسب الرمزية الموجودة في المساجد. ويوصي البحث الجهات الحكومية والمعماريين بأخذ النقاط الأتفة الذكر بنظر الإعتبار في تصميم المساجد.





Local (Non-Islamic) Architectural Characteristics: owing to climate, geographic, traditions

Islamic Architectural Characteristics (key Elements)

Main Styles of Mosques

Figure (1-1) Diagram Explaining Architectural Work Reflects the Specifications of the Region (Frishman and Khan, 1994, p.12)

Table (2-1) General Surveying of Mosques which were Built Between (1970-1990)

General Survey		Mosques Built Between (1970-1990)			Total (%)
		1970-1977	1978-1984	1985-1990	
Situation	Renovated	9	11	5	23.8%
	Enlarged	2	7	3	11.4%
	Maintained	5	42	21	64.8%
Total n		16	60	29	105 100%
Area	100m ² -600m ²	10	27	5	40%
	600m ² -1200m ²	3	18	14	33.3%
	1200m ² -1800m ²	3	12	7	20.9%
	1800m ² -2400m ²	0	0	3	2.9%
	Over 2400m ²	0	3	0	2.9%
Total n		16	60	29	105 100%
Types of Ownership	Local Authority (Ministry of Religious Endowments)	1	4	1	5.7%
	Institution (Ministry of Religious Endowments)	0	4	1	4.7%
	Rural Community (Quarter Inhabitants)	3	11	4	17.2%
	Individual Architect	0	1	3	3.8%
	Patrons No Architect	12	40	20	68.6%
Total n		16	60	29	105 100%



Figure (2-1) Pictures given in the questionnaire form in group A (Prepared: Researcher)

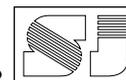


Table (2-2) Statistical Analyses of Questionnaire by (Chi-square Likelihood Ratio) (Prepared: Researcher)

Items	Items	Chi-square	d.f.	Chi-tab _(0.05)	Signification	Note
Having Local Mosque's Style	Usage of Mosque's Style	4.086	2	5.991	(NS)	Have not Relation
The Level of Intervention	Causes of Losing Mosque's Symbolism	18.269	9	16.92	(S)	Have Relation

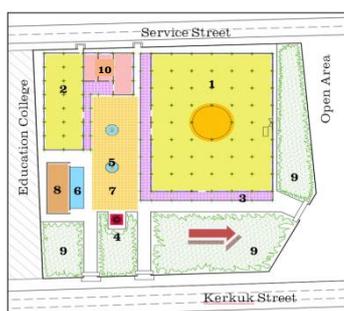


Table (2-3) Information and Legend of Rashad Mufty Mosque

General Information	
Gross Area	5000 m ²
Built Area	2650 m ²
Green Area	1150 m ²
Legend	
1	Main prayer
2	Women prayer hall
3	Portico (shaded place)
4	Minaret
5	Fountain & Ablution place
6	Ablution place
7	Courtyard
8	W.C
9	Green Area
10	Studying rooms

Figure (2-2) Site plan of Rashad Mufty Mosque (Prepared: Researcher)

Table (2-4) Symbolism Ratio of Rashad Mufty Mosque

Symbolism of the Mosque	Score of Each Element Over 10 (x)	Weight of Each Element in (%) (y)	Total Rate of Each Element's Symbolism in (%) ((x*y) / 10)
1-Orientation	Form (Shape of Prayer Hall)	4	8.6
	Dimension	3	
	Detail	1.6	
2- Minaret	Form	3	7.6
	Dimension	2	
	Detail	2.6	
3- Dome	Form	3	8
	Dimension	3	
	Detail	2	
4- Niche (Mihrab)	Form	2.5	8.5
	Dimension	3	
	Detail	3	
5- Pulpit (Minbar)	Form	1	3
	Dimension	2	
	Detail	0	
6- Courtyard	Form (Shape)	4	10
	Dimension	3	
	Detail	3	
7- Water	No of Water Elements	3	8.5
	Dimension	3	
	Detail	2.5	
8- Gateway	Form	2	7
	Dimension	3	
	Detail	2	
9- Portico	Form	2	7
	Dimension	3	
	Detail	2	
10- Decoration & calligraphy	Type of Ornamentation	4	9
	Dimension	3	
	Detail	2	
Total		100%	76.6%

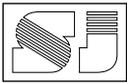


Figure (2-3) Main gateway view of the mosque. It has three main gateways.

