

Uzbekistan Mosques Design

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Abstract: The great role and significance of Islam are indisputable in the architectural heritage in Central Asia. In Uzbekistan, there exist more than a thousand mosques belonging to the period between the 12th and 20th centuries. In those mosques, the work of architects and artists are combined. Most of the existing mosques belong to one of two types: the local mosques and the Friday mosques. Before the beginning of the 20th century, three *khanates* existed: Kokand, Buchara, and Khiva. Because of a number of factors, local architectural art schools, each with its own peculiarities, were formed in those *khanates*. Mosques and other buildings have differed in their sizes and spatial composition, construction solutions and decorations. It is possible to see those peculiarities and characteristics features in the existing monuments.

Centuries-old experience had led to various techniques in the design of terra-cotta, constructed gypsym-gunch as well as in the work of wood, marble, majolica, mosaic and in paintings. It is necessary to dwell especially on such techniques as *kundal* and *kikma*.

The ornamental compositions are remarkably varied, though their composing elements are not numerous: *girikhs*, *islimi*, flowers, buds and leaves. In later examples, the ornament details became symbolic.

In addition, Arabic epigraphs based on Qur'an quotations, hadith, verses, good wishes and the names of authors and constructors were included in the ornaments. Calligraphers executed them with different hand writing types such as *kuphi*, *thuloth*, *naskh* or *nastalik*.

The territory of Uzbekistan is seismically dangerous. It has always been necessary to consider earthquakes resistant constructions. The extended experience in dealing with such constructions has led to refined construction methods that were followed in the Islamic world.

Introduction

The great role and significance of Islam are indisputable in architectural and art design development in the countries of Central Asia. In the very early period of Islam dissemination, the great mosques were created here and become famous all over the world. Among them are: the Mogoki-Attori Mosque of the 12th century and Kalyan of the 16th century in Buchara, the Amir-Temur Friday Mosque of the 14th century in Samarkand, and Jurna' Mosque of the 18th century in Khiva and others (Figs. 1 & 2). Now these mosques have become key monuments of architecture. More than one thousand of them are registered and under the state protection. They combine the work of architects and the refined art of artists.

As a modern word, "design" in its application to the medieval Uzbekistan mosques is prone to be considered it as a term defining an idea or project, and having its aim first of all to form the aesthetic quality in the surrounding subjects.

Mosques Types

There are two types of mosques, among the mostly preserved, in Uzbekistan. They are the block ones that are used by inhabitants of a *makhalla* (district) every day, and the Friday mosques in which people from the whole district pray on Friday (Figs. 3 & 4). An account on there architecture and art decoration will be performed.

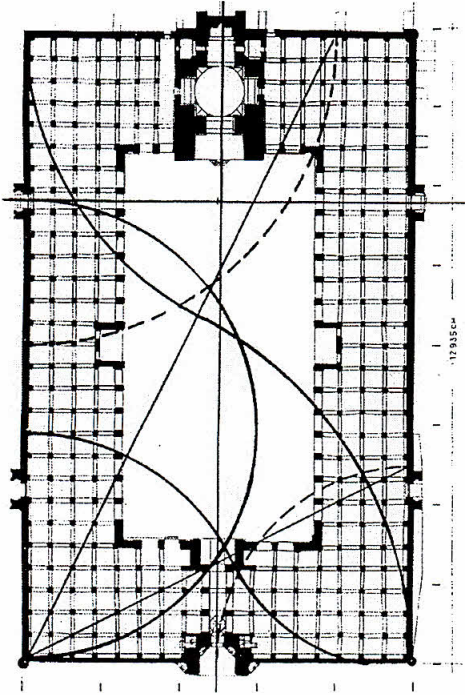


Fig. 1: Plan of Kalyan Friday Mosque, Bukhara.

