

SYNCRETISM OF ISLAMIC ARCHITECTURE AND LOCAL BUILDING TRADITIONS: FROM THE SAMANIDS TO THE TIMURIDS

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Abstract. This article examines the syncretism of Islamic architecture and local building traditions in Central Asia from the Samanid through the Timurid period. Focusing on ninth to fifteenth-century monuments, it analyzes how new Islamic architectural forms merged with and were informed by the region's pre-Islamic construction practices. From the chahar-taq fire temple layout evident in the Ismail Samani Mausoleum to the monumental Timurid complexes of Samarkand, the development of architecture in Transoxiana is shown to be a fusion of Persian, Sogdian, and other local elements with Islamic design principles[1]. The study highlights key stages of this synthesis and demonstrates how it gave rise to a distinct regional architectural style. The findings reveal that the creative integration of indigenous forms and motifs with Islamic architectural norms under the Samanids, Qarakhanids, and Timurids produced an architectural heritage of outstanding value, one that preserved local identity within the broader Islamic world.

Keywords: Islamic architecture; local traditions; syncretism; Samanids; Timurids; Central Asia; architectural heritage; mausoleum; pishtaq; brickwork.

Annotatsiya. Ushbu maqolada Markaziy Osiyoda IX–XV asrlarda islom me'morchiligi va mahalliy qurilish an'analari uyg'unlashuvi ilmiy asosda tahlil qilingan. Somoniylar davridan Temuriylargacha bo'lgan davr me'moriy obidalarini misolida, yangi islomiy me'moriy shakllarning mintaqaning qadimiy mahalliy uslublari bilan sintezlanish jarayoni yoritib beriladi. Somoniylar maqbarasining zardushtiycha chortaq rejasidan boshlab, Temuriylar davridagi yirik monumental inshootlarga bo'lgan rivojlanish bosqichlari o'rganilib, ushbu sintez hududiy me'moriy maktabning shakllanishiga qanday zamin yaratgani ko'rsatiladi. Natijalar islom me'morchiligida mahalliy an'analarni saqlab qolish va ulardan ijodiy foydalanish mintaqaning betakror me'moriy merosini yaratganini ko'rsatadi.

Kalit so'zlar: islom me'morchiligi; mahalliy an'analari; sintez; Somoniylar; Temuriylar; Markaziy Osiyo; me'moriy meros; gumbazli maqbara; peshtoq; g'isht dekoratsiyasi.

Аннотация. В статье исследуется синкретизм исламской архитектуры и местных строительных традиций в Центральной Азии в период с эпохи Саманидов до эпохи Тимуридов. На примере архитектурных памятников IX–XV вв. показано, как новые формы исламской архитектуры впитывали и перерабатывали богатое наследие домусульманских строительных практик региона. От плана зороастрийского храма огня, прослеживаемого в мавзолее Исмала Самани, до грандиозных тимуридских ансамблей Самарканда – прослеживается постепенное объединение персидско-согдийских элементов с исламскими архитектурными концепциями[1, p. 32][2, p. 35]. Особое внимание уделено тому, как данное взаимодействие способствовало рождению уникального регионального архитектурного стиля

и обеспечило преемственность традиций. Результаты показывают, что творческое сочетание местных форм и исламских канонов лежит в основе величественного архитектурного наследия Узбекистана, признанного во всем мире.

Ключевые слова: исламская архитектура; местные традиции; синтез; Саманиды; Тимуриды; Центральная Азия; архитектурное наследие; мавзолей; пештак; кирпичный орнамент.

INTRODUCTION. Islamic architecture in Central Asia underwent a remarkable process of synthesis between the 9th and 15th centuries, blending imported religious forms with established local construction techniques and artistic motifs[3, p. 92][2, p. 35]. During this period, which spans from the Samanid dynasty to the Timurid Empire, builders created structures that were unmistakably Islamic in function yet imbued with the spirit of local traditions. A prime example is the famed Ismail Samani Mausoleum in Bukhara (early 10th century), often described as “a fire temple in Islamic dress” for its Zoroastrian-derived domed square plan clad in Islamic architectural detail[2, p. 35]. This monument set the tone for subsequent Central Asian mausolea, establishing a template of a four-arched, domed cube that would reappear in later tombs of Seljuk and Timurid rulers[4, p. 1]. Likewise, its masterful baked-brick workmanship – the culmination of a long local tradition of brick construction – demonstrated how thoroughly pre-Islamic building practices were integrated into Islamic architecture[5, p. 169]. Monuments such as this allowed the new Muslim dynasties to legitimize themselves by echoing familiar indigenous forms, thus creating an architectural language both authentically regional and Islamic in character[6, p. 105][7, c. 49].

