The Spatial Architecture Planning and Theoretical Evaluation of Mosque and Bazaar in the North of Iran

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ABSTRACT

One of the important issues related to mosque architecture is the necessity of conveying high spiritual concepts to civilians through physical presence of a building with religious application. This issue emphasizes the importance of architectural form of mosques to transmit the religious concepts. Therefore, the purpose of mosques architecture is to convey a message and to have positive effects on cultural aspects. The present research as a case study has studied spatial architectural planning and theories. The location of study has been defined Mahdieh Mosques and Mahdieh bazaar located in a northern city of Iran called Roodsar. Generally, in every research some specific cases and stages should be studied carefully, and then based on achieved information, realities, needs and requests, a comprehensive research is represented. A research without focusing on the required studies is not thorough, then it does not have a proper application, therefore, at the end of this research the spatial planning of mosque and the relation of spaces together has been presented. Moreover, one of the influential factors on construction of an architectural element is the facilities and technologies available in a specific time; these facilities include building technology, materials and capabilities, and required foundations.

KEYWORDS: architecture planning, mosque, physical feature, temple.

INTRODUCTION

Interior spaces are made up of two major spaces, roofed space and free space. With finding privacy from the inside, the number of external windows decrease, however, the architect does not deprive himself of the sky perspective, sunlight, breeze, water and green space. The interior yard encompasses all these elements without having the inconvenience of the roofed neighborhood spaces. In the yard there is no limitation, moreover, all the religious, cultural, political and social requirements plus facilities and things that are not religiously forbidden are included in this interior space. The interior spaces are places in the location based on their worth and position. Mihrabs (a place where Imam stands to pray), praying spaces and major Iwans which are the gateways to the mosques are located in the central part of the yard. Minor Iwans and doorways and other entrances of the mosque are located around the yard of the mosque. Service spaces and connecting spaces are located in the furthest edges from the central yard. Service places such as places for ablution and washing closets are located far from the central yard; they are usually near the minor gateways and yards. In this geometrical organization and peace, religious harems and Iwans catch the eyes. Since the square shape has positive effect on humans, the structure of harems is close to the form of squares. However, if this form be stretched and get close to a rectangle rather than a square, the architect tries to use suitable space geometries in the ceilings and also other methods to get the space close to the effects of a square shape, and bring about a physically tranquil space. In the development of separate sections of the mosque, there is a unity and coordination among all sections. In 1995, Helen Brand declared that “mosque”, is the perfect Islamic building form. Islamic architecture is different from other architectures and one can feel this difference while entering a mosque. The reason is that, just as a person enters a mosque, the direction changes toward qiblah, then he takes off his shoes to enter the praying hall, this act is a symbol of simplicity and passing the door of earthly world and entering a spiritual world.

Main body

Realistic structure, stability and economical amount are the crucial principles of building components and elements providing the construction of a building. The creative power of engineering has made the architect so strong and powerful that he can use the least things, mounds to make bricks and then strengthen the mounds and gain stones. Even nowadays, this technique needs high technical and scientific ability, creativity and intellect. Choosing the square shape on map for the mosque, serves this concept that each spatial element must be independent of other elements, however, in coordination with other spatial elements, so that, it helps the architect to
construct the interior space based on symmetrical bases. This structure provides the best condition for natural and balanced transition of all forces of the building. The ceiling has convex forms so that it leads vertical forces of the center of the ceiling to the four pillars of the building symmetrically. The logical and symmetrical structure of the interior ceilings makes it really hard to judge the creative art of the architect who has designed them. The fact is that the architect’s art of design is in harmony with the building technology to transmit the concepts and mental forces.

