



Origin and development of mosque architecture

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Abstract

Mosque is most religious architecture of Islam. In early creation, Mosque did not have any specific size and dimension, and simple hypostyle structure of Prophet's house at Medina was followed by *Khalifa* for building of mosque. It is an essential architecture created for place of prostration, rituals, religious and political purposes. The architecture of mosque had been progressed during *Khalifa* Walid. The structure of mosque is very simple but provides more functional value. This article deals with architecture of mosque with origin and development. It discusses early creation and its hypostyle structure with feature. It describes the key elements of mosque architecture that developed and elaborated in different parts of the world. All the elements of mosque are mentioned here with their origin, function and development.

Keywords: Mosque, mecca, medina, Qibla, Mihrab, Aiwan, Mimber, Gumbad, Minar, Sahn

Introduction

The mosque is the sacred and earliest architecture of Islam. The Arabic word of mosque is "*masjid*" (*place of prostration*) which is frequently used in Quran in many times. Mosque doesn't require any special demanding of the size, enclosing walls or liturgical accessories. It is said by Prophet Mohammad that people can pray anywhere and where they pray that place is mosque but notable point is the direction of performer's face which has to be towards Kaaba at Mecca. In context to India, Mecca is in west side so all the mosques in India have *qibla* wall towards west direction. Today many Islamic people follow the message of Prophet Mohammad, they pray anywhere according to the prayer's time in their busy life. The various prescribed movements of prayer including outstretching the arms, kneeling and prostration that mean every worshipper ideally requires a minimum space of one by two sq. meters ^[1]. Mosque provides a sufficient space of worshipper and also encourages communal unity during congregational prayer. The architecture of mosque was begun with foundation stone of mosque at Quba laid by Prophet Mohammad during his migration from Mecca to Medina. The mosque was completed after few days of hard work and Prophet much attached this mosque until the end of his life. He visited this mosque every week, and offer *salāt* as such, even after taking up residence in Medina ^[2]. But the first Islamic Mosque is known as Masjid-al-Haram in Mecca as it is the pre existing site of Islam.

Origin

The Kaaba at Mecca was used as a mosque before the prophet Mohammad or before the Islam. After the migration of Prophet Mohammad, his victorious returned to Mecca, he removed all the idols around the Kaaba with the help of his followers and cleaned it. This famous mosque is known as Masjid-al-Haram. The Kaaba is the direction for all the Muslims wherever they pray; this is the center of all mosques having *qibla* wall towards Mecca. Islamic tradition holds that the site of the Masjid-al-Haram is associated with Abraham (Ibrahim) and his son Ismail. It is believed to be

the place built by Prophet Adam or Prophet Ibrahim with the help of his son Prophet Ismail. Islamic followers believe that they were ordered by Allah to build the Kaaba where later on the mosque was constructed surrounding the Kaaba. The house of Prophet at Medina was the first focal point of new Islamic community. The size of the structure was very substantial. It was built of bricks and slabs of stone, which were placed between wooden stakes and the roof was made by trunks and branches of date trees. It was an open square with each side approximately 56 meters. Nine small rooms were built at the eastern side of the square which used by Prophet Mohammad and his family for accommodation. The whole space of the structure except the nine rooms was used for prayer as a 'mosque' and other religious purposes. Later on, the entire structure converted to the mosque and now it is known as Masjid-al-Nawi. The Islamic architecture and its element began to establish very early after the house of Prophet Mohammad and few years of the death of Prophet, two congregational mosques Basra and Kufa were built in 635 A.D. and 638 A.D. respectively with simple form and functions. These were simple structures and followed the architecture of Prophet's house at Medina. The direction of the Prayer or *qibla* was created towards the Kaaba. These mosques had a wide courtyard which was used for prayer and public assembly. After this, as Islam spread, the architecture of mosque gets improvement and moreover the mosque architecture added many features by time.

Features and Development

Mosque has several features but the question is what the main feature of the mosque architecture is? Answer is a niche wall called the *qibla* facing towards Kaaba in Mecca and worshiper should be parallel to the *qibla*. The main feature of the mosque is prayer niche or '*mihrab*' oriented in *qibla* wall, introduced in Prophet's mosque in Medina when it was rebuilt by al-Walid ^[3]. Soon other features of the mosque recognized and established as principal elements like *aiwan* (sanctuary hall), *mimber* (pulpit), *sahn* (courtyard), *gumbad* (dome), ablution fountain and *minar* (minarets). Thus the modern definition of the mosque

contains above elements and without leaving any elements the mosque could not be described as perfect structure of

“mosque” (Fig. I). Brief explanation about these elements is described here.