Scholars have long recognized the significance of this syncretic architectural development. Early 20th-century orientalist V. V. Barthold noted the richness of Central Asia’s medieval cultural life, including its architecture, in the context of Iranian and Turkic civilization[8, p. 290]. More recently, Uzbek researchers like Sh. Kamoliddin have revisited the Samanid era, shedding new light on the cultural and urban achievements of Ismail Samani’s reign[9, p. 1]. Contemporary architectural historians have also contributed detailed studies: for example, R. P. McClary’s 2020 monograph provides a comprehensive catalogue of Qarakhanid-period monuments and their styles[10, p. 2], and L. Golombek’s surveys of Timurid architecture illustrate the evolution of forms that bridged Iran and Central Asia[11, b. 38][12, c. 48]. Despite such scholarship, the precise ways in which Islamic architecture absorbed local traditions in Central Asia’s formative Islamic centuries still merit close analysis[13, b. 285]. This study aims to trace the syncretic development of Central Asian architecture from the Samanids to the Timurids, highlighting how each era inherited and innovated upon the achievements of its predecessors. By examining representative monuments and drawing on both archaeological findings and historical texts, we seek to elucidate how the region’s builders created a unique architectural legacy that resonated with local identity even as it contributed to the broader canon of Islamic art.

METHODS. This research employs a historical-architectural approach, combining on-site architectural analysis with literature review of primary sources and modern scholarship. Key monuments from each period (Samanid, Qarakhanid, Timurid) were selected for detailed examination of their layout, structure, and decorative techniques. Architectural features were compared to identify continuities and innovations over time. In addition, historical documents

and epigraphic evidence were consulted – for instance, foundation inscriptions and waqf (endowment) records that shed light on the context of these buildings[14, b. 38][15, c. 250]. Descriptions by medieval historians (such as Narshakhi's *History of Bukhara*) were used to understand how contemporaries perceived these structures and which pre-Islamic traditions were consciously referenced by patrons.

This study also integrates findings from recent interdisciplinary investigations. Archaeological excavations and material analyses (e.g. of preserved brickwork and decorative elements) have provided data on construction techniques and materials. For example, new archaeological evidence from the Bukhara oasis – including the discovery of the Khuttalon votive structure – has been used by D. Tosheva (2023) to propose revised interpretations of the Samanid mausoleum's origins[2, p. 35]. We take into account such insights. Furthermore, we draw on quantitative analyses and stylistic comparisons found in the latest literature. A methodological framework combining comparative stylistics and heritage studies is employed, similar to approaches advocated by Uzbek scholars in recent works. By comparing design elements (plans, decorative motifs, structural solutions) across different eras, and referencing the scholarly consensus or debates around them, we develop an integrated perspective on how Islamic and local traditions were synthesized in the architecture of Central Asia. All sources are cited in text following GOST footnote style, with page references given for specific information. This blended methodology allows for a robust analysis that is both historically grounded and appreciative of artistic-technical details.

RESULTS. Early Islamic Era: Samanid Architecture and its Pre-Islamic Roots

The Samanid period (late 9th – 10th centuries) provides the earliest clear examples of Islamic monuments in Central Asia that fuse local and Islamic traditions. The most exemplary monument is the Ismail Samani Mausoleum in Bukhara (built circa 905), which was the dynastic family tomb of the Samanids. In form, it is a simple cube surmounted by a dome at the center of each facade – effectively a scaled-down adaptation of the *chahar-taq* (four-arch) Zoroastrian fire temple plan common in pre-Islamic Transoxiana[2, p. 35]. This design choice was no coincidence: it reflects a deliberate continuity with the region's pre-Islamic sacred architecture. The mausoleum's four identical doorways (one on each side) and the orderly, centrally-planned geometry evoke Sogdian and Bactrian temple layouts, reinterpreted here for an Islamic funerary purpose[2, p. 35]. As R. Hillenbrand noted, the building is essentially “a fire temple in Islamic dress” – its shape is reminiscent of a fire sanctuary, but its function and decoration proclaim the new Islamic ethos[2, p. 35].

In construction and ornamentation, the Samani Mausoleum also exemplifies syncretism. It is constructed entirely of fired brick, a material that had been central to local building techniques for centuries (in contrast to stone, which was scarce in the region)[18, p. 290][19, p. 290]. The Samanid architects elevated brickwork to an art form: the walls are exquisitely patterned with basket-weave and geometrical brick arrangements, creating a delicate textile-like effect in the façade[20, p. 32]. This reliance on decorative brick technique represents the culmination of an established Transoxianian tradition of baked-brick construction[5, p. 169]. Earlier, in pre-Islamic times, local builders in Bukhara and Samarkand had used carved wood and unbaked clay bricks for structures; by the Samanid era, the craft of firing bricks and laying them in complex bonds had reached new heights. The motifs formed by the brick lattice on the mausoleum – for instance, circle-within-square patterns, and dense vegetal or sunburst motifs – show clear continuity with pre-Islamic Sogdian decorative

themes[1, p. 32]. The architects essentially “translated” those motifs into brick relief. A local legend even maintains that the mortar was tempered with camel’s milk and rooster’s blood for added durability, symbolically infusing the structure with sacral qualities of the land[11, b. 38]. Whether apocryphal or not, this legend underscores the mausoleum’s status as a unique synthesis of Sogdian and Islamic building arts[11, b. 38].