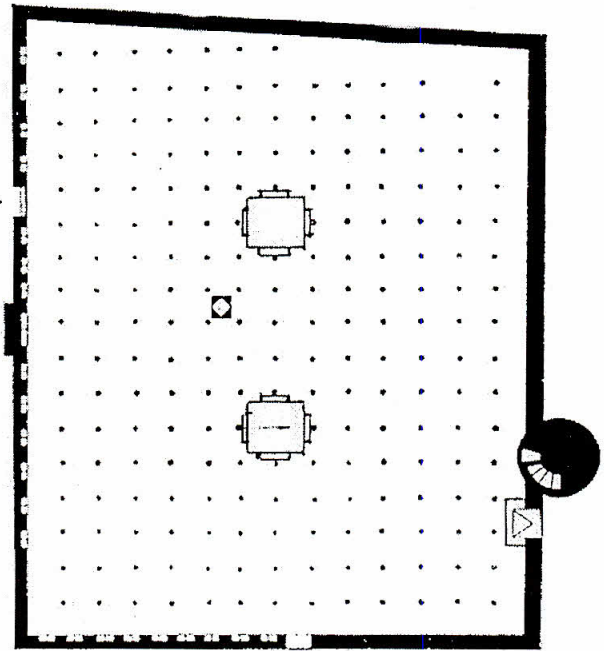


Fig. 2: Plan of Juma' Mosque, Khiva.

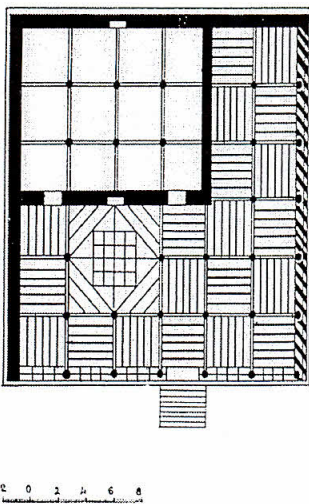


Fig. 3: Plan of district mosque, Namangan.

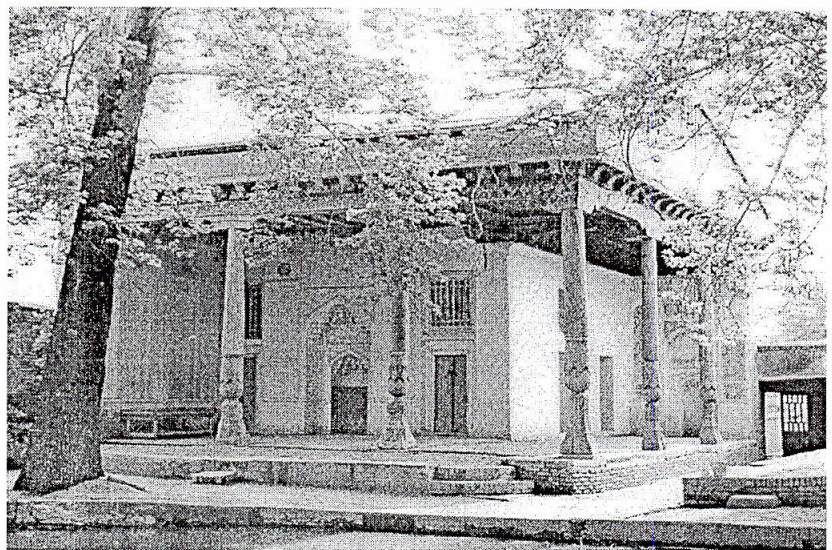


Fig. 4: General view of district mosque, Samarkand.

Architectural Schools

From the 17th till the beginning of the 20th century, three *Khanates* existed on the territory of Uzbekistan: Kokand, Bukhara, and Khiva. Because of their geographic position, natural and climatic conditions, and political isolation, the original architectural schools were developed in these Khanates: Fergana, Buchara, and Khorasm. Thus, mosques, which carried the same function, were different in each *Khanate*. Size and special composition were solved in different ways. Each one had a different design.

