

## THE TIMURID MAUSOLEUM IN SHAKHRISABZ

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### Abstract:

This article examines the architectural and historical development of the Dorus Saodat memorial and religious complex in Shahrisabz, Uzbekistan. Emphasis is placed on the unique design and construction of the crypt originally intended for Amir Temur, which is considered one of the most magnificent funerary structures in Central Asia and the Islamic world. Drawing upon historical texts, scholarly sources, and archaeological investigations – particularly the fieldwork conducted by Kh.T. Sultanov – the study presents a graphic reconstruction of the complex as a remarkable example of Timurid Renaissance architecture.

**Keywords:** Amir Temur, Shahrisabz, Dorus Saodat Complex, Timurid architecture, Hazrat Imam Mausoleum, Jahangir's Tomb, Islamic funerary art, Central Asia, architectural heritage.

### Introduction

After the completion of the construction of the Ak-Saray palace, Amir Temur initiated the building of a dynastic mausoleum. In the northwestern corner of the complex stand the remains of the mausoleum of Jahangir – a pillar-shaped structure that later became known as the Hazrat Imam Mausoleum.

Inside the mausoleum, among the surviving wall paintings, an Arabic inscription in blue pigment has been preserved in the southeastern corner. It reads: “The wise acts with lofty intention; the fool waits with lofty intention.” The script is executed in **Thuluth**, a style characteristic of the 14th century. On the facing of the portal pilaster, the words “Sultan” and “God” are laid out in brickwork. The content and placement of these inscriptions suggest that the mausoleum served as the burial place of a secular figure<sup>1</sup>. In the northeast corner, there was probably another gurkhana arranged symmetrically, which has not survived to the present day.

According to G.A. Pugachenkova, the three-domed, conical mausoleum of Hazrat Imam, built by the order of Amir Timur, reflects the traditions of Khwarezmian craftsmen and bears resemblance to the Chashma-i-Hazreti Ayub in Bukhara, located above the spring of the Prophet Job.

Approximately 40 meters east of the Hazrat Imam mausoleum is a crypt that was originally identified as the tomb of Jahangir<sup>2</sup>. However, research by M.E. Masson

<sup>1</sup> Masson M.E., Pugachenkova G.A. Shahrishabz under Timur and Ulugh Beg // Proceedings of SAGU New Series. Issue XLIX. Humanities. Archaeology of Central Asia. II. – Tashkent, 1953. – P. 57, 58.

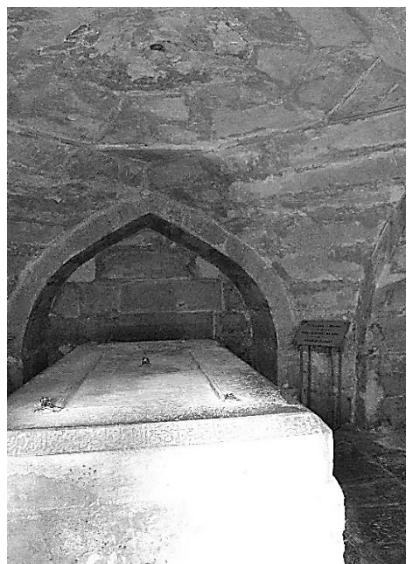
<sup>2</sup> Gulyamov Y.G. The Tomb of Jahangir in the City of Shahrishabz // Proceedings of the Academy of Sciences of the Uzbek SSR, No. 2. – Tashkent, 1949. – Pp. 102–103.

showed that this structure was originally intended as the burial place of Amir Timur himself<sup>3</sup>.

The crypt intended for the burial of Amir Timur, located on the main axis of Dorus-Saodat, is distinguished by its solemnity and the impressive size of the sarcophagus. In Clavijo's time, this structure was not yet completed. Only this crypt has survived from the dynastic mausoleum, which was previously mistakenly considered to be Jahangir's tomb.

The plan of the crypt has a cruciform shape due to the recessed arched niches. Its square base measures 3.5 meters on each side, and its corners are chamfered at a 45° angle. The depth of the niches reaches 1.5 meters (for comparison, in the crypt of Ishrat-khana, it is 8.5 meters). The interior decoration of the crypt is distinguished by its solemnity. The design predominately features a noble aesthetic: the walls and vaults are clad with white marble limestone, the floor is paved with smoothly polished slabs, and relief inscriptions in the thuluth script are engraved on the walls and archivolts. The ceiling is shaped as a gently sloping tented dome of the darbazi type, which has ancient traditions, and here it has been preserved as a decorative plafonnier. The orientation of the crypt corresponds to the direction of Jahangir's mausoleum<sup>4</sup>.

The darbazi ceiling, typical for Central Asia, is found in mountainous Tajikistan and the Pamirs in residential buildings (noted by researcher M.S. Andreev). In Eastern Turkestan, similar coffered ceilings sometimes lost their structural function, but the tradition of depicting them on a smooth plafonnier was preserved. A similar technique can also be seen in Amir Timur's crypt.



#### Interior of the Crypt. Photo by I. Garifulin, 2019.

A large white marble sarcophagus is placed in the center of the crypt. At the time of its discovery, the lid was displaced (in 1963, it was restored to its place using a crane during renovation). The lid features a deep recess intended for a future epitaph plaque, which was never inscribed. All of this resembles a burial chapel arranged by Amir Timur himself for his own burial.

The entrance to the crypt is located on the southern side and consists of a special hatch for bringing in the body, designed as a gently pointed arch with shoulder-like supports (similar designs can be found on minarets and in the mosaic ornaments of Ak-Saray). This arrangement allows the body to be brought in almost horizontally,

head first, in accordance with Muslim burial rituals (similar hatches are known in Ishrat-khana and Ak-Saray). The entrance to the crypt led from a richly decorated

<sup>3</sup> Masson M.E., Pugachenkova G.A. *Ibid.* – Pp. 59–80.