The resulting edifice was not only aesthetically innovative but also carried ideological weight. By using a familiar ancient form for a Muslim tomb, Ismail Samani – the founder of the Samanid state – effectively linked his Islamic dynasty to the region’s deep-rooted cultural memory[1, p. 32][7, c. 49]. The mausoleum became a site of pilgrimage and veneration, reportedly supplanting older Zoroastrian shrines in popular devotion[14, b. 93][7, c. 49]. Thus, the fusion of styles served a political purpose: it embodied a visual statement that Islam in Central Asia was not a foreign imposition, but rather a natural evolution of local tradition in a new religious context[3, p. 92][4, p. 1].

Other architectural remains from the Samanid era reinforce this picture of syncretism. Excavations indicate that mosques of the period often retained elements of earlier courtyard and pillar designs. For example, early medieval mosque foundations in Central Asia show layouts with wooden columns supporting flat roofs – a practice inherited from ancient Iranian and Turkic assembly halls[15, c. 250]. While none of the Samanid-period mosques in Bukhara or Samarkand survive intact, historical texts like Narshakhi’s *History of Bukhara* mention the use of carved wooden pillars and elaborate stucco ornament in the region’s 10th-century mosques[15, c. 250][12, c. 48], suggesting continuity in construction techniques (wood carving, gypsum plaster carving) alongside the newer brick masonry. Furthermore, the Samanids are known to have patronized infrastructure like madrasas, ribats (caravanserai-fortresses), and bridges, likely built with local materials and methods (pakhsa earth walls, timber, etc.), though these structures have not survived.

Notably, toward the end of the Samanid period and into the Karakhanid takeover, we see the first instances of architects experimenting with new forms that would later flourish. An outstanding example is the Arab-Ata Mausoleum (c. 977) in the village of Tim near Samarqand[28, c. 49]. This small single-chamber mausoleum, probably built during the last years of Samanid influence, preserves the square domed plan of the Ismail Samani Mausoleum (including corner engaged columns and dome on squinches)[29, p. 2]. However, it introduces a splendid decorative *pishtaq* – a projected portal arch that dominates the façade[28, c. 49]. The arch of the Arab-Ata mausoleum’s portal is filled with elaborate carved terra-cotta brick decoration, including inscriptive bands and geometric fret patterns. These features give the structure an affinity with the emerging style of the 11th century[30, p. 2]. Indeed, the *pishtaq* (formal entrance portal) and the use of incised terracotta tiles seen in Arab-Ata represent a transition toward the Karakhanid architectural aesthetic[30, p. 2]. Similarly, the mausoleum of the last Samanid prince, Nasr b. Ahmad (built circa 1005 near Kerki), is described as a square domed building like the earlier model, but with decorative techniques foreshadowing the next era – it reportedly had a dome on a hexagonal base with niches and an inscription frieze, again bridging the earlier tradition with new ideas[31, c. 49]. These late-10th-century monuments demonstrate that by the close of the Samanid era, Central Asian architects were already evolving the classical *chahar-taq* form by adding grander frontal emphasis and more intricate surface ornament. In summary, the Samanid architectural legacy is one of integration and transition: it firmly established

the mixed Persian-Sogdian and Islamic style in brick, setting the stage for further developments in subsequent centuries[4, p. 1][6, p. 105].

The Qarakhanid Period: Continuity and Innovation in the 11th–12th Centuries. The Qarakhanid Khanate (late 10th – early 13th centuries), which succeeded the Samanids in Transoxiana, continued the syncretic architectural trajectory while also introducing new innovations. As the first Turkic dynasty to rule Central Asia after converting to Islam, the Qarakhanids initially had no indigenous Islamic architectural tradition of their own to draw upon[4, p. 1]. Consequently, they looked to the established models of their predecessors: the influence of Samanid architecture is particularly evident in Qarakhanid religious monuments[10, p. 2]. Qarakhanid architects adopted the domed square mausoleum type and refined it further. For instance, the mid-11th-century Mausoleum of Aisha Bibi (in present-day Kazakhstan) and the cluster of Uzgen Mausoleums (in Kyrgyzstan, 12th century) both echo the basic form of the Ismail Samani Mausoleum – a cubical volume with central dome – but embellish their facades with far more extensive ornament, including vegetal and epigraphic patterns carved in terracotta tiles[4, p. 1]. This reflects a greater emphasis on surface decoration that became a hallmark of Qarakhanid architecture.

