



Technical Condition of the "Jahongir Mirza Mumble" in the City of Shahrissabz

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Abstract: It is a natural process for any building and structure to lose balance in its service activity over time. This is caused by the influence of several external and internal factors. Therefore, inspection and repair works are carried out on buildings and structures. This article describes the technical condition of "Jahongir Mirza Mausoleum" in the city of Shahrissabz and the conclusions drawn from it.

Key words: Technical, constructive, architectural, project, reconstruction, interior, mausoleum, functional, structures, visual, technological.

The purpose of the comprehensive inspection of the technical condition of buildings and structures is to determine the actual technical condition of buildings and structures and their elements, taking into account the changes that occur over time, capital repair, reconstruction, changing technological and functional goals . Consists of determining the content and scope of work and evaluating the actual quality indicators. In the comprehensive inspection of the technical condition of buildings and structures, there should be sufficient information for the project of capital repair or reconstruction of the object, and the tasks of the monitoring and inspection work should be reflected in the technical assignment.

Inspection of the technical condition of buildings and structures should be carried out in three stages:

- preparation for inspection;
- preliminary (visual) inspection;
- Detailed (instrumental) examination.

Preparatory works for checking the technical condition of buildings and structures. The purpose of conducting preparatory work for checking the technical condition of buildings and structures is to get acquainted with the object, its size-planning and structural solution, engineering-geological exploration materials, collecting and analyzing design and technical documents, agreeing on the technical assignment with the customer. Creation of a work program.

Preliminary (visual) inspection. The main task of the preliminary inspection of buildings and structures is to collect available data , determine the general condition of construction structures, and determine the scope and scope of work for detailed inspection. The purpose of the preliminary inspection of buildings and structures is to identify individual constructions and sections that are in a state of emergency and need to be temporarily strengthened.

Detailed (instrumental) examination. A detailed inspection is one of the main components of object diagnostics and is conducted in order to collect final data for assessing the technical condition of building structures . The obtained information is the basis for choosing constructive solutions in the reconstruction of buildings and structures. Detailed inspection (on the basis of the issues) can be carried out on a complex (complete) or selective basis, depending on the availability and completeness of design and technical documents, their description, level of defects and



damage. When defects are found that reduce the load-bearing capacity of construction structures or in the absence of design documents, when the materials of the same type of constructions have different properties, when the materials are under aggressive influences, and during the operation of buildings and structures in other cases a full inspection is carried out even in cases of adverse conditions. During the comprehensive (complete) inspection of the technical condition of constructions of buildings and structures, if the technical condition of the constructions of the same type, the total number of which is more than 20 and not less than 20 percent, is found to be satisfactory, untested constructions can be inspected on a selective basis. In cases where it is not possible to fully inspect constructions in extremely dangerous places that are inconvenient for operation, inspection is carried out on a selective basis.

Longevity, load-bearing capacity, and strength of monuments mainly depend on the condition of the structure. According to the sources, there were more than 40,000 architectural and historical monuments in the territory of Uzbekistan at the beginning of the 20th century. Now their number has decreased to 7 thousand.

Comprehensive scientific and technical plan for the engineering analysis of architectural monuments created by the specialists of the Department of "Construction Mechanics and Earthquake Resistance of Structures" was developed at the Tashkent Institute of Architecture and Construction, and scientific research work was started. For example, in the city of Shahrisabz, we can mention the Aksaroy arch built during the reign of Amir Temur and the Timurids, Kokgumbaz mosque, Gumbazi Saidon and Sheikh Shamsiddin Kulol mausoleums, Jahangir Mirza mausoleum, Hazrat Imam mosque, Malik Ashtar and Kunduzak mosques and others. During the period of Timur and Timurids, the complex construction of cities with ensembles was widespread. This is also evident in Shahrisabz. We will get acquainted with the technical condition of "Jahongir Mirza mausoleum" in the city of Shahrisabz. While choosing the appropriate task for the building and starting work, we try to use zoning with the help of light fences, furniture and equipment from non-constructive elements, following the idea of "maintaining the building as much as possible", changing the existing structural condition less. In addition to planning according to a certain process and technological scheme, the main result is a clear perception of historically formed planning. As a result of a comprehensive approach to the engineering problems of this monument, its technical conditions were determined, the physical and mechanical properties of the ground, the state of materials, the study of man-made effects in structures with an instrumental method, and the construction solutions for strengthening, taking into account the effects of static and seismic forces, were created. Scientists from foreign universities were also involved in this research at the initiative of the institute. Collaborative work showed the need to get help from foreign experts in preserving and appreciating historical monuments. But the foreigners, as mature specialists, interpret the finer points of our architectural art in their own way. Therefore, opinions about Eastern architecture are often not true. In addition, it is necessary to take into account the fact that our region is in a high seismic zone, and the peculiarity related to the sedimentation of soils. Therefore, it is very useful for local scientists to study the history, construction, and architecture of monuments in depth. It is impossible to create a restoration and repair structure without a thorough analysis of the structure of each structure, without determining its technical condition, without fully calculating the static and dynamic forces. That is why it is very important to immediately predict the internal state of the monuments in our country, what kind of "disease" appears in the structure, as well as save them as a result of engineering analysis, determination of their technical condition and observation with scientific instruments. Young talented students of my institute are widely involved in these works; they are preparing bachelor's qualification graduation theses, master's theses and candidate's theses in postgraduate studies.



