



## LEADING TRADITIONS IN THE FORMATION OF THE ARCHITECTURE OF MODERN MOSQUES

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### Abstract

The article presents the results of research conducted by the authors to study the history of formation and current trends in the development and improvement of mosque architecture in Central Asia on the example of Uzbekistan and a number of foreign states.

**Keywords:** mosques, types of mosques, their historical formation, features, modern mosques, proposals and recommendations for the development of their architecture.

### Introduction

The International Islamic Organization has declared the capital of our republic, Tashkent, the "Capital of Islamic Culture". In this prestigious work, in our national values and identity, in our freedom of religious belief, the holy religion of Islam, therefore, the place and importance of mosques is great. Currently, there are 2101 registered mosques in the republic, which are renovated or newly built mosques. By 2025, more than 100 mosques will need to be built in the republic. Every year there is an increase in this need. At the same time, the republic has not yet developed building codes and rules for the design and construction of mosques. Issues such as the architecture of the buildings of modern mosques, the identification of women's places, the design of parking lots for the transport of prayers, the content and number of towers of decorations in mosques, typology and functions of modern mosques remain open. Today in Uzbekistan there are practically no scientific developments or literature devoted to the architecture of modern mosques under construction. Therefore, the topic of this article on the architecture of mosques cannot be called unimportant

### Main Part

In total, over the years of independence of the republic in Samarkand, district centers and villages of the Samarkand region, about 600 mosques were built and put into operation, of which more than 300 dome mosques and more than 50 makhalla mosques. About 250 existing mosques have been repaired and put into operation.





Most of the mosque buildings designed and built so far are limited to taking the model from the architecture of historical mosques. At the same time, in Uzbekistan, as well as in foreign Islamic and Eurasian countries, there is a need to make changes to the architecture of mosque buildings and their structure based on modern aesthetic and social requirements.

Characteristic features of the architecture of historical mosques of Uzbekistan are: the formation of created mosque buildings based on local building materials and traditions of national decoration;

the architectural planning and planning solutions of most mosques, especially djome mosques, is mainly of two types: 1) a compact planning room-position with internal halls; 2) the use of symmetrical inner door compositions with respect to the longitudinal arrow. On the first typical mosques, the squares will be directed outside the building, one, two or three sides. In the second type of mosques, the rooms and vestibules face to the courtyard;

the formation in the structure of the premises of the mosque of the winter and summer parts (indoors (winter rooms), half-closed (porch) and open (courtyard)) parts;

Exaggeration of the minaret, dome, mihrab, minbar, chair, entrance (gateway) and architectural and finishing parts of the mosque, mihrab facing the qibla;

that an attempt was made to ensure architectural integrity and geometric proportion (harmony), in a word, architectural harmony between the architectural forms, parts and elements of mosques (winter rooms, porches, lobbies, minaret, mihrab, courtyard, gatehouse);

a combination of the external and internal appearance of the mosque with unique girihs, Islamic-written decorations, honors, muqarnas and other patterns and colors; the fact that mosques, especially djome mosques, are built and located in the most densely populated areas (squares, madrasahs, near markets and other prestigious places);

symbiotic construction of some historic mosques with other public buildings (for example, historic schools and huts);

improvement and landscaping of the territory of mosques.

These features have been developed and upgraded over the centuries. Most of them are typical for modern mosques.

The architecture of the majority of mosques currently under construction complies with the most basic normative requirements of Islamic traditions for mosques. They are as follows: turning the altar of the mosque towards Qibla, installing a minaret near the mosque building, separating the territory of the mosque from the surrounding area with a wall or fence, installing a gate at the entrance to the courtyard of the



mosque, covering the roof of the mosque (main hall) with domes, for collective prayer in summer time, forming a flat area and verandas in the courtyard of the dome mosque, rooms for imams and workers of the mosque, rooms for ablution and toilets for prayers.

Such typological requirements were taken into account in the construction of most modern mosques. Restrooms, especially toilets, in mosques is considered to place distant place of the mosques, and if possible, place them to the lower floor.

It is recommended to have 1 toilet seat for every 10 believers in the restroom and 1 toilet seat for every 50 believers in the restroom. When the restroom and toilet are in the same area, they should be separated by a hallway.