In the Kokand *Khanate*, the block mosques were usually not big in their sizes and consisted of one hall and one or two-sided *Ivans* (the Gishtlik mosque in Kokand and the Dosti Khudo mosque in Margilan). The bright, painted ceilings are the peculiar features in the Fergana building decorations. The Friday mosques are symmetrical, frontally opened by the numerous terraces. The Friday mosque *Djami* in Kokand is the biggest in Fergana Valley (Fig. 5). About 100 well proportioned wood columns with figure bases and stalactites upported he eams, hich over he uilding. The bright paintings of the mosque shine and play as a magic carpet on the 2500 square meter area.

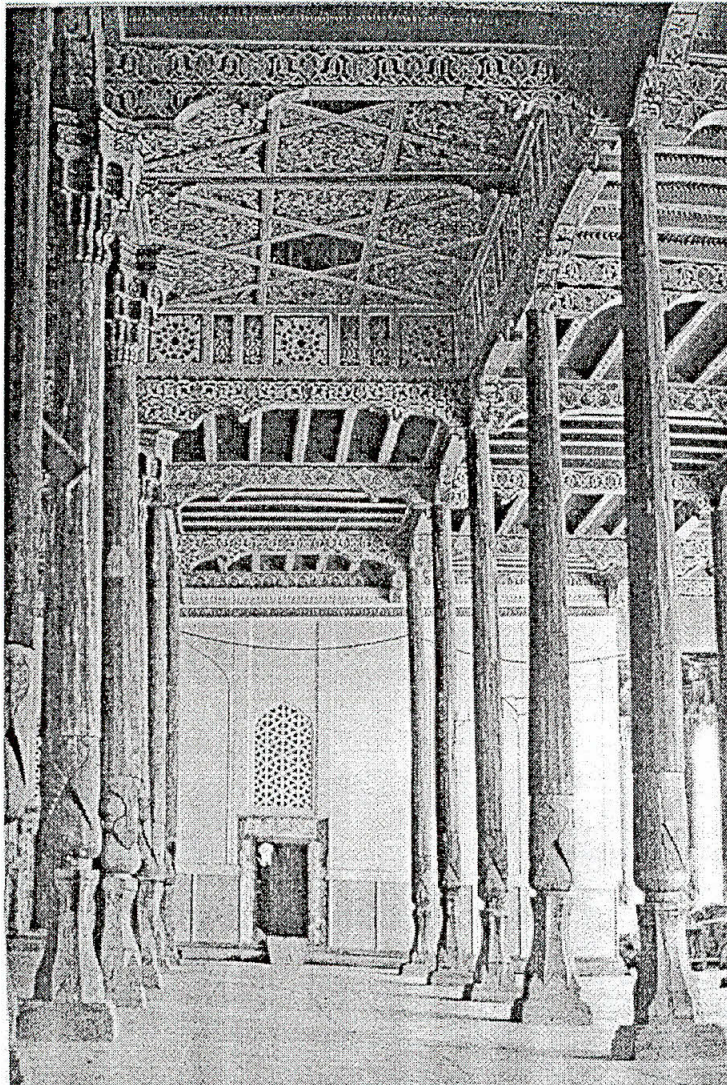


Fig. 5: The Jami mosque terrace, Kokand.

The Bukhara block mosques exhibit a very modest decoration in spite of the flat beam over-head cover. It consists of only gypsum-gunch construction (The Bozori Gul mosque, Raugangaron). In Bukhara architectural school, the construction of many-domed mosques from burnt bricks were practiced. Interiors were decorated with carved gunch panels and stalactites. The biggest Friday mosque in Bukhara is situated in the center of the old city. The rectangle-closed yard is built with four rows of a domed galleries. The entrance portal and a big hall are on the long axis of the mosque. The main facade is decorated with mosaic. The dome is covered with turquoise-colored ceramic tiles. Gallery walls are modestly covered with gunch stucco. The clear composition and monumental shapes of the Kalyan mosque are well-remembered.