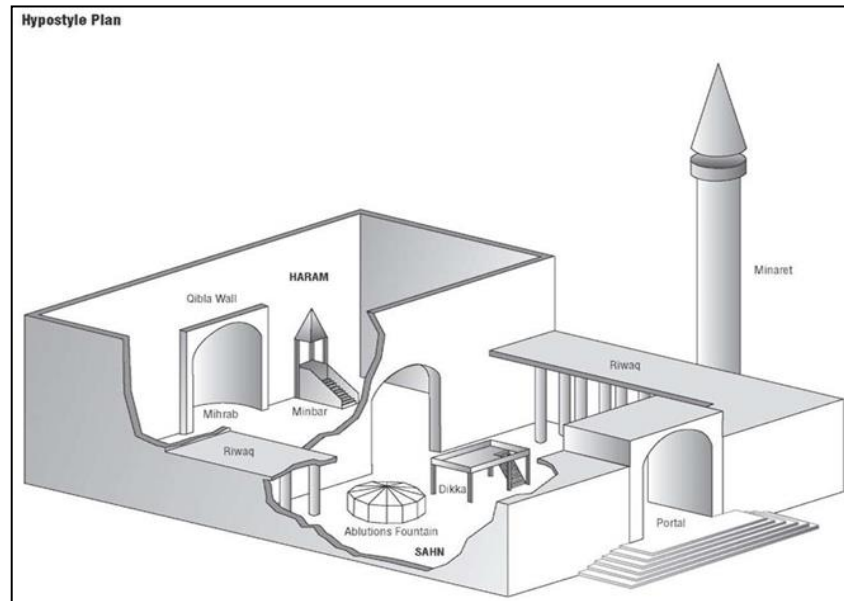


Fig 1: Elements of Mosque (Source- <http://islamic-arts.org/2012/islamic-architecture/>)

Mihrab

A semi circular niche in the wall of a mosque facing towards the Kabaa in Mecca is called *mihrab* and the wall is called the *qibla* wall. The origin of *mihrab* directly corresponds and is familiar with Altars of Christian Churches and the arcuated niche of Greco-Roman temple. *Mihrab* is the principal element of mosque architecture, which indicates the direction of the prayer. The followers of Islam are ordained not to turn when offering prayer (*namaz*). Hillenbrand wrote “there is no question of earliest mosques, which lacked *mihrabs* being regarded as somehow deficient for the reason. In a properly oriented mosque the entire wall, which faces the Black Stone in Mecca, the so called *qibla* wall, serves as a directional indicator. It thereby makes the *mihrab* superfluous” [4]. The earliest example of *mihrab* was found in Prophet’s Mosque at Medina, which was restored during the Umayyad Khalifa Al-Walid I dated 705 C.E. After this, the *mihrab* was further developed. The earliest mosques during the Khalifas were conversion of temples and churches. Along with the basic elements of the temples that were captured by Islam and was changed them into mosques by just renovating and revising them. The great mosque of Damascus contains a series of arcade that emphasize the position of *mihrab* in semi circular niche that formed in concave, while the *mihrab* in the great mosque of Córdoba is in the shape of a horseshoe arch, an example of Moorish element. The concave *mihrab* was used as an acoustical device, where the Imam stood within the niche to lead the congregational prayer. The *mihrab* at mosque of Samarra is semi-circular concave comprised of the pointed arch niche flanked by two pairs of marble columns. Thus in different parts of world under different dynasties various kinds of *mihrabs* were developed and the provincial style or the local features were adopted but the functions remained the same. The principal element of mosque should be undoubtedly special with secluded looks so the *mihrabs* are definitely decorated with various kinds of decorative patterns that comprised extraordinary and brilliant calligraphy of Quranic verses, glazing, stucco, and etc.

Aiwan or Sanctuary Hall (Harem)

The sanctuary hall is the primary and sacred part of the mosque consists of *mihrab* in the centre of *qibla* wall, *mimber* on left side of *mihrab* and also a spacious area for prayer. The sanctuary hall has no requirement for furniture. It allows as many worshippers as possible to perform the prayer at a standard distance called *musalla*, which literally means “place of prayer”. It contains no images of people, animals or any other spiritual figures but the Quranic verse in the form of calligraphy exists on the walls and prayer niches. Usually the sanctuary hall is erected just opposite to the entrance of the mosque. The first Islamic sanctuary was the “Kabaa” at Mecca and according to Islamic tradition it was built by Ibrahim and Ismail. Creswell wrote that the first sanctuary in Islam is in Mecca, which was merely comprised of a small roofless enclosure, oblong in shape, formed by four walls a little higher than a man, during the lifetime of Prophet Mohammad. This little sanctuary is known as Kaaba [5]. Another earliest sanctuary was the Dome of Rock, not a mosque but a true sanctuary.