<sup>4</sup> Masson M.E., Pugachenkova G.A. Shahrishabz under Timur and Ulugh Beg // Proceedings of SAGU New Series. Issue XLIX. Humanities. Archaeology of Central Asia. II. – Tashkent, 1953. – P. 73, 74.

chamber – the Miyon-saray – which served as the antechamber to this majestic burial site<sup>5</sup>.

V.L. Voronina believed that the complex combined the functions of a khanqa and a mausoleum. Y.G. Gulyamov wrote about the crypt that it is hidden underground and fully clad in white marble-like limestone – from floor to ceiling.

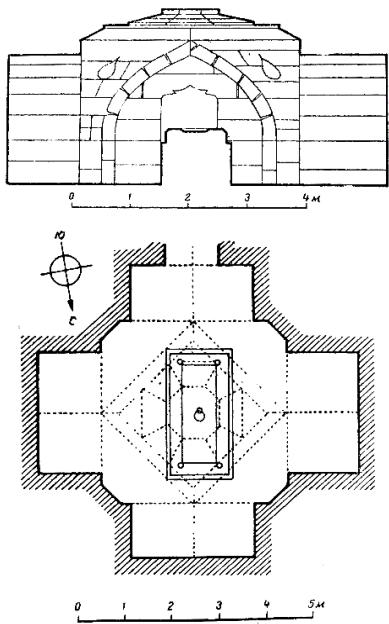
The sarcophagus consists of four massive dark-gray marble slabs, measuring 2.5 meters in length, 1.4 meters in width, and 0.73 meters in height. It is embedded in the floor, with its lid—10 to 11 cm thick—placed nearby. The lid has metal rings with a diameter of 15 to 16 cm<sup>6</sup>.

Inside the sarcophagus, skeletal remains were found, as well as two skulls, which are presumably associated with later, accidental burials<sup>7</sup>.

On the pendentives are medallions of teardrop shape filled with epigraphic inscriptions. The vaults of the niches are clad with Isfagan slabs made from solid light-gray limestone slabs, each 16 cm thick.

The archivolt is 16 cm thick and projects by 2–3 cm; it bears Quranic texts written in thuluth script.

The crypt, intended for a single burial, is notable for its monumentality and grandeur. Its dimensions are 6.40 by 6.12 meters. The interior space is clad with light marble-like limestone and sandstone, similar to the material used for the columns of the Bibi-Khanym Mosque.



### Plan and Section of the Crypt. Measured by V. Voronina and G.I. Gaganov.

In the 1860s, the crypt was discovered during construction work, according to the accounts of longtime residents of the neighborhood. The builders came across the top of a domed structure made of stone slabs.

After removing the central slab, they saw an inner chamber with a coffin, which they took to be the tomb of a saint.

Due to superstitions, the vault was closed again, and the site was left undeveloped, turning into a mazar (shrine). Over time, pieces of cloth began to appear on the branches of a mulberry tree nearby, and rumors of a new saint spread among the people<sup>8</sup>.

<sup>5</sup> Pugachenkova G.A. On the Question of the Reconstruction of the Dorus-Saodat Ensemble. MIA, 1950. – P. 66.

<sup>6</sup> Masson M.E., Pugachenkova G.A. Shahrizabz under Timur and Ulugh Beg // Proceedings of SAGU New Series. Issue XLIX. Humanities. Archaeology of Central Asia. II. – Tashkent, 1953. – P. 59.

<sup>7</sup> Gulyamov Y.G. The Tomb of Jahangir in Shahrizabz. Proceedings of the Academy of Sciences of the Uzbek SSR, No. 2, 1949. – P. 98.

<sup>8</sup> Gulyamov Y.G. The Tomb of Jahangir in Shahrizabz // Proceedings of the Academy of Sciences of the Uzbek SSR, No. 2. – Tashkent, 1949. – P. 98.

The crypt was opened four times. The first instance occurred after Shahr-i-Sabz was annexed to the Bukhara Khanate (after 1870). The Bukhara Emir Muzaffar, having captured the city with the support of the Tsarist troops, secretly at night, accompanied by a small detachment, surrounded the burial site and opened the tomb. However, after some time, it was closed again.

Following this, rumors spread that the tomb did not belong to a saint, but to Amir Timur's eldest son — Jahangir, who died in 1376. It was also said that valuable relics had been taken from the tomb, including a large gold plaque with inscriptions that covered the sarcophagus lid<sup>9</sup>.

In the spring of 1933, the crypt was accidentally discovered. That same year, residents of Shahr-i-Sabz, together with D.I. Kravtsov, an employee of the Kitab Latitude Station, descended into the crypt. According to his testimony, the sarcophagus lid was partially displaced, and inside there were two skulls.

In the autumn of 1933, Y.G. Gulyamov and T.M. Mirgiyazov conducted an opening of the crypt and published a preliminary brief note in the newspaper *Kzyl Uzbekistan*. According to Y. Gulyamov, citing A.A. Semenov, the epigraphic text indicated the burial of Jahangir. However, his hypothesis that Jahangir's mausoleum was a separate structure proved untenable.

He mistakenly believed that the Hazrat Imam Mosque was part of the Dorus-Saodat ensemble, which, in his opinion, had been attached to the mausoleum from the south and west. However, excavations confirmed B.N. Zasyplkin's hypothesis and G.A. Pugachenkova's reconstruction, refuting Gulyamov's view. The reading of Jahangir's name turned out to be incorrect.

