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Architecture Of Amir Temur Period

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ABSTRACT: The direction of architecture before the time of Amir Temur and the stages of their formation in this period were considered. The main parts reveal the architecture of Amir Temur and its features. There is also talk about the architectural ideas formed on the basis of the genius of Amir Temur and their manifestation in architectural structures.

KEY WORDS: creativity; urban planning; saltanat; construction; historic city; the capital; complex; shahristan; rabot; castle; architecture

1. INTRODUCTION

A fair assessment of various aspects of Amir Temur's world-famous activity has been carried out at the initiative of the President since the early years of Uzbekistan's independence.

Amir Temur, who had accomplished the great task of liberating the country from feudal disintegration and civil war from the Mongols and other invaders, fulfilled his age-old dream of building a great and powerful state. Amir Temur, who created the world's first state constitution, established trade and postal relations, has done a remarkable job in the history of the world in the development of the cultural and spiritual level of the nation. After gaining independence, in 1996, at the UNESCO headquarters in Paris, a week dedicated to the 660th anniversary of Amir Temur was held.

In the country, by presidential decree, 1996 was declared the Year of Amir Temur, and many events were held. In this regard, many monuments built by Timur and the Timurids were also repaired and restored.

In assessing the high place of the period of Amir Temur in the history of world civilization, the creative work of his activities, including the huge contribution to the development of architecture and urban planning, is noteworthy. His achievements in these fields have always been recognized in the research of world scientists. The universal significance of the buildings built by Temur and his high architectural values were the main factors in the inclusion of the unique monuments of Shakhrisabz and Samarkand in the UNESCO World Heritage List. At the heart of these acknowledgments lies the radical changes in the field during the reign of Timur, the formation of a great architectural stage, a great historical period, built on new theoretical and practical architectural discoveries and embodied in the great buildings of the world architectural heritage.

Although in many cases a lot of space is given to the definition and description, and the personality of Timur is interpreted as the creator of memorable ideas, the analysis of these aspects from the point of view of architectural theory is rare. While the grandeur and grandeur of the buildings is glorified, their functional aspects, the social reasons for the architectural solution, have often gone unanswered.

Some of the results of the architectural-theoretical analysis of the buildings of Amir Temur are considered mainly in the context of the architecture of Ulugbek, Shohrukh and other Timurids. The basis for the consideration of the features of the architectural solutions of Timur's buildings is often associated with the work of architects brought from the outskirts of the kingdom. (Masson M.E., Pugachenkova G.A. [1], Masson M.E. [2], Mankovskaya L.Yu. [3], Pugachenkova G.A., Rempel L.I. [4] and others). The buildings headed by Timur himself were covered only by P.Zohidov in his works of the last years and they considered some architectural problems, analysis of definitions, as well as historical events [5, 6]. From the point of view of architectural theory and point of view, separate researches on the analysis of ideas and solutions, styles in Timur's constructions are not completely found in bibliographic sources.

To do this, it is necessary to study the practical and theoretical aspects of the architecture of the Timurid period, to identify differences by comparing them with the theoretical aspects of the architectural stage before the Timurid period, as well as to determine the role of these scientific laws in the development of architecture.

**II. THE HISTORY OF AMIR TEMUR ARCHITECTURE****A. Movarounnahr architecture in the early fourteenth century**

The peoples of Central Asia tried to preserve their spiritual and cultural riches in the late thirteenth and early fourteenth centuries, despite the terrible consequences of the Mongol rule. Even the Mongol khans and nobles settled under the influence of the high culture of the population and local spiritual processes and began to change under the influence of Islam and spirituality.

The rich culture, handicrafts, including architectural trends of the settled population also influenced them. From the second half of the thirteenth century, the activities and creative paths of folk masters and architects began to resume. Some Mongol khans who converted to Islam allowed the construction of madrasas and mausoleums in Movarounnahr, Khorasan. One of them is the mausoleum of Sayfiddin Boharzi, built in Bukhara at that time.