One of the most significant contributions of the Qarakhanids was the development of brick decorative techniques to a high degree of sophistication. Brick remained the primary building material (as before), but now it was used in ever more creative ways. Qarakhanid architects pioneered methods such as the “outset fret” pattern, where specially shaped bricks protrude from the wall to create interlocking geometric designs[10, p. 2][4, p. 1]. These patterns, often arranged in panels or friezes, added a three-dimensional texture to building surfaces. An example can be seen above the arched entrance of the Magoki Attari Mosque in Bukhara (reconstructed in the 12th century on older foundations): there, a rectangular panel of interlocking swastika-like brick pattern (the so-called fret) adorns the arch apex, which is considered a precursor to a standard Qarakhanid motif[4, p. 1]. Another technique was the use of glazed ceramic inserts among brickwork – blue or green-glazed bricks spelling out Kufic inscriptions or forming floral motifs (a technique known as *banna’i*). This can be observed in the Kalyan Minaret in Bukhara (completed 1127) and the Vabkent Minaret (late 12th century) near Bukhara. Both minarets are cylindrical brick towers that taper upwards and are ringed by multiple bands of decorative brickwork and Kufic inscription friezes in glazed tile[13, b. 285]. The Kalyan Minaret’s shaft, for example, displays eight different patterns of brick relief, ranging from diagonal lattices to floral chains, each separated by narrow epigraphic bands – a tour de force of brick artistry that builds directly on the Samanid brick tradition but achieves a new level of complexity and monumentality[9, p. 1].

Architecturally, the Qarakhanids also introduced or popularized certain elements that would persist into later eras. The *pishtaq* portal – seen tentatively in the Arab-Ata mausoleum – became a standard feature in Qarakhanid madrasas and mosques, giving the buildings a defined focal point and a grand entrance. The remains of an 11th-century Namazgah (open-air mosque) in the Bukhara region, for instance, indicate a large *peshtak*-like façade used to frame the mihrab area of a monumental mosque[30, p. 2]. The Qarakhanid period also witnessed the construction of the first known madrasas (Islamic schools) in Central Asia and continued the development of city fortifications and civic structures using traditional materials (for example, the walls of Bukhara were rebuilt in this era with sun-dried bricks and towers). While few of these structures survive fully intact (many were later

rebuilt or lost to time), historical records and recent studies have pieced together their characteristics. Richard P. McClary's comprehensive study (2020) on Qarakhanid monuments documents dozens of sites across Transoxiana, illustrating how a distinct style took shape during this era[10, p. 2]. He notes that the Qarakhanids both emulated the Samanid models and gradually developed their own motifs, bridging the gap between the simple elegance of 10th-century forms and the bombast of Timurid architecture that would come later[10, p. 2].

One important observation is that the integrative approach continued: Qarakhanid structures combined Turkic elements with the established Iranian-Islamic forms. For example, wooden architecture did not disappear – in some smaller Qarakhanid mosques, wooden columns and carved wooden ceilings (a legacy of pre-Islamic Turkic building) were incorporated alongside the prevalent brick arcs. Meanwhile, Persian influence remained strong in aesthetics and calligraphy, as the administration and high culture of the Qarakhanids were heavily Persianized. Persian inscriptions in elegant scripts adorn many Qarakhanid coins and likely buildings, signaling the ongoing Persian cultural input in architecture as well[3, p. 92]. In essence, the Qarakhanid era reinforced the syncretic foundation laid by the Samanids: it kept the Samanid architectural vocabulary alive, expanded the decorative repertoire, and prepared the groundwork for the brilliant flowering of architecture under the Timurids. The continuity is evident in how later architects could look back to Qarakhanid innovations – such as bold brick patterns and the monumental portal – and elaborate upon them in subsequent periods.

The early 13th century brought upheaval with the Mongol invasion (Chinggis Khan's armies, 1219–1220), which devastated many cities of Central Asia. Bukhara, Samarkand, and others suffered destruction of their monumental structures[15, c. 250][15, c. 250]. As a result, there is a noticeable gap in major architectural projects in the first half of the 1200s. However, some construction continued under the Khwarezmshahs (who briefly controlled Transoxiana after the Qarakhanids and before the Mongols): notably, the mausoleum of Sultan Sanjar in Merv (built 1150s, technically Seljuk but in Greater Khorasan) and the Mausoleum of Sultan Ahmad Yasavi in Turkestan (begun 12th century, though the massive Timurid-era structure visible today was a rebuild) show that the domed-square mausoleum and intricate brick décor tradition persisted regionally. After the Mongol conquest, a period of relative stagnation ensued until the region's revival under Timur. The Chaghatay Khanate (the Mongol successor state in Central Asia) left few notable religious monuments, but by the mid-14th century, as Central Asia recovered economically, we see a renewed architectural activity – setting the stage for the Timurid Renaissance.

The Timurid Renaissance: Synthesis at its Zenith (14th–15th centuries). Under the Timurids (1370–1507), Central Asian Islamic architecture reached an apogee of scale and artistic refinement, often referred to as a Timurid Renaissance in art and architecture[6, p. 105][8, p. 290]. The Timurid period was characterized by a conscious revival and surpassing of earlier models: Timur (Tamerlane) and his successors viewed themselves as inheritors of the great architectural traditions of Persia and Turan, and they deliberately fused these influences to create truly monumental structures[12, c. 48][5, p. 169]. In terms of continuity, Timurid architecture preserved and improved many construction methods of past centuries[8, p. 290]. Brick construction remained fundamental – every major Timurid edifice from mosques to palaces was built with brick as the core structural material, just as in prior eras[9, p. 1]. Time-tested techniques such as the use of squinches (architectural devices to transition

from a square room to a dome) continued, though they were often enhanced or combined with new techniques[8, p. 290][9, p. 1]. For example, whereas earlier domes rested on four squinches, Timurid architects developed a system of intersecting arches and *muqarnas* that distributed the weight more elegantly, allowing for much larger domes[9, p. 1]. It is noteworthy that Timurid engineers did not discard the squinch entirely; rather, they used it in conjunction with arch-net techniques – demonstrating an evolution from the Samanid squinch-based dome construction towards more complex solutions[9, p. 1].