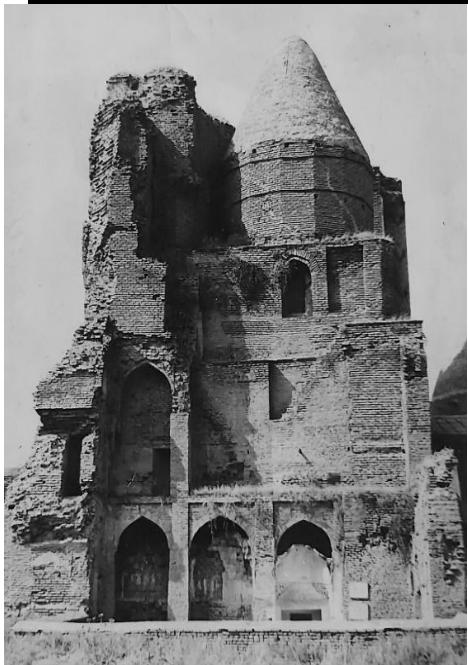
In 1940, the crypt was visited by architects V.L. Voronina and G.N. Gaganov. In 1942, G.A. Pugachenkova and M.E. Masson established its precise location relative to Hazrati Imam — 35 meters from the southeast corner. They also clarified its orientation: the crypt aligns perfectly on the north-south axis with Hazrati Imam and is situated on the main axis of the Dorus-Saodat complex.

Thanks to its luxurious decoration, the researchers concluded that the crypt was originally intended for Amir Timur himself.

Later, M.S. Andreev proposed relocating the entire crypt to Tashkent and placing it in the Museum of Arts<sup>10</sup>.

<sup>9</sup> Masson M.E., Pugachenkova G.A. Shahr-i-Sabz under Timur and Ulugh Beg // Proceedings of SAGU New Series. Issue XLIX. Humanities. Archaeology of Central Asia. II. — Tashkent, 1953. — P. 58.

<sup>10</sup> Masson M.E., Pugachenkova G.A. Shahr-i-Sabz under Timur and Ulugh Beg // Proceedings of SAGU New Series. Issue XLIX. Humanities. Archaeology of Central Asia. II. — Tashkent, 1953. — P. 59.



In 1950, excavations were conducted in the mausoleum under the leadership of V.A. Levina with the participation of K.A. Shakhurin. The researchers set several objectives: to determine whose burial was in the sarcophagus, to clarify the connection of the staircase with the complex of rooms, and to study the stratigraphy of cult layers. The descent into the crypt was arranged not by a ramp but by a staircase with four steps. The stair slabs were laid on a brick foundation with an earthen mortar. In 1950, a repeated study of the epigraphic inscriptions, carried out by M.E. Masson and A.A. Semenov using rubbing techniques, revealed a Quranic text; however, no information about the buried individual was discovered.

#### **Eastern Façade of the Mausoleum of Jahangir. Archival Photo.**

Thus, the crypt, originally intended for Amir Timur, was never used for its intended purpose. Instead, a woman from the Timurid dynasty was buried here, and later another, more recent burial appeared in the crypt<sup>11</sup>.

According to historical data, M.E. Masson established that the son of Timur – Jahangir – is buried in the Hazrati Imam mausoleum. After his death in 777 AH (1376 AD), a "special, very beautiful mausoleum" was erected for the heir, according to Muhammad Haydar<sup>12</sup>.

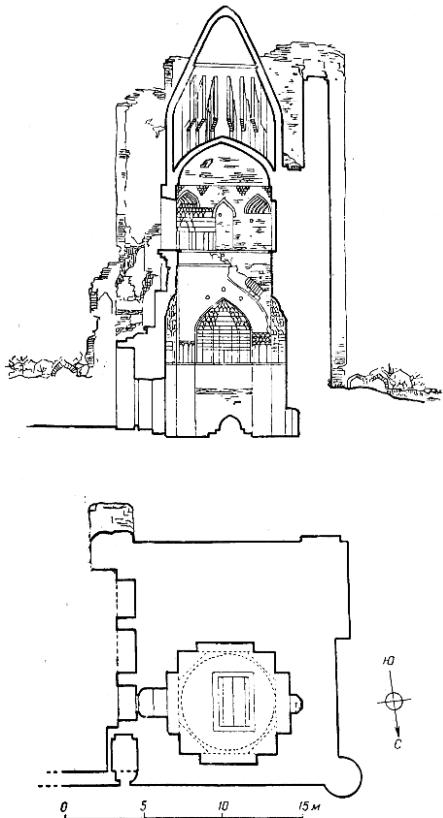
The historian Sharaf ad-Din Ali Yazdi described this structure as "exceptionally tall"<sup>13</sup>. If one imagines the mausoleum in its original form – as a freestanding building, without being incorporated into the massive arched structure of the pylons, topped with a pointed tent-like dome visible from all sides – it would indeed give the impression of a tall building. This impression is further enhanced inside the structure due to its architectural features. The mausoleum has an almost square base (6.30 x 6.35 m) and features pointed niches on all four façades. The western niche, unlike the others, is deeper and designed as a mihrab.

The interior space of the mausoleum is a tall parallelepiped, the upper part crowned by a sixteen-sided drum, topped with a conical tent-like dome. This structure emphasizes the building's verticality, creating the effect of a majestic and monumental edifice.

<sup>11</sup> Levina V.A. 1950. KD 2378/L 36. – P. 16.

<sup>12</sup> Elioc N (ED). Denison Poss. E. (transl.) A History Moghols of Central Asia being the Tazik-i Rasidi of mirza Muhammed Ha`dar Dughlat Ell. 11. – London, 1898, p. 48.

<sup>13</sup> Sharaf ad-Din Ali Yazdi. Zafar-nameh (The Book of Victories). – Tashkent, 1972. – Pp. 331–332, folios 156a, 156b.



### Plan of the Mausoleum of Jahangir according to measurements by V. Voronina.

G.A. Pugachenkova, studying the mausoleum, noted its unique construction with three domes.

The first, outer dome is a conical tent resting on a sixteen-sided drum with rigid internal ribs.