There is a change in the historical solution of the mausoleum of Sayfiddin Boharzi in relation to the single-domed rooms in the mausoleums of the XII century, the tomb and the shrines were divided into separate rooms, and the tomb took on a somewhat closed appearance. This shows that the architectural work of Bukhara masters has not stopped. Even in the roof section, innovations have been introduced and developed. From the beginning of the XIV century the work of local master architects passed to the next stage of architectural development. Since only mausoleums have survived from the pre-Timur period, only changes in the architectural style of this type of structure can be observed. Of course, it is known that during this period Kebek Khan built a palace near Nasaf. However, only archeological remains of civil and administrative buildings of this period have survived. Therefore, it has not yet been possible to identify architectural changes that have occurred in this type of construction.

From the structures built in the early fourteenth century, mainly according to the analysis of the mausoleums, it is possible to observe the appearance of perspective and honeycomb elements in the dome structures. It can be seen that the developmental aspects of construction techniques up to this period were reflected in the improvement of the dome-mount system. In addition to the traditional semi-dome-shaped ridges from the square to the dome-shaped circle, a system of transition was also created through perspective and nested, protruding ridges. The latter later evolved into the appearance of a muqarnas rudder.

The relatively small mausoleum of Buyonqulikhan in Bukhara, the mausoleum of Khoja Ahmad in Shahizinda, the mausoleum of Usta Ali Nasafi have been raised to the level of a magnificent architectural masterpiece due to their skillfully made vinegar. In Khorezm, the appearance of tiles on the vinegar table (majolica) developed. Like the sagan in the tomb of Qusam ibn Abbas in Shahizinda, the sagana of Said Aloviddin, made in 1303, is covered with delicate blue and blue majolica. Timurid architecture did not emerge spontaneously. In the architectural experience of the peoples of Central Asia, there was ample opportunity to lay the foundation for the great constructions of Timur. The various influences of history have not completely lost the architectural creativity of the people.

During the XII-XIV centuries, the architecture of Central Asia, despite the difficulties, developed to a certain extent. This rich experience was combined with the skill of architects, masters and craftsmen brought from other lands, and together rose to a higher level, during the late fourteenth and fifteenth centuries, associated with the activities of Timur in the architecture of Movarounnahr and Khorasan. As a result of this cooperation and the creative genius of Timur led to the discovery of advanced technology, new architectural methods for the implementation of new architectural ideas in the territory of the kingdom. This, in turn, marked a stage of radical change in the development of Oriental architecture.

B. Amir Temur's urban planning activity

In the thirteenth century, the development of Central Asian cities was hampered by the Mongol invasion, many of which were destroyed, some of which were exterminated or persecuted. On the eve of the Mongol invasion, the system of cities of Movarounnahr, according to Arab tourists, consisted of castles, arches, shahristans and rabats. The palace of the Ark ruler and the adjoining shahristans were a separate part surrounded by a thick wall, inhabited by ordinary citizens in the surrounding rabats. The system of cities, which had recovered somewhat from the Mongol invasion, did not have clear boundaries during this period, as the Mongol rulers demolished the ancient fortifications and did not allow it to be rebuilt.

With the seizure of power by Timur and the formation of a large centralized state, the art of urban planning in Central Asia was revived and further developed. During the reign of Timur, the reconstruction of the system of



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Samarkand and other cities of Movarounnahr gained an unprecedented scale. In this regard, first of all, the creation of strong fortifications, the creation of main streets, the construction of well-planned large complexes played an important role in the construction of the city. During the many years of marches, Timur also carried out creative activities in the areas where the army rested for some time. An example of this is the strengthening of the fortress of Karshi, the construction of the mausoleums of Zangiota and Khoja Ahmad Yassavi in the winter near Tashkent.

During the reign of Timur and the Timurids, the main part of the cities was formed in a system called "Gissar". This term differs from the term "Shahristan" of the pre-Mongol cities. "Gissar" is a system that completely covers the main facilities of the city, handicraft shops, neighborhoods, avenues and complexes, or appears in a completely new place. Although the fortifications of large and small cities were different, their importance and function were the same [10]. This feature of Timur's urban planning can be analyzed on the example of the cities of Shakhrisabz and Samarkand.

Amir Temur, a descendant of Barlos who lived in and around Shakhrisabz, carried out great creative work in his native Kesh. Amir Temur, who first saw Kesh-Shakhrisabz as the capital of the kingdom, also carried out urban planning activities here. According to the historian Hafizu Abro, the construction of the Gissar wall began in 1378 and was completed in one year, and thanks to the efforts of Timur, Shakhrisabz completed its urban planning system in a short time. City gates were built on four sides of a thick wall that surrounded the city area in a rectangular shape with a common history. According to reports, when Timur captured Herat, the city's iron gates were brought to Shakhrisabz and installed.

