A STUDY OF THE KHARKIV ARCHITECTURAL AVANT-GARDE

Challenges of Authenticity Preservation

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ABSTRACT: The article addresses the issue of preserving Kharkiv’s architectural heritage from the first third of the 20th century. The main focus is on the preservation of authenticity of the early modernist heritage in the context of a crisis situation associated with the overall state of heritage preservation in Ukraine and during active military operations. The research was conducted in the context of the planning development and spatial structure of the Kharkiv historical center and suburbs, where new workers’ settlements were formed, as well as considering the architectural layers within the structure of historical districts of Kharkiv. The main objective of the study is to determine the value and authenticity of the architectural heritage of early modernism. The study employed the methods of historical, retrospective, and comprehensive analysis. The general plan of the “Socialist Reconstruction of Kharkiv” from 1931-1933 and the historical-architectural reference plan of Kharkiv from 2019 were analysed as additional sources. The research results provide comprehensive information about the architectural and urban heritage of this period and emphasize the attention to the issue of preservation of authenticity. The conclusions of this work will serve as a basis for further development of specific measures for the conservation, restoration, and preservation of historical monuments in Kharkiv from the first third of the 20th century. The research will also contribute to raising public awareness about the value of early modernist architectural heritage and encourage the implementation of restoration programs to preserve these important landmarks.

KEYWORDS: architectural avant-garde, early modernism, authenticity, heritage preservation, 1920s-1930s.
is the architectural and urban heritage of Kharkiv from the first third of the 20th century, specifically the ensembles of the administrative-business center and residential complexes (Cherkasova, 2010).

The research plan included the following tasks:

- the classification of architectural avant-garde heritage objects in Kharkiv based on the degree of authenticity at the object and typological levels, and the degree of urban, historical and cultural value at the morphological level;
- consideration of the monument’s preservation level throughout their period of use;
- assessment of historical stratifications and the degree of destruction to determine the preservation of the authenticity of the objects.

The research conclusions offer comprehensive information on the architectural and urban heritage of Kharkiv during the early 20th century and highlight the importance of preserving its authenticity. This study holds significance in developing restoration programs for Kharkiv’s monuments from the first third of the 20th century.

THE ARCHITECTURAL STRATIFICATIONS WITHIN THE STRUCTURE OF KHARKIV’S HISTORIC DISTRICTS

The reconstruction of the Old Centre squares in 1925-1930 significantly changed the appearance of the city center. In the central blocks, the Trade Exchange (1925), the Passage shopping complex (1925), the Chemical Building of the Physics and Technology Institute on the University hill (1928), and the Department Store building on Pavlivska Square (formerly Rosa Luxemburg Square) were constructed (Shvydenko, 2020c). The new administrative and business center on Freedom Square (formerly Dzerzhinsky Square) was built outside the visual accessibility zone of the Old Centre. The ensemble of the new administrative center was created according to a unified architectural concept in the 1920s and 1930s. The square ensemble became one of the most unique examples of the Ukrainian architectural avant-garde in terms of architectural and spatial solutions. It had a city-forming significance for the development of the northern part of the Nagirnyi district, as it defined the larger scale of development and the spatial organization of the architectural-planning framework of the area. The fundamental characteristic of urban planning concepts during this time is the idea of development, which reflects the distinctive features of spatial forming, which manifested in the creation of linear and linearly dispersed planning structures.

The territorial development of the working-class suburbs in Kharkiv’s industrial districts emerged itself in a diverse range of social housing unit designs. The urban planning ideas of de-urbanization were reflected in the residential development of 1923-1924 in the creation of workers’ settlements. There was a gradual transition from organizing residential settlements near production enterprises to various types of residential neighborhoods: Red Ray settlement (1929-1932, architect H. Vegman); Machine builders settlement (1926-1929, architects M. Zelenin, I. Taranov-Belozorov, V. Bogomolov); New Kharkiv Social City (1929-1932, a team of architects led by P. Alyoshin), Zaderzhpromya Residential District (1928-1933, architects S. Kravets, A. Kogan, P. Frolov, etc.), Sotnia Residential Quarters on Kholodna Hora (1930s), and so on.

