MONO-FUNCTIONAL HOUSING AND CHANGING CONCEPTS IN KHARKIV RESIDENTIAL ARCHITECTURE DURING THE CAPITAL PERIOD

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ABSTRACT: In the 1920s - 1930s in Kharkiv, at that time the capital of Soviet Ukraine, two main programs of city development were implemented - the creation of a new metropolitan center and the development of the industrial complex. Within the framework of these programs there was an evolution of Kharkiv's housing infrastructure, which developed largely in connection with the leading Western social concepts of architectural and urban planning practice: garden city, house-commune, residential combine and socialist city. However, in addition to these concepts that replaced each other, there was also a parallel design of “mono-functional” housing, which is an integral, important and significant component of the avant-garde architecture of Kharkiv. It was built both within the framework of the program of the creation of the capital center and within the framework of the program of development of the industrial complex. It is unfair that such housing, as a rule, is in the shadow of more vivid and radical typological avant-garde solutions and is insufficiently described. The method of systematization and analysis of literary and documentary sources was applied. In the context of Russian aggression and its unfolding of a full-scale war against Ukraine since 24 February 2022, the architectural heritage of Kharkiv, as well as the heritage of other cities of Ukraine, is under constant threat of destruction. In this regard, the documentation and introduction of undeservedly forgotten “mono-functional” residential buildings into the international scientific community is extremely relevant. The article begins to document mono-functional housing built in the 1920s-1930s, and discusses in detail several examples: Chervonyi Knygar, Slovo and Komunar.

KEYWORDS: creation of a new metropolitan center, development of the industrial complex, “mono-functional” housing, concepts in residential housing, metropolitan Kharkiv.

INTRODUCTION: The results of architectural and construction activity of the Ukrainian avant-garde, especially the world’s largest early-modernist complexes of metropolitan Kharkiv, form an important part of the national architectural heritage. The interwar period in Kharkiv led to the formation of the administrative center with its unique residential areas and the creation of a large industrial socialist city, the Kharkiv Tractor Plant. In the European panorama of the pioneers of the Modern Movement, these complexes are of interest as works of outstanding artistic quality, which together form a unique collection that complements the overall picture of innovative architecture of the 20th century.

The study of “Kharkiv constructivism”, due to an unfortunate confluence of historical circumstances, is still actually in an understudied state. Many monuments of this bright period are still in the shadow and should be separately highlighted and systematized. Considering the housing architecture of this period it should be noted that at the moment there are studies devoted to the description of such socio-housing concepts of architectural and urban planning practice: garden city, house-commune, housing combine and socialist cities embodied in the capital Kharkiv. Developing in accordance with the main social ideas and trends of Western architectural and urban planning practice, in Kharkiv - the capital of Soviet Ukraine - in the 1920s - early 1930s, these architectural and urban planning concepts were formed in a certain sequence. The first was the concept of the “garden city”, which was a borrowing of Western models that did not correspond to the early Soviet ideology; the concept of the “house-commune” was a recreation of the classics of utopian socialism and became a reincarnation of the phalanster; the third
concept - the functional-spatial model of the “residential combine” embodied the socio-political doctrine of early Soviet propaganda and had analogs in Western countries in the form of housing with social services; the fourth concept - the “socialist city”, the concept of the housing combine expanded in space, which became an example of socio-economic invention in the context of sectoral planning and was a city attached to production (factory or manufacturing plant). But it should be said that, in addition to the above-mentioned types, in metropolitan Kharkiv there were largely present examples of housing that do not fit into any of the above concepts - this is mono-functional housing. By mono-functional housing we mean such type of buildings, in which, according to the project there was overwhelmingly residential function and did not imply the presence of social and domestic services. However, examples of this type of housing have been somewhat neglected due to the non-radical nature of the type, which is undoubtedly unfair, and examples of this type of housing are worthy of special consideration. The historical and theoretical relevance of the study lies in the fact that without a consistent and comprehensive analysis of Kharkiv’s heritage we will not be able to get a general picture of the architectural process in Europe in the first half of the twentieth century and to identify the place and role of Ukraine in this socio-humanitarian panorama.