According to one of Timur's historians, he moved the capital to Samarkand, which was "a very beautiful, heavenly place." With unique steppes, beautiful trees, charming buildings, beautiful rivers and streams, this unique city and other cities and villages envied the city as the center of government, built castles and fortresses, magnificent buildings and magnificent palaces. [11].

De Clavijo Rui Gonzalez, the Spanish ambassador to Timur, wrote in his analytical diary as a representative of the European Renaissance that he was impressed by the creative work in Samarkand: "Samarkand is flat and surrounded by a wall and a very deep ditch. It is (surrounded by a city wall) "the interior is slightly larger than the city of Seville (Spain), and around the city there are many residential buildings, which are approached from all sides. The whole city is surrounded by orchards and vineyards. In the heart of the city gardens, in the heart of these gardens are the streets, there are squares, where the population lives a lot, bread, meat and many other things are sold. The back of the old wall (relative to the city itself) is denser. There are huge and famous buildings in these parks outside the city. Many irrigation canals have been built through the city to the gardens." [12]

Timur formed Samarkand south of Afrosiyab, on the site of a pre-Mongol outlying city. In 1371, by order of Timur, the whole area was surrounded by a castle wall and a trench, and the place was now called a fortress, and in the western part of it a thick-walled arch-fort was built. It is said that at one time the Samarkand fortress was a luxurious decoration of even the guardhouse.

III. AMIR TEMUR AND ARCHITECTURE

A. Definition of architectural ideas of Amir Temur period

The first direction of Amir Temur's creative work after his accession to the throne of Movarounnahr was to create strong fortification qualities in the system of cities. The city, which embodies the spiritual and economic potential of the kingdom, was a priority goal to implement the idea of architecture and urban planning, aimed at the protection of settlements, the creation of peaceful, protected caravan routes for trade throughout the country. Therefore, along with the strengthening of the state system, he carried out a very large-scale construction work to provide each city with means of protection, to create protective fortifications on caravan routes.

The walls of Shahrisabz, Karshi, Samarkand, Tashkent were built with fortifications and gates. He was the first in the world to build postal service stations on caravan routes. Amir Temur used all his might to achieve another great urban and architectural idea, the goal of making the new Dorussaltana-capital Samarkand the largest and most beautiful city on earth. The settlements around this city were intended to become satellite cities similar to the famous cities of that time. Therefore, it was not in vain that there were villages around Samarkand called Cairo, Damascus, Baghdad, Sultaniya, Sheroz.

The idea of creating a group of buildings in the form of complexes in the cities, that is, the creation of complexes of buildings that require complex functions, also became the subject of Timur's creative efforts. Because the implementation of such a practice depends only on the strength of the state system, which has a large economic base.



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This is reflected in the architectural design of the facilities in Samarkand and Shakhrisabz. The buildings of these complexes were built on a very large scale for that period in a complex and very rich architectural and decorative style. Amir Temur's creative activity was dominated by Islamic philosophy, good deeds for the hereafter, and the idea of building mausoleums for human beings after death. After the death of his beloved son Jahangir, the idea arose to build a large necropolis in Shakhrisabz, where his descendants would be buried.

It is the fact that every administrative and religious building built on the basis of the architectural ideas put forward by Amir Temur has a very monumental appearance. To do this, architects are faced with the task of solving extremely complex architectural and structural solutions. One of them is the Oqsaroy in Shakhrisabz. This huge palace with a porch spacing of 22 meters was an unprecedented event in Movarounnahr architecture. The Mosque (Bibihanim Mosque) in Samarkand, which houses 10,000 worshipers at a time, is also a product of Temur's architectural idea. In the creative activity of Amir Temur, the creation of a paradise garden in and around the city and the construction of huge mansions in them became a huge stage in the art of gardening in the East. In contrast to the art of park-gardening, which is created in the conditions of the European climate, the practice of creating beautiful gardens in an irrigated, dry hot zone in a sharply continental climate requires great skill.