The second, inner structural dome has a pointed shape and rests on a system of pendentives formed by twelve converging arches. The third, decorative inner dome is made of alabaster. It has survived only partially, especially in the corners, most noticeably in the southeast corner. Here, its elements form a complex stalactite surface located above a frieze with an inscription.

According to G.A. Pugachenkova, this decorative dome was held in place by cohesion along its contour, and its upper part was seemingly suspended on special projections – “fingers” – embedded in the masonry, which have survived to the present day<sup>14</sup>.

In the 1970s and 1980s, the archaeologist Kh. Sultanov conducted extensive excavations on the

territory of the Dorus-Saodat ensemble, which revealed significant architectural remains. During the research, the base (plinth) of the Hazrati Imam mausoleum, constructed from blocks of marble limestone, was uncovered. The western part of the plinth has only partially survived. To the south, from the middle of the western façade, a niche part of the minaret with one row of base cladding was discovered. This minaret fragment, like the northern one, has the shape of a three-quarter column. In the northwest part of the mausoleum, fragments of a polygonal minaret with faces measuring 0.86 m each, as well as part of its round shaft built with clay mortar, were uncovered.

Archaeological studies showed that the mausoleum’s foundation masonry extends downward not strictly vertically but at an angle, under the building’s wall, ending with brickwork where bricks are set on edge with the face side outward, forming a ledge 0.18 m wide and 0.10 m high. Such a construction technique was common in the architecture of that period. For example, the foundation of the Bibi-Khanym mosque in Samarkand was also laid in trapezoidal pits narrowing towards the base. According to specialists in structural mechanics, this foundation shape allowed for an even distribution of the load from massive walls not only on the base’s footing but also on the side surfaces.

<sup>14</sup> Pugachenkova G.A. On the question of the reconstruction of the Dorus-Saodat ensemble, the Timurid mausoleum in Shakhrisabz. Materials on the history and theory of architecture of Uzbekistan. Vol. I. – Tashkent, 1959. – Pp. 62–63.

In the northwest part of the mausoleum adjoins a domed mosque, to the northern wall of which a tall iwan with wooden columns was attached. The eastern façade has almost not survived. Instead, preserved architectural remains are seen, conditionally called a ziarathana (a place for visitation or shrine).

At a distance of 10.15 meters south of the mausoleum, on the surface of the paved floor, runs the axial line of the portal opening, oriented west-east. It is made of white marble blocks and conditionally divides the opening into two equal parts. Defining this axial line made it possible to determine with high precision the width of the Dorus-Saodat portal arch span, which measured 20.3 meters. This is only 1.7 meters less than the arch of the Ak-Saray palace and surpasses the size of all known architectural monuments in Central Asia.

Furthermore, during the excavations in the Dorus-Saodat courtyard, remains of buildings arranged around the courtyard perimeter were discovered. Along the north-south axes, traces of open iwans were identified. The courtyard itself had a square shape, measuring 31 by 31 meters. According to B.N. Zasyplkin, the building had two floors<sup>15</sup>. Excavations determined that three arched niches from the first floor have survived, above which there was presumably a ceiling and a platform serving as the upper floor. In the southern part, beyond the first-floor ziarathana room, a passage leading to the second-floor platform was preserved. It runs along the eastern wall, in the corner of which a staircase was uncovered<sup>16</sup>.

Before the archaeological excavations were conducted, it remained unclear how the structures of this complex were formed and what constituted its main compositional core – a domed chamber similar to the large Kazanluk-type mausoleum of Khoja Ahmad Yasawi in Turkestan, or a courtyard.

Additional architectural and archaeological studies carried out in 2002 uncovered the remains of buildings of the southern pylon of Dorus-Saodat. Analysis of the mausoleum's foundation masonry, the quality and size of the bricks, the number of rows per running meter, the composition of the mortar, as well as architectural details such as the design of the plinth and the red sandstone panels of the mausoleum, demonstrated their unified stylistic affiliation.

The facing of the portal opening, the cladding of the panels of the ziaratkhana, and the gable wall, executed in carved stone with a consistent ornamental style, indicate that all the elements of the Dorus-Saodat ensemble were constructed simultaneously and formed an integrated architectural complex.

The studies revealed differences in the decoration of the lower parts of the panels on the western facade, especially in the area of the northwest minaret, the corner projection of the southern facade, and the southeastern part of the mausoleum. These differences suggest that the lower sections of the buildings were finished at different times, likely

<sup>15</sup> Zasyplkin B.N. Cit. Work – Moscow, 1928. – pp. 58–59.

<sup>16</sup> Sultanov, Kh.T. On the History of the Formation of Architectural Ensembles of Shahrizabz in the 14th–15th Centuries (Based on Archaeological Data): Candidate's Dissertation Materials. – Samarkand, 1990.

connected with the partial reconstruction of the original main entrance portal of the complex.

Historical sources confirm that Amir Timur closely supervised all construction works carried out by his orders, especially when it concerned the erection of monumental buildings. It is likely that architects and craftsmen primarily followed his requirements and instructions. For example, R.G. Clavijo, in his records, mentions that those accompanying him reported that Timur had visited this complex a month before their arrival, was dissatisfied with the height of the chapel door, and ordered it to be rebuilt<sup>17</sup>. Most likely, Clavijo's account indeed refers to the reconstruction of the entrance portal under study, which was later confirmed by subsequent research. This indicates that the original composition of the entrance group underwent modifications, possibly by the personal directive of Amir Timur<sup>18</sup>.