The block mosques in Khorosm are something middle between the flat Fergana Valleys buildings and domed buildings of Bukhara. Here, the winter halls are covered with a dome and terraces are erected on the wood columns from three sides (Ak-mosque, Bogbonli in Khiva). The shutters, doors and columns are decorated with the extremely refined carving in the traditions of Khorosm architecture and art school. In Khiva, the Friday mosque was built in the Shakhristan center. It is an original building without portals, domes, galleries, or yards. It is a rectangle (55 m x 46 m) in its plan. One can enter the mosque from three sides. Brick walls surround the building. The indoor area is a single hall; 213 wooden columns support its flat cover beams. The covered doors and columns are the subject of a special interest. They were made in different times between the 10th and 18th centuries.

Decorations Techniques

Various techniques were used in mosque decorations in Uzbekistan. These are carved terra cotta, gunch, wood, and marble, majolica, and mosaic and paintings. The creation of the very effective paintings in the Kundal technique is dated back to the middle ages as well. The essence of the method is: the relief painting from the red clay was covered on the special ground. The background was covered with dark blue, the ornament was covered with a very thin gold layer on which the painting was made. The interiors of the outstanding monument of the 16-17 centuries -- the Balyand mosque in Bukhara and Tilla-Kari in Samarkand -- were made in that technique (Fig. 6). The other type of decoration follows the purely folk traditions and represent the gunch mosaic. It is not complicated and very effective. The separate paintings are carved in gypsum layer and filled with the solution of different color keeping the smooth wall surface. This technique is called Kirma and was widely used not only in interior decoration in Uzbekistan architecture, but also in other regions in Central Asia.

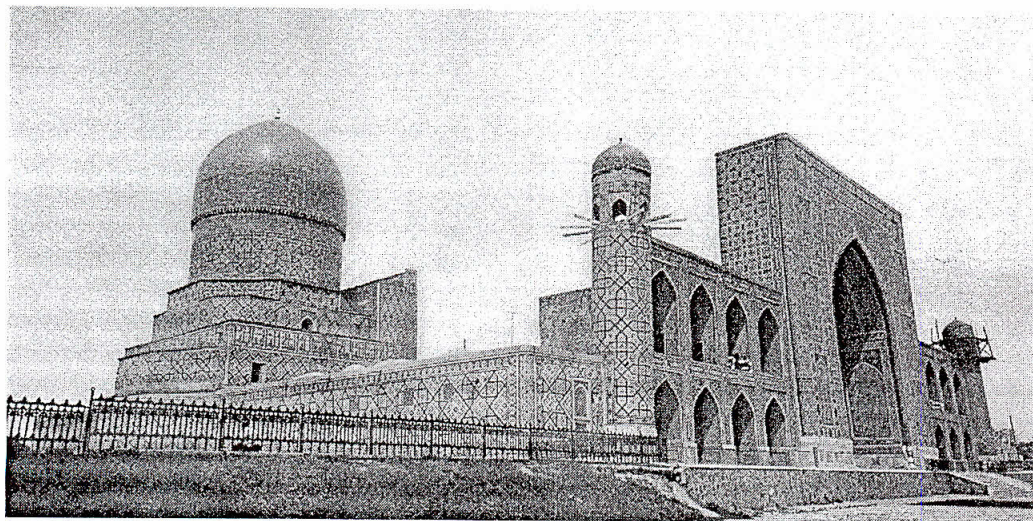


Fig. 6: General view of the Tilla-Kori mosque, Samarkand.

Decorations Compositions

The ornament compositions in mosques interiors are surprisingly numerous. They compose the geometric and plants or arabesque patterns which consist of the multiended star-girikhs, flowers, buds, and leaves ^[1, p.366] (Figs. 7 & 8). Each element of the decoration and the dominant color of ornaments have a definite sense and are considered unique symbols.