The architectural and town-planning heritage of Ukraine in the interwar period of the twentieth century, in particular the architecture of Kharkiv, is described in the collective works “History of Cities and Villages of the Ukrainian SSR”, “Kharkiv. From fortress to the capital: Notes on the Old City” [Leibfreid, 2001] etc. The first articles devoted to architectural ensembles of the capital Kharkiv and the peculiarities of their formation appeared in the 2000s [O. Bouryak, K. Cherkasova] [Bouryak, 1999; Cherkasova, 2010]. From then to the present day, several dozens of articles and several dissertation studies have been devoted to this period. Kharkiv’s architectural and urban planning heritage of the interwar period is described in the works of A. Gella, O. Deriabina, K. Didenko, L. Khachmyntseva, N. Khorolian, S. Smolenska and others [Alyoshyn, 1985; Gella, 2010; Deriabina, 2013; Didenko, 2016; Khoroian, 2015; Smolenska, 2017]. The authors’ works cover the phenomenon as a whole or analyze individual, most significant monuments of it, or describe the socio-housing programs of metropolitan Kharkiv and the concepts that were implemented within the framework of these programs.

The purpose of this article is to show examples of the implementation of “mono-functional” housing in the context of consistently embodied socio-housing concepts within the implementation of the programs of creation of the capital center of Kharkiv and development of the industrial complex; to give a detailed description of several examples of mono-functional housing created within the program of the creation of the capital center.

The method of systematization of literary, documentary and archival sources and analytical approach for studying the location of residential complexes within Kharkiv and revealing their typological characteristics are relevant to the research.

KHARKIV HOUSING IN THE USR CAPITAL PERIOD

In the European, and even domestic press, publications about Kharkiv architecture of the period when Kharkiv was the capital of the Ukrainian Socialist Republic are devoted to huge administrative complexes - the building of the State Committee of Ukraine, the House of Projects, the complex of buildings on Dzerzhinsky Square – today Svobody square [FIGURE 01], as well as club construction. To a certain extent, residential buildings erected within the framework of one of the four concepts implemented in the capital Kharkiv have been studied: garden city, house-combination, socialist city [Didenko, 2016]. However, the mono-functional residential buildings of this interesting period are little known to foreign readers, although their architectural characteristics are not inferior to those of buildings with more radical typologies. By mono-functional we mean those that were conceived as containing only the residential component itself, without the addition of a socio-cultural function [Didenko, 2023].

The construction of residential buildings and facilities that were part of the housing programs began in the capital city of Kharkiv only in the early 1920s. The construction of housing near industrial enterprises was driven by the need to provide housing for workers of already reconstructed and new production facilities. The construction of housing in the central part of the city was facilitated by the creation of a metropolitan center with a large number of governmental institutions that needed living space for their employees.
The following examples of mono-functional housing built as part of the creation of the capital's center were selected for consideration as representative of housing for different communist elites. Kommunar was for members of the government and leading employees of the Council of People’s Commissars, Slovo was for Ukrainian writers, Chervonyi Knygar was for employees of the Printing House and Tobacco Factory [Nikolskyi, 2014].

IMPLEMENTATION OF MONO-FUNCTIONAL HOUSING WITHIN THE FRAMEWORK OF THE PROGRAM OF INDUSTRIAL DEVELOPMENT OF THE CAPITAL KHARKIV

In 1923 - 1925 during the construction of the first workers’ settlements the “garden city” model, created by E. Howard at the turn of the nineteenth century, was realized in Kharkiv. The cottage houses on Kharkiv Heroes Avenue and Plekhanivska Street are examples of the garden city concept: they were built for workers of the Elektrosila-1 and the locomotive plants. Residential cottages on Lysa Hora in the Chervonyi Zhovten settlement for railway station workers and the main street Novyi Pobut (New Life). There are only a few cottages on Chervona Bavaria. These settlements were created in 1923-1925 and had 1-2 story buildings [Leibfreid, 2001].

Soon, the resettlement of workers in cottage-type houses was found to be economically unprofitable, and from 1925, instead of cottages, workers’ settlements with three- to four-story apartment buildings began to be built on the outskirts of the city. Such worker’s settlements appeared to the south-east of the locomotive plant (Artem settlement), new residential buildings on Lysa Hora in the same Chervonyi Zhovten settlement, which became examples of mono-functional transitional housing as part of the development of Kharkiv’s industrial program. Within the Artem settlement, four residential buildings were built on Morozova Street (2, 3, 4, 5), designed by architects M. Zelenin, I. Taranov-Belozirov, and V. Bohomolov, as well as residential buildings on Chernohlazivska Street (3 and 5), built in 1928 by I. Taranov-Belozirov and V. Bohomolov. Subsequently, dozens more residential buildings, a school, a vocational school building, and a complex of service buildings were built, which are now part of the Artem settlement (FIGURE 02).

From the mid-1920s, experiments began with the implementation of the house-commune concept, the main features of which were maximum socialization and industrialization of everyday life. In Kharkiv, as early as in 1925, an attempt was made to implement the idea of a commune building on Studentska St., designed by V.Trotsenko.