The development of city planning in the late 19th to early 20th centuries resulted from the overlay of the old (compact, radial-circular) planning structure and the new linearly dispersed structure, forming a unified structural framework. The territories of Kharkiv’s main historical districts, covering the largest concentration of cultural heritage objects, are united within the boundaries of the Central Historical Area as defined by the Historical and Architectural Reference Plan. These districts are surrounded by traditional buildings. An important characteristic of early modernist architecture is the mass character of engineering, which introduced a new typology of residential and public buildings. These include collective housing building with a communal service system, small apartments in the initial series of sectional residential buildings for workers, kindergartens, schools, hospitals, and workers’ clubs, which, in most cases, have lost their original function. The initial projects of mass series residential buildings and public buildings were created under experimental programs until the early 1930s. Today, all of them do not comply with the requirements of modern construction norms and regulations regarding dimensions of internal communications, areas, and premises composition.

RISKS OF ARCHITECTURE AND URBAN PLANNING MONUMENTS: LOSSES OF EARLY MODERNISM

Identification and assessment of historical stratifications of the object, typological, and morphological levels help to determine the degree of the monuments’ authenticity, which is essential for further research and adaptation to modern use.

At the object level, during the operation of buildings, there are certain losses of stylistic features and spatial form characteristics, namely, the loss of original elements and decorative details, the use of unusual materials (such as granite or plastic), and non-characteristic colours. For example, the telephone exchange building was built on one floor, which led to the loss of the architectural composition (Smolenska, 2015). The Kulinichai café was added to the volume of the Post Office building, which also altered...
the shape of the object; the Hihant dormitory building was randomly built up at the ground floor level. One of the potential threats concerning damaged objects due to missile attacks is the risk of repairs being conducted without professional restorers. Monuments that have suffered significant damage during wartime await funding for restoration works. Unfortunately, most of them are not properly preserved, which worsens their condition. Thus, at the object level, there is a risk of changes and distortions in the external appearance during post-war repairs, which may result in the loss of original details and stylistic features.

On a typological level, most monuments of the early modernist period have technical and technological value due to the implementation of the latest construction techniques at that time (large-span slabs in the X-ray Academy building or the Foppl wooden structure in the UPhTI complex) and the rapid development of technical sciences and industrial mechanization. For example, the UPhTI complex included the installation of a Van de Graaff electrostatic generator, mechanization of services in the Post Office building, and the construction of two advanced automatic telephone exchanges. The current state of this equipment can be described as almost lost. The exception is the UPhTI complex, where most of the majority of equipment and machinery have been preserved in their original state.

At the morphological level, many avant-garde architecture objects in Kharkiv underwent reconstruction during the lifetime of their authors. These transformations were caused by a change in ideological course when Constructivism and its ideas became prohibited. The destruction suffered by the city during World War II also contributed to the rapid reconstruction of the city in the forms of Soviet neoclassicism. This reconstruction introduced layers of a different style and had an ensemble character. In 2011, the “Kharkiv Palace” hotel [architect S. Babushkin] was built, which led to the emergence of historical layers of contemporary architecture in Freedom Square (Yanovytksi, 2015). The same applies to the area near the ATC building, where an office building was constructed, disrupting the morphology of the street’s development. A similar problem can be observed in the Zaderzhpromya district, where objects of contemporary architecture appear, contrasting with the historical residential area in terms of style. As a result of the military aggression, which caused serious damage to avant-garde architectural monuments, a complex situation arose, raising numerous questions regarding the preservation of the integrity of residential architecture ensembles and individual objects of early modernism.

THE DEGREE OF PRESERVATION AND AUTHENTICITY OF EARLY MODERNISM ARCHITECTURAL HERITAGE

The study of complexes and ensembles built in the 1920s and 1930s, revealed a high level of authenticity, compositional, and stylistic integrity of the buildings. The sample of objects refers to ensembles and complexes where spatial characteristics serve as a sign of style and possess city-forming significance. The objects were organized according to their significance and cultural value into three categories. The first category of value includes the Freedom Square ensemble, which has been included in the preliminary list of World Heritage sites. The second category encompasses residential neighborhoods of Zaderzhpromya, New Kharkiv Social City, Machine Builders Settlement [FIGURE 01], UPhTI development block, Institute of Radiology building, and the Hihant dormitory complex. The objects of the third category are urban planning complexes such as Red Ray [FIGURE 02], Red October workers’ settlement, Sotnia residential quarter, Kharkiv Locomotive Plant settlement, and the Post Office building. Preserving the urban planning significance of such objects involves considering visual perception of the object and its surroundings, limiting vertical construction in areas of compositional influence, and developing proposals for programs to restore individual objects and the spatial environment.