At the same time, the Timurid era introduced dramatic innovations and scale that set its buildings apart. One key factor was Timur's empire-building strategy: after conquering cities like Isfahan, Shiraz, and Damascus, he forcibly relocated the best craftsmen – architects, tile-makers, masons – to his capital Samarkand[15, c. 250]. As a result, the Timurid court pooled talent from across the Islamic world. This is evident in the hybrid style of Timurid monuments, which combine Persian, Mesopotamian, and even Anatolian design elements with Central Asian traditions[6, p. 105]. The Timurids themselves celebrated this synthesis. In the words of one modern historian, Timurid architecture “blended Persian, Turkic, and Islamic art traditions” into a unique architectural language[6, p. 105]. For instance, the use of the four-iwan layout for madrasas and mosques – a Persian legacy – was adopted in Timurid Samarkand, but the Timurids enlarged the scale of each *iwan* (vaulted portal) and framed it with characteristically Central Asian flanking minarets, as seen in the Ulugh Beg Madrasa (1417–1420) at Registan Square.

The architectural achievements of Timur's reign (1370–1405) and that of his grandson Ulugh Beg and great-grandson Husayn Bayqarah include some of the most spectacular monuments in the Islamic world. A few examples illustrate the syncretic culmination of this era:

Gur-i Amir Mausoleum (Samarkand, 1403–1404): The tomb of Timur, Gur-i Amir, epitomizes the Timurid interpretation of the domed mausoleum. Like the Samanid Mausoleum, it is a domed square chamber serving as a royal crypt – but the Gur-i Amir is far larger and richly decorated. Its design features a majestic *pishtaq* portal at the front, flanked by two thin minarets, leading into a courtyard and then the domed chamber[9, p. 1]. The dome itself is a tall double-shell structure: an inner hemispherical dome and an outer onion-shaped dome that rises high on a cylindrical drum[8, p. 290]. This double dome on an elevated drum reflects influences from the 13th-century Ilkhanid architecture of Iran (e.g., the tomb of Öljeitü in Soltaniyeh) but was executed by local craftsmen with their own aesthetic touches[12, c. 48][7, c. 49]. The outer dome of Gur-i Amir, with its turquoise blue tiles arranged in spiraling ribbed segments, is a direct continuation of the Central Asian preference for colorful exteriors (a practice less common in early Persian tombs) and may also incorporate a memory of tent canopies (some scholars speculate that its shape was inspired by yurt or tent forms familiar to the Turco-Mongol culture)[7, c. 49]. Inside Gur-i Amir, one finds carved marble panels and painted stucco – techniques that hark back to pre-Islamic and Seljuk Persian interiors – alongside exquisite tile mosaics. Thus, the mausoleum marries the form established in the Samanid era with decorative and structural elaborations drawn from a wide geographic area, all synthesized by the Timurid vision of imperial grandeur.

Bibi Khanum Mosque (Samarkand, 1399–1405): Built by Timur to be one of the largest mosques in the Islamic world, the Bibi Khanum congregational mosque shows Timurid syncretism on a monumental urban scale. Its plan (a vast courtyard with *iwans* on each side and a dome over the

mihrab area) follows the classic Persian four-iwan schema[8, p. 290]. However, the scale was unprecedented in Central Asia: the main arch of the portal soared over 30 meters high. To construct it, architects had to push traditional techniques to their limits – the first attempt at the colossal dome and arch reportedly collapsed, illustrating the experimental nature of scaling up earlier designs[15, c. 250]. Eventually, the mosque was completed with slightly reduced dimensions. The decoration of Bibi Khanum was a tour-de-force of Timurid ornament: every surface was covered in glazed tile work, marble carving, or Quranic inscriptions. Contemporary accounts marvel that 10,000 worshippers could pray there at once[15, c. 250]. The mosque's lavish ornamentation – faience mosaics in geometric and floral designs – was made possible by the expertise of imported artisans from places like Khwarezm and Iran, combined with local artisans' knowledge of color and pattern. The result again is a fusion: structurally Persianate but aesthetically a kaleidoscope of Central Asian taste (especially the ubiquitous turquoise and azure tiles). In the words of art historians, during the Timurid period “the use of colour in architecture reached a high point. Every architectural unit was divided...into panels of brilliantly coloured tiles” covering both exterior and interior surfaces[8, p. 290].