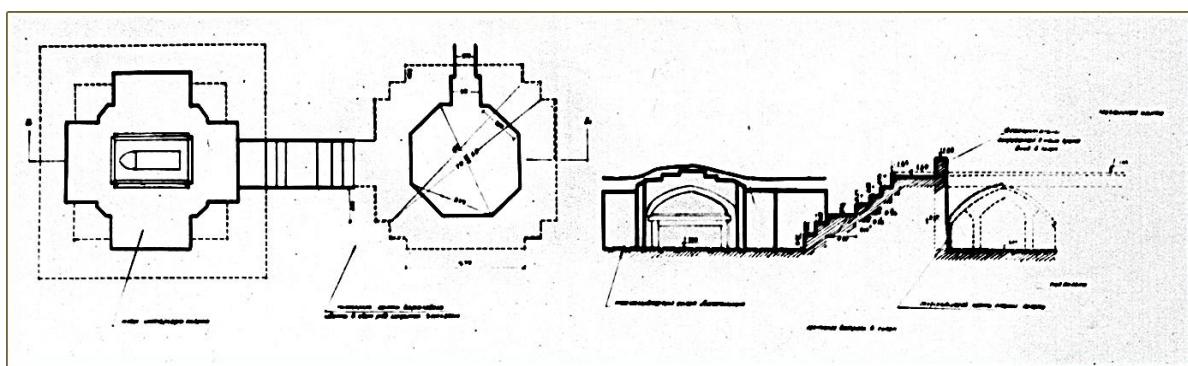
Today, only the Hazrati Imam mausoleum and the underground crypt remain of what was once a grand monumental structure.

According to M.E. Masson, this crypt is one of the most unique and significant monuments of its kind in Central Asia due to its architecture and interior decoration<sup>19</sup>. G.A. Pugachenkova also highly regards it, describing it as the most magnificent among the crypts of the Muslim East<sup>20</sup>.

During archaeological research, Kh. Sultanov uncovered nearly all architectural remains of the previously unknown superstructure above the crypt. Traces of this structure have been partially preserved along the entire western facade, and the discovered decorative fragments testify to its former grandeur.

However, the question remains open as to whether this mausoleum was originally an independent building or if it emerged through gradual integration with adjacent constructions. Historically, such annexes often developed over extended periods, eventually transforming into complexes of interconnected structures.

Similar processes are characteristic of many religious ensembles in Central Asia, such as the mausoleum of Hakim at-Tirmidhi (which includes a three-chamber mausoleum,



<sup>17</sup> Clavijo, R.G. Quoted Work, pp. 233–234.

<sup>18</sup> Sultanov, Kh.T. On the History of the Formation of Architectural Ensembles of Shahrizabz in the 14th–15th Centuries (Based on Archaeological Data): Candidate's Dissertation Materials. – Samarkand, 1990.

<sup>19</sup> Masson M.E., Pugachenkova G.A. Op. cit., p. 59.

<sup>20</sup> Pugachenkova G.A. Op. cit., p. 66.

mosque, khanaka, iwan, and two burial chambers)<sup>21</sup>, the Gur-Emir complex (with the madrasa of Muhammad Sultan and a khanaka)<sup>22</sup>, and the Kusam ibn Abbas complex (comprising a three-chamber mausoleum, mosque, minaret, corridor, and ziaratkhana)<sup>23</sup>. These examples confirm the tendency toward gradual development of such architectural ensembles.

### **The Crypt of Amir Temur and Another Underground Crypt Connected by an Opening in the Southern Wall. Section View of the Crypts. Based on the archaeological research of Kh. Sultanov.**

During excavations carried out by Kh. Sultanov, another underground crypt was discovered south of the well-known tomb. Above it was a cruciform chamber featuring four shallow niches and a central square. The structure was carefully planned: the north-south axis of the crypt precisely aligns with the axis of the mausoleum, and the floor level of the superstructure above the crypt is almost identical to the floor levels of adjacent buildings.

The crypt is an octagonal structure with a total width of 3.26 meters; its walls are made of square bricks bonded with a gypsum mortar. No burials were found inside. Remnants of the construction indicate a gently sloping vault covered by the floor of the overlying structure. This building was connected to the mausoleum through an opening in its southern wall, which points to a unified spatial concept for the complex.

Due to significant damage, it was not possible to determine the exact dimensions and layout details of the superstructure above the crypt. However, the shared axis with Timur's mausoleum and the presence of a common eastern wall indicate that both buildings were part of a single architectural ensemble, constructed according to a predesigned plan.

It can be assumed that this mausoleum was not the only structure of its type within the complex. For symmetry in the eastern part of Dorus-Saodat, there was likely another similar or large building, although archaeological evidence for this has yet to be found. The conclusions of Kh. Sultanov's archaeological research confirm the existence in the southeastern part of the city of a monumental cult-memorial complex Dorus-Saodat, constructed by order of Amir Timur.

The main entrance to the complex was a massive portal 60 meters wide, comparable to the largest architectural monuments of Central Asia such as Ak-Saray<sup>24</sup>, the Bibi-Khanym Mosque<sup>25</sup>, the Kalyan Mosque<sup>26</sup>, the Hazira of Abdallah Ansari in Guzargah,

<sup>21</sup> Pugachenkova G.A. Architecture of Central Asia. – Tashkent, 1976. – pp. 30–41.

<sup>22</sup> Pletnev I.E. The Problem of Research and the Experience of Restoration of the Gur-Emir Architectural Complex. Abstract of Candidate of Architecture Dissertation. – Leningrad, 1964.

<sup>23</sup> Mankovskaya L.Yu. Typological Foundations of Central Asian Architecture. – Tashkent, 1980. – pp. 145–147.

<sup>24</sup> Pugachenkova, G. A. *Op. cit.*, p. 73.

<sup>25</sup> Ratiya, Sh. E. The Bibi-Khanym Mosque. Moscow: Academy of Architecture of the USSR Publishing, 1950, p. 83.

<sup>26</sup> Pugachenkova, G. A., and Rempel, L. I. Outstanding Monuments of Architecture of Uzbekistan. Tashkent: Gosizdat of the Uzbek SSR, 1958, pp. 79–81.