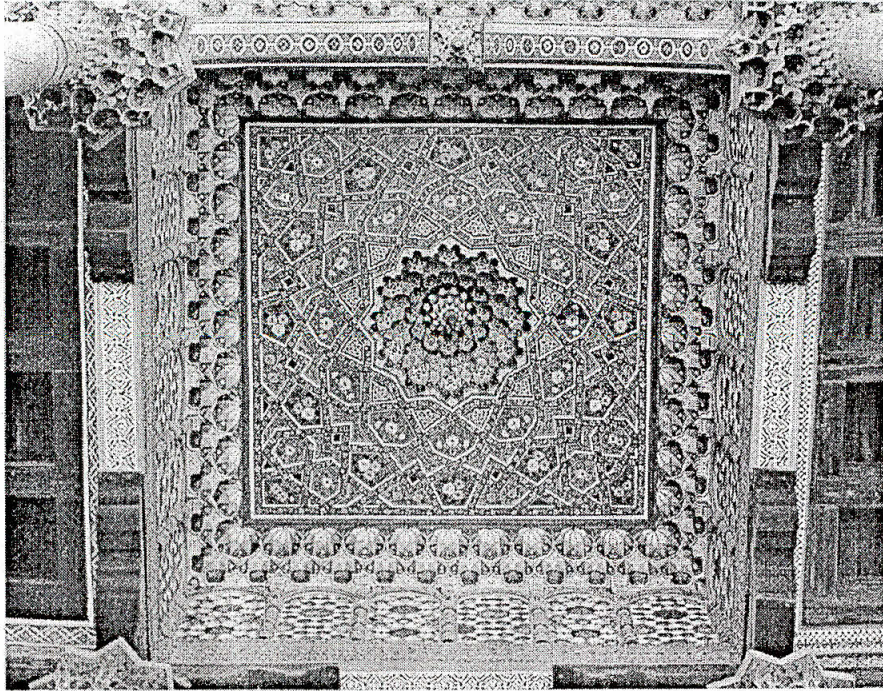


Fig.7: Ceiling of Bolo hauz mosque, Bukhara.

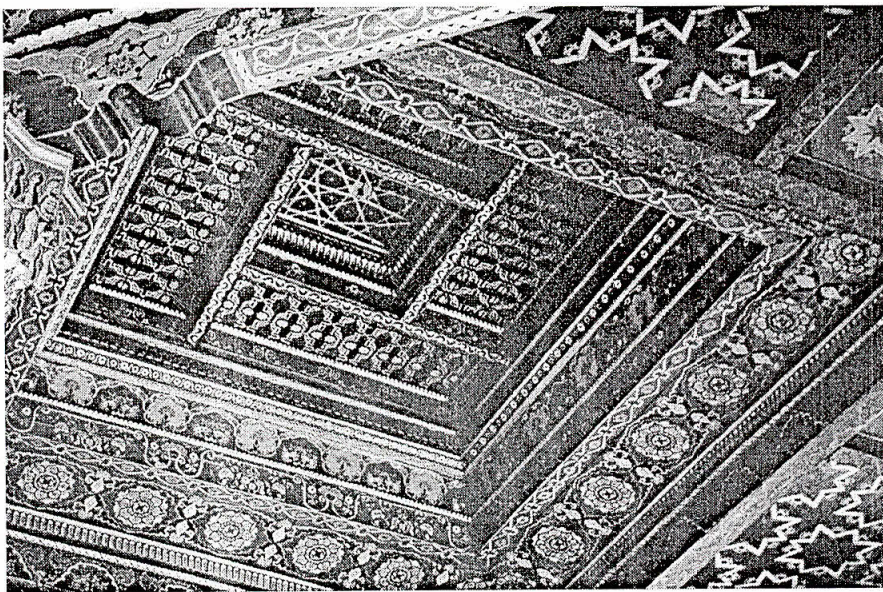


Fig. 8 Ceiling of Ota Kuzi Mosque, Pahtaabad.

