Experience in architectural renovation of the cultural objects and the monuments of historical heritage

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Abstract. The article explores the phenomenon of the architectural structures’ renovation, which are the objects of cultural and historical heritage. The renovation concept of an architectural monument located on the Black Sea coast of the Krasnodar Territory in the Russian Federation is given. An art history analysis of the artistic, compositional and stylistic features of the object’s architecture is carried out in the context of its belonging to the type of a country estate of the late XIX - early XX centuries. The design solution of the interiors, exteriors of the building and the surrounding area is presented. A historical reference is given on the building operation from the time of its construction until the decision on the need for renovation. The article describes the condition of the object before renovation, as well as those changes that have been made to the appearance of the building and its planning structure, which made it possible to give it the elite suburban housing function. The conclusion is made about the cultural significance and economic efficiency of the historical heritage objects’ renovation in the context of the tourist infrastructure development in the region.

Introduction. Renovation features of the objects of cultural and historical heritage

When renovating the existing architectural structures, one of the most important tasks is to determine the degree and nature of changes introduced into the historical environment. When solving this problem, the main factor is the belonging of the transformation object to cultural and historical heritage. The objects of cultural and historical heritage are understood as all material evidence of the civilization development that arose at a certain historical stage. These may include the architectural structures for various purposes, works of fine and applied art, household items and equipment, etc. [1]

Significant experience in legislative activity has been accumulated in the world legal practice, which regulates the approaches and special requirements for the implementation and acceptance of the design work to preserve the monuments of architectural heritage. They are required regardless of whether the objects are owned by a frequent owner, organization or state. In the context of these requirements, a number of conditions and restrictions are dictated when renovating the cultural heritage sites [2].

These conditions are not the same for different types of renovation facilities. If the building is of particular interest from the point of view of world or regional culture, there is a need to preserve not only the historically established external appearance, but also the space-planning structure of the architectural structure. In this case, the structural design of the building remains unchanged, only a minor replacement of non-bearing elements of the building structure and the installation of the new engineering and technical support systems are allowed. With significant wear of the supporting
structures, their reconstruction or partial replacement with similar, but improving the reliability and safety parameters of the building is allowed.

As a rule, the object is assigned a memorial function in this embodiment and it serves as a museum space for cultural, educational and scientific purposes [4, 5]. More often, when renovating structures and territories, the designers are faced with another task when it becomes possible and necessary to give a historical object a new function and turn them into social, cultural and residential buildings.

In this case, the renovation of monuments of cultural and historical heritage uses fundamentally different approaches. Changing the initial function of the structure implies a significant change in the structural design of the building. At the same time, not only the space-planning scheme changes, but also the structural parameters, usable area, additional parts and elements, etc. In this situation, partial replacement of the building structures’ elements, often even supporting ones, is permissible. And only one goal remains unchanged - the careful preservation of the cultural heritage monument’s architectural originality, the historical authenticity of its appearance and image [2, 4].

The purpose of this study is an art history analysis of approaches to renovation of the objects that have lost the ability to operate due to significant wear and tear, but are of interest from a historical point of view, using the example of a completed project on the Black Sea coast of the Krasnodar Territory in the Russian Federation. The realization of this goal was based on the method of studying the formal and stylistic features of art monuments. When substantiating the design concept, the factual-systematic and cultural-historical approaches were used.

**Historical background of the renovation object**

A small village on the Black Sea received the status of a settlement in the second half of the XIX century. During that historical period, there was an active settlement of the coastal region of the Krasnodar Territory, and the imperial troops were located in the area of modern Olginka to maintain order and safety of the settlers.

At the very end of the 19th century, a summer house of General Sokolov was built near the sea, where he lived with his family in the summer. The general received the right to build a house on the Black Sea coast for his special services to the fatherland and he chose the place for construction on the picturesque slope of Mount Agria.

During the period of revolution and civil war, the estate was destroyed. In 1932, the restoration work started in order to use the building as a boarding house for the vacationers’ reception. The same year, Pizunda pine trees were planted around the building, which determined the landscape peculiarity of the adjacent territory. During the Second World War, a hospital functioned in the estate, and the planning structure of the building’s internal premises underwent significant changes typical of medical facilities [3].