Afghanistan<sup>27</sup>, the mausoleum of Khoja Ahmed Yasawi in Turkestan<sup>28</sup>, and others. The arched span of the entrance group measured 20.3 meters, only slightly less than the arch of Ak-Saray.

Remnants of a gable wall and a marble axial line indicate the existence of a second pylon, confirmed by archaeological excavations. This pylon structure likely had a similar design to the mausoleum, including a columnar tomb. Architectural changes in the complex are reflected in chronicles such as the works of Sharaf ad-Din Ali Yazdi, who described Timur's order to rebuild the portal to enlarge it<sup>29</sup>, as also noted by Clavijo<sup>30</sup>. The architectural layout of Dorus-Saodat included a square courtyard (32 by 32 meters) framed by rows of two-chamber mausoleums. The central place was occupied by Timur's mausoleum, located on a west-east axis. It featured a richly decorated portal and likely also served as a ziaratkhana (a memorial or visitation hall). South of the mausoleum, another mausoleum cruciform in plan was discovered, and to the north, a presumably similar structure was located.

Dorus-Saodat was an ensemble with a clear longitudinal-axial composition, characteristic of the developed necropolises of the Islamic East. Such complexes formed in connection with the growth of the cult of saints and Sufi orders, which led to the complexity of mausoleum structures and the inclusion of memorial halls (ziaratkhana) and entrance areas<sup>31</sup>.

One of the earliest examples of multi-chambered mausoleums with a longitudinal-axial structure is the mausoleum of Buyan-Quli Khan (1358)<sup>32</sup> and the Chashma-Ayub mausoleum (12th–16th centuries). This type later spread to the Fergana Valley<sup>33</sup> and Khorezm<sup>34</sup>. The culmination of the development of such complexes is represented by the royal necropolises of Dorus-Saodat in Shahrisabz and the mausoleum of Khoja Ahmad Yasawi in Turkestan<sup>35</sup>. The closest architectural analogue to Dorus-Saodat is the necropolis of Sultan-Saodat<sup>36</sup>, where mausoleums are positioned along the sides of a monumental entrance portal. Similarities can also be observed in the hazira of Abdullah

<sup>27</sup> Golombek, Lisa. The Timurid Shrine at Cazur-Cah. Toronto: University of Toronto, 1969, p. 133.

<sup>28</sup> Mankovskaya, L. Yu. "On the Study of the Methods of Central Asian Architecture of the Late 14th Century (Mausoleum of Khoja Ahmad Yasawi)." In *The Art of Architects of Uzbekistan*, vol. 1. Tashkent: Fan, 1962, pp. 92–94.

<sup>29</sup> Sharaf ad-Din Yazdi. *Zafar-name*. Tashkent: Academy of Sciences of the Uzbek SSR, 1972, fols. 15a–15b.

<sup>30</sup> Clavijo, Ruy González de. *Op. cit.* St. Petersburg, 1880, pp. 233–234.

<sup>31</sup> Mankovskaya, L. Yu. "Memorial Architecture of Central Asia." In *Artistic Culture of Central Asia, 9th–13th Centuries*. Tashkent: Fan, 1983, p. 40.

<sup>32</sup> Pugachenkova, G.A., Rempel, L.I. *Outstanding Architectural Monuments of Uzbekistan*. – Tashkent, 1958. p. 72.

<sup>33</sup> Azimov, I.M. The Mausoleum of Bibi-Buvayda in the Fergana Region. Collected Scientific Works of TashPI named after Beruni, Issue 159. – Tashkent, 1977. pp. 15–16.

<sup>34</sup> Mankovskaya, L.Yu., Bulatova, V.A. *Architectural Monuments of Khorezm*. – Tashkent, 1978. pp. 75–76.

<sup>35</sup> Pugachenkova, G.A., Rempel, L.I. *Op. cit.*, p. 70.

<sup>36</sup> Pugachenkova, G.A. *New Materials on the Architecture of the Sultan-Saodat Ensemble*. SAU No. 9. – Tashkent, 1965. pp. 39–41.

Ansari in Afghanistan, which was built on the site of a former madrasah and included a mosque, a public hall, and residential hujras<sup>37</sup>.

Burials in Dorus-Saodat were carried out both in underground crypts and in hujras, which consisted of a ziarat-khana (memorial hall) and a gurkhana (burial chamber). In the gurkhana, funerary structures (saganas and dahmas) were erected, clad in carved marble with inscriptions and ornamentation.

Research has shown that two-storey structures most likely existed only in the areas adjacent to the mausoleum, possibly serving as a mosque or a darskhana (lecture hall). The central pillar-shaped building may have served as the mausoleum of one of Timur's sons, for example, Umar Shaykh, who was buried in Shahrishabz in 1394–1395<sup>38</sup>.

Octagonal crypts are extremely rare in Central Asia. In the Shah-i-Zinda ensemble, only one such example is known. N.B. Nemtseva associates its appearance with the work of Azerbaijani craftsmen, which is quite plausible<sup>39</sup>. Octagonal crypts were widespread in Western Iran and Azerbaijan, primarily in the form of solitary tower-shaped mausoleums.

Among such monuments are the crypt of Sheikh Babaly's mausoleum, the mausoleum in the village of Akhmedalylar<sup>40</sup>, and the mausoleum of Imam Khwaja Ja'far in Isfahan<sup>41</sup>.

However, one such octagonal crypt was discovered in the vicinity of Shahrishabz in 1990, during an archaeological survey conducted by the Department of Archaeology of the Faculty of History at Tashkent State University. While plowing a cotton field in the "Pakhtakor" kolkhoz, located in the village of Saparcha, local residents uncovered remains of brick structures made of fired bricks. The head of the archaeological expedition, Z.I. Usmanova, dispatched two third-year students to the area. They met with the brigade leader, Khushvaktov Abdukhamed, who pointed out the exact location of the bricks. At that time, there were so many bricks that the locals used them for building foundations and decorating house facades. The remaining low mounds at the edge of the field became known as Gishtepa.

