Historical Prototypes in Modern Architecture of Harbin

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Abstract. Harbin - modern metropolis of northern China. Developing at an intense pace, he catastrophically lost his architectural heritage. To liberate territories for new construction, historical objects with unique architecture that were designed by Russian specialists were demolished. Currently, the historical environment of the city has been preserved in fragments. But in the architecture of new buildings there is a steady tendency to use retro styles as: baroque, classicism, modern, gothic.

1. Introduction

The architectural heritage of Russian Harbin was studied by Russian specialists: N. P. Kradin [11], N. E. Kozyrenko [9, 10], A. P. Ivanova [8, 9, 10], S. S. Levoshko [12] and others. The formation of the modern architectural appearance of the Harbin embankment with the inclusion of historical structures (Yacht Club) and modern high-rise buildings were considered by the city government [18, p 3]. The results of the analysis of modern sports, cultural, residential and administrative buildings built from 2000 to 2005 are published. It was during this period that the tendency to design new buildings in historical styles began to be determined [2]. Of great importance for the study of the historical architecture of Harbin are the publications of old photographs of the city [20] and measured drawings of monuments [3, 4].

But the formation of the modern architectural environment of Harbin remains “terry incognito”. This is due to the fact that three different directions can be traced simultaneously in the new megalopolis architecture. And each of that is an independent object of study. The first is defined by the historical past, the second is associated with the implementation in the city of fashion trends in world architecture (destructuralism, deconstructivism) and the third direction can be defined as “styleless architecture”. The last two directions are noted in new areas of Harbin, which are intensively formed on the urban periphery. Retro-style architecture is noted in the historic districts of Harbin (Old Town, New Town, Harbin Marina, Fujiajian). Fashion trends in architecture are reflected mainly in large public and cultural objects: Opera House, Music Center, Wanda Shopping Complex and others. These are unique piece objects, which are elements of entire ensembles and compositional accents of urban spaces. “Styleless architecture” can be traced in the new residential neighborhoods that span large areas.

But in general, the image of Harbin is determined by historical objects and new buildings in retro styles. It is they who in the last decades of the development of the metropolis are promoted. During
this period, the city "grew old" for three centuries. In professional architectural circles, the definitions "City-Museum of Architectural Styles" and "Building-Decorations" are increasingly found.

2. Features of modern Harbin architecture
For the first time, retro styles began to be used in the Chinese area of Harbin Fujiajian (the 20s of the 20th century). Local artisans chose the Baroque style. They were attracted by architecture, whose facades were richly decorated. As decorative elements, they used Chinese symbolism, and they replaced the sculpture on the facades with flying dragons and birds. In a modern city (beginning of the 21st century), Chinese architects initially began to use classicism, the elements of which were replicated in almost all structures: columns, triangular pediments, porticoes of various configurations, a spherical dome, rustication of facade planes, bas-reliefs, stucco decoration [10, p. 34]. In many buildings, all of the listed style elements are noted, in some they are found in separate fragments. But the main marker of classicism - an order- was necessarily present in architecture. Although the constructions show a free interpretation of parts and elements, their compositional construction and arbitrary arrangement on the facade plane (see Figure 1).

![Figure 1. Modern classicism of Harbin. The beginning of the XXI century.](image)

Passion for the architectural history of Harbin led to a massive imitation of historical motifs in new objects (classicism, baroque, gothic, modern). The first attempts reflect a mechanical combination of parts and elements. Chinese architects put the main emphasis on their historical reading and stylistic features go by the wayside. This process affected the reconstruction of residential buildings according to standard designs built in the 50s. XX century in the historical district of Harbin Pristan (Central Street district). Almost every street in the central district received a certain stylistic decision. The building line becomes complex, with a sharp difference in the heights of objects. Its panorama begins, as in the historical past, to form domes, tents, vaults. This experience was recognized as successful and recommended by city administration for the design and construction of new facilities in all parts of old Harbin: New City, Modyagou, etc. [17, p. 338].

The height of structures in the historical environment begins to increase sharply and goes up to 20-36 floors. With the advent of new compositional accents, dominants and ensembles, urban space has completely transformed in a short time. New multifunctional complexes began to define the silhouette and panorama of the Pristan area: shopping centers, hotels, multi-storey residential buildings, office buildings, which begin to occupy entire historical quarters (see Figure 2). The basic principle is vertical zoning. On the ground floor level there are company shops, on the middle floors - office premises, on the upper floors - residential apartments. Regardless of the stylistic features of the structures, they have a clear vertical construction: a terraced volume, a tower, dome or tent-like completion.
Every year, the architecture of the Marina is becoming more diverse. Art Nouveau elements are actively replicated. In particular, in the new 24-story building next to the legendary Modern Hotel (1913), details characteristic of this style were repeated (omega-shaped, round and arched windows, oriental decor motifs). In order to create a single complex, both structures were painted in a single terracotta color and combined by a gallery at the level of the third floor.