After the war, the estate continued being used as a holiday pension, which ceased to exist in the 90s. Since that time, the structure has not been operated, which led to desolation and natural destruction.

This architectural monument of the late 19th century was almost by accident discovered on the seashore already in our century and today has acquired a new and modern life as a summer mansion with luxury apartments. In 2001, the building received the status of a historical monument of architectural heritage and was included in the corresponding register.

In accordance with the federal law “On objects of cultural heritage (historical and cultural monuments) of the peoples of the Russian Federation”, a historical and cultural examination of scientific and design documentation was carried out, which regulated the boundaries of possible interference in order to adapt the structure to modern use. The experts carried out an analysis of the technical condition of the building and determined a set of measures aimed at maximally preserving the main structures of the building while ensuring all the standards for its safe and comfortable operation. The cultural heritage protection authority issued a security passport.
Local authorities decided to renovate the building and the surrounding area, taking into account all the requirements defined by the law in relation to the historical objects’ preservation and operation. To carry out this expensive task, the domestic investors were involved.

The renovation project was commissioned by the architectural and design bureau Art Studio House (Rostov-on-Don), which has significant experience in similar work in Russia, as well as in Europe, South and North America.

**Characteristics of the style and structural features of the building architecture**

There is little archival information about General Sokolov’s cottage, but there are many legends, and they are reflected in the design decision. The building is a typical example of the Russian country estate of the late XIX-early XX centuries. According to the local historian A.B. Pukhtin, the building was built in 1898, but this is only an author’s hypothesis.

The architecture of the building is an eclectic mix of elements of late classicism and Russian modernism with neo-Russian tower motifs typical for it [6]. A rectangular object in plan is located on the mountain slope terrace, successfully fitting into the terrain.

![Figure 1. The south facade of the mansion (project: architectural design bureau Art Studio House, Rostov-on-Don)](image)

The estate has the characteristics of the so-called all-facade, when all four sides of the building have an interesting artistic and compositional solution. This artistic principle was widely used in Russian manor architecture in the XIX-XX centuries. A separate building should have been well visible from all angles, each of which in a new way revealed the compositional plan of the architect. All four facades had a different look, which gave the mansion the dynamism and variability effect [7, 8].

The south facade facing the sea is considered to be the most important feature of the General Sokolov’s summer residence building. Its dominant feature is a trihedral bay window with arched windows on the ground floor level. On the sides of the bay window, external staircases with fences in the form of a balustrade are arranged.

The facade has an asymmetric composition, which was a characteristic feature of the Russian Art Nouveau architecture. The asymmetry of the form volume unequal height is emphasized by the elements of architectural decor in the form of pediments, various frames of windows and doorways, as well as the castle stones.

The composition of the eastern facade is symmetrical and ends with a triangular pediment along the central axis. The eastern facade also has a bay window on the ground floor, turning into an open terrace with a balustrade - on the second. The compositional dominant of the second floor was a spacious balcony surrounded by a balustrade, to which a spiral metal staircase led.
The staircase is also a historical artifact. It was made in Rostov-on-Don at the famous Foundry and Mechanical Plant of the Martyn brothers, the largest industrial enterprise in the south of Russia at the end of the 19th and beginning of the 20th centuries. The second floor was crowned with an attic, which informed the building of the style association with the Old Russian tower.

The northern facade with an asymmetric composition resembles the southern facade, but does not have an entrance to the building. The only facade that does not have the triangular gables is the western one. Its originality determines the round bay window in the entire height of the building, located along the central axis. The bay window ends with a round tower with a pointed octagonal spire, which gives rise to associations with the neo-Gothic style. To the left of the bay window is the entrance to the building, decorated similarly to the main facade. The composition of the western facade is also asymmetrical.