Glazed tiles found by the students suggested that the site was part of a ruined structure dating back to the Timurid period. These findings sparked the interest of the expedition participants, and a special team of four students was formed under the supervision of archaeologist A.E. Groshev to carry out further exploratory work<sup>42</sup>.

<sup>37</sup> Golombek, L. Op. cit., pp. 139, 208, 15–16, 30–31, 165.

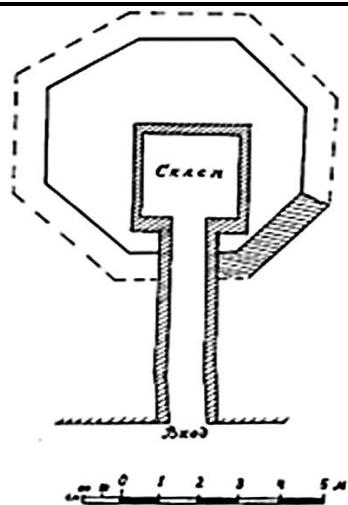
<sup>38</sup> Zasyipkin, B.N. Op. cit., pp. 60–61. Mankovskaya, L.Yu. *Op. cit.* 1979, pp. 28–29; Mankovskaya, L.Yu. Op. cit. 1979, pp. 28–29.

<sup>39</sup> Nemtseva, N.B., Schwab, Yu.E., p. 79.

<sup>40</sup> Useynov, M., Bretanitsky, L., Salamzade, A. History of Azerbaijani Architecture. Moscow, 1963, pp. 155–156.

<sup>41</sup> Voronina, V.L. Medieval Architecture of Afghanistan. In: Universal History of Architecture. Moscow, 1969, pp. 162–163.

<sup>42</sup> Report on the Fieldwork of the Department of Central Asian Archaeology in 1990. Archive of the Main Scientific Production Administration of the Ministry of Culture of the Uzbek SSR. Inv. No. 9476.



**Octagonal countryside mausoleum from the 14th–15th centuries, discovered during the 1990 fieldwork conducted by the Department of Archaeology in the vicinity of Shakhrisabz.**

On the surface of the tepe grew thorns and tall grass, and fragments of baked bricks were visible through the turf layer. In the upper layer of the excavation, a heap of bricks was found, which, when manually dismantled, revealed remnants of high-quality masonry with traces of thick plaster. During the inspection of the bricks, it was noted that many bore traces of ganj (a traditional gypsum-based binding mortar). The bricks were red in color, measuring 26–27 x 29 cm with a thickness of 5–6 cm. One brick measured 29 x 29 x 5–6 cm but was thinner on one side, while others measured 27 x 27 x 5 cm and had beveled edges.

The team continued excavating along the edge of the masonry, digging down 30–40 cm, where they discovered a floor level with remnants of glazed facing, some of which extended onto the walls. In certain areas, the wall facing remained in good condition. The floor was paved with various types of tiles, predominantly blue ones of different shapes: rhombuses, triangles, and others. In some places, the pavement was well preserved, and during the clearing of the room, luster tiles and majolica pieces were found, some of which still retained gold-painted decoration. The collected tiles were compared to the decoration of the Ak-Saray Palace and revealed many similarities: matching color palettes (blue, yellow, black, turquoise, green, white), as well as comparable forms and patterns in the majolica tiles.

It was also noted that the bricks used in the portal of the Ak-Saray Palace measured 26 x 26 x 4–5 cm and 25 x 25 x 5 cm. These initial attempts at comparative analysis allowed researchers to hypothesize the period during which the excavated building was in use. The clearing of the octagonal mausoleum revealed that the walls were preserved only in places, up to 10–20 cm high, with glazed facing. In the center of the room, there was no floor paving; however, beneath a layer of soil, the top of a well-preserved crypt dome was discovered. The crypt had a square shape, measuring 3 x 3.2 meters, and the floor level was laid with square baked bricks measuring 25 x 25 x 5 cm. The masonry was

executed in two horizontal rows, followed by herringbone brickwork ("yelochka" pattern), characteristic of vaults of the "Balkhi" type. Four semi-conical arches in the corners of the room converged, forming a central square measuring 26 x 26 cm.

Such a "Balkhi" vault covering is similar to the one used in the mausoleum of the Shah-i-Zinda ensemble, dated to the 14th century, as noted in the works of N.B. Nemtseva<sup>43</sup>. After clearing the crypt interior of soil, archaeologists discovered on the southern side a dromos (corridor), blocked with bricks and earth, measuring 90 cm in height and width, and 4.5 meters in length. The thickness of the crypt walls was 2.5 bricks.

In terms of brick dimensions and architectural decoration, the mausoleum finds analogies with monuments of the 14th century from the "middle" and "upper" groups of the Shah-i-Zinda ensemble, and the underground crypt of the Dorus-Saodat complex, which also feature Balkhi-type crypts not connected to the foundations of the mausoleums<sup>44</sup>.

During excavations of the octagonal mausoleum, remarkable examples of polychrome tile mosaic made from majolica pieces were discovered – commonly referred to in scholarly literature as "tile mosaic."

This type of mosaic is characteristic of the 1370s–1380s<sup>45</sup>, imparting to monumental buildings an impression of exceptional richness and grandeur. Earlier examples of majolica mosaic were known in the monuments of Konye-Urgench and in Azerbaijan – in mausoleums dating to 1322 in Barda and Karabaghlar, where majolica mosaic is presented in its most refined form<sup>46</sup>.

The Turabek-Khanum Mausoleum in Kunya-Urgench, dating to the first half of the 14th century, consists of a dodecagonal volume with a tall southern portal adorned with bright and colorful tile decoration. The Najm-ad-Din Kubra Mausoleum in the same region is known for its architectural decor, including majolica tiles and a stalactite (muqarnas) cornice on the portal<sup>47</sup>.