Juristic commandments of the mosque

Most of the religions and temples have some commandments. A mosque also as the home of God, and a spiritual place for Muslims has some divine commandments. Some of these commandments were deduced by merited Islamic priests as juristic commandments which determine the qualities of good mosque architecture. If civil engineers and architects neglect these commandments, it will have negative effects on the mosque. Although commandments emphasize that mosques architecture should be simple and far from ornaments, sometimes walls of the mosque are painted like a canvas or the correct rules of connecting sections in sloped surfaces and in different heights is ignored. True application of different spaces of the mosque, such as library, room for ablution, charity office and so forth is not useful without paying attention to juristic commandments. (Zargar, 2007)

Juristic commandments of mosques architecture

A. Construction
1. Design and construction of the mosque based on the western anti-religion style which encourages foreign culture is forbidden.
2. Designs of the mosque must be simple, meaning that ornaments used in mansions and castles of wealthy people are forbidden.
3. If the yard of mosque is devoted to mosque, making ponds and gardens in it is forbidden, but if not, with some considerations it has no problem.
4. Making tall minarets for the mosque is not forbidden, however, juridical limitations must be considered. (Khomeini, 1989)
5. Engrailing and making balconies for the mosque is abominable. (Tabatabaii Yazdi, 1998)
6. Locating washing closets at a lower level not to harm the walls of the mosque is not forbidden. (Khomeini, 1989)
7. The room for ablution is suggested to be built out of the mosque, beside its entrance door. (Banihashemi Khomeini, 1999)
8. If in a place the prayer is done, but that place is not devoted to a mosque, making toilets regarding to the decision of the architect and the plan of the building is not forbidden. (Mirza Shirazi, 1983)
9. Trenching for making radiators is not forbidden.
10. Roofing the yard of the mosque so that prayers do their praying in cold seasons is not forbidden. (Khomeini, 1989)

B. Decoration
1. Decorating mosques with Quran verses and God’s attributes and Imams’ attributes is not forbidden, however, painting plants or animals on the walls of mosque is abominable, therefore it is better not to paint walls with these images. Decorating with geometrical lines is not forbidden either.
2. Decorating harems for celebrations with colored papers is not forbidden, unless they harm the mosque.
3. Installing pictures of martyrs or Mecca in harems in not forbidden, but doing the prayer in front of human picture is abominable, during praying they should be covered with curtains.
4. Installing prayers to be read, in front of the prayers and at the direction of kiblah is not forbidden.
5. It is better not to use carpets covered with images of plants and animals n the mosques. (Khomeini, 1989)
6. It is necessary not to decorate mosques with images of humans or animals. Painting plants and flowers on the walls of the mosque is also abominated. (Banihashemi Khomeini, 1999)

C. Connection
1. If imam stands in mihrab and prayers in the first line could see him, their prayer will be correct, however, if they do not see him or even prayers in the next lines could not see the prayers standing in front of them, their prayer will not be correct.
2. If there is a pillar between two prayers, while the pillar is located in the first line, it will harm the connection among prayers. However, in the next lines its existence does not make problems.
3. To keep the connection among all lines of prayers during the whole prayer, the presence of anything which could harm the connection is forbidden.
4. During praying, if the woman stands in front of the man, the prayer would be wrong. If she stands at the same line with the man, the prayer of the person who has started the prayer later is wrong, and if they start it together both prayers is wrong. Then to solve this problem, the woman should stand behind the man. In this situation the place the woman bows down should not be at the place the man is standing. If there is something like a curtain between them, even standing at the same line has no problem.
5. If there is no moral corruption, the existence of curtain is not necessary and just keeping distance is enough.
6. In the middle of the yard of the mosque, there is a pond. Sometimes the lines get long and it arrives at the pond so that some prayers are connected to other lines from the right and left, but they face the pond in front of them. This connection is enough and their prayer is correct.
7. If in one line of prayers, because of the presence of an obstacle, one prayer does not see the prayer who is standing beside him just while he is sitting or standing, their prayer is correct.

![Figure no.1: correct and incorrect forms of standing in lines (Zargar, 2007)](image)

8. If Imam Stands in mihrab in a lower level, and some prayers stand at a higher level and a group of other prayers are also standing at the same level with Imam, their connection with the higher prayers will be accepted, and then their prayer is correct.
9. If the place of standing of prayers has height difference, but they are not standing lower than Imam, their prayer would be right. But if they stand at a level lower than Imam’s level their prayer is not right. Moreover, if the place where Imam stands is higher than the place of other prayers, it makes no problem.