Symbolic in Decorations

Artists when making the compound ornamental compositions expressed different good wishes to house inhabitants or mosque visitors. Ornamental flowers had a unique sense. Thus, for example, Irises symbolized peace, wishes, rest (Chor Bog mosque in Baghdad), buds and leaves were connected with the idea of fertility (the block mosques in Baghdad, the Fergana Valley), and pomegranate in ornaments symbolized the wish of the long levity, (the Chakar mosque in Margilan). The decorations reflected the sincere feelings of artists to nature, which was their real teacher. The people's ideas about color and pattern were constantly entangled with myth, customs and admonitions. Thus the white color in paintings expressed the wishes of success and happiness in the Lutfullo Mavlonov mosque in Chust, and Gishtlik in Kokand). The blue color of sky symbolized the worship to God (in the Toron bazar mosque in Margilan, and the Amir mosque in Kokand), the red color reflected the wish of joy (in the Dosty Khudo mosque), and green is connected with the ideas about spring, it symbolizes eternity of Islamic ideas, (in the Khodja Ildor mosque in Rishtan, and the Gishtlik mosque in Kokand). The colors were pure, without the transformation of one into another. Yet, most combinations are unusually harmonious.^[2, p. 13]

Epigraphic in Decorations

Very often epigraphs are combined with ornaments in the monumental paintings. There are Qur'an verses, *Hadiths* (the Prophet's Sayings), medieval poets, different good wish phrases, and authors or constructors names (Fig. 9). They are filled with Arabic hand-written letters in *kuphi*, *thuloth*, *nastalik* or *naskh* scripts. The original art of Arab calligraphy has been improved through the centuries and was very respected among the people recognizing Islam.

Thus by means of different methods, medieval artists decorated mosques on the territories of Uzbekistan, realizing their ideas about beauty in the materialistic world.