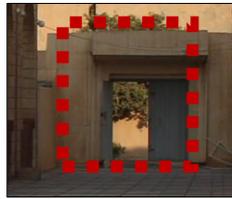


Figure (2-4) It has two secondary gates from the back side.

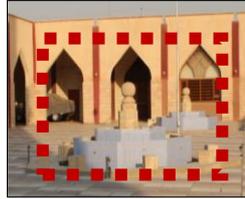


Figure (2-5) Exterior View of Fountain and Ablution place And Enlarged Plan of Fountain and Ablution place

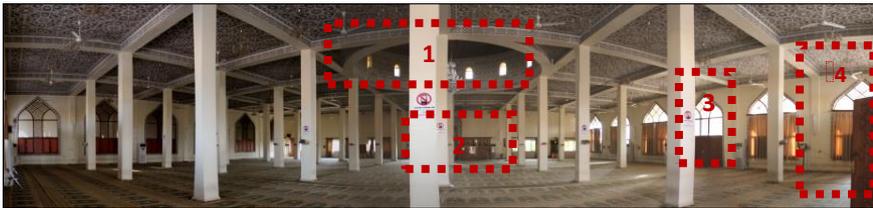
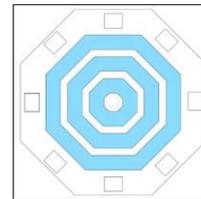


Figure (2-6) Interior view of Main Prayer Hall No on Picture: 1- Dome 2- Mihrab & Minbar 3- Right side Door 4- Back side Door

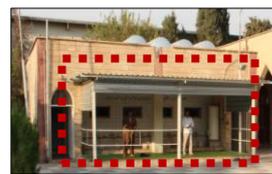


Figure (2-7) Exterior View of Toilets, Ablution place and covered area for praying

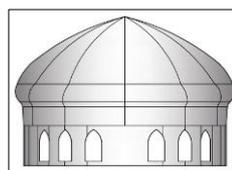


Figure (2-8) Exterior and Interior View of the Dome



Figure (2-9) Courtyard View



Figure (2-10) Minbar and Mihrab views



Figure (2-11) Portico and the entrances of main prayer hall



Figure (2-12) Green Area of Mosque

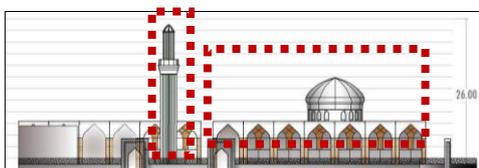


Figure (2-13) Front Elevation of Rashad Mosque

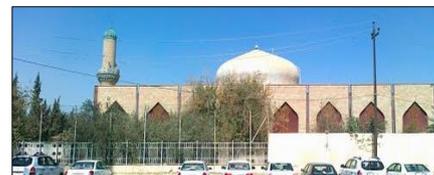


Figure (2-14) 2. Perspective View of Rashad



Figure (2-15) 1. Perspective View of Rashad Mosque from Kerkuk Street

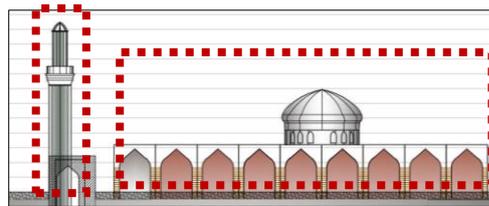


Figure (2-16) Side Elevation of Rashad Mosque Which is next to House dwellings

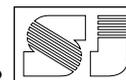


Table (2-5) The Symbolic Ratio of the Selected Mosques in Erbil City (Prepared: Researcher)

