

To The Reconstruction of the Ulugbek Madrasah in Samarkand

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Abstract

The paper considers the review of some architectural objects of the old town part of Samarkand formed by the end of the XIV-th first half of the XV-th countries. The destruction of the domes and minarets led to the disappearance of these unique architectural qualities of the Ulugbek madrasah. Additional studies, undertaken in connection with the planned restoration revealed a number of data on the history of the construction of the madrasah, helped to understand some features of its architecture, to establish the initial purpose of separate premises. We made a thorough examination of the entrance opening in the western wall of the aivan, which gave every reason to support the opinion of the previous researchers. The opening is distorted in shape, it is located not exactly along the axis, it is not coordinated with the composition of the framing facing it.

Keywords: reconstruction, architecture, Ulugbek madrasah, Samarkand.

1. Introduction

In the ensemble of building of Samarkand Registan Square the Ulugbek madrasah plays the title role thanks to its common historical and cultural value and high artistic merit. Losses, suffered by the building for five and half centuries are so great, that in its modern condition-without the second floor, without the vaulted-domed coating of the winter mosque and domes over the corner halls-it does not give even a remote idea of the former greatness of the building. From the distant points of view, when silhouette of the structures is perceived entirely and these losses are especially noticeable, compared with the restored volumes of the madrasah Sher-Dor and Tilly-Kari, the need for restoration of the Ulugbek madrasah becomes obvious.

The original volumetric-spatial solution of the madrasah was built on the opposition of a powerful flattened parallelepiped of the main building volume to the dynamic rhythm of vertical elements-symmetrically located in relation to the portals of the domes and minarets. The main composite means, used by the architects were the contrast of the vertical and horizontal divisions, rising to the corners of the building, the rhythm of high-rise volumes, the axial symmetry of facades. The destruction of

the domes and minarets led to the disappearance of these unique architectural qualities of the Ulugbek madrasah. And only the restoration of the original forms can return the artistic and compositional integrity to the unique monument of the 15-th century, to enrich the appearance of the whole ensemble, the important town-planning role of which has been preserved in the present situation.

2. Studies on the reconstruction of Ulugbek madrasah

Additional studies, undertaken in connection with the planned restoration revealed a number of data on the history of the construction of the madrasah, helped to understand some features of its architecture, to establish the initial purpose of separate premises.

The most interesting was the western part of the structure, which was destroyed most of all, having a complex non-standard planning composition.



Fig. The Registan ensemble.

Along the western facade of the madrasah there is a large premise of a winter mosque, stretched from south to north adjoined by the butts to the corner domed halls. The unusualness of this decision becomes especially evident when comparing the planning structure of the Samarkand Ulugbek madrasah with the structure of chronologically close buildings of the Mukhammad Sultan madrasah in

Samarkand, Bukhara and Gijduvan madrasahs, also built under the rule of Ulugbek, the Giyosiy madrasah in Khargird (Afghanistan)

The main feature of the layout of all mentioned buildings of the 14-th and the first half of the 15-th centuries is the location of the main premises in a row along the perimeter of the courtyard. All of them are fairly well lit from the courtyard and in some cases they have additional windows on the exterior facades.

A single row arrangement of the rooms ensures their simple and convenient interconnection. The corners of the buildings that are most difficult in planning are usually occupied by domed halls, to which entrances are organized directly from the lobbies (near the entrance to the buildings) or through neighboring khujras (on the opposite side of the portal).

Another layout appears before us in the Samarkand Ulugbek madrasah. East-facing entrance and opposite west side of the building are arranged here from two-row rooms with walk-through corridors between them. This technique allowed to increase the quality of the ordinary living rooms-khujras, to expand the area of the corner halls, to place an extra-large premise—the above-mentioned winter mosque—between the halls of the western side. Its transverse axis is aligned with axis of the western aivan, the ends of the longitudinal axis close this dome halls. All this a three-part enfilade being located along the western facade of the madrasah is connected with the courtyard through the complex labyrinth of walk-through vaulted and domed rooms, almost devoided of daylight.



Fig. 2 Courtyard of Ulugbek madrasah

Immersed in the darkness, obscured and tangled the aisles, they seemed to be inconvenient in operation to the main parade-decorated public halls and therefore, over time the front wall of the western long courtyard aivan, the

door was broken through, connecting the aivan directly to the central premise of the enfilade adjoining to the west. Doubts about the original of this opening appeared as early as in 1944, when the architect Plotnikov, measuring the madrasah placed on the western side of the aivan not a door but a mihrab niche(3). B.N.Zasyupkin also considered the western aivan as a summer mosque since other aivans in this madrasah do not have mihrab niches—the main elements in any mosque.

We made a thorough examination of the entrance opening in the western wall of the aivan, which gave every reason to support the opinion of the previous researchers. The opening is distorted in shape, it is located not exactly along the axis, it is not coordinated with the composition of the framing facing it.

So, when constructing a new entrance to the tree-part enfilade of the main premises on the western side of the madrasah, it turned out that the traditional summer mosque was destroyed. Then, the central enfilade room probably located behind the aivan has received direct connection with the courtyard, was adapted as a summer mosque, although neither its position nor architectural features did not conform to the generally accepted tradition of a mosque construction at a madrasah.

The latter were usually located near the entrance of the building which made it possible to use the mosque not only by the inhabitance of the madrasah. In this case, the greatest convenience is one of the corner halls, adjoining to the eastern entrance group of premises. This is exactly, the way of mosques location in all madrasahs, trying to organize the entrance to them directly from the lobbies and thus to preserve a certain isolation of the remaining functions of the madrasah from outsiders.