Finally, in the late 1920s and early 1930s, the concept of the “socialist city” was formed. The period paralleled the widespread introduction of “residential combines”, which had no analoges outside the USSR. The idea of the ‘socialist city’ was often a transfer of the working pattern of the organization of life in the ‘residential combine’ to the spatial scale of the whole city. The similarity of the tasks was emphasized even by the name - residential combine “New Kharkiv” - which originally had the settlement designation of KhTP.

IMPLEMENTATION OF “MONO-FUNCTIONAL” HOUSING WITHIN THE FRAMEWORK OF THE CREATION OF THE METROPOLITAN CENTER.

The program of creating the metropolitan center included the construction of residential combines in the late 1920s - the first half of the 1930s, with partial inclusion of communal houses, and the construction of mono-functional residential buildings. Residential complexes were included in the urban complex of Svobody Square in Kharkiv - these are residential complexes which service Red Industrialist and House of Specialists, and were also built outside of it - for example, a residential house for workers of the
03 Chervonyi Knyhar. Photos of façades. 1927-1931, architects P. Frolov, O. Kogan. © Kateryna Didenko

state apparatus (54 Pushkinska St.), House of Militsia (11 Bagali St.), House of Southern Railways (8/10 Kotlyar St.). To monofunctional residential houses, which followed the pre-revolutionary tradition and were usually with a high level of comfort, such as: House for the Members of the Central Committee Presidium (5 Manizer St.); Chervonyi Bankovets House (6 Artema St.), House for ex-political prisoners (Pushkinska St.), Zoinan (71 Sumskaya St.) and many others.

The list of mono-functional buildings includes those that we will explore in more detail: Komunar residential building for members of the Soviet government of Ukraine, built on Hirschman Street, the Slovo House for members of the Writers’ Union of Ukraine, and the Chervonyi Knyhar residential building, located in the area behind the State Industrial Building. The latter was one to be constructed in this unique residential area, built on a radial ring principle. Chervonyi Knyhar (“Soviet Knyhar”, “Tabachnyk-Knyhar”) residential building (1 Nezalezhnyst Av.) was constructed in 1927-1931 and intended to be fully residential. The foundation stone for the building (architects P. Frolov, O. Kogan) was laid on 6 August 1927. In 1927-1928, the construction was carried out by the City Executive Committee, and in July 1928 it was handed over to Ukraipaibud [CSSTA, case 6].

The facades have a complex composition, organized by the rhythm of vertical pylons and triangular bay windows, intersected by the horizontals of balconies and cornices, which is an atypical technique for constructivism [Figure 03]. The plan of the building resembles a capital letter E. Due to the configuration of the site, the side facades of the Chervonyi Knyhar building are located at 90° and 103° to the main facade [Figure 04]. There are 109 apartments in the building; each of the five entrances is served by a lift. The building has five floors and a basement. Four of the five entrances have back exits to the courtyard. In the first, third, and fifth entrances, the sections facing the courtyard were shifted by half a floor relative to the main volume, making them six-story.

The three- and four-bedroom apartments have a floor area of 70 to 110m² and a finished floor height of 3.5m. Each apartment has a kitchen and a bathroom, with windows usually facing the courtyard, except for the corner three-room apartments in the second and fourth entrances, where service windows face the side facades. The floors of the building are reinforced concrete and timber. The foundation walls are brick with cement mortar, and the bay windows are concrete. The external walls at the level of 4-5 floors are 2 bricks thick, 3 and 2 floors - 2.5 bricks thick, the 1st floor - 3 bricks thick and the basement - 3.5 bricks thick. The basement was also made of brick on cement mortar and to prevent dampness in the basement, an insulating layer of 2 rows of waxed tar paper on the smoothly mortar-levelled surface of the basement was laid below the ground floor level. All window and door openings in both external and internal walls are covered with metal H-beams, filling between the beams with concrete and brick. Window casings and window sills were made of pine; window fixtures were bolts with copper handles or oxidized. “The stairwells were constructed on metal stringers, the steps were reinforced concrete with a mosaic surface, the platforms were reinforced concrete, lined with (...) tiles. Iron grates with handrails made of varnished oak” [SAKhR, case 94].

The building was fully electrified, had central heating, central water and sewerage. The building was handed over with sanitary ware (faience toilets and washbasins), interior finishing and whitewashing of walls and ceilings, and painting works were carried out. The facades were plastered.

The mono-functional buildings erected within the residential area of the administrative center of Kharkiv also include the Slovo residential building (architect M. Dashkevych) at the corner of Kultury and Literaturna street. The project was developed and supervised in 1927-1930 by the Ukrtsyivilbud Institute [SAKhR, case 192]. The building resembles a capital letter C. It is five stories high, has five entrances, and 66 apartments with three to four rooms each. According to the project, the entire building was to be equipped with electric lifts, but this was not immediately implemented, and the lifts were installed later only in a few entrances. However, the solarium with showers above the fifth floor, which was envisaged in the project, was implemented.

