

The evolution of form and compositional solutions in the early medieval religious architectural monuments of Uzbekistan

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Abstract: This article presents a scientific analysis of the Buddhist temple located in the ancient city of Quva, which occupies a special place among the early medieval religious architectural monuments of Uzbekistan. The study examines the form and compositional solutions of the structure based on archaeological findings, including sculptures, wall decorations, ceramics, and architectural fragments. The results show that the Quva temple functioned as a syncretic art center where the cultural traditions of India, Iran, Greco-Bactria, and local Fergana were harmoniously integrated. Its architectural design combines centralized composition, harmony of light and color, and the use of adobe and clay bricks, reflecting the fusion of local construction techniques with religious architectural requirements. The color palette and anthropological features of the sculptures indicate the localization of Buddhist art within the regional context. The research scientifically substantiates the significance of the Quva temple in the evolution of religious architecture in Uzbekistan, the system of intercultural influences, and the contemporary necessity of its conservation and museification.

Keywords: Quva Shahrستان, Buddhist temple, religious architecture, compositional solution, color harmony, sculpture, syncretic art, adobe architecture

Introduction

In our region, almost everyone has heard of the ancient city of Quva and its historical Shahrستان. However, few people know that archaeological excavations in this area have revealed artifacts belonging simultaneously to three major religions - Buddhism, Christianity, and Zoroastrianism. The archaeological research conducted at this site serves as an important scientific basis for studying the evolution of religious architecture in early medieval Uzbekistan. In particular, the Buddhist temple complex of Quva reflects the region's multilayered religious and cultural life, demonstrating the gradual development of architectural form and compositional solutions over time.

The Quva Shahrستان was first investigated by archaeologists in 1939 during the construction of the Great Fergana Canal. In the 1950s, an expedition led by Academician Yahyo G'ulomov of the Academy of Sciences of Uzbekistan began systematic excavations in the area. Among the participants were I.Ahrorov, V.Bulatova, and D.Varkhotova, with V.Bulatova appointed as the chief field archaeologist. As a result, discoveries related to glassmaking, pottery, coin minting,

drainage systems, and defensive structures were made, providing rich material evidence of Quva's medieval cultural and architectural development.

In 1957, during further studies of the northern part of the Shahristan, the remains of a structure built of adobe and mud bricks were discovered on an irregularly shaped mound, confirming the presence of a Buddhist temple at this location. Excavations uncovered ceramic vessels, marble beads, gilded plaster fragments, and pieces of statues, all of which testified to the high artistic and decorative quality of the temple's composition. The stylistic features of these finds - their proportions, ornamentation, and layout - represent the earliest examples of forms and decorative systems that later evolved in Islamic architecture.

The Quva temple illustrates the evolution of early medieval religious architecture, where the use of local construction materials, the placement of monumental walls at compositional focal points, the orientation of pilgrimage corridors, and the lighting system demonstrate a distinct design logic. These principles continued to influence later architectural projects in the Islamic period across the cities of Transoxiana, including mosques, madrasahs, and mausoleums.

In recent years, extensive research and restoration efforts have been undertaken in Uzbekistan to revive the country's architectural heritage and improve the urban planning systems of historic cities. Using the Fergana Valley as an example, this process is also reflected in the works of Toshpulatova, Nurmatov, and Jo'raboyev (2022) in their study *"Reconstruction of Historical Cities and Improvement of Urban Planning Processes"*, where they emphasize the importance of harmonizing new architectural developments with the traditional fabric of historical centers.

Materials and Methods

During the research, sculptural fragments, wall plasters, decorative elements, and architectural remains found in the Buddhist temple complex of the Quva Shahristan were subjected to detailed scientific analysis. These materials were studied based on samples preserved in the State Museum of History of Uzbekistan, the State Art Museum of Uzbekistan, and the Fergana Regional Museum of History and Culture. The archaeological materials were systematically examined in terms of color composition, morphological form, anthropological typology, and technological production methods.