![Figure no. 2: height difference in praying. (Zargar, 2007)](image)

10. There should be no certain between Imam and prayers or between prayers in different lines. However, if some of the prayers are women there is no problem to use curtains.
11. There is a certain distance between Imam and prayers or different lines of prayers, this distance should not be more than the casual distance. Usually this distance is just one normal step. It is also better to bow down just before the place the front prayer is standing.
12. The prayer should not stand in front of Imam, it is better to be behind him in all manners of prayer; however, if a prayer is tall and during different manners of prayer he seems to be in front of Imam, it makes no problem, because in fact he is not in front of him.
13. Darkness or dust or even a cloth with big holes is not considered as sort of cover that does not let prayers see each other, even a glass through which it is possible to see others is not a cover, however, it is better to avoid them all.

14. A short cover that just stops connection during the bow is not considered a problem, because prayers can see each other while sitting after bowing, then using it is alright. It is better to avoid longer covers during praying.

15. If the lines of prayers is so long that some prayers make lines behind the doors of mosque, because of the existence of tall walls between them and Imam and other prayers, their prayer is wrong, however the prayer of other lines is right.

Figure no. 3: the correct form of standing in praying lines. (Zargar, 2007)

**Building construction**

Today the science of building engineering has developed and found branches. One of its branches is structural engineering. Based on structural engineering different parts of a building should be designed based on the engineer’s design, it also analyses the condition of each part and determines the required materials. Structural engineering cares about different elements in the design of building, analyses them to arrive at a comprehensive design for applying materials; finally it specifies principles of making a building. Some tips are represented here, which are related to structural engineering principles.

1. Geological and soil biology tests and investigations should be done to specify the condition of soil.
2. Imposed loads on each part of the building must be analyzed, so that parts could be designed carefully.
3. The architectural design and standards should be calculated carefully in order to reach harmony between architectural designs and principles of building.
4. Administrative plans should be designed carefully and also performed on time.
5. Building principles must be considered and non standard materials must not be used.
6. Required tests must be done based on valid regulations before the start of operation.
7. In performing concrete structures, secure strong bars with satisfying diameter should be used. Moreover, to connect the bars to the structure it should be curved close to the mold. Therefore, by opening the mold the bars get straight gradually and the connection opportunity is then provided.
8. In half skeleton structures with vertical and horizontal foundation, incases related to executive connections to the skeleton of the building could be specified just like what was explained about concrete structures. Today, shaping the concrete skeleton is done based on concave and convex molding and in different geometrical designs. Moreover, in some cases using tiles on concrete skeleton creates different arched forms in molds, and therefore, it helps to make interesting shapes on concrete skeleton through concreting and opening the molds. This is one of the special characteristics of artistic works done on concrete. In steel structures, administrative aspects of making skeleton and coil building through weld bonding are secure methods to be performed. Via usage of mentioned connections in different steel structures it is possible to do good works. (Zemorshidi, 1995).

**Managing, Leading and Protecting Mosques**

1. One of the conditions to devote a land to mosque is that devoter must be the owner of that land.
2. If a piece of land is confiscated by Islamic republic and a mosque is built there, then it is not usurped and the satisfaction of its owner is not important.

3. Based on the quality of devotion, it is possible to devote just one floor to the mosque and leave others for other applications.

4. Donations of mosque could be spent on making jobs; however, the priority is with jobs proper for the position of mosque.

5. Burying a dead body in the harem or yard of mosque is not forbidden, unless it makes the mosque unclean.

6. The permission to use ablution rooms and toilets depends on the quality of devotion.

7. After devotion, all affairs related to the mosque such as holding ceremonies, specifying Imam and so forth is up to a trusted person who is Imam of Muslims.

8. If there are trees in the yard of mosque, it is not forbidden to pollard them.

9. Doing the prayer in a mosque whose owner had been a cruel person in the last periods is not forbidden, unless there is a doubt that this mosque or its materials is usurped.

10. If a library is built in a part of mosque that is not devoted to it, it will be alright, but if that part had been devoted to mosque, the library must be removed and the constructor must pay the money spent for its construction.

11. Renting the mosque for lamentations is permitted, if it is a devoted place.

12. If a piece of land is devoted to a special place such as cemetery, mosque and so forth, it is not allowed to change its usage unless there is no document for the special usage of it.