It has been established that the regional features of the architecture of modern mosques built in Uzbekistan during the years of independence are mainly characterized by the following cases:

in the first case, this is the direct use and application of traditional historical forms characteristic of the architecture of Islamic culture (khanaka, mihrab, dome, minaret, cantilever-beamed porches and an open courtyard adjoining them);

the inclusion in the architecture of newly built mosques of elements typical of folk art, such as dome shapes, decorative and artistic decorations, patterns and ornaments, which are considered historical sign systems;

placement and construction of mosques in the most prestigious places in terms of urban planning, providing them with engineering networks (hot and cold water, sewerage, electricity, gas, cooling in summer and heating in winter), external improvement and landscaping of the mosque area;

designing and creating car parks for personal cars of mosque employees and prayers visiting the mosque.

An analysis of the decoration in the interiors of most modern (new) mosques made it possible to determine the appropriateness of the following traditional artistic solutions in them:

the use of geometric (girihi) and floral (Islamic) patterns, made in different ways, gratings to cover windows;

the use of patterns of hoshiya, sharaf, ravok, kundal and traditional muqarnas in the decoration of dome devices and mihrabs;

the use of written decorations (in wall decoration, around the flanges of the mihrab and the dome).

The qibla of mosques in our country should be directed to the southwest, more precisely 14 degrees to the left of the western compass point.



The architecture of modern mosques should be created on the basis of the national mentality and high artistic and aesthetic ideas. At the same time, they should not remain outside the influence of universal architectural and artistic values, modern architectural styles that are characteristic of the Islamic world.

A person who comes to a mosque to pray begins his work by getting acquainted with the beauty of the house of God and the convenience of worship. Therefore, the architecture of mosques (regardless of whether it is made in the traditional style or in the modern style), the artistic form-style of mosques must fully correspond to their functional essence, be distinguished by the architectural harmony of forms.

The construction of modern mosques, especially mosques, should be done in the style of national architectural works of art, they should always be in the language of our people and nation, they should be understandable and pleasing to them, they should be formed on the basis of universal values, they should be very convenient to use and economical in construction.

Along with ancient mosques, mausoleums and other attractions, modern mosques should become interesting objects for tourists and be recognized as the tourist brand of our country.

In the development of projects for new mosques, we consider it expedient to involve mature specialists in this field - scientists, art critics and architects on the history of our domestic architecture, to announce project competitions, to form scientific councils, and with their help to form modern concepts.

The number of minarets of a mosque in practice ranges from one to four, and in some cases more. The number of towers must be at least one. However, their maximum number should be four. This is due to the fact that the four corners of the mosque building are usually crowned with one minaret. The two minarets in the main style of the mosque building can be symbolically compared with the two hands of a man reaching the temple of God in prayer. The shape between the two hands represents a human head, which can be compared to the dome of the main prayer hall of the mosque. Therefore, both in a symbolic sense and in the sense of a landmark for worshipers, it is desirable that the main mosques have two minarets. In addition to the five daily and Friday prayers, it is desirable that mosques have a large courtyard for the Islamic Eid prayer twice a year. Considering that the prayers line up facing the qibla, it is desirable that the winter khanaka mosque and the courtyard of the mosque be larger than their width. A large open space for prayer in the yard should be solid, compact and even. The perimeter of the yard can be enlarged from the inside with wide and high porches





The combination of external and internal decorations in mosques, the presence of certain laws in their creation is impossible only through mental and visual analysis (speculative). This combination can be seen and evaluated using various mathematical approaches. In the dissertation, the proportions of architectural forms, the similarity of types, shapes and colors of decorations were taken as a criterion for assessing harmony.

The inscriptions written in Arabic script in the interior of mosques are not just an adornment for enjoyment, but also an adornment that conveys Islamic customs and knowledge, words and feelings of God to people. The building of the mosque and its architecture should be such that whoever enters it, whether he is religious or not, the architectural environment there should make him want to pray.

It is proposed to standardize the area of the prayer hall of mosques by 1.30x60 cm for one prayer service, that is, 1.30 meters between rows, and 0.6 meters in width of prayer seats. For example, if the capacity of the hall of the mosque is designed for 500 worshipers, the net area of the prayer hall should be at least 39,000 square meters. Based on the survey, it is recommended that the height of the main prayer hall of mosques be 7 meters.

In some mosques, windows are installed on the wall where the mihrab is located, and it is advisable to install the frames higher than the human eyes so that people passing behind those windows do not interfere with the prayers.

Taking into account the lack of land area and the large number of worshipers in the mosques currently under construction, the tradition of building an additional basement hall under the main prayer hall is being formed. The capacity of the lower hall is from 200 to 400, sometimes even more. Therefore, the width of the entrance-exit stairs to this room should not be less than 2-2.5 meters, taking into account the elderly in the prayer group, the height of the stairs should not be less than 10 cm, and the width should not be less than 25 cm. A large monitor should be installed on the qibla wall of the lower room to see and hear the order of the imam.

