Directions for Restoration of Architectural Monuments

Narkulov O.O

Doctoral student Of Samarkand State Architectural and Civil Engineering Institute (Uzbekistan)

ABSTRACT

The article explains the main directions for the restoration and reconstruction of architectural monuments. The experience of local masters in the restoration of monuments in Uzbekistan and Russian scientists who have contributed to the methodology of restoration of architectural monuments is highlighted.

Keywords: Conservation, restoration, reconstruction, anastylosis, filling, pillar, drawing, partial, foundation, ceramics, analyst, repair.

Introduction. Thanks to our independence, on the initiative of the leadership of the Republic, the architectural monuments existing in the historical cities of our country are preserved in the whole case, they are repaired, restored, conserved and used effectively for modern needs in order to deliver them to future generations, a number of urgent and noble works, such as adapting them to these needs, improving their environment, as well as setting and maintaining defense zones, are being carried out, respectively, by finding their solutions. Speaking about this, it is worth remembering the Registan Square, the mausoleum of Guri-Amir, the Bibikhanum mosque and the Shahi-Zinda shrines in Samarkand, ancient monuments such as the Minorai Kalon, Ark, Chor Minor, Ismail Somoni in Bukhara, the Hudoyorkhan Palace in Kokand, the Pir-Siddiq Complex in Margilan and dozens, even hundreds similar architectural works which were made in prosperous and attractive ways.

Purpose of writing the article. Scientific analysis and generalization on the basis of practical examples and special literature conducted in the republic, scientific research in the field of popularization and restoration of the cultural heritage that has been built in our cities and reached to us by studying medieval architectural monuments.

The main part. RESTORATION - to restore something, to make it look like or closer to the original; to restorate, improve, and render valuable works of art and material cultural monuments of a certain value. In architecture, restoration is the process of partial or complete restoration of historical buildings, in the broadest sense, the process of reconstruction of a historic building or complex. In terms of scope, restorations can be partial or complete. According to modern renovation theory, the purpose of renovation is to take measures to preserve the ancient original appearance of a historic building from future demolition.

Restoration is divided into synthetic and analytical methods. Restoration of an architectural monument in its original state is synthetic restoration, and suspension of original parts from demolition is analytical (archeological) restoration. The style of restoration has a long history. Despite the fact that the ancient monuments of Uzbekistan are well-built, durable and perfect, over time, their

charm and beauty have gradually faded. In recent years, large-scale restoration work has been carried out at all cultural monuments and buildings in Uzbekistan. In order to achieve successful restoration it was required from experienced and skilled craftsmen (Master Shirin Murodov, Toshpolat Arslonkulov, Shamsiddin Gafurov, Kuli Jalilov, Abdulla Boltaev, Mahmud Usmanov, Saidmahmud Norkoziev, etc.) to use the rules of restoration appropriately and skillfully as they could positively develop their works [II.1].

After gaining independence, the Republic of Uzbekistan turned to the whole world. As in all areas, there is an opportunity to exchange international experience in the construction, reconstruction and restoration of buildings and structures.

Historical monuments located on the territory of Uzbekistan began to attract not only foreign tourists, but also specialists. Many institutions and individual experts in this field offer an exchange of experience in the restoration and conservation of our historical monuments. It is known that the restoration of architectural monuments is a complex problem that requires a comprehensive approach, which requires the integration of advanced foreign groups in this area.

It will be useful to study the rich experience of Arab countries, China, Indochina and India, Italy and Greece, which are the cradles of world civilization, and later developed European countries, Russia and other countries in the field of restoration and conservation of historical monuments.

It should be noted that in developed countries such as Germany, Italy, France, England and Japan effective methods of restoration and conservation of architectural monuments have been developed. The necessary equipment, machines and mechanisms, various devices have been created to carry out this work. Methods have been developed to inspect the materials and structures of monuments without damage using ultrasound, laser light and other physical means. They have the ability to study the structure of monument materials by electron microscopy, computed tomography, X-ray phase analysis, differential thermoanalysis and other methods, which are the most advanced physicochemical methods.

Another major problem in the field of restoration is the creation of ways to preserve the archeological monuments made of clay, which are being opened in the territory of the republic, and thus turn them into open-air museums. It is known that there are 5391 archeological monuments in the regions of the republic [II.2].

Architectural, artistic and archeological renovations differ from each other and are mainly divided into the following groups [I.3,18-p.]:

1. Restoration of archeological finds. The masters who do this work mostly work in large museums. For example, in order to show the public the original appearance of pottery made of clay, found in ancient underground monuments, archaeologists, historians and restorationmen say that the find belongs to which century, what clay, in what style it was made, what it served, what it looked like and after consulting with others and coming to a definite conclusion, a restoration master is commissioned to reconstruct and restore the missing parts of this pottery or vessel by assembling the broken pieces of this pottery. Once the master has worked and prepared according to the project, the find will be exhibited.

2. Restoration of historical monuments (works of art and architectural monuments) is the most complex work. Its main goal is to prolong the life of the monument in a positive way and preserve it for future generations.

Restoration works applied to architectural monuments are divided into five types: repairing; conservation; restoration and repairing works; opening and filling.

Repairings are simple construction work. Research is conducted to identify the parts that need to be stored. Often, repairings are also added during the restoration: opening the previous parts, restoring some parts, and so on.

Conservation is carried out in order to preserve the monuments and pass them on to future generations.