![Figure 2. Round bay window with a tower of the western facade (project: architectural and design bureau Art Studio House, Rostov-on-Don)](image)

**Building renovation concept for modern operation**

The exterior of the building was subject to heavy wear, which, according to the security passport, varies from 40 to 70 percent in different parts and elements. Original elements of architectural decor, as well as the original window and door blocks have been completely lost. In the form that existed at the time of renovation, they were the analogs-remodelers.

The building has three external staircases with fences and one spiral. The condition of the elements of the stairs was also considered unsatisfactory by the examination. Granite slabs of steps are preserved only in the staircase of the central facade, balusters are subject to severe destruction.

However, with all the loss of parts and elements of the building, its compositional and architectural structure was pretty well preserved and gave a complete picture of the original appearance. Therefore, at the time of the building’s transformation there was enough factual material for a quality restoration.

The situation was more complicated with interior spaces. In Soviet times, the mansion was used as a boarding house for vacationers and as a hospital during the war period. Therefore, the initial planning structure has been modified many times. The result of the private cottage’s adaptation to the new operating conditions was the installation of partitions, punching and laying of openings, etc. In addition, the interior decoration was completely lost.

These factors determined the approaches to the structure renovation [9]. With regard to the building exterior renovation, it was decided to carry out the restoration work, taking into account the maximum possible preservation of the building’s original appearance. This also can be applied to the architectural elements, decor, and texture-color solutions. At the same time, a number of measures
were required for the technical rehabilitation of the building for its further operation as comfortable housing.

Among these measures are strengthening the foundation and supporting structural elements of the structure, eliminating cracks and spalls of walls, repairing the open terrace with waterproofing, ensuring the safety and reliability of the attic floor and roof, repairing and replacing the floors, installing modern systems, equipment and communications, etc.

Regarding the interiors, it was not possible to carry out the restoration work while preserving the original structural and planning solution for several reasons. Firstly, there was no factual material necessary for restoration and restoration work on the internal premises’ organization during the construction period. Secondly, the existing layout did not meet modern conditions for the comfortable operation of living space. Thirdly, the need to install the engineering systems and communications that meet the requirements of convenience and safety of housing, inevitably entailed a change in the planning structure.

In this regard, the task was set to carry out a significant modernization of the internal space structural planning system. At the same time, it was decided to execute the stylistic decision of the interiors in the spirit of the authentic Russian estate traditions, which is a unique phenomenon in architecture and design and an extremely relevant trend in the organization of suburban housing in our time. This approach formed the basis of the design solution concept for the object renovation under the name “General Sokolov’s Summer Cottage”.

**Design solution for interiors and surrounding areas**

In matters of the historical buildings’ renovation, an important role belongs to the preservation of the image and spirit of interior spaces. The interior environment is a multilevel space in its semantics. It is a material document of the social development of a particular era. Its artistic decisions clearly combine the achievements of culture and technology [2].

In this design solution, the principles of renovation were used, based on a holistic approach to the organization of interior and exterior spaces, taking into account a complex of aesthetic and utilitarian-functional requirements, as well as the compliance with the conditions of safe operation of an object.

Several luxe apartments have been designed in the building to be renovated. The historic building had two exploited floors. As a result of the renovation activities, the third floor was commissioned, which previously served as an attic. The interiors were decorated in a neoclassical style, combining the atmosphere of a Russian estate, European moderation and modern ideas about first-class relaxation.

In accordance with the traditions of arranging a Russian manor, the rooms of the mansion are decorated according to the single compositional and coloristic principle - colors of noble shades were selected in different variations related to the romance of the late 19th century, but in combination with modern materials [7].

The color of the premises, designed in the nuance range of complex low saturated colors, was to give rise to associations with respectability and elegance. At the same time, thanks to bold accents in the color composition of interiors, modern dynamics arise. The premises do not create the sensation of a museum space; they comply with the requirements of comfort and current style trends in the suburban housing design.

An important element in the building’s modernization was the use of the third floor. Thanks to the technical renovation of the attic floor elements, the attic is turned into a full-fledged living space with a comfortable ceiling height. The attic floor apartments have a living room, bedrooms, spacious bathrooms. Wooden beams under the ceiling give a special touch, emphasizing the roof bevels. The beams are made of dark wood, the color of which contrasts with the light ceiling, giving the appearance of the interior graphic and rhythmic movement.