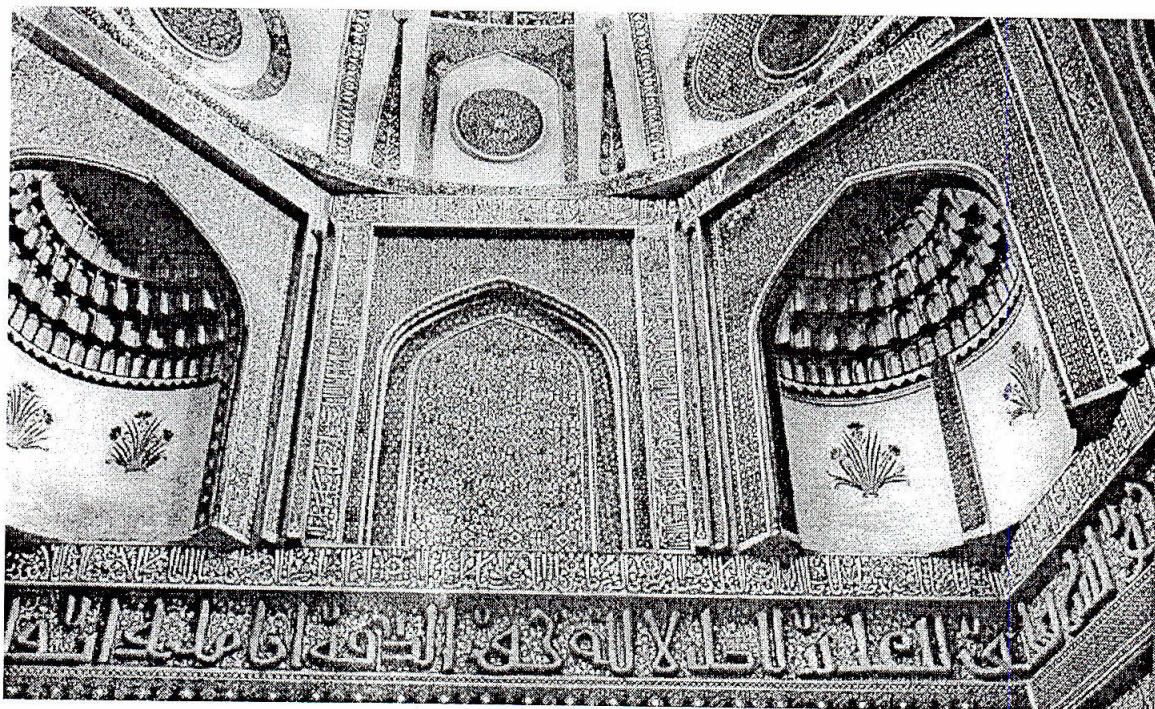


Fig. 9: Interior decorations in Khoja Amin mosque, Namangan.

Seismic Resistance

Uzbekistan is surrounded by mountains and is periodically subjected to seismic influences. All the Republic is divided into seismic regions where earthquakes ranging from 7 till 9 are possible. Naturally, the medieval architects took into account the seismic danger. So, one row o wooden frame was used in the block mosques or two rows and one skeleton (as in the Pogsho Pirim mosque in Pakhtaabad). In the big domed worship buildings, two-layered domes from burnt bricks were used from the 15th till the 17th centuries.^[3, p. 34] The inner one supported the outside cover and drum, and formed the interior. Accordingly, there was carved or painted design (Bibi-Hanum mosque in Samarkand, Fig. 10). The outside dome gives the monumental of its perceptive from a far distant. It is decorated with colored glazed tiles. Bricks partitions and wooden supports were built between the domes. It made them very strong. This spatial construction of the cover was rather seismic resistant. It is noteworthy that this construction was known in other contiguous countries as well (Masgid-Shah in Meshhed, Taj-Mahal in Agra). The wall thickness on the worship buildings reached 2 m. (the Ata Valikhan-tura in Namangan).^[4, p. 29] Some publications by scientists are devoted to the study of seismic problems in the Uzbekistani architectural monuments.^[5,6]