13. A ruined building which is related to last periods is allowed to be turned into a mosque.

14. It is not permitted to sell the things devoted to the mosque.

15. Separating a piece of mosque to make sidewalks for people or to do anything else is not allowed. (Khomeini, 1989)

**Constructing mosques from the viewpoint of today’s designers**

Before constructing the mosques, what matters is the mentality of the architects about spirituality and identity of mosques.

From the answers of the architects of the mosques, it is obvious that their archetypical pattern of mind about mosque refers to the mosques with yards, harems, minarets and domes. How architects deal with these elements depends on their own architectural viewpoints toward them. Even a modern architect, who thinks about new methods of design, pays attention to traditions. Traditional mentalities of an architect about a mosque are things such as entrance, yard, harems, and mihrab at the direction of kiblah. The priority of internal space of mosque to its external space, and the importance of mihrab and harems as focal points of a mosque are also part of mentality of majority of architects. Tranquility, simplicity, lack of ornamentations, extensity of internal and external spaces, geometrical order of space, light and finally separation and coordination of sections of mosque are the fundamental elements of making a spiritual space for mosques and all architects accept it. (Zargar, 2007)

Generally, modern mosques should be designed and constructed based on the following principles in order to meet social needs and maintain their special spirituality to encourage Islam.

Here, there are general conditions of mosques:

1. Mosques should be made in populated places.
2. Mosques should be made in environments with good weather.
3. Green environment should be provided around the mosque.
4. Mosques should be made with specified distances from each other, avoid making mosques next to each other.
5. Mosques should be made beside crowded streets.
6. Mosques should be made in vast fields and beautiful surroundings should be considered for them.
7. The mosque should be made in the center of a city or smaller section and other spaces would be around it.

Generally, there are three principles to make modern mosques:

1. Design principle
2. Foundational principle
3. Facade design principle (Zemorshidi, 1995)
Urban features of bazaars:

In some of the small cities and majority of big cities there usually are several bazaars. In big cities according to people’s needs bazaars are located in special places and they have special applications. People normally meet their daily, weekly, monthly yearly needs from these different bazaars. According to their functions and locations, bazaars are divided into five groups.

1. Bazaars out of cities
   It was a kind of bazaar which was out of cities, however they were held beside the gates of the cities. They usually offered cheap goods such as vegetables and fruits from near villages, these bazaars was held out of cities, they usually were periodical bazaars meaning that they were held weekly or monthly or even seasonally. The bazaars out of cities usually, did not have built places, they were not roofed. However sometimes an important urban bazaar was developed out of city and it had built places for itself. An example is No Bazaar in Naein.

2. Urban Bazaar
   Urban bazaar was the most important bazaar of every city whose functions include the entire city. It was also an ultra regional function, because some villages around the city offered their products to people in these bazaars, moreover, they bought whatever they needed from these bazaars. The major urban bazaar of each city was usually along with the most important bypass of that city. Therefore, the most important elements of city including general urban of city, mosques, caravansaries, schools and so forth were all made along with it. Major bazaars were sometimes lengthened from one gate to the other gate. Major bazaars had constructed spaces and valuable goods were offered there. Historical bazaars in different cities had been major bazaars.

3. Regional Bazaar
   In big cities there were also one or more regional bazaars with regional functions. They provided daily, weekly or monthly needs of people for goods. Regional bazaars were related to two or more regions. Specified foods were sold in some of the regional bazaars.

4. Local bazaar
   In big cities, there usually was small bazaar in each local area to provide people’s needs of that area. They included groceries, bakeries, and butcheries. These local bazaars were called Bazareh (small bazaars). These bazaars had linear order and were at both sides of bypasses. However, sometimes they had form of little squares.

5. Neighboring bazaar
   In big cities such as Isfahan or Tehran during the Qajar period, each local area was vast. Therefore, they were divided into small passages. In each passage, usually one small bazaar was made for people of that area.

Effective elements on the establishment of bazaar activities

Different elements were influential on the establishment of bazaar activities; here some of them are mentioned.