At the same time, there are two types of conservation:

1) The first round is done so as not to spoil quickly. For example: installing a pillar, covering the top, etc. This is also called engineering restoration;

2) The more complex the work, the longer the negative factors that affect the monument will be eliminated. For example: strengthening the foundation and foundations, increasing the strength and durability of structures, installation of ties, etc.

Another important type of conservation is the freezing of ruins. Ruins are buildings that have been destroyed since ancient times. The ruins are also a monument. They are discovered through archeological excavations. This gives it a special historicity. But at the same time, the ruins will have to be restorationed. This work is done in two ways: 1- anastilosis - that is, to replace the displaced and dispersed fragments; 2- It is done by laying stones in place of the lost walls and columns, using the elements of beautification.

Restorations include conservation and restoration. Often only fully approved parts are restored without a doubt. Such restoration is called partial (or fragmentary) restoration. There are two processes, such as conservation: the opening of the monument and the restoration of damaged parts.

The opening will only be opened if it is recognized in the discussion that the layer to be removed is of low value and vice versa that the layer to be removed has a large value. If there is a possibility that the work will damage the strength of the monument, the layer will not be opened. It is necessary to ensure the safety of exposed parts. The destruction (restructuring) of old objects must also be considered.

Filling is the restoration of lost parts. Signage is used to distinguish new items used for filling from existing ones. Separating new additions by color and texture comes in handy in archaeological monuments. Not all parts, but important new additions are highlighted in signage. Parts that remain under plaster or coating are not separated.

The types of restoration of our historical monuments are diverse, and knowing each of them perfectly, a positive change will serve to increase the quality and efficiency of work. In order to restore monuments that have been demolished for various reasons, the foundations of the building must first be carefully studied archeologically. Then its architectural structure, the condition of the arch, the dome, the roof and other structures, the exterior decorations from marble to tiles and tiles, as well as the interior plastering, painting, gold blindness, quality, structure, color, stylistic aspects will be investigated. The master restorationman must also know whether the building will be able to carry the load on the ancient foundation in the future. Finally, the history of the building, when it was built by whom, for what purpose, and its place in the history of our culture are also studied. Once enough information is collected, the architect-engineer, designer-restorationer will be able to jointly design and estimate, and then begin the restoration of the monument.

It should be noted that the theoretical basis of the scientific method of restorationing architectural monuments of Uzbekistan was studied by a well-known scientist, architect B. N. Zasipkin. His many years of observations and practical experience have been reflected in a number of scientific publications. In 1928, in the collection "Problems of restoration" the main ideas of the scientist on the architectural and archeological method of studying cultural monuments were stated. According to B.N. Zasipkin, the architectural-archaeological method of research should be carried out in the following stages [I.5; p. 54]:

- research divided into measurement, graphic, photographic and descriptive sections;
- technological and technical research, study of constructions, architectural forms and decorations;
- to determine the original appearance of the monument with the use of historical material and archeological data, and finally to restore and repairing the monument.

The idea and practice of restoration was gradually enriched by the efforts of many specialists, and as a result it became possible to solve complex engineering-constructive and architectural problems related to architectural monuments. In the early days of organizing the renovation of architectural monuments, there was a whole group of talented professionals. The original initiators and fighters for the protection of cultural monuments have spent a lot of energy and knowledge in identifying, studying, restorationing architectural monuments in Uzbekistan, including Samarkand. These works were attended by great scientists, architects, engineers: V. V. Bartold, M. S. Andreev, M. V. Vyatkin, B. M. Denike, B. N. Zasipkin, I. I. Umnyakov and etc. Later, the range of these expanded, and many new generations of specialists became the leading scientists of the republic: academicians M. E. Masson, G. A. Pugachenkova, Ya. Gulomov, doctors of sciences L. N. Voronin, V. A. Shishkin, L. I. Rempel, V. A. Nielsen, P.Sh.Zoxidov, I.I. Notkin, K.S. Kryukov, L.Yu. Mankovskaya, Sh.D.Askarov, A.S.Uralov, M.K.Akhmedov; candidates of sciences: I. Pletnev, V. Filimonov, Yu.Shvab, N.B.Nemtseva and other architects were directly involved in the study and restoration of many architectural monuments [I.4, p. 51].

Conclusion. From the above data, we can see that the formation of the foundations for the restoration of architectural monuments and scientific-theoretical and practical work in this area has come a long way and developed to us on the basis of heated debates and negotiations.

All the work being done today is aimed at ensuring the eternity of ancient cities. The task now is to study this theory and practice, the traditional methods and rules of restoration of monuments, to enrich, develop and improve them with modern innovative practices. Because our architectural monuments should be in the spotlight of future pilgrims and tourists.

References:

1. Zohidov P. The art of architecture. -Tashkent, 1978.
2. Haqqulov A. The art of repair. -Tashkent, 1991.
3. Pulatov H., Urolov A. Repair and reconstruction of architectural monuments. -Tashkent, 2007.
4. Uralov A.S., Haqqulov A.G., Abduraimov Sh.M. Principles of repair and restoration of architectural monuments. Monograph. -Samarkand, 2020.
5. Zasypkin B.N. Pamyatniki arkhitektury Sredney Azii i ix restavratsiya // Voprosy restavratsii. Sb.TsGRM.M., 1926.

Internet resources:

1. https://qomus.info/encyclopedia/cat-t/tamirlash-uz/
2. https://shosh.uz/toshkent-2200-qadimgi-choch-yodgorliklarida-olib-borilgan kimyoviytehnologik-va-tamirlash-ishlari-tahlili/