Of art is the image of the past preserved as long as in architecture. Unlike other forms of art, the impact of architectural works is permanent, and they are only as durable as the materials used in them. These works raise the pride of their contemporaries, delight the future generation, show the achievements of the era and include aesthetic aspects of high artistic value. The architectural monuments of Uzbekistan were created at the beginning of the development of human society, they were created due to the need to satisfy the practical demands and needs of mankind, they are a symbol of the age-old culture of the people, they are a treasure of the experience of architects, and they are an expression of the talent of masters.

Preservation of the identity of historically formed settlements is one of the main problems of humanity. There was a risk of losing the architectural appearance of the center of many historical cities. The use of architectural monuments is of great importance in solving this problem. The long life of a historical-architectural building largely depends on its proper use. Today, one of the urgent socio-economic and artistic problems of modern urban planning for the architects of Uzbekistan is the preservation of the historical-architectural heritage and its use for modern purposes. This reconstruction does not consist in physically preserving only some parts of the historical building or architectural monument, but in achieving modern life that can meet all the social, technical, sanitary-hygiene and aesthetic requirements of the place being reconstructed. An architectural monument that fails to fulfill its function begins to physically decay. Wise use of the monument ensures the long-term preservation of the historical district and city, the uniqueness and uniqueness of our cities. The questions that make up this difficult problem include the organization of the entire spatial environment of a large-scale city, the practical use of monuments, and the organization of their surrounding beautification. It is not only a matter of using an architectural monument as an architectural exhibit and a museum (exposition and museology are sufficiently covered in the special literature, and a lot of experience has been accumulated in the design of such places), but also of a certain set of architectural monuments. It is being used for religious, touristic and other purposes. The interest in architectural monuments by so many specialists and many strata of the population is natural not only from the point of view of preservation of culture, but also from the point of view of general urbanization (the process of increasing the role of cities in the development of society). The use of architectural monuments, their integration into the living system of the modern city, in addition to the listed aspects of the problem, restoration of buildings and engineering networks of great economic importance, even when adding expensive repair works, will certainly be cheaper than new construction. The other side of the matter is the high aesthetic qualities characteristic of architectural monuments, their elegance, scale, and importance for deep knowledge that attract people. Naturally, the development of life with particular intensity is observed precisely in the areas where architectural monuments are concentrated in one place. Buildings and monuments are very well preserved and can be adapted for successful use at the same time, bringing good income to the state due to the development of domestic tourism and foreign tourism. These are the most common aspects of the problem.

Functional task - the compatibility of the original and new functions of the memorial buildings and the adaptation of the architectural monuments of Uzbekistan to use, the selection of modern institutions that can be used as a basis in the project proposals and suitable for them and these schemes can fully justify themselves. For example, most architectural monuments in Uzbekistan belong to the XVI-XVIII centuries. Each building type has a plan structure that corresponds to its function. To maintain it, it is necessary to introduce new functional processes that are compatible with the task.

Interior matters. The main requirement for adaptation for use is the maximum preservation of the architecture of the monument, in addition to the physical preservation of the building



(construction, planning), it requires the preservation of its artistic image, exterior and interior. As shown by the analysis of the interiors of architectural monuments used for different purposes, the interior can be divided into two main groups according to the nature of the solution:

I. Historically reliable reconstruction of the interior of a certain historical period. This method is characteristic for the interiors of historical-ethnographic museums (house- museums, palace - museums, memorial museums, etc.) and requires the use of original daily life equipment of a certain historical period;

II. The modern solution of the historically formed interior. The modern approach to the solution of the interiors of architectural monuments adapted to use has two types: As the research of this direction in the design of such interiors shows, in-depth analysis of the compositional and plastic-line features of the interior in a given situation and the constructive style, decorative the choice of forms requires the use of the main form-forming elements of a specific architectural monument.

Most important requirements in the development of the master plan, architectural plan solution, interiors, furniture and equipment are as follows:

1. To preserve as much as possible all the valuable historical layers of the architectural monument.
2. Individual approach to adapting each specific monument for use.
3. To study the history of the creation of the monument, to determine its initial purpose and function, which was more architecturally and artistically characteristic of the building during its development.
4. Convergence of historically formed and new functions.
5. To study the characteristics of the architectural, plan and decorative solution of the monument (tectonic system, characteristic aspects of the particular school of architecture to which the building belongs, primary and secondary plan, composite construction styles, core and main axes, rhythmic structure, regular description).
6. Identifying and distinguishing the specific features of an architectural monument when designing for adaptation for modern purposes.
7. Economic justification of adaptation to use.
8. Creating a high level of comfort in all rooms being adapted, using modern styles in interior design, ease of operation, comfortable functional zoning.
9. regionality in the solution of the interior and its thematic organization.
10. Complexity in a holistic solution.

In conclusion, we can say that we will have to carry out inspection work on our historical monuments, define and analyze their technical condition and give a constructive solution. This, in turn, increases the service life of historical monuments and mausoleums and serves as a national treasure of our country for many years.

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