Currently, a major urban development project has implemented in the city. The old railway bridge, built by Russian specialists in the early twentieth century, was transformed into a kind of boulevard that connects Harbin and Sunny Island. A new snow-white arched bridge for high-speed transport was built next to it. The emphasis on these arteries was a complex of multi-story residential buildings made in the Art Deco style. The stylistic features of the structures are evidenced by their stepped volume, massive structures, faceted vertical elements, ending with large crystalline details. The stylistic image of the structure is enhanced by the coloristic solution (contrasting emphasis on planes and details) and night lighting, which emphasizes the completion of volumes.

Figure 2. Modern panorama Pristan.

The design of Pharmaceutical Factory No. 6 was unexpected. For the first time, the Chinese Baroque style was chosen for the modern architectural solution (see Figure 3). This style was actively used in the development of the Chinese district of Fujiajian in the early twentieth century. It was characterized by the replacement of traditional parts with Chinese symbolic elements - pendants, bells, bamboo stems, lotuses, dragons.

The new building occupies an entire block and has a plan in the form of a square. The traditional technique is the cut corners of the structure at the intersections of streets. The construction of the plant was carried out in two stages, so the main facade consists of two parts, which have significant differences. The architecture of the Pharmaceutical Factory is a free interpretation of the stylistic devices of Baroque and Classicism. The authors of the project tried to create an image of palace architecture. Appeal to the Chinese baroque style is just a mention of the retro direction - an abundance of decorative elements that almost fill all the planes of the facades, right up to the decoration of the basement. In the new building there is an abundance of stucco molding, a lush frame of every detail and due to the variety of decor the effect of dynamism and deep light shadows are
created. For the first time, monumental sculptural compositions was actively used in Harbin architecture.

The functional block includes not only production facilities, but also sports and exhibition halls, a museum. The interiors of the administrative premises (reception, conference rooms, meeting rooms) are made in the Baroque style (see Figure 4).

Figure 3. Architecture of Pharmaceutical Factory No. 6.

Figure 4. Interiors of Pharmaceutical Factory No. 6.

3. Methods of decorating building facades

Almost all new structures are built into existing buildings and therefore their plans are rectangular or in the form of letters U (blocks) or L (angular). Therefore, the emphasis is not on shaping, not on solving a volumetric composition, but on the front, i.e. on the layout of parts on the plane of the facades. As the height of the structure increases, Chinese architects mechanically increase the scale structure of the elements. If in the past all structures had a small-scale compositional structure, then in new objects, as a rule, a large-scale one is used. All parts and elements become hypertrophied. Therefore, proportional relationships are often violated in modern architecture. For example, a monumental colonnade, a large pediment are combined with fractional decorative details, which are more reminiscent of the texture of the structure. At the first stage of historical stylization, volume elements are used - sculptural groups, low reliefs. Their placement on the plane of the facade does not have a certain pattern. So in a shopping center on the street of "Chinese" low relief is made on the axis of symmetry on the pediment of the structure; caryatids are placed along the axis of semicircular windows. To highlight them, they are colored green. Solid glass surfaces several stories high are made
in the form of risalits and end with cornices. And only the upper floors of the structure are finished
with rust (see Figure 5).

![Figure 5. Modern facade decoration.](image)

4. Trends in modern architecture

Harbin is currently divided into two parts. In the historical part, almost all new buildings are made in
retro styles and their imaginative solution is associated with the Russian Harbin. And if the first
objects were executed with obvious stylistic extensions, then the architecture of buildings built since
2013 is characterized by a fairly clear use of historical techniques, compositional rules and principles.
The elaboration of the elements and the implementation of architectural details taking into account
proportional relationships, the selection on the frontal plane of the facades of the main and secondary
are noted. This is a testament to the knowledge of the history of European architecture. New building
materials have also affected to the quality of the finish result. The content of the city also has a strong
influence on the formation of the urban environment: monumental ceremonial portals to the
promenade or to residential quarters in the Baroque and Classicist styles, subject sculptures near
architectural monuments, small forms, art objects. The left-bank part of Harbin is an independent
structural formation that can be defined as a parallel city. For several years, functional zones have
been formed - administrative with all the services of city management, trade (Sun Bay complex),
cultural and entertainment (Ice City), sports, residential and reservetions (Sunny Islands). The
architecture of the structures of the new part of the city, which has been actively built up since 2006 on
the left bank of the Sungari, can be attributed to styleless. Residential areas in almost all cities of
China are being built up with similar structures. The large-scale construction of such structures allows
us to talk about a new stage of standard design in construction. Despite the different color solutions of
residential areas, they give the impression of uniformity (tower type of buildings, nuance vertical color
change, metric rows of windows, tent or domed completion of volumes). Accents in the spatial
composition of the environment are cultural or recreational buildings of urban importance, made on
individual projects.

5. Conclusion

The historical prototypes in the modern architecture of Harbin were Russian objects built in the early
twentieth century. They served as analogues for many new structures. As a rule, Chinese architects
mechanically copied individual details and elements. Single objects were architecturally executed at a
high professional level. Currently, modern architecture in retro styles, shine out of high quality
performance and indicates the preservation of traditions in Harbin architecture. The
styleless architecture of residential areas stands out in contrast in the city and does not fit into its individual image.

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