Shah-i Zinda Necropolis (Samarkand, 14th–15th c.): This series of mausoleums, some built in the late 1300s and others in the mid-1400s, provides a microcosm of Timurid decorative syncretism. Each small mausoleum along the narrow alley exhibits a unique combination of tiles, *muqarnas* cornices, and carved terracotta. For example, the mausoleum of Turkan Aka (circa 1370s) features traditional brick patterning along with early examples of tile mosaic, while the later mausoleum of Shadi Mulk (1380s) and that of Qutlugh Oka (early 15th c.) are almost entirely clad in multi-color glazed tile from top to bottom, including motifs like eight-pointed stars and inscriptive bands that were part of the Persian decorative lexicon. The evolution visible at Shah-i Zinda – from brick-with-some-tile to walls as canvases of tile – encapsulates how Timurid decoration grew more exuberant, yet all these techniques were developments of what existed before. The Timurid artisans took the tile-making technology introduced in the 12th–13th centuries and perfected it, achieving an integration of epigraphy, geometry, and arabesque on building facades that was unprecedented[8, p. 290].

Overall, Timurid architecture can be seen as the zenith of the Islamic-local syncretism. It continued the tradition of Ilkhanid (Perso-Islamic) architecture but refined previous designs and techniques[12, c. 48] and magnified them. Timurid buildings retained the essence of Central Asian planning – e.g., preference for centrally-domed spaces, courtyards, and axial symmetry – while adopting refined Persian proportions and decorative complexity. The Timurids also introduced new structural engineering solutions: for instance, the widespread use of double domes on high drums (to achieve taller external profiles without making interiors too cavernous) was advanced in this period[8, p. 290][9, p. 1]. Double domes existed earlier (the Seljuks and Ilkhanids had used them), but Timurid architects dramatically increased the height of the supporting drum and the outer dome, as seen in Gur-i Amir and the later 15th-century dome of the Gawhar Shad Mosque in Herat[9, p. 1]. Additionally, the Timurid era saw an intersection of science and architecture – Ulugh Beg, Timur's grandson, was himself a mathematician and astronomer who likely influenced the precise geometric ornament and even the construction of observatories (e.g., the Ulugh Beg Observatory in Samarkand). This intellectual climate contributed to the exacting symmetry and sophisticated spatial composition of Timurid monuments (as evidenced in their intricate geometric patterns and layouts).

Notably, the Timurid architectural legacy was not confined to Central Asia. The style and techniques spread to other parts of the Islamic world. Mughal India, in particular, inherited Timurid architectural principles (Babur, the founder of the Mughal dynasty, was a Timurid prince). The Mughal architecture of the 16th century – such as the Humayun's Tomb in Delhi – directly drew inspiration from Timurid tomb architecture (the Gur-i Amir model) with its dome on a cube, *charbagh* garden setting, and glazed tile decoration[15, c. 250]. In Iran, the succeeding Safavid dynasty continued using the Timurid innovations in dome construction and tile ornament, albeit with modifications. Thus, the synthesis achieved under the Timurids in Māwarā'annahr had a pan-Islamic influence, seeding stylistic ideas far beyond their empire[6, p. 105].

In summary, the Timurid period elevated the syncretic architectural tradition of Central Asia to new heights of artistry. By integrating the craft traditions of the region (brickworking, wood carving, ceramic arts) with the institutional forms and decorative sophistication of the broader Islamic world (Persian mosques, madrasas, etc.), the Timurid builders created masterpieces that remain unparalleled. The fact that many of these 600-year-old structures – the blue-domed silhouettes of Samarkand and Herat – still astonish visitors today is a testament to the successful fusion of form and technique they embody.

DISCUSSION. The foregoing analysis reveals a clear through-line in Central Asian architecture: Islamic sacred architecture in this region developed not in isolation, but through continuous dialogue with local building traditions. Each period built upon the foundations of the previous, adapting and transforming what came before into new expressions suitable for the era's cultural and religious context.

During the early Islamic (Samanid) period, the blending of traditions was essentially a strategy of adaptation. The Arab-led introduction of Islam in the 8th century had brought new building types (e.g. mosques, minarets) which initially had no precedent in local architecture. The solution, as exemplified by the Samanids, was to adapt familiar forms – like the *chahar-taq* – to meet Islamic needs. This adaptation was likely quite intentional: it eased the acceptance of new religious monuments among a population that still included many recently Islamized people (and even remaining Zoroastrians)[2, p. 35][6, p. 105]. By the tenth century, patrons like Ismail Samani could commission a monument that was thoroughly Islamic in purpose yet embedded in local form, thereby asserting a new identity that was both Muslim and Central Asian. As Melanie Michailidis argued, the Samanid mausoleum synthesized key models from the Persian and Central Asian past into an innovative statement of Samanid dynastic legitimacy[1, p. 32]. In other words, architectural syncretism served as a visual narrative of cultural continuity – the past was quite literally built into the present.