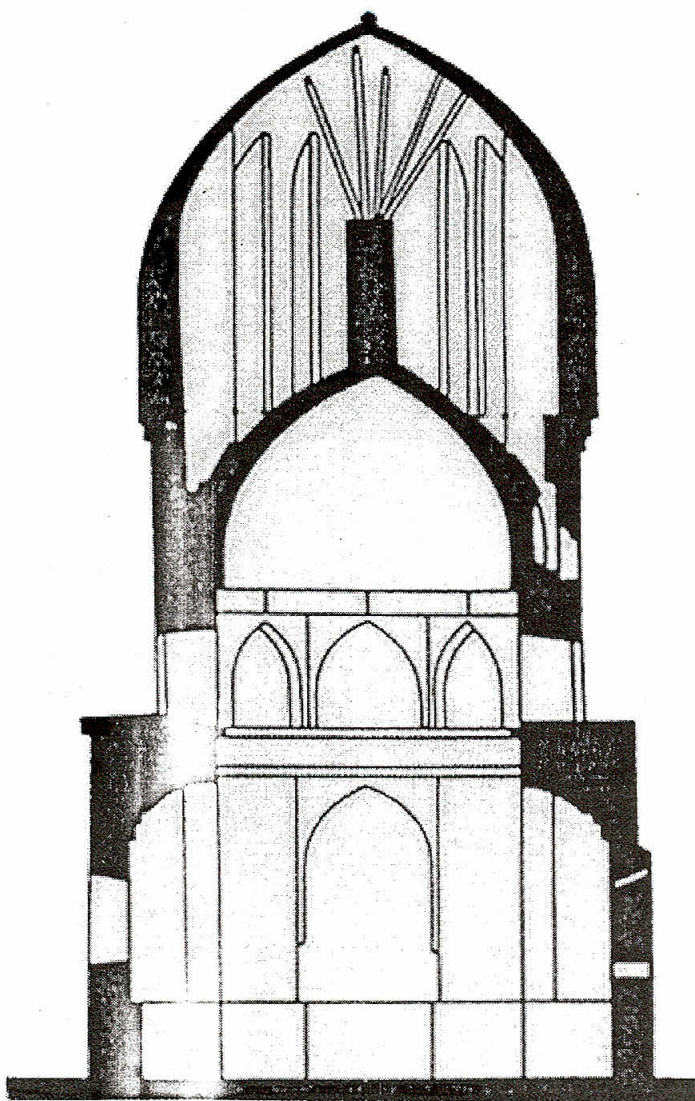


Fig. 10: Section in Bibi-Hanum mosque, Samarkand.

New Mosques in Uzbekistan

The best traditions in mosque decorative designs have been preserved in the decorations of modern worship buildings. In spite of the fact that atheism ruled in previous years, the attitude to the spiritual life in Uzbekistan has remarkably changed after the independence. In some of the towns and settlements (e.g., Andijan, Kuva, Tashkent, Margilan and others) 20 thousand new mosques have been built only for the last few years.

Modern building materials and constructions are used in these buildings. Reinforced concrete domes and metal structures are made to resist the frequent earthquakes. New structures give opportunity to use stalactites more easily or erect the hanged ceilings with carved wood decorations. When decorating new mosques, the modern designers will take into consideration the centuries old experience of their predecessors.

References

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تصميم المساجد الأوزبكية

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ملخص البحث: إنه من الثابت أنه كان للإسلام تأثير بالغ على التصميم المعماري في دول آسيا الوسطى حيث نجد أكثر من ألف مسجد قام بتصميمها المعماريون والبناءون الحرفيون في وحدة تكاملية يعود تاريخها إلى القرون الواقعة بين الثاني عشر والعشرين. في هذه المساجد نجد أعمال المعماريين والفنانين والحرفيون مجتمعة في تداخل متكامل. تنقسم تلك المساجد إلى نوعين: مساجد الحبي ومساجد الجمعة. وقبل بداية القرن العشرين وجدت ثلاث مدارس (خانات) في القوقاز، وبخارى، وخيفسا. لقد ساهمت عدة عوامل في نشوء هذه المدارس الفنية ذات المزايا المتفردة. وتختلف تلك المساجد عن بعضها على أساس الحجم والتكوين الفراغي والحلول الإنشائية، والزخارف حيث يمكن مشاهدة هذه الملامح والخصائص في الآثار الباقية. وقد نتج عن تلك الخبرات المتراكمة تقنيات متنوعة في تصميم المنحوتات المصنوعة من مادة التراكوتا، المظلات الواقية الحصية، والأشكال الأخرى. ومن الأهمية بمكان التوقف عند التقنيات المعرفة بكوندال وكيكما. إن التكوينات الزخرفية غنية بتنوعها بالرغم من قلة عناصرها المكونة: جيريخ، أسلمي، أزهار وأزهار وورق. وفي أمثلة لاحقه، اكتسبت تلك التفاصيل الزخرفية معان رمزية.

وبالإضافة، فقد استخدمت فنون الخطوط العربية التي شكلت من آيات القرآن والحديث النبوي والأشعار والابتهالات وأسماء الكتاب والبنائين جزءا رئيسيا من الزخارف. وكان الخطاطون يكتبونها بأنواع من الخطوط كالخط الكوفي والثلاث والنسخ والنسليق. ونظرا لتعرض أوزبكستان للزلازل والإضطرابات الأرضية فقد ترتب على ذلك ابتكار وسائل لمقاومتها تطورت عبر الأجيال لتصبح تقنيات متبعة في بلاد المسلمين.