Mosques should have a sufficient number of comfortable rooms for imams and staff. In some mosques, the minbars are made in the form of a "balcony", which is not in accordance with Islamic rules. The minbar has a special shape and should consist of 5-7 steps.

Considering that funerals can be read in mosques, it is recommended to install the door on the left side of the mihrab of the mosque, and outside the door there should be a platform for placing the corpse. In this case, the number of worshipers in the mosque will not be violated.



It is desirable that the location of mosques in the city plan should be in city blocks, micro districts, guzars and markets, convenient for the arrival and departure of worshipers, near large streets.

In the dissertation, the service radius of mosques for worshipers, depending on their position (guzar mosque or jame mosque) and capacity: for Guzar mosques up to 1.5-2 km, for Jame mosques up to 3-4 km, taking into account the fact that believers drive up to mosques on cars, this was determined on the basis of surveys and studies of mosques built.

It became necessary to plan parking spaces for the cars of the faithful in the master plan of the mosque in accordance with their capacity for each building of the mosque. Taking into account the standard level of 1 parking space (for 1 car in parking lots with a 35-degree dividing line, 2.30x4.50 meters are allocated, i.e. what percentage of the population will come to prayer), it was recommended to calculate the parking area. The dissertation developed regulatory recommendations on this issue.

Considering that not all worshipers have cars and often 2-3 people come to the mosque in 1 car, it is recommended to calculate the number of parking spaces by 40-45% less than the number of worshipers in the mosque. In the future, with an increase in the number of cars, it is planned to build a part of the parking lot in the form of a 2-storey shed and increase their capacity.

The dissertation also addresses the issue of allocating a place for praying women in the building or on the territory of the mosque. It is advisable to plan a place for women in a separate women's block not through the main door through which men enter the mosque, but through the side door. When women enter the mosque through the side door, a separate room with a mihrab on the second floor of the mosque hall should be allocated for them. It is desirable that this room be fenced off from the men's hall.

It is known that worshipers enter the mosque without shoes. Therefore, in order for worshipers to easily find their shoes after prayer and so that clothes do not remain in a damp room on rainy days, it is advisable to install a row of shelves made of light wooden structures up to a person's height on the walls of the hall in front of the doors of the building.

A proposal has been made to include the building of a mosque or prayer rooms intended for the prayerful part of the population in large modern residential complexes, bus stations and shopping centers currently under construction in large cities of our Republic. At the same time, it was noted that it is possible to reduce car traffic and save time for worshipers on the way to other mosques and back.



## Conclusion

Thus, this article describes the results of our study to determine the leading traditions of the formation of the architecture of modern mosques on the example of Uzbekistan. In particular, it was found that the typology of modern mosques, in contrast to the Guzar, Juma, Jame and Namazgah mosques that were common in the past, is significantly reduced: they are formed in the style of makhallah and jame mosques, and the functions of the former Juma and Namazgah mosques are now assigned to Jame mosques;

The most basic Islamic requirements for mosques are determined: turning to the qibla of the prayer hall of the mosque, installing a minaret near the mosque building, separating the territory of the mosque from the surrounding territory with a wall or barrier, installing a gate at the entrance to the courtyard of the mosque, covering the roof of the prayer hall (main hall) with domes, equip a flat platform and a porch in the courtyard of the mosque for collective prayer in the summer, build rooms for the imam and staff of the mosque, rooms for ablution and toilets for worshipers;

the advanced traditions of the formation of architecture and decoration of modern mosques were revealed: solidity, integrity in the architecture of the building, symmetry of the composition of the main facade; the supremacy of the architecture of the prayer hall, domes and minarets of the mosque in the architectural and three-dimensional composition of the mosque; architectural and artistic exaggeration of the spatiality of the interior of the prayer hall, the shape of the mihrab, the shape of the dome, the solution under the dome; the use of girih, Islamic writing, writing, kundal, and muqarna in mosque decorations and patterns; architectural leadership and harmony of the entrance doors of the building, stylistic and artistic finishing solutions; adding additional functions to the structure of the mosque building, for example, a library and premises for a religious circle, a bookstore, guard rooms;

the service radius of mosques to the population has been developed (district mosques up to 1.5-2 km, mosques up to 3-4 km);

a clarification was made regarding the normalization of the area of the prayer hall of mosques, that is, it was proposed to normalize the area of the prayer hall at the rate of 130x60 cm per one prayer;

clarified the issue of allocating a place for praying women and its architectural organization in the structure (territory) of the mosque building;

Recommendations are given on the organization and number of minarets in the volumetric solution and architecture of mosques.



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