Among the sculptural fragments, particular attention was given to examples painted in accordance with Buddhist canonical traditions. The color palette primarily included shades of blue, cream, azure, and black. For the depiction of eyebrows and lips, black, yellow, and red pigments were used, while ornaments were gilded with gold tones - in some cases, even the eye contours were highlighted with a golden hue. The garments were painted in blue, white, and cream tones, while darker green and pistachio colors appeared in architectural details such as wall borders, lion heads, and

pedestal edges. The most dominant pigment was red, used to create variations of tone and light effects, enhancing the emotional expressiveness and plastic dynamism of the figures.

Among the findings, a colossal Buddha statue, approximately twice the size of a human figure, stood out as an exceptional artistic achievement. The preserved parts include the shoulders, head, and right arm, located on the northwestern side of the main hall. The hairstyle is depicted as a blue, crown-like knot, while the forehead features the characteristic "third eye" symbol of Buddhist iconography. The face is oval with slightly elongated eyes and smoothly curved eyelids, while thin moustache lines emphasize facial realism. The presence of gilded details on the face, body, and jewelry symbolizes the "divine light" - a central theme in Buddhist art.

Another finely crafted deity statue was discovered on a pedestal; it was nearly life-sized, with a harmonious facial expression, refined coloration, and a polished surface reflecting high sculptural mastery. The combination of yellow, red, black, white, and blue pigments demonstrates the complex color synthesis typical of the Quva artistic school. The symmetrical eyes, glossy surface, and detailed hair arrangement closely resemble sculptures found at the Ayritym temple near Termez.

In addition, there is a strong resemblance between the Quva sculptures and the wall paintings of Panjikent (Tajikistan) and Bolaliktepa (Termez), particularly in hairstyle, clothing, jewelry, and facial decoration. Certain statues from the main hall exhibit Hellenistic drapery styles and knot motifs, revealing direct cultural connections between the Quva school and the artistic traditions of Iran, Greco-Bactria, and the Kushan Empire. This syncretic composition illustrates a vivid expression of intercultural integration.

A particularly noteworthy discovery is the statue of the goddess Shri Devi, depicted in the dramatic scene of conflict between deities of good and evil. She appears as an enraged female figure, painted in dark blue and black tones, wearing a crown adorned with strings of pearls and small skulls. The goddess is shown riding two mythical creatures - Makaravaktra and Simhavaktra - both hybrid beings with animal and marine features. This complex plastic composition embodies not only religious symbolism but also mythological dramatism. Fragments of skulls, hooves, and torsos found nearby correspond to these figures, representing in Buddhist iconography the triumph of virtue over evil.

Other findings include fragments of lion-headed deities and a sculpted figure of a saddled divine horse - symbols of protection and devotion associated with the cult of Indra's celestial steed. This demonstrates the continuation of horse deification traditions in Central Asia from the Bronze Age into the 6th–8th centuries. Small architectural ornaments discovered within the temple were cast in molds and kiln-fired

into terracotta pieces, their smooth surfaces and proportional sizes contributing to the monumental harmony of the temple's interior design.