Before the construction of each structure, Amir Temur gave strict instructions to the architects and architects on its main planning directions and strictly controlled the construction. In this regard, Amir Temur's charter states: "... I ordered to build mosques, madrasas, khanaqas, caravanserais on the roads and bridges over the rivers. The engineers (architects) drew the sketches of the magnificent buildings for me and the gardens where I planted trees for myself." [5] This is an indication that each work was originally a carefully crafted project. The architectural ideas realized by Amir Temur were the basis of each of his magnificent constructions, and the high skill of engineers, architects, masters, and hard work of the workers were incomparable in their implementation.

B. Architectural and structural system of Amir Temur's buildings

Although the monumental architecture of the Timurid period preserved and improved a number of methods of the past centuries, this period was able to create a variety of new architectural forms and devices, arising from the unique artistic and spiritual foundations. Hundreds of variants of the leading architectural volume roof itself, known from previous centuries, have been developed. Even in ordinary buildings, this architectural dimension is different from others.

Amir Temur laid the foundation for the very high, majestic luxury of the roof element. The majestic appearance and grandeur of the roof of the Shahrisabz Oqsaroy shows that the planned, structural solutions of the architectural element of this palace are very different from the past. The arched groove in the roof creates an awning-like architectural dimension depending on how deep it is from the style level. Depending on the size, shape and function of arched porches can be determined. In the architecture of Amir Temur, the awning consists of a half-room in harmony with the top, bottom rectangular or polygonal shape of the arch as an arched groove inside the P-shaped framed roof: that is, the presence of three wall surfaces is mandatory.

Of course, the concept of a roof awning is not understood in conjunction with the wooden rooms with wooden columns, which became widespread in later times.

The arched arched porches within the rectangular styles of the glorious entrance roofs of caravanserais, rabats, mosques, and madrasas mainly formed the entrance part of the monumental structures. Their two sides are decorated with a zodiac-flower, half-columns, and are lavishly decorated with colors and decorative shapes. The side towers of the roof itself have been transformed into a magnificent architectural dimension. The use of towers as an architectural dimension was widely developed in Timurid architecture. Their various shapes and decorations were invented on the castle walls, gates, roofs, and corners of buildings.

Another feature of Amir Temur's buildings is the new structural and architectural directions in the creation of the dome system. The issue of creating domes is one of the responsible engineering tasks facing the architects of huge structures. In Timur's early constructions, the system of domes was based on earlier devices, but their range of edges was widened, while the dome traditionally passed from a rectangular base to an eight-sided device through arched arches, and the top was covered with domes of various shapes. Probably due to the participation of Khorezm masters, the outer dome of the Jahongir mausoleum, located in the Dorus-Saodat complex in Shakhrisabz, has a tent-like vertical appearance. Double-story domes existed before, but by the time of Timur, the height of the pedestal structure, which supported the outer dome, which rested on arched ribs from the inside, was sharply increased.

The enormity of Timur's constructions led to the creation of new structural solutions and the development of traditional ones. About this P. Zahidov's opinion is noteworthy: "The traditional apex dome, built on angular arches, is



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not suitable for large spaces. The following steps of transition to the dome were then created: they were initially a shield-like sail between the corner arches and the arches, creating additional support points for the dome.

The first appearance of this new system was seen in the dome of the tomb of Khoja Ahmad Yassavi in Turkestan (1398). A clear example of this idea can be seen in the Chophonota building, built in the late fourteenth century. The four arches of the equilateral chambers intersect to form a spatial shell in which the force acting vertically on a large part of the walls is uniformly distributed and relieves pressure”[5]. An advanced version of this solution was later used in the Ishratkhana and the Samarkand Oqsaroy. The use of domed coverings in the construction of multi-room palaces, the gaps in the range of thick tiles also have different solutions in the buildings of Timur, and most importantly - the architectural ideas and systems created in the restoration of magnificent buildings. In general, the XV century was a period of creation of architectural works, which were highly rationally resolved as a result of improving the architectural heritage of Timur.

IV.CONCLUSION

The architecture of the late fourteenth and fifteenth centuries was the brightest page in world culture. As a result of the work of Timur and the Timurids, the result of the synthesis of new revived directions of ancient architectural traditions were the world-famous architectural discoveries of Central Asian architecture, which marked a higher stage of world civilization. It is no coincidence that the architectural samples of this period are an important factor in the study of the stages of development of Central Asian civilization by UNESCO experts.

