

Research on the Appearance Regeneration Theory of Russian-style Buildings in Harbin

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Abstract: Harbin's Russian-style architecture is a microcosm of Harbin's century-old urban historical development. It is a European-style architecture that combines Chinese characteristics. It shows the culture of Harbin's city and is a precious heritage left by history. Its unique charm not only affects the overall appearance of the city. Formed and created urban architecture with unique oriental characteristics. Therefore, in view of the historical and cultural value of Russian-style architecture, this paper draws on foreign ideas for the regeneration of old buildings, and transforms and protects the Russian-style buildings in Harbin, which will not only help to continue this context, but also help Harbin to build a tourist city, and then promote and drive the economic development of Harbin, which has certain cultural and artistic research value.

1. Introduction

The changes of the city, the rise of high-rise buildings, and the rapid construction of the city, we have ignored the history of the city. With the pace of urban development, many old buildings in cities have been destroyed, abandoned or demolished, and the historical memory of the city is slowly fading, which makes people feel more and more precious of old buildings, which represent the development of the times after all and change. Money can create modern skyscrapers, but it cannot create the vicissitudes of a city's history. The vicissitudes of history are the soul of a city, and a city without a soul has no vitality. Harbin has a history of a hundred years in modern times. The Russian-style architecture reflects the past and present of the city of Harbin. Protecting the Russian-style architecture and continuing the life of the city plays an important role in cultural heritage and economic value.

2. The Value of Russian Architecture

2.1. Historical and Cultural Value

Architecture is the symbol and freeze of history. The Russian-style buildings in Harbin were built from the end of the 19th century to the beginning of the 20th century, representing the century-old history of Harbin's modern development. From these legacy buildings, we can

understand the origin and historical context of the city. The urban development of Harbin is typically different from other cultural ancient cities in China. The urban layout does not adopt the central axis layout of the ancient Chinese city and the street layout of the north and south, but adopts various different plane layout forms such as the radial, grid and ring-shaped radial patterns of European cities centered on the square. It is also the charm of Harbin's city.

When Li Ruihuan visited Egypt, he said that "cultural relics cannot be reproduced" when discussing the protection of cultural relics in the two countries[1]. The Russian-style buildings in Harbin are witnesses to the history of Harbin, and can also be said to be cultural relics. After a hundred years of vicissitudes, they cannot be regenerate and copied. The value of protecting these historical buildings is immeasurable.

2.2. Artistic Value

The formation of Russian-style buildings in Harbin has its unique artistry. Due to the construction of the Middle East Railway, the original Harbin plan was designed according to the blueprint of Moscow, and the architecture of Moscow was influenced by French architecture. Therefore, it has local characteristics after it was introduced into China. As a result, the building has both typical European style and Russian architectural features, and at the same time shows the national fashion. The beauty of form, decoration and material of building exterior components have high artistic research value.

2.3. Economic Value

Harbin has become an international tourist city. In addition to Harbin's ice and snow culture, what attracts international tourists is the combination of Chinese and Western urban style, especially the Russian style. The protection of Harbin's Russian-style buildings is the protection of Harbin's human environment[2]. So that tourists who come here for the charm of Harbin's architectural art will not be disappointed, and Russians will not be lost in their search for old residences and old houses. Protecting Harbin's Russian-style architecture, driving the development of tourism, and promoting the development of Russian commodities and Russian national craftsmanship, promotes the economic development of Harbin.