Mimber

Mimber known as pulpit in English and its definition according to Dictionary of Islamic Architecture is “Type of pulpit usually found in mosques from where prayers, speeches and religious guidance are given” [6]. The purpose of this structure is to be used by the head of mosque or Imam to lead the prayer function. Generally, a short flight of stairs is used to reach the raised platform attached to the *mihrab* on its left side, which could be of wooden or of stone. It is one of the earliest elements and of course important part of the mosque. The earliest reference to a *mimber* recorded during the time of Prophet Mohammad, which was prepared for Mohammad in 629 C.E., for his preaching.

Abu Bakr also received homage seated on the *mimber* as he proclaimed himself a Khalifa but he did not sit on the top step in honour of Prophet. Thus, the *mimber* was used by all

Khalifas and governors as the symbol of their authority till 750 C.E. The development of the *mimber* into a pulpit commenced when it was introduced to the service held at *musalla*, an innovation attributed to Muawiya or Marwan I. Khalifa Muawiya delivered the order that all mosques in Egypt will be provided with a *member* ^[7]. In Egypt all provincial received the *mimbers* in the year 749-750 C.E.^[8] The *mimber* was simply used as a pulpit by Christians but in Islam it was not only used for sermon on Fridays but also for important public announcements, the *khutwa* for rulers and other political affairs. Early *mimbers* were made of wood but a later stage it was made of stones and bricks. *Mimbers* were decorated with multiple beautiful designs and became a tradition of decorative art. The earliest extant wooden *mimber* is found at the great mosque of Qairawan, which is said to have originated in Baghdad. It is made of simple design and consists of seventeen raised steps. This *mimber* is made of plane tree and decorated with 200 carved panels and strips of unequal sizes ^[9]. *Mimbers* found in India are mostly built of stone and decorated with carved or inlay work.

Gumbad (Dome)

The dome became a symbolic element of Islam after the construction of "The Dome of Rock". A circular vaulted formation used as a roof or a rounded vault forming the roof of a building or structure roughly in a hemispherical form, erected over a square, octagonal or circular base. The dome is a pre historic element and the earliest dome was found from the early Mesopotamia civilization. The pre Islamic construction of dome was also found in Roman architecture. Dome provides light to the interiors and from exterior defines the sacred cosmic space. Muslim architects were familiar with honorific domes used in Roman and Byzantine architecture. The dome became popular during Byzantine period and were usually hemispherical that became the main method of roofing in monumental buildings. Dome began the symbolic element in Islam more so after the construction of The Dome of Rock by Khalifa Abd-al Malik. Al-Aqsa mosque also embellished with wooden dome in early period. The earlier example of major stone dome is found in Qairawan, while the first known cross arch dome was introduced in the great mosque of Córdoba. The earliest example of bulbous dome can easily be found in mosaic illustration of Syria dating from Umayyad period. Thus during the medieval period of Islamic rule a wide variety of domes were developed with different construction techniques and the dome became a key feature of Islamic architecture. Iranian Islamic monuments were recognized for their exquisite domes. The early Iranian domes arose from more primitive squinch arch, which spanned the angle of square and were converted into an octagon. The earliest Muslim dome in Persia is found at great mosque of Qum, south of Tehran, which was eighty feet high and was built in 878 C.E. Since then three different types of domes have been built in Iran (a) single (b) true double and (c) an inner dome concealed by a polyhedral tent dome or a conical roof ^[10].

Corbelled Dome: also called the false dome, a structure that rise horizontally and meet all the layers at the apex and forms a structure like conical but not make true dome. Double Dome: the dome that has two layers and hollow inside. The Double Dome having an inner and outer shell to raise the height of the dome without disturbing the interior

plan was introduced for the first time in Hindustan in the tomb of Sikander Lodi built in 1518 C.E. ^[11]. Bulbous Dome: a dome rising high like a bulb rested on a tall cylindrical drum or base. The Bulbous Dome in Islamic architecture was adopted from north-west of Europe and the early version of Bulbous Dome in mosaic illustration can be seen in Syria during Umayyad period ^[12]. There are several other patterns of dome developed in different part of the world such as Onion Dome, Cross Arch Dome, Oval Dome, *Muqqarana* Dome etc.