1. Intension of specialized sections
   One of the elements of formation of these sections is the economic intension for drawing customers’ attention. The reason is that, in these places the buyers can get familiarized with all products and with their awareness toward them and comparing them with each other, they choose the best good in the shortest time. Moreover, since lots of buyers go to different section of bazaar to buy goods, sellers always try to provide goods for offering in the sections.
2. Economic sale and security of goods

Security has been always an important element for sellers of bazaars. The required security is in harmony with the type of provided goods or services. For instance, the jewelers section or gold working section needs more security than copper works. They also need more security than straw sellers. For this reason, in the past the location of different sections of bazaar was determined based on the issue of security and value of their goods. Therefore, gold working shops were located at the center of cities, near the mosque or other crucial buildings, consequently, goods with lower values were offered far from the city centers, generally gold working shops, carpet selling shops, shoes making shops in comparing to copper works and smithies, were closer to the city center. The square of straw sellers was near the gateways of the city and in some cases cheap goods such as vegetables were sold out of the gateways.

3. Convergence of agreeable activities

Some activities, whose products were similar to each other or complementary to each other, were located close to each other to facilitate the act of buying for buyer. For example, in those days, usually those who sell mirrors and candlesticks, those who sell cosmetics and luxuries were close to jewelries. In the contemporary period, in most of the cities watch sellers are also close to jewelries. Therefore, smithies and copper works were usually next to each other. In religious cities, booksellers, binders and rosary sellers were close to the mosque.

4. Separation of divergent activities

Some activities had products or services which were in contrast with other activities. Therefore, they were never located next to each other. For instance, a smithy was never located beside exchanges or gold makers, because it produced sounds. Moreover an exchange was not also located beside a confectionary. Therefore, some activities because of their sound or smell or transportation and other factors were located far from other divergent activities.(Soltanzadeh, 2001).

Planning for the construction of mosque

Generally, in order to arrive at a comprehensive plan, some cases and stages must be investigated based on information, realities, needs or purposes. Certainly, a plan without doing the needed investigations and researches is not complete, and therefore, would not be influential. In planning for a mosque, it is needed to investigate different criteria. To do so, it is needed to study climatic condition of a region, its geographical condition, culture and regional traditions based on Islamic principles and social condition. It is also helpful to consider at least several previously made mosques around and to gain information about them, so that, the plan get a perfect plan for the construction of mosque. Such a plan would be based on rules and regarding to the greatness of Islamic architectural plan. (Zemorshidi, 1995)

Qualitative features of mosques:

Constructing areas of a mosque are divided into three groups, main group, dependent group and lateral group.
1. The main area which is for doing the prayer and is called Harem.
2. Dependent area which is needed for doing the prayer such as ablution rooms, toilets, pantries, Imam room, anterooms, room for the responsible and room for servants.
3. Lateral areas which are not part of main area, however, for some reasons they may be located beside other areas such as libraries, "Basij" office, charity boxes, and training classes.

Features of harem

It is the most fundamental part of the mosque, because its space is designed for doing the prayer. Therefore, it is necessary to pay attention to this section more than other sections. To arrive at desirable criteria for constructing a mosque, we need to refer to the philosophy of making mosques. It is obvious that a collection of rules and criteria for making a mosque based on its architecture is based on two elements.

a. Functional aspects of mosque, the real function of mosque with which the ideal architecture must agree.
b. Conceptual aspects of mosque, concepts which give the mosque a higher value than its function.

In fact, physical aspects of a mosque are the results of two processes of design and construction. This physical construction is formed based on function and concept of mosque. Recognizing the identity and philosophy of mosque architecture is necessary to determine the rules and principles needed in the process of design. It is possible to study the architecture of mosque, from different viewpoints. Here we consider just those architectural features which separate mosque from other buildings.
General rules and criteria related to design which have no special subject or function are not considered here. The central duty of mosques is to provide a proper place for doing prayers congregations; the prayer principles begin from azan and then process of ablution and making lines and so forth, it finishes with the exit of prayers from the mosque. Therefore, we can say that harem is the most important section of a mosque. (Zargar, 2007)

In historical mosques, there were tall platforms so that the voice of Imam would be heard by all. Moreover, in some cases, arches were made above the platforms to enforce the effect. However, nowadays because of the presence of speakers and sound amplifiers, platforms do not have any special function. Furthermore, the high height of platform makes it hard for the prayers in the first line to see Imam, women part was also seeable from above the platform. This point must be emphasized that the height of platform depends on the size of harem and the number of audience, if there are a large number of audience and a large harem, the platform will be designed so high that the audience could hear him clearly. Therefore, these points are suggested.