The ensemble of Freedom Square enriched the compositional structure of Kharkiv’s city center and allowed the
preservation of the historic buildings of the old center without significant reconstruction [FIGURE 03]. During the Second World War, the buildings of the square’s ensemble were seriously damaged, which necessitated a large-scale reconstruction in the 1950s. As a result of this reconstruction, the overall Constructivist style of the square was replaced with Soviet Neoclassicism, with the exception of the Derzhprom building, which remained unchanged (Zvonytsky, 1992). At present, in order to preserve the visual openness, it is necessary to keep the open spaces in the northern and northeast directions free from construction. The risks of losing the spatial composition and integrity of the Freedom Square ensemble require the allocation of a buffer zone in the spatial environment of the square with a special management regime. During the period of Ukraine’s independence, there is a tendency to increase the density of historical buildings in the spatial surroundings of the Freedom Square ensemble with modern architectural objects. In certain areas of protected historical zones, there is an excessive height of buildings, distorting the silhouette characteristics of the construction, disrupting the historical morphology of residential quarters, and compromising the stylistic uniformity of valuable and traditional buildings.

In May 1930, the Kharkiv Tractor Plant settlement [New Kharkiv social city] for 100-120 000 residents was established on the Losivsky site [FIGURE 04]. The construction was carried out based on the principle of residential kombinat, which ensured the social and domestic needs of the residents without the need to leave the district boundaries (Bozhenko, 2021). The residential neighborhoods were located along the Chuguyivska Road in close proximity to
the city’s main enterprise - KhTZ. According to the initial project, 5 blocks were constructed, and their planning structure has remained almost completely intact to this day.

The Ukrainian Physic and Technical Institute (UPhTI) complex is one of the most important scientific heritage sites in Ukraine [FIGURE 05]. The complex was constructed in three stages from 1929 to 1941. The main building holds significant architectural value as an example of Constructivism. In total, the complex’s four buildings represent examples of Constructivist architecture (Kachemtseva et al, 2021). Until the 1990s, the complex remained under restricted access, which facilitated the preservation of nearly the entire area and buildings in their original state. In the 1970s, some laboratories and equipment were relocated to a new complex in Pyatykharky. The Institute continued to operate at the former site, but the complex gradually suffered from
degradation and the destruction of individual buildings. In 2019, the Museum and Cultural Complex “UPhTI. Kharkiv” was created based on the premises of the Kharkiv Physics and Technology Institute (Melezhyk, 2020).

In 1929, the construction of the Institute of Radiology began according to the design of V. Estrovych. Progressive structural solutions of that time were used in the construction, such as large-span coffered ceilings made of monolithic reinforced concrete. The main façade of the building underwent a cosmetic renovation in 2013 with the replacement of authentic timber windows with double-glazed windows, while preserving the original window division (Semyakin, 2014). The composition of the façades, spatial arrangement, internal layout and structural scheme of the building remained unchanged.

The main building of the Radiology Institute is a valuable cultural and architectural asset, thanks to its progressive design solutions, expressive spatial structure, and preservation of authenticity in façade details.

The Hihant dormitory became the starting point for the formation of one of the first student campuses in the USSR. During its initial stage, the building’s façades exhibited the features of Constructivism. The dormitory underwent two reconstructions - one in 1950 (led by architect N. Pidhorny) and another in 1957 (led by architect A. Pokorny). These reconstructions resulted in a change of stylistic features from Constructivism to Art Deco on the building’s façades and an optimization of the planning solution. The overall condition of the Hihant, as the main building of the former Kharkiv Technological University student town, is assessed as satisfactory (Akmen, 2020).