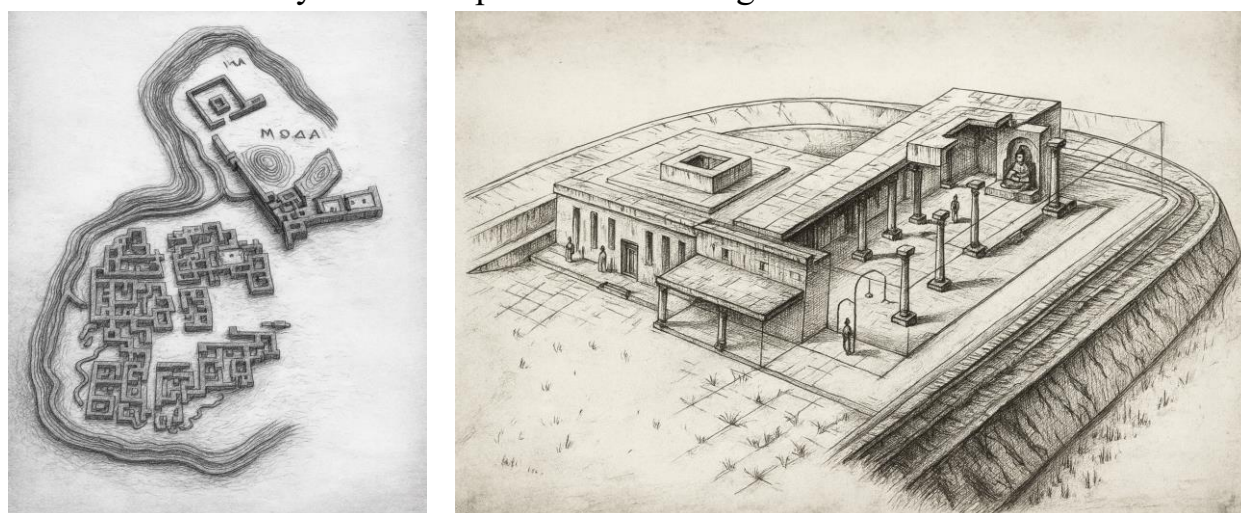


Figure 1. The Buddhist Temple Complex and Religious-Architectural Structure of the Quva Shahristan (7th - 8th centuries)

In the course of the research, the technical execution of the sculptures, the composition of pigments, decorative ornaments, and spatial arrangement were analyzed using an international comparative methodology. By comparing the Quva monument with analogous Buddhist temples in Panjikent, Oqboshim, Bolaliktepa, and the Tarim Basin of Eastern Turkestan, it was determined that the Quva complex dates back to the 6th–8th centuries. In this regard, the site serves as a unique cultural bridge linking the architectural and artistic traditions of India and Eastern Turkestan with those of Central Asia.

The Quva temple, in its structural organization, deviates from classical Buddhist architectural conventions. Its layout lacks the long corridors and standard niches characteristic of traditional temples. The building was constructed primarily from adobe and sun-dried bricks, with walls over 1.5 meters thick and a central hall measuring approximately 12 by 18 meters, supported by internal columns. The southern façade was equipped with a portico to protect against direct sunlight, while natural light entered the main chamber through a dome-shaped skylight positioned above the central Buddha statue. This architectural solution reflects the harmonious adaptation of ancient local building traditions to the design principles of a religious structure.

At present, all artifacts discovered at the site have been preserved and transferred to museum collections, while the foundations of the temple are undergoing conservation. These preservation activities are being implemented in accordance with the directives set forth by the President of the Republic of Uzbekistan during the videoconference held on December 9, 2020, which emphasized the development of tourism and the protection of cultural heritage. The museification of this monument not only contributes to the safeguarding of historical heritage but also provides a

scientific basis for the continued study of the evolution of religious architecture in the region.

Results

The results of the research show that the Buddhist temple located in the Quva Shahristan represents an important stage in the development of early medieval religious architecture in Uzbekistan. Archaeological findings, the form and color treatment of sculptural details, architectural structure, and decorative elements all reflect the high level of artistic thinking that had developed during this period. The temple, in its overall composition, is characterized by a centralized plan - its main hall was supported by columns, and the walls were constructed of adobe and sun-dried bricks. The light was directed toward the central Buddha statue through a dome-shaped skylight in the ceiling, symbolizing the concept of "divine illumination" in Buddhist philosophy. These spatial and structural solutions demonstrate the harmony achieved between local construction traditions and Buddhist architectural principles.

The color analysis of the sculptures indicates their deep connection with religious and philosophical meaning. Red was used as the dominant color, symbolizing life energy and sacredness. Blue and turquoise represented divinity, white and cream signified purity, while gold symbolized spiritual enlightenment. This harmony of colors created an atmosphere of sanctity, peace, and spiritual elevation within the temple. In particular, the use of gradations of shade and light in the surface treatment of the sculptures enhanced their plasticity and expressiveness. As a result, the Quva school of sculpture distinguished itself by its vivid color palette and emotional depth.