Minar (minaret)

In Islamic architecture, the minaret is a raised structure attached mostly with mosque, which is used by muezzin to give the call (*azan*) for prayers. *Manara* is an Arabic word for minaret and is a symbol of hope. Basically the minaret did not belong to Islamic architecture and was adopted from Jews and Christians. Creswell wrote "In the time of Muhammad no such thing as a minaret was known and he and his followers first came to Medina then prayed according to Ibn Hisham without any preliminary call to prayer" ^[13]. Usually the minarets are tall and cylindrical tower supporting one or more balconies for Muezzin. The first Islamic minaret was built under the Khalifa Muawiya in 665 C.E., at the instance of Ziyadh bin Abihi, Governor of Iraq, when he added a stone tower to the mosque of Basra ^[14]. Accordingly the mosque of Amr at Fustat was annexed with quartet of minarets and another minaret added to the mosque in Egypt. Creswell wrote about it "the Khalifa Muawiya ordered Maslama to build *sawami* for call to prayer. So, Maslama constructed four *sawamis* for the mosque at its four corners. He first constructed them in it, there being none before his time. This is our first reference to a minaret ^[15]". He told, that the *sawami* of Maslama was suggested by the four towers at the corner of the temenos at Damascus. Thus the word *sawami*, was used for the first time for a minaret. In the early 7th and 8th centuries minaret was not famous as the part of the mosque, rather many mosques, like in Africa, Iran, and Arabia, and etc., were built without minarets. So the sources suggest that early minarets were Christian or Jews towers built in square plan. The minarets of post Fatimid in Egypt were developed into a complex and distinctive feature constructed within three sections, square at the bottom, octagonal in the middle and the top crowned by a dome. The early minarets in Spain were the part of Church tower constructed with square base and two staircases. The cylindrical form of minaret was developed in Iran and spread all over the Islamic world including India. Thus the feature of the minarets differs throughout the Islamic world and architecture and ornamentation influenced by traditional as well as local feature like cylindrical form, tapering form, dome at top, finial at top, octagonal kiosk, zig-zag pattern, Chevron designs, projecting balconies, staircases, engraved calligraphy, carving designs, etc.

Sahn or Courtyard with Cloisters and Ablution Pond

Sahn is Arabic word for courtyard found in Islamic architecture. This is a common element for all mosque architecture. The historical background of *sahn* is found in Sumerian houses of 2100-2000 B.C.E., used for dwelling ^[16]. Such types of courtyards were also found in Buddhist *vihara*. The *sahn* or courtyard serves to accommodate a large number of people for worship during congregational

prayers especially on Fridays and other religious festival's special prayers such as Eid, and etc. As we know, Islamic architecture followed the architectural features of the house of Prophet Mohammad, in Medina, which has a large enclosure and created following a hypostyle plan. This was the first courtyard example in Islamic architecture and in south west of courtyard a primitive shelter is found. The early mosque at Kufa and Basra was also a hypostyle mosque typically provided with an inner courtyard surrounded by cloisters or *riwaq* on three sides, while the fourth one is a sanctuary hall including *qibla*. The great mosque of Damascus was also built with a large courtyard. Thus the courtyard became the primary and major characteristic feature of mosques. Major mosque provided entrances on three sides those lead to the courtyard. The first mosque architecture of Delhi, Qubbat-al-Islam consists of a rectangular courtyard surrounded by pillared cloisters.

The cloisters or *riwaq* provided a space between the interior sections and the courtyard that covered with ceilings and protected the structure from direct sunlight and rain during different climates. Side rooms are also provided to residents of mosque and *madarsa*. The supreme mosque Masjid-al-Haram in Mecca, provide a great example of *riwaq* element. The early cloisters and cells were part of Buddhist architecture.

Ablution pond is provided in the center of the *sahn* (courtyard) in large mosques. Actually ablution (washing of face and feet before prayer) is considered a key to heaven. Therefore early mosques were built with Ablution pond for cleaning of body parts before praying and this procedure is called *wazu* in Islam. This idea of Ablution pond may be adopted from the sacred mosque of Mecca, where the holy well of Zemzem is present within the enclosure. In modern mosques ablution ponds are replaced and modified with wash basin and supply of water through pipelines.

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