In 1930-1931, near Freedom Square, an automatic telephone exchange was constructed (architects P. Frolov, M. Pokorny, Yu. Tsvetkov). Architectural, structural, and compositional solutions were proposed for the construction, which corresponded to the progressive type of building. In the early 2000s, the building was reconstructed, including the addition of another floor. This led to a change in the original proportions of the building. In addition, modern materials were used to decorate the façades, which were not typical of the period when the building was constructed. However, despite this, the overall image of constructivist architecture was preserved.

The Kharkiv Post Office building is one of the most significant structures of Ukrainian architecture of the 1920s. The Post Office was designed with consideration...
for modern technologies and rationalization of postal services. The project was carried out with the participation of the young architect A. Mordvinov and was recognized as innovative for its architecture and construction ideas that reflected the spirit of avant-garde architecture. The building has almost completely retained its original appearance, but in the 2010s a café was added to the ground floor level, which negatively affected the overall appearance of the building. Additionally, the metal windows of the strip glazing on the facades and along the staircase were replaced.

In the 1920s, the development of new types of housing in Ukraine began, including individual houses and housing blocks with a compact, functional space-planning structure. In Kharkiv, the construction of “worker settlements” started, and brick two-story houses of the Kharkiv Locomotive Plant settlement were built in 1923–1924 based on standard projects by architect V. Trotsenko [FIGURE 10]. The planning and spatial structure of these cottages incorporated features of Ukrainian folk architecture, such as steep roofs, verandas, and balconies. The search for national identity in architecture continued, with a rethinking of folk architectural traditions took place. Today, only nine buildings in the worker settlement remain, and only four of them have protected status. Despite their protected status, the authenticity of the buildings has not been preserved, as practically all of them have been rebuilt.

The “Red October” settlement is recognized as a valuable object of urban planning heritage and historical urban landscape [FIGURE 11]. The district actively engaged workers of the Southern Railway in the construction of residential cottages based on standard designs of the Derzhstandartbud, which helped speed up construction and save on materials. The main element of the construction was cottages designed by architect A. Langman. The toponymy of this area reflects proletarian ideas, and the streets bear names associated with cooperative building, progress, and rallies. The planning structure of the settlement has remained almost unchanged, preserving its original appearance, although minor alterations have influenced the visual-spatial character of the area (Shvydenko, 2020a).

In the district of Holodna Hora, a military garrison was situated, which led to the construction of numerous buildings intended for military personnel. One of these objects, the Sotnia residential quarter, was built in the late 1920s and early 1930s. The planning structure of the quarter has survived almost unchanged. The quarter...
consists of two stylistically distinct parts. The outer part, facing Poltavskyi way, includes two symmetric five-story buildings with pronounced features of Constructivism. The inner part of the quarter consists of 2-3-story buildings that exhibit influences from various styles, including elements of Ukrainian folk architecture and classical architecture (Shvydenko 2020b). In summary, it can be said that the quarter preserves its layout and spatial structure, stylistic features, and compositional peculiarities [FIGURE 12).

CONCLUSIONS

Special attention was given to the functional adaptation of monuments, analysis of original materials and structures that require preservation. The research has demonstrated that the monuments have a high level of preservation and authenticity, which is important for the integrity of the urban environment. Some objects should be restored to their original appearance. The question of the need to restore the stylistic integrity of the buildings in the circular part of the Freedom Square remains open for discussion.

For the effective functioning of the heritage preservation sector at the local level, the following issues are
relevant: establishing relationships between the professional community, and heritage management over the implementation of the provisions of monument protection legislation. Collaboration with local community associations and private property owners is also crucial. The heritage management system at the local level needs to be reorganised due to the lack of decentralisation processes and the establishment of local management institutions for the protection and restoration of monuments. Significant processes of decay of heritage objects in Kharkiv and the region require restoration and regeneration efforts for the historical environment, with the initial focus on determining the degree of preservation and integrity, particularly for historical buildings, architecture and urban planning, and valuable components of the existing urban environment.

REFERENCES


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ENDNOTES


5 Following the conference “Constructivism in Ukraine” (2004), dedicated to the 75th anniversary of the Derzhprom, it was decided to include it in the preliminary list of World Heritage Sites.

6 KhTZ - short for Kharkiv Tractor Plant

7 Derzhstandartbud - short for State Standard Construction Committee