3. The Renovation and Protection of The Appearance of Russian-style Buildings

3.1. Protection Measures for Russian-style Buildings in Harbin

France was the first to promulgate relevant urban protection regulations. In 1962, the "Malraux Law" was promulgated. The regulations delineate valuable historical districts as "Historic Protected Areas", and formulate protection plans, rational use and strict management. However, my country's awareness of the protection of historical buildings is relatively late. Basically, management regulations were initially formulated in various places after the 1990s. Harbin formulated the "Regulations on the Protection of Harbin's Famous Historical and Cultural Cities" in 2006. The draft was revised and passed in 2009 to increase the protection of historical buildings. Article 24 of the Regulations stipulates that the renovation of dilapidated and old houses in historical urban areas or historical and cultural blocks shall not damage their traditional patterns and historical features. Regulations 27 provides for classified protection of historical buildings in accordance with the following provisions: Class I historical buildings shall not change the original facade shape, surface material, color tone, structural system, plane layout and distinctive interior decoration of the building. For Class II historical buildings, the original facade shape, surface material, color tone and

main layout of the building shall not be changed. For Class III historical buildings, the original facade shape, surface material and color tone of the building shall not be changed[3]. It can be seen that the Harbin government attaches great importance to the protection of historical buildings, and at the same time, it can also see the importance of building appearance protection in the process of historical building protection.

3.2. Reconstruction of Russian-style Buildings in Harbin

In recent years, Harbin is launching a series of actions for the renovation and protection of Russian-style buildings, such as the renovation project of Gogol Street in 2003, relying on the geographical advantages of Gogol Street to create a Russian-style street. The Harbin Volga Manor, built in 2009, covers an area of more than 600,000 square meters. Based on the history of Harbin and the theme of Russian culture, it has been rated as a national Sino-Russian cultural exchange base. In 2009, the first phase of the renovation of the Chinese Baroque building complex outside Daowei was completed. Following the principle of "maintaining the main, repairing the old as before, combining maintenance and use, and rationally updating", 316 buildings were renovated, and the renovated Chinese Baroque protected block reproduced that year. The style of the commercial market outside the old road has become a new landmark of the ice city. In 2010, the second phase of the renovation project was started. In 2011, Harbin City launched a project called "Harbin 1898", which is mainly aimed at the protection, renewal and renovation of the existing early Russian-style residential complexes in Harbin Garden Street[4]. The Russian-style residence on Huayuan Street was originally a residential area for senior staff when the Middle East Railway was built in 1898. It belongs to a Russian courtyard-style residential building complex. It is the only area in Harbin that maintained the basic original appearance of the residential area during the opening period.

The renovation and protection of these buildings are mainly based on protect, especially the repair and preservation of the original appearance of the buildings. Also known as "architectural regeneration". Architectural regeneration is to use various methods to preserve and renovate and make the building get new life again[5]. It has the advantages of resource reuse, reduction of consumables, and preservation of urban history and culture.

Architectural regeneration can preserve the old buildings, and the traditional architectural art can be passed down without leaving any regrets. For example, the demolition of the old railway station in Jinan has become a pain in the hearts of Jinan people. Jinan Old Railway Station is a typical German-style station designed by the famous German architect Hermann Fischer. It was put into use in 1912 and is the only Gothic building complex in the world, as shown in Figure 1. It is said that Jinan Railway Station can be used for hundreds of years without any problem, and it can also cool down naturally. In March 1992, Jinan City, Shandong Province and the railway department demolished the old station despite strong opposition from citizens and scholars. The most distinctive railway station in China has disappeared forever, and it has become the eternal regret of the world. Herman Fischer's son once brought experts to Jinan for free maintenance every year. When he came to Jinan in 1992, he saw that his father's works were no longer there. He was very sad and angrily left Jinan and said he would never come to Jinan again. . Less than 20 years later, some committee members proposed to rebuild Jinan's "old railway station" in the proposal of the two sessions in 2010. This regret could have been avoided.