During this period, mausoleums often consisted of two domed chambers: the Gurkhana and the preceding Ziarathana, as seen in the mausoleums of Seyfeddin Bahorzi, Buyan Kuli Khan (13th–14th centuries) in Bukhara, Allaeddin in Khiva (14th century), Najm-ad-Din Kubra in Urgench, and others<sup>48</sup>.

A distinctive feature of the 14th century is the use of majolica tiles in decoration, including colors such as blue, white, manganese, and bluish-green. The tile patterns are primarily geometric, reflecting the architectural style of this period. In the last third of

<sup>43</sup> Nemtseva N.B. The Shah-i-Zinda Ensemble of the 11th–12th Centuries (Based on Archaeological Materials). Architecture of Uzbekistan. Vol. II. – Tashkent, 1970. – p. 164.

<sup>44</sup> Nemtseva N.B. The Shah-i-Zinda Ensemble of the 11th–12th Centuries (Based on Archaeological Materials). Architecture of Uzbekistan. Vol. II. – Tashkent, 1970. – p. 164; Bulatova V.A., Notkin I.I. The Mausoleum of Tuglu-Tekin (Emir Hussein). On the History of its Study. – p. 205.

<sup>45</sup> Denike B.P. Architectural Ornament of Central Asia. Moscow–Leningrad, 1939. – p. 148.

<sup>46</sup> Mamedzade. The Architectural Art of Azerbaijan (from Ancient Times to the 19th Century). Baku, Elm, 1983. – p. 99.

<sup>47</sup> Asanov A. Architectural Monuments of Medieval Khorezm. – Tashkent: Fan, 1971. – pp. 59–52.

<sup>48</sup> Borodina I.F. Features of the Formation of Memorial Structures in Central Asia from the 10th to 15th Centuries. Architectural Heritage, Vol. 22. Moscow: Stroyizdat, 1974. – pp. 119–124.

the 14th century, majolica tiles with diverse ornamentation and color combinations became widely used, as can be observed in the monuments of the Shakhi-Zinda<sup>49</sup> ensemble and on the portal of the Ak-Saray palace in Shahrizabz, where a cross-shaped floral motif is repeated within an ornamental border. The same motif was also used in mosaic compositions made of glazed bricks in blue and light blue colors in Timur's mausoleum Gur-e Amir and the famous Bibi Khanum Mosque in Samarkand<sup>50</sup>.

The research and excavations of memorial monuments are still ongoing. The data obtained so far require thorough analysis and systematization. Materials uncovered during the 1989 excavations of the mausoleum in the Dorut Tilovat complex should also be taken into account. These monuments, along with the recently discovered octagonal mausoleum in the rural area of Shahrizabz, testify to the widespread construction of funerary structures in the Kashkadarya Valley and the high level of craftsmanship in the production of facing materials.



**Graphic reconstruction of the portal with an overlaid plan of the Dorus-Saodat memorial and religious complex in Shahrizabz. Author: N. Gilmanova**

All the reviewed evidence of octagonal crypts from the Timurid era found in the city of Shahrizabz and its surroundings allows us to conclude their uniqueness in Central Asia. Architectural studies and archaeological excavations conducted in Shahrizabz and its vicinity have revealed a number of unique underground structures – octagonal crypts – dating to the Timurid period. A special place among them belongs to the octagonal crypt of Amir Temur, located within the Dorus Saodat complex. Its architectural form, structural solutions, and high-quality masonry point to the exceptional significance of this structure, intended for the burial of the great military leader and ruler.

<sup>49</sup> Nemtseva N.B., Schwab Yu.E. The Shah-i-Zinda Ensemble. – Tashkent, 1979. – p. 153.

<sup>50</sup> Pugachenkova G.A. Open-Air Museum. – Tashkent, 1981. – pp. 100–101, 108, 119.

Similar crypts in terms of layout, discovered in the northern part of the Dorut Tilovat complex, as well as in the surrounding areas of Shahrisabz, all date to the 14th century. Despite differences in decorative design, they demonstrate common structural and typological features characteristic of Timurid funerary architecture.

A key feature of these monuments lies in the independence of the crypt's construction from the above-ground part of the mausoleum. The underground burial chambers are generally not structurally connected to the foundations of the overlying buildings. This means that even in cases where the above-ground structures are completely destroyed – due to time, natural factors, or human activity – the crypts remain almost intact, as observed in the subterranean crypt of the Dorus Saodat complex.

The octagonal shape of the crypts is also a significant element – it symbolizes the idea of perfection and stability, reflecting the cosmological beliefs of the period. Additionally, such a layout demands high precision in construction and masonry skills, which testifies to the advanced architectural craftsmanship of the Timurid era.

Thus, the octagonal crypts of the Timurid period represent not only outstanding examples of architectural thought but also important historical and cultural monuments. Their unique construction, artistic decoration, and resistance to destruction make them invaluable objects for scientific research, restoration, and inclusion in the cultural and tourist routes of Central Asia.

The crypt in the Dorus Saodat complex is considered the most luxurious in Central Asia and the Muslim East, surpassing in its decoration the renowned burial sites of Shah-i-Zinda, Gur-e-Amir, Ishratkhana, Ak-Saray, and Bibi-Khanym.



**Graphic Reconstruction of the Dorus-Saodat Memorial and Religious Complex in Shakhrisabz Author: N. Gilmanova**

Based on the study of written and academic sources, as well as archaeological research by Kh.T. Sultanov, we have created a graphic reconstruction of the Dorus Saodat memorial and religious complex – an outstanding example of the Timurid Renaissance.

This visual reconstruction offers at least a glimpse into the grandeur of one of the largest sacred structures of Amir Timur's era.

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