Tall platforms are made just for vast and crowded mosques. The platform must not be so tall that it could see the women section. The first stair of platform should be wide enough to let a preacher sit on it. A good application should be considered for the empty part in front of the platform.

One of the necessities of any mosque is the praying books, Qurans and other religious books that prayers usually read before and after the prayer. Therefore, finding a suitable place for them and also other devoted books has great importance. Generally the below points are suggested:

The height of book shelters should be in harmony with the length of users of books. For vast harems it is better to use short book shelters in different places of harem as well.

The book shelters need special designs for placing books in different sizes in themselves. Books must be made of materials which are light and transmittable. Books are better not to block prayers’ sight or not be made in the direction of kiblah. Book shelters are better to be made within the walls. In big harems, predicting suitable places for book shelters must be in accordance with other things in the harem. If it is possible, it is better to mix the book shelters with places of mohrs (things used for praying), hangers, entrance and so forth.

Book shelters are better to have two parts, one without locks, the other with glasses and locks. The sahn (entrance) of mosque is an empty space which is defined with the surrounding space around and their combination together makes a unity whose elements coordinate with one another. In other words, the sky is the ceiling of the sahn in which a religious person can recognize his position in the existence mentality.

**METHODOLOGY**

**Features and standards of mosques**

The number of prayers:

Based on achieved statistics, the average number of prayers in casual days and in Ramadan days are based on the below table.

<table>
<thead>
<tr>
<th>Celebration day</th>
<th>Ramadan day</th>
<th>Normal day</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200-1500</td>
<td>550-600</td>
<td>370-450</td>
<td>man</td>
</tr>
<tr>
<td>800-1000</td>
<td>440-480</td>
<td>180-250</td>
<td>woman</td>
</tr>
<tr>
<td>2000-2500</td>
<td>990-1080</td>
<td>550-700</td>
<td>total</td>
</tr>
</tbody>
</table>

Regarding the fact that this design is predicted for the coming 10 years, the below table shows us the growth rate of populations.

<table>
<thead>
<tr>
<th>Celebration day</th>
<th>Ramadan day</th>
<th>Normal day</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>1680-2100</td>
<td>770-840</td>
<td>518-630</td>
<td>man</td>
</tr>
<tr>
<td>1120-1400</td>
<td>616-672</td>
<td>252-350</td>
<td>woman</td>
</tr>
<tr>
<td>2800-3500</td>
<td>1406-1512</td>
<td>770-980</td>
<td>total</td>
</tr>
</tbody>
</table>
The need of prayers
Each prayer to do his prayer needs a space about $0.6*1.2=072 \text{ m}^2$, the need of prayers for the next 10 years is based on this table.

Table no.3: the needed extent for prayers in the next 10 years. (Codifier)

<table>
<thead>
<tr>
<th>Celebration day</th>
<th>Ramadan day</th>
<th>Normal day</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1210-1512</td>
<td>555-605</td>
<td>373-454</td>
<td>man</td>
</tr>
<tr>
<td>807-1008</td>
<td>444-484</td>
<td>182-252</td>
<td>woman</td>
</tr>
<tr>
<td>2017-1520</td>
<td>999-1089</td>
<td>555-706</td>
<td>total</td>
</tr>
</tbody>
</table>

Determination of harem and sahn extent
Since different criteria are effective on determination of the harem extent, it is not possible to present a special formula for it. However, paying attention to the below causes are effective on determining the extent of harem.

In cold areas, harem is a very important part of mosques. In these areas, they are very small.
In temperate areas, the extent of harem and sahn is approximately equal.
In warm areas, the extent of sahn is more than harem; therefore it has more functions too.
In local mosques, the prediction of number of prayers is estimated based on the notion that one prayer from each family comes to mosque. However, in Mosques this predicted number is fewer. Anyhow, based on available criterion the average of harem extent is calculated and considered as a valid criterion.