No	Mosques Name	Symbolic Ratio	No of Key Symbolic	Year	Area (m ²)	Types of Ownership	Deviation from Qibla	No of Elevation	Type of Road
1	Hajy Bahjat	27.4	7	1970	380	Quarter's Inhabitant	11°	1	Branch Road
2	Hajy Aziz Pirdawd	28.2	6	1973	600	Individual patrons (No	14°	2	Main Road
3	Hajy Ali Mawlud	17.4	5	1978	150	Quarter's Inhabitant	18°	2	Branch Road
4	Hajy Saniya Khan	30.78	6	1979	500	Individual patrons (No	22°	2	Main Road
5	Hajy Muhammad K	16.70	4	1980	180	Quarter's Inhabitant	25°	1	Branch Road
6	Rashad Mufty	76.6	10	1981	5000	Local Authority	0°	3	Main Road
7	Salahaddin Ayuby	31.41	7	1981	1000	Local Authority	0°	3	Branch Road
8	Hajy Tofiq	27.6	6	1981	150	Individual patrons (No	17°	1	Branch Road
9	Shahid Abdul-Wahid	36	7	1982	750	Quarter's Inhabitant	0°	1	Main Road
10	Nassij	33.92	6	1983	1000	Institution	0°	4	Branch Road
11	Sheikh Nasraddin	35.7	8	1983	525	Individual patrons (No	16°	2	Branch Road
12	Hajy Taha Aziz	23.06	6	1984	400	Individual patrons (No	15°	2	Main Road
13	Hajy Abdul-Wahid	24.27	7	1984	1200	Individual patrons	0°	2	Branch Road
14	Hajy Hashm Attar	25.92	7	1984	500	Individual patrons (No	19°	1	Main Road
15	Abdul-Qadir Al-Majidy	62.5	10	1985	1800	Individual patrons	0°	3	Branch Road
16	Sheikh Qadir Barznjy	28.28	7	1986	1000	Quarter's Inhabitant	0°	2	Main Road
17	Qadir Bla	58.12	10	1987	720	Individual patrons	9°	2	Main Road
18	Sheikh Ahmad Khailany	48.09	8	1987	2000	Individual patrons (No	2°	3	Main Road
19	Al-Shaffiy	34.78	7	1988	1400	Individual patrons (No	14°	2	Branch Road
20	Hajy Salih Zrary	18.8	5	1990	200	Individual patrons (No	17°	1	Branch Road

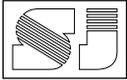


Table (2-6) Statistical Analyses of the Selected Samples by Pearson Correlation (Prepared: Researcher)

Items	Items	Pearson Cor.	P-Value	Significant	Note
Symbolism	Area	+ 0.818	0.000	(HS)	Positive Relation
Symbolism	Built Area	+ 0.833	0.000	(HS)	Positive Relation
Symbolism	Height of Prayer Hall	+ 0.424	0.063	(NS)	Positive Relation
Symbolism	No. of Key Symbolic Elements	+ 0.921	0.000	(HS)	Positive Relation
Symbolism	Orientation (Qibla Direction)	+ 0.562	0.010	(HS)	Positive Relation

Note: P-Value > 0.05 (NS) Not Significant P-Value ≤ 0.05 (S) Significant P-Value ≤ 0.01 (HS) Highly Significant

Table (2-7) Statistical Analyses of the Selected Samples by Spearman Correlation (Prepared: Researcher)

Items	Items	Spearman Cor.	P-Value	Significant	Note
Symbolism	Type of the road	+ 0.142	0.552	(NS)	Positive Relation
Symbolism	Designer	+ 0.511	0.021	(S)	Positive Relation
Symbolism	Elevation	+ 0.609	0.004	(HS)	Positive Relation

Note: P-Value > 0.05 (NS) Not Significant P-Value ≤ 0.05 (S) Significant P-Value ≤ 0.01 (HS) Highly Significant

Table (2-8) Statistical Analyses of the Selected Samples by ANOVA One Way Test (Prepared: Researcher)

Ownership	N	Mean of Symbolism Ratio%	Std. Deviation	F-test (ANOVA)	P-Value Sig.
Government	3	47.310	25.397	2.222	0.139 (NS)
Individual patrons	12	35.098	13.893		
Quarter's Inhabitant	5	24.752	8.681		
Total	20	34.344	15.704		

Table (2-9) Statistical Analyses of the Selected Samples by ANOVA One Way Test (Prepared: Researcher)

Elevations	N	Mean of Symbolism Ratio%	Std. Deviation	F-test (ANOVA)	P-Value Sig.
1	6	25.067	7.474	4.869	0.014 (S)
2	9	31.550	11.423		
3	4	54.650	19.378		
4	1	33.920	0.000		
Total	20	34.344	15.704		