Perhaps, the complicated layout of the Ulugbek madrasah caused by the arrangement of two-row rooms forced the builders to deviate somewhat from the traditions. The analysis of the layout of the Ulugbek madrasah shows that with a general symmetrical solution about the axis of north-south entrances to the eastern corner halls are organized differently. The entrance to the north-eastern hall is located on the western wall and there is no mihrab here. The south-eastern entrance opening is located in the northern wall and the western niche has a mihrab. The stalactite finish of the mihrab niche and finely profiled plaster framing of it, constitute a single decorative composition with stalactite dressing of the entire western niche. Traces of the painting of the 15-th century are clearly visible on all parts. All this testifies that from the very beginning the south-eastern dome hall was intended to be used as a winter mosque. There are no niches in the western corner halls of the mihrab and large window openings are located in the corresponding walls. The role of the summer mosque was originally assigned to the

western courtyard aivan. Then, what was the functional purpose of a large rectangular premise, which is after this aivan taken by researchers for the winter mosque?

A number of features noted by us in the study of the room gave reason to doubt its original functional purpose to serve as a mosque.

The decoration of the mihrab niche is very modest in comparison with the former magnificent decor, both the premise itself and the madrasah in general. The remains of mosaic panels, murals on the walls and in cells of complex stalactite completion of the mosque's niches are incomparable with a simple stalactite crown of a small mihrab niche even in its current state. Although in any mosque the mihrab niche is as a rule decorative accent, emphasizing its dual primacy.



Fig. 3 Main portal of Ulughbek madrasah

The signs of a niche repair origin can be noted even now, although its decor has been fairly damaged by the time. The stalactite system filling the top of the niche is not coordinated with its outline; the cell of stalactites is crushed as compared with the cells filling the adjacent niches. The mihrab niche is squat as its height is limited most likely due to the window located below it.

4. Conclusions

The ritual of Muslim worship itself required appeal of all worshipers to the mihrab. In large mosques with a large length of the western mihrab walls, there are usually several mihrab niches. Additional mihrab niches are usually found in the appropriate walls of galleries and aivans at mosques. Here, in a room stretched in the north-south direction and in a very short in the transverse direction of the premise, opposite to the mihrab niche, only a small group of people could be located, and the side parts had to either be empty or be uncomfortable since the

faces of the worshipers were turned to the walls without mihrab, but with windows. It is no coincidence that apparently no windows are arranged in any mosque in the western walls.

The extremely small size and modest not congruent with the rest of the parts, the decorative design of the mihrab niche gives reasons to believe that it appeared as a result of one of the numerous repairs of the building of the madrasah, the traces of which are noted everywhere. Most likely this could happen when the entrance was pierced in the premise from the western aivan. This deprived the madrasah its traditional summer mosque. Arranging the mihrab against the newly pierced wide opening in summer time, allowed using its central part together with the aivan, adjoining to it as a summer mosque.

Comparison of the Ulughbek madrasah with other buildings of the same type gives grounds to note that the functional distribution of the premises in them is subjected to an enduring tradition and departure from it, happens only with the forced decision related to the orientation of the building or with restructuring.

The Samarkand madrasah in this sense is not an exception. In all madrasahs one of the corner domes halls, adjoining the vestibule group is assigned to the mosque. So madrasahs of Bukhara, Gijduvan, Khargird were organized in the XV-th century, numerous madrasahs of Bukhara of the XVI-th-XVII-th centuries, the madrasah Shir-Dor and late medieval madrasahs of Khorezm. This arrangement of mosques in the system of madrasahs undoubtedly represented certain comforts associated with the internal routine of the life of the inhabitants. It must be assumed that, in this case, the distribution of the premises, as intended, was similar. Aivans, on the side of the courtyard opposite the entrance, were intended for summer mosques, if the orientation of the building allowed to do it. The orientation of the Ulughbek madrasah is such that it is the western aivan, opposite to the madrasah entrance meets the requirements of the arrangement of the summer mosque. It was in the spike of the western aivan that the mihrab niche was originally located which was later converted into the entrance, in connection with which the mihrab was built into the niche opposite of this entrance and the premise itself was used as a mosque. What was its original purpose? It seems to us that it served as a library or may be a kind recreation- a room for relaxing, conversations by so-called «jamoat-khana».

Conveniently connected by axial aisles with angular lecture halls-«darskhona» had additional entrances from corridors that were well lit by large windows in the western wall and generously and delicately decorated with multicolor ceramics and paintings, this premise could be

the center of secular science that was known to be cultivated under Ulugbek, encouraged and led by him.

[4] Voronina V.L. Traditions in architecture of Central Asia///Architectural heritage-1978 №26



Fig. 4 Inside part of Ulugbek madrasah

It should also be noted that a premise, which is similar to the plan, located in the butt of the western palace aivan was only in one building of the madrasah in khargird. It is still significant in size: its length is equal to the width of the adjacent aivan. Since it is located outside, the outer contour of the walls of the entire building, its connection with other premises of the madrasah is absent. The compositional and constructive solution of both premises in Samarkand and in Khargird is extremely closely, if it is not similarly. The difference is definitely different only in sizes. The functional purpose was also apparently unambiguous.

Thus, it can be approved that the Samarkand Ulughbek madrasah despite the complexity of the planning, due to the desire to increase its capacity the architects made efforts to organize the accepted and convenient to use the functional and interconnection of the premises. The winter mosque occupied a traditional position near the entrance lobby. And although the entrance to it was organized through a complex system of corridors, it was possible to use, in some cases, doorways facing east to the front side of the madrasah.

The summer mosque was also-traditionally located in the western courtyard aivan. Behind it combining the lecture-halls «darskhona» into a single node of public premises were the «jamoat-khana».

References

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