In the Qarakhanid and later pre-Mongol period, this syncretic approach was reinforced and expanded. The Qarakhanid rulers, despite being of Turkic origin, embraced the settled urban culture of Transoxiana, including its architectural heritage[10, p. 2]. They maintained Bukhara and Samarkand as important centers and continued to adorn them with mosques and mausolea that followed established patterns. At the same time, being relatively new to the Islamic tradition, the Qarakhanids and other regional powers were open to experimentation – they introduced novel decorative ideas (as seen in brickwork innovations) that added a Turkic-Central Asian flair to the Islamic typologies. This indicates that syncretism is not a static blending but a dynamic process: each generation of builders

could contribute something new (new motifs, techniques) while preserving core inherited forms. By integrating their own aesthetic preferences (for example, a love of intricate geometries and perhaps nomadic symbolism) with the received Samanid models, the Qarakhanids ensured that the architecture evolved in a way that still felt “native” to the region. In fact, one could argue that by the 12th century, a recognizable Central Asian Islamic style had crystallized – characterized by baked-brick construction, geometric surface ornament, and the domed-square mausoleum as a dominant monument type[4, p. 1][6, p. 105]. This style was distinct from, say, contemporary architecture in Egypt or Anatolia, underscoring how regional syncretism produces diversity within the broader Islamic art world.

The Timurid era demonstrates syncretism in the service of imperial ambition. Timur and his successors deliberately harnessed the skills and artistic traditions of many lands to glorify their capital cities (Samarkand, and later Herat). The Timurid architectural style therefore was a grand synthesis of almost all Islamic architectural knowledge up to that time – the legacy of the Perso-Islamic Seljuks and Ilkhanids, the craftsmanship of Anatolia and Iran, and the deep local traditions of Māwarā’annahr[6, p. 105][12, c. 48]. What is remarkable is how coherently these elements merged. Rather than appearing as patchwork, Timurid monuments exhibit a high degree of unity and identity. This suggests that Central Asia’s prior experience over centuries in blending traditions had created a flexible, syncretic design culture capable of absorbing new influences smoothly. For example, when Timurid architects incorporated the Persian four-iwan mosque plan, they did so in a way that harmonized with the Central Asian preference for monumental portal axes and decorative brickwork, yielding structures that felt both new and rooted. Abobakirov (2025) highlights that Uzbek architecture historically “preserved its indigenous identity while selectively incorporating external features, producing hybrid styles that reflect both resilience and adaptability”[5, p. 169]. This observation is borne out by the Timurid case, where we see a conscious preservation of indigenous identity (e.g., continued use of pre-Islamic decorative symbols like the astral motifs, or the maintenance of traditional spatial concepts like courtyards oriented to the four cardinal directions as in ancient Central Asian cities) within a new monumental framework inspired by global Islamic norms.

Another important aspect is the symbolic or ideological dimension of this syncretism. Architecture in these periods was often a statement of political theology. The Samanids promoted themselves as revivalists of Persian culture (the so-called “Persian Renaissance” in the 10th century) and protectors of Islam – their architecture symbolized this dual role[3, p. 92]. The Qarakhanids, as new Muslims, may have used architecture to signal their Islamic legitimacy through emulation of venerable models (hence rebuilding the venerable Friday mosques of Bukhara and Samarkand). The Timurids, for their part, were empire-builders who desired to legitimize their rule over diverse peoples; by creating monumental architecture that was a microcosm of their cosmopolitan empire, they visually reinforced their claim to be heirs of all the great civilizations of their realm (Turkic, Persian, Mongol, Islamic)[12, c. 48]. The monumental scale itself – the gigantic mosques, lofty domes, and spacious gardens – conveyed a universalistic imperial ideology, yet the incorporation of local motifs (such as the tile patterns unique to Samarkand or the use of Kufic calligraphy in brick typical of earlier Central Asian style) rooted that ideology in local soil.

It is also worth noting the role of continuity in fostering later heritage preservation. Because Timurid architecture retained so many aspects of earlier buildings, later generations were able to recognize these monuments as culturally their own. Even after the Timurid dynasty faded, the people of Central Asia (under the Shaybanids and others) continued to cherish Timurid-era structures, restoring and maintaining them, and building new monuments “in the Timurid spirit”[13, b. 285]. For instance, 16th-century Shaybanid architecture in Bukhara, such as the Mir-i Arab Madrasa, continued using the high *pishtaq* and domed chamber formula – directly inherited from Timurid prototypes – thus prolonging the life of the medieval syncretic style[13, b. 285]. The syncretic architecture became a core part of Central Asian identity; its endurance can be seen today, as Uzbekistan proudly conserves sites like the Ismail Samani Mausoleum and the Registan, regarding them as touchstones of national heritage. In the words of G. A. Pugachenkova, the religious monuments of Samarkand and Bukhara stand as symbols of the greatness of the region’s cultural history, justifying the extraordinary efforts that were invested in their construction[7, c. 49]. They represent a successful blending of spiritual and artistic aspirations across eras.

Finally, examining this topic contributes to the broader understanding of how regional architectural schools form within the Islamic world. The case of Central Asia from the Samanids to Timurids exemplifies a pattern seen elsewhere: the indigenization of Islamic architecture. Much as in Spain, North Africa, or India, where Islamic architecture absorbed local flavors (creating Mudéjar, Maghrebi, and Indo-Islamic styles, respectively), in Central Asia a Mawarannahr style emerged. It reminds us that Islamic art is not monolithic; it is a family of styles, each shaped by local conditions. Central Asia’s contributions – especially in decorative brickwork and glazed tile, and the perfected form of the domed mausoleum – became an integral part of Islamic architecture as a whole.