The discovery of a colossal Buddha statue confirmed the high artistic and technical level of the Quva school. The hairstyle, facial features, and the depiction of the "third eye" were consistent with Buddhist iconographic canons; however, the anthropological characteristics displayed features of the Turkic racial type. This indicates that Buddhist art had become localized and adapted to regional identity. The depictions of deities such as Shri Devi and Makaravaktra express the eternal struggle between good and evil forces. Their emotional expressiveness, intense use of color, and dramatic composition impart a deep philosophical dimension to the artworks. Shri Devi, in particular, is portrayed as an enraged female figure in dark blue and black hues, embodying both divine wrath and mythological power. The fusion of religious and mythological themes in such compositions illustrates the emergence of a new stage in artistic thinking within the Quva temple tradition.

Elements of Hellenistic drapery, ornamental treatment, and plastic modeling observed in the sculptures confirm that this region served as a center of cultural exchange. The Quva school of art combined influences from India, Iran, Greco-Bactria, and local Fergana traditions. This syncretic quality is also evident in the architectural design of the temple: it differs from conventional Buddhist temples that typically

feature long corridors and multiple niches. Instead, the Quva temple demonstrates a compact, centralized, and vertically dynamic composition - an architectural innovation that reflects adaptation to the local climate, sunlight, and social context.

The terracotta decorations found within the temple were cast in molds and kiln-fired, their smooth textures and proportional balance ensuring visual unity within the interior space. All the discovered sculptures and architectural fragments date back to the 6th–8th centuries and exhibit strong technological similarities with the Buddhist temples of Panjikent, Oqboshim, Bolaliktepa, and Eastern Turkestan. Nevertheless, the Quva temple does not directly replicate any of these monuments - it stands out with its unique structural design, dynamic spatial composition, and distinct local spiritual expression. These features define the Quva school as an original and independent direction in the history of Central Asian religious architecture.

Conclusion

The Buddhist temple of Quva Shahrstan is one of the most unique and significant monuments in the history of early medieval religious architecture of Uzbekistan. This temple was not only a religious center but also a true artistic school that reflected the evolution of architectural form, compositional structure, and creative thought.

The analysis of sculptures, wall decorations, and ceramic fragments found at the site demonstrates that the Quva temple embodied a synthesis of Indian, Iranian, Greco-Bactrian, and local Fergana cultural traditions. The anthropological features of the sculptures represent the physical appearance, clothing style, and spiritual worldview of the local population. The harmony of colors - especially the dominance of red, blue, golden, and white tones - created an atmosphere of sanctity and spiritual elevation within the temple's interior.

The centralized plan of the Quva temple, its innovative lighting solutions, and the use of local building materials distinguish it from other Buddhist shrines. These architectural features confirm the emergence of new spatial and structural solutions adapted to the climate and sunlight conditions of Central Asia. At the same time, the temple's aesthetic harmony and sculptural details influenced later Islamic architecture, particularly in the compositional organization of mosques and mausoleums.

This research also highlights the necessity of preserving cultural heritage, implementing scientific conservation, and integrating it with tourism development. In line with the Presidential directives of December 9, 2020, emphasizing the promotion of pilgrimage tourism, and within the framework of the *New Uzbekistan Development Strategy 2022–2026*, the restoration, scientific study, and international promotion of such monuments are among the key priorities of national cultural policy.

Through the example of the Quva Buddhist temple, the study identified the historical transformation of religious architectural forms, the emergence of new compositional innovations resulting from intercultural interactions, and the localization

of artistic expression. The scientific analysis of this monument contributes to understanding the developmental patterns of early medieval art in Uzbekistan and serves as a theoretical foundation for future restoration and museification initiatives.

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