Figure 1: Jinan Old Railway Station

European and American countries started early in building regeneration. For example, the Musée d'Orsay in France was originally a railway station built in Paris in 1898 to welcome the World Expo. After the World Expo, it was used for other purposes and abandoned for many years, as shown in Figure 2. In 1973, French President Pompidou approved the Ministry of Culture's plan to transform the Orsay train station into a modern large-scale art museum. In 1980, the famous Italian female architect Cass Orante was hired to be responsible for the entire decoration design. The architect respected the original features of the station during the renovation process. The appearance of the building remains unchanged. The gorgeous glass ceiling of the train station has been transformed into the entrance of the exhibition hall, and the aisle of the station has become the main exhibition area. The whole building is grand and beautiful. The Orsay train station, which had been abandoned for 47 years, was reborn on December 9, 1986, and the Orsay Museum was inaugurated. The National Museum of Art Pompidou and the Louvre are known as the three major art museums in Paris[6], as shown in Figure 3.



Figure 2: Orsay Train Station, France



Figure 3: Musée d'Orsay, France

In addition, in 1988, Nestlé's renovation of the Megne chocolate factory in the suburbs of Paris, France, as shown in Figure 4, cost 8 billion francs, maintained the appearance of the 19th century building, and transformed the interior of the factory into an office, reproducing this industrial saint. The splendor of the temple, and provides office space for the 1,700 employees of Nestlé. There are also 4 gas storage tanks with huge brick outer walls on the outskirts of Vienna. They were built in the 19th century and were originally used to store gas. After 1985, the city of Vienna switched to liquefied petroleum gas and the building was abandoned. Due to the development of the city, after being designated as a new urban area, Austrian and French designers transformed these 4 storage tanks into a large-scale multi-functional complex, with garages and commercial warehouses on the ground floor, and commercial, office and entertainment areas on the base floors. , the upper part is more than 600 apartments[7]. The building retains its original appearance and becomes a new local landmark, as shown in Figure 5.



Figure 4: Renovation of the McNair Chocolate Factory



Figure 5: Reconstruction of Gas Storage Tank with Brick Outer Wall in Vienna

4. Building Regeneration

Building regeneration - resource reuse, not only maintains the original historical traces of the building, but also gives the building new content. The transformation and repair of Russian-style buildings in Harbin can also learn from this practice. According to the actual situation of the building, when the functional facilities inside the building are not available, instead of abandoning the entire building, it will leave its "coat" for this city.

Architectural regeneration is not a utilitarian behavior. The significance of architectural regeneration lies in the preservation of the traditional features of the original buildings, the reduction of energy consumption, the transfer from environmental protection to environmental restoration, and the continuation of ancient human civilization[8]. Harbin Russian-style building regeneration, from the perspective of design ethics, to study its service life, indoor and outdoor environment, energy use, can improve the healthy development of old building regeneration design. The significance of design ethics in architectural regeneration is analyzed, and reasonable suggestions are put forward. How to better combine the demands of design ethics and handle the relationship between "design ethics and aesthetics", "design ethics and environment", "design ethics and design", and "design ethics and people"[9]. Solving the design ethics in architectural regeneration is a systematic project, which requires the participation of designers, enterprises, non-profit organizations, the government and many other departments and the transformation of the values of the whole society. From the spiritual level, the social level, the ecological level, the aesthetic level and the economic level, the value of design ethics in architectural regeneration is studied[10]. Explore the design participants in the current era—designers and enterprises to build a design ethics system in the new era, and regard ethical appeals as design innovation and an important dimension, so that the design has a profound traditional moral connotation and a healthy modern atmosphere. , making the design more scientific.

5. Conclusion

The facade of the building is the memory of the city. The memory of hundreds of years records the development and vicissitudes of the city, which affects the development of the city today. The protection of Russian-style buildings in Harbin is of great significance and value, and it should be paid attention to to raise the awareness of the whole people to protect historical buildings. The research on design ethics in the regeneration of Russian-style buildings in Harbin seeks the organic combination of environmental ethics and design from the aspects of design ethics and environmental spirit, culture, urban and environmental design. It helps to enhance the rationality, humanity and sustainability in the regeneration and reconstruction design of old buildings, and promotes designers to reflect on the meaning of design.

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