For doing the prayer the needed extent for each prayer is about $06*1.2= 072\text{ m}^2$, however, for other ceremonies such as preaching sessions and lamentations half of the extent mentioned above is needed.
In the above calculation, the number of families in the area is predicted, and then the capacity of mosque is predicted to arrive at a proper extent for the harem. Moreover, if the construction of mosques is predicted in this area, to achieve the real needed extent for harem the results of mentioned calculations could be used.

There is a harmony between the heights of harem with its extent. In this table, the height is suitable for the extent of harem. (Group work, 1999)

Table no. 4: the harmony between the height of harem and its extent. (Group work, 1999)

<table>
<thead>
<tr>
<th>Height based on m</th>
<th>The extent of harem based on m$^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 to 5</td>
<td>100</td>
</tr>
<tr>
<td>4 to 7</td>
<td>100 to 200</td>
</tr>
<tr>
<td>6 to 10</td>
<td>200 to 500</td>
</tr>
<tr>
<td>8 to 12</td>
<td>500 and more</td>
</tr>
</tbody>
</table>

According to the predicted number of prayers in the next years, the size of harem is calculated in table number 2.

This is the interpretation of table no. 2

Based on average gained sizes for both normal days and Ramadan days, the needed size for male section is about 500$\text{ m}^2$ and for female section is about 350$\text{ m}^2$. Since the location of design is in a temperate area, then the extent of harem and sahn are roughly equal, this size is about 850$\text{ m}^2$. However, since the prayer of religious ceremonies is held in sahn, this extent should respond the number of prayers. Therefore, the average extent needed for holding ceremonies is 1770$\text{ m}^2$ based on the information of table number 3-4.

DISCUSSION AND RESULTS

According to diagrams number one to ten, thorough diagrams and segregated diagrams from different sections including mosque design, assembly saloons, harems, servant office, service complex, library, cultural collection, parking and cooperative companies are represented here. These diagrams are based on theories, spatial planning and different rules and principles.
Diagram no1: the original form of mosque design (Zemarshidi, 1995)

Diagram no. 2: general diagram of complex (Zemarshidi, 1995)
Diagram 3: assembly saloon (Zemarshidi, 1995)

- Store for food
- Butlery
- Women's water closet
- Men's water closet

The assembly saloon is divided into women's and men's areas.

- Area for preparing people
- Age
- Visual and auditory room

Diagram 4: realities of mosque (Zemarshidi, 1995)

- Shops
- Salesroom
- Pharmacy, clinic
- Treatment section
- Realties of mosque
- Office, bookstore
- Social places
Diagram 5: harem (Zemarshidi, 1995)

Diagram no. 6: servant room (Zemarshidi, 1995)
Diagram no. 7 service complex (Zemarshidi, 1995)

- Warehouse
- Back yard
- Kitchen
- Women's section
- Washing closets
- Men's section
- Ablution room
- Bath room
- Sewage
- Bathroom
- Toilet
- Ablution room
- Kitchen

Diagram no 8: library and cultural complex

- Classes and cultural activities for women
- Cultural activities office
- Relation spaces
- Men's toilet
- General space
- Library and cultural complex
- Library office
- Study room for women
- Book store
- Study room for men
Diagram no 9: parking (Zemarshidi, 1995)

Diagram no. 10: cooperative company (Zemarshidi, 1995)

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Conclusion

Based on researches and studies of this article, the architecture of mosques should not distract the prayer from the notion of getting close to God. In fact the planning for the space of mosques should not distract prayers from holy God; therefore, it must unify the mind with the religious relation with God. Another principle of architecture is to omit the mental anxiety of prayers through involving him in the architecture of mosques. Moreover, according to theories and planning for the space of mosques it is better to mention these issues.

1. Absence of elements against the spirituality of mosques specially in sermonizing.
2. Absence of distraction of prayer from paying attention to Mihrab.
3. Absence of visual attractions that distract the prayers.

Furthermore, paying attention to effective factors of establishing bazaar activities and the process of forming bazaars helps the correct organization of bazaars next to mosques. We hope that through controlling the environmental factors which distract the prayers, it get possible for prayers to have access to “mental balance” and “tranquility” which are needed elements after passing the stage of “quest” for arriving at spiritual state of meeting God.

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