The culture formed and highly developed during this period served the spiritual unification of the various peoples that were part of the state of Timur, because the great cultural values embodied in them are understandable and close to all peoples. The high product of this culture are architectural structures, which stem from the spiritual, cultural, social and everyday needs of the peoples of the East. “Architecture of Timurid period”, “Architecture of Temurids”; Although the concept of "art of the Timurid period" has already entered the history of world architecture and art, each study reveals various new aspects of the Timurid period and Timurid architecture.

A fair assessment of Timur's personality and activities has become the main criterion of scientific research since the independence of Uzbekistan. Although many studies have been done on the development of architecture in this period, the role of Timur himself in the development of the industry, its high level, his strict instructions on the organization and implementation of creative work, the main customer of memorials, the author of the main idea in their solution. hit. This determines the novelty of this topic to a certain extent. Therefore, the first stage in the formation of the concept of "Temur and the architecture of the Temurids" was considered on the example of the monumental structures in which Amir Temur was directly involved in this area in one way or another and personally belonged to him.

Amir Temur's creative activity in Movarounnahr also brought about unique changes in medieval urban planning. The structure of cities in the system of Shahristan, Rabot, fortress and strict feudal division took on a new look at the end of the XIV century as a result of strong state protection, economic growth. In the idea of urban planning, Amir Temur, together with the rabot of the city fortress, was surrounded by a thick wall and turned into a strong fortress in the concept of "Gissar". That is, the urban area, which has a large area, has also been completely surrounded by walls and ditches since that time. Studies have shown that the walls built by Timur in the major cities of the kingdom - Shahrisabz, Samarkand, Herat, Tashkent, Karshi - surrounded the city walls [13].

Afrosiab - ancient Shahristan is in ruins. However, some of the ancient medieval structures preserved here were in the attention of Timur. Shahizinda, Hazrati Hizr, Chophonota complexes are among them. Merv was rebuilt 4 km from the Seljuk city. Timur's period In Samarkand and Shakhrisabz one can observe his innovations in urban planning. The cities of Timur were topographically composed of Gissar (the main city center surrounded by a wall) and the surrounding villages (districts).

Sometimes a fortress was built in the territory of Gissar, which was turned into a stronghold. In this fortress there was a palace, a governor's office, a garrison, a mint, and a prison. Some of these fortresses already existed, for example, the fortress of Ikhtiyoriddin in Herat, and in Samarkand in 1371 Temur built specifically for the hill in the western part of the city. In Shahrisabz and Merv, such a fortress did not exist at all. The city itself was fortified by Timur as a fortress.

The foundation of the Registan complex was laid in front of the castle built by Timur. Among them are complexes consisting of a huge madrasah, located in front of the Bibikhanum mosque and in the style of "double construction". Outside the city fortress, the complex, later renamed Gori Amir, and the construction of the Shahizinda complex on the Afrosiyab hills also demonstrate the direction of the 15th century Timurid urban planning.



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The outer protective walls of the fort were mostly made of raw brick and straw, but the top was much wider. This is evidenced by the fact that Babur rode on horseback along the top of the Samarkand wall. The circular towers were the main part of the fortification of the city wall, and there were many of them, for example, 149 such fortification towers were built on the wall of Herat and 50 on the wall of Marv. Starting from the city's fortified gates and leading to the mansions outside the city, the streets were turned into alleys.

The art of memorial decoration also developed in the buildings of Amir Temur. The task of coating enormous surfaces, surfaces and vinegar in a short period of time has forced tile-makers to solve complex problems in front of master-architects, calligraphers. This in turn created a peculiar division of labor during the construction process. Depending on the specialization of construction, the professional qualifications are clearly distinguished: bricklayer-wall, roof and dome bricklayer, plasterer, painter, stonemasons are masters of memorial decoration.

One of the most important tasks for today's architects and builders is to identify and implement ways to use the rich heritage of modern Uzbekistan, which embodies the architectural ideas created by the genius of the master. In this regard, the architectural solutions in the buildings of independence, built in the architectural traditions of the Timurid period, such as the Museum of Timurid Statehood in Tashkent, the Imam Bukhari Complex near Samarkand, are a serious attempt to fulfill this task.

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