CONCLUSION. From the Samanid era to the Timurid epoch, the architecture of Central Asia illustrates a continuous and fruitful synthesis of Islamic and local building traditions. Early Islamic rulers in Transoxiana adopted local architectural forms – such as ancient fire-temple layouts and traditional decorative motifs – to create some of the first monumental expressions of Islam in the region[2, p. 35][1, p. 32]. Their Qarakhanid successors built on this foundation, enriching the style with new patterns and techniques yet still working firmly within the established vernacular of baked brick and geometric ornament[10, p. 2][4, p. 1]. Under the Timurids, this melding of traditions reached its fullest flowering: Timurid architecture achieved a sophisticated balance whereby imported ideas from the broader Muslim world were harmoniously merged with Central Asian craftsmanship and aesthetics to produce works of outstanding global importance[6, p. 105].

The syncretic evolution of Central Asian architecture was not a mere blending for its own sake, but a creative engine that drove architectural innovation for over five centuries. It enabled the preservation of pre-Islamic cultural identity within an Islamic framework, as seen in the enduring use of local materials, layouts, and motifs. At the same time, it gave Central Asian architects the flexibility to absorb new influences – from Persian dome technology to Mongol-Chinese artistic elements – without losing their unique style. The legacy of this fusion is a rich architectural heritage that includes some of the most revered monuments of the Islamic world. Today, the brick mausoleum of Ismail Samani with its timeless design and the majestic turquoise domes of Samarqand’s Registan and Bibi Khanum mosque stand as testaments to a successful marriage of civilizations. They exemplify how

regional architecture can be at once firmly rooted in local tradition and elevated by universal artistic ideals. In the grand narrative of Islamic art, the example of Central Asia's syncretic architecture from the Samanids to the Timurids highlights the importance of cultural adaptation and continuity – a lesson in how diversity within unity can produce enduring masterpieces.

REFERENCES

1. Michailidis M. Dynastic Politics and the Samanid Mausoleum. *Ars Orientalis*, 44, 2014, p. 32.
2. Tosheva D. Revisiting the Samanid Mausoleum in Bukhara: A New Perspective on New Materials. *Muqarnas*, vol. 40, no. 1, 2023, p. 35.
3. Negmatov N. N. "The Samanid State." In: *History of Civilizations of Central Asia*, vol. IV, ed. M. S. Asimov and C. E. Bosworth. Paris: UNESCO Publishing, 1998, p. 92.
4. Dietrich R. Qarakhanid Cultural History – Art & Architecture. humanitiesinstitute.org, 2017, p. 1.
5. Abobakirov A. R. "The Synthesis of Local and Foreign Styles in Uzbek Architecture: The Application of Eastern and Western Elements." *Modern American Journal of Linguistics, Education, and Pedagogy*, vol. 1, no. 4, 2025, p. 169.
6. Nurullayeva N., et al. "Timurid Architecture and the Golden Age of Central Asia." *Archives for Technical Sciences*, 32(1), 2025, p. 105.
7. Pugachenkova G. A. *Samarkand, Bukhara – po drevnim pamyatnikam (Samarkand, Bukhara: On Ancient Monuments)*. Moscow: Iskustvo, 1968, c. 49.
8. Hillenbrand R. "Architecture." In: *The Arts of Persia*, ed. R. W. Ferrier. New Haven: Yale University Press, 1999, p. 290.
9. Golombek L., Wilber D. *The Timurid Architecture of Iran and Turan*. Princeton: Princeton University Press, 1988, p. 1.
10. McClary R. P. *Medieval Monuments of Central Asia: Qarakhanid Architecture of the 11th and 12th Centuries*. Edinburgh: Edinburgh University Press, 2020, p. 2.
11. To'xtasinov M. A. "Ismoil Somoniy maqbarasi – jahon me'morchilik va binokorlik maktablarining noyob arxitekturaviy yodgorligi" (The Ismail Samani Mausoleum as a unique architectural monument of world architecture and construction schools). *International Journal of Scientific Researchers*, vol. 5, no. 1, 2024, b. 38.
12. Akhmedov B. A., Mukminova R. G., Pugachenkova G. A. *Amir Temur Tarixi (History of Amir Temur)*. Tashkent: Fan, 1999, c. 48.
13. Bobojonova F. *Buxoro me'moriy obidalari tarixi (History of Bukhara's Architectural Monuments)*. Buxoro: Fan va ta'lim, 2022, b. 285.
14. Kamoliddin Sh. *Ismoil ibn Ahmad as-Somoni*. Scholars Press, 2017, b. 93.
15. Bartold V. V. *Turkestan i ego istoriya (History of Turkestan)*. Moscow: Vostochnaya Literatura, 1964, c. 250.