Ceiling beams are both the structural and decorative elements. Due to its structure and contrasting texture, dark wood ceiling beams have become an accent element of the interior.
The comfort level of modern living space is largely determined by the arrangement of the sanitary rooms. In the estate apartments, the bathrooms are combined with the toilet - this is a practical and convenient use of space. The interiors of the bathrooms provide for the functionality of every detail. The use of high-quality materials and special equipment that meets all the norms and standards of modern operation, provide the status of a premium level. The figurative-style solution of the sanitary rooms is made in the general aesthetics of the classic Russian estate. As in the interiors of the main rooms, the noble colors of natural materials dominate, the principle of reasonable minimalism of details is used, stable allusions with a historical prototype are created.

In a modern suburban dwelling, all conditions for a quality vacation should be present. Today, a common trend is the vintage varieties collection of wine, especially since in recent decades winemaking has been actively developing in the south of Russia. To maintain the collection in the basement of the building there is a wine cellar with access to the garden. In the cellar, all the technical conditions for the proper storage of wines are created. And the interior, decorated using natural materials, contributes to a pleasant time forwarding the residents and guests of the mansion.

The adjacent territory has undergone significant modernization. In order to provide the vacationers with a comfortable stay, outdoor seating areas were equipped. The innovations included such facilities as a swimming pool, barbecue area, sauna, which are necessary for a quality summer vacation. Arbors and pergolas, which are convenient for spending time in rainy periods or with excessive solarization, also provide a comfortable rest.

One of the legends says that a greenhouse with exotic plants and fruit trees was arranged next to the cottage of General Sokolov. The design solution used this legend when arranging the landscape. A rich flora has been introduced into the landscape of the territory adjacent to the estate - flower beds, ornamental trees, shrubs forming hedges, as well as the lawns where children can play on the grass.

The calm and romantic atmosphere of the country estate is complemented by lighting: lanterns on pergolas, near the pool and along garden paths.

Renovation as a factor in preserving the cultural heritage

The historical heritage is considered the main spiritual resource of modern culture. Its loss has irreparable damage to both national identity and the country’s priority in the world community. The preservation of the objects of cultural and historical heritage and their effective and careful use is today not only a moral and ethical problem, but also a matter of economic feasibility.

Architectural monuments of historical value should, if possible, be preserved in their original form. They not only preserve the culture of bygone eras, but also are an effective tool for the tourism business development, which entails increasing the investment attractiveness of both individual cities and entire regions [10].
However, due to the significant deterioration of both the external architectural structure and the engineering system, such structures often cannot be used and need to be preserved, restored, repaired, adapted to the modern operating parameters and engineering strengthening. All these transformations are related to the program of renovation of the objects of cultural and historical heritage.

Many historical buildings, cultural monuments, erected in the past centuries, are in very poor condition. The tactics of rethinking these buildings, adapting them to the new functions can provide an influx of investment, which will make it possible to recreate and preserve [11].

Modern culture in Russia is going through a difficult period. The main problem is the lack of funds for the restoration of historical and cultural monuments, to maintain them in the necessary engineering, technical and artistic condition. At the same time, a reassessment of the national heritage takes place, recognition of the need for systematic measures to preserve the national heritage. In this regard, the problems of renovation of the historical subject-spatial environment as a leading component of the ethno-culture of society are becoming of paramount importance.

Summary
The experience of combining historical classics with modern technologies and architectural and design approaches is extremely important not only to preserve the historical memory of the society, but also to provide truly comfortable conditions for its life.

This concept formed the basis of architectural and design principles during the project of renovation of the architectural heritage monument of the late XIX-early XX centuries - the suburban mansion of General Sokolov. As a result of the project, the second life was presented to the architectural monument.

The project was implemented on January 31, 2019 [12]. Competent and high-quality renovation helped not only to preserve a historical object of cultural value, but also to integrate it organically into the resort infrastructure of the Krasnodar Territory, which contributes to the active development of this tourist cluster.

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