The building looked a little different after completion than it does today. The finials above the northeast and southwest corners, which are visible in the drawing of the main façade [CSSTA, case 7], unfortunately, have not survived.

The northeast wing of the building was left unchanged. The windows of two three-room apartments face northeast. The original design solution and the later version of the façade on Kultury Street differ in the presence of
small balconies facing northeast. No plans corresponding to the implemented solution have been found in the Kharkiv archives. No drawings of the southwestern façade have been found yet. Judging by the plans, it remained unchanged.

Despite the adjustments to the original architectural solution, the number of rooms in the apartments was preserved. In the side sections, the rooms facing Literaturna Street now have one window instead of two; in the central part, in the four-room apartments, the number of windows has increased from one to two. Due to the fact that the terrain slopes down to the northeast, it became possible to additionally mark out one four-room and three three-room apartments in the basement. This made it possible to provide lifts in the first and second entrances. The other part of the basement was designed to house a boiler room with auxiliary rooms and storerooms, which is also a characteristic feature of that era. The bathrooms and toilets in the building receive sunlight, while the windows of the kitchens and toilets face the courtyard and the rear façade.

Three-room apartments are located in the side wings of the building, and four-room apartments in the central part and corner volumes. The entrances of the building pass through, so the area of the ground floor apartments (about 15 m²) is smaller than in apartments on typical floors (18-19 m²), with the same number of rooms.

The design of the building is quite traditional. Slovo House has longitudinal and transverse load-bearing walls made of brick. The building was constructed “in forms that take an intermediate place between Art Nouveau and Constructivism” [Leibfreid, 2001].

The section of the staircase shows that the interfloor floors of all floors are made of monolithic reinforced concrete on metal beams. The building has quite high floors - 3.28 m [FIGURE 05, FIGURE 06].

The Komunar residential building (17 Hirschman St.) was built for members of the Council of People’s Commissars of the Government of the USSR (architects A. Linetskyi, V. Bohomolov). The project was developed and implemented in 1929-1930 by the Ukpaibud company paid for by the Komunar housing cooperative. Interestingly, the Garage was built for this house in 1928-1931 and the House of Drivers was built in the block across the street from the main residential building. The archive contains an original drawing of the sewerage project for this complex, which shows the general plan with the garage and the Drivers building located on the opposite side of Hirschman Street.

The architecture of the residential building is entirely in constructivist forms, its facades are virtually devoid of decoration, except for the modest artistic molding of the entrances and stained glass staircases in the side wings of the building. The building is shaped like a horseshoe. Two seven-story side towers framing a semicircular front yard open to the street, which is accessed by ten entrances to the five-story part of the building, add an expressive plasticity to the composition of the complex [FIGURE 07, FIGURE 08, FIGURE 09].

The Komunar residential building has 10 entrances and 50 three- and four-bedroom apartments. The curvilinear
part has 5 floors and a basement, while the T-shaped parts have 7 floors, with a basement under them. The seven-story towers flank a semicircular front yard, which is accessed by eight entrances of the five-story part of the building. The seven-story part of the building has lifts. The five-story part of the building contains only three-bedroom apartments, while the seven-story part is mostly four-bedroom. The first and tenth entrances have three apartments per floor, one of which is a three-room apartment. The area of a three-room apartment in Komunar is 70-75m², and a four-room apartment is about 120m². The project envisages a boiler room and a coal room in the basement, a laundry room in the right wing of the building, and a doorman's room in the basement.

The construction of this residential facility was given special importance and the speed of its construction was a priority compared to other construction projects. The study of archival materials revealed a document from UKRPAIBUD dated 26 July 1929, which mentions that materials for the construction of this building were "temporarily borrowed" from other construction projects. The same letter also states that 25 wagons of cement and 2 wagons of I-beams were used. It is also mentioned that there were problems with the supply of scarce materials such as I-beams, wire rod, and parquet [CSSTA, case 5; SAKhR, case 183].

CONCLUSION
Large-scale residential and cultural construction in metropolitan Kharkiv was carried out within the framework of programs for the creation of the capital’s administrative and governmental center and the formation of the Kharkiv industrial complex. Within the capital center program, the concept of the residential combine was embodied, and within the industrial complex development program, the concepts of the garden city, commune house, and social city were embodied.

In parallel with the implementation of the above-mentioned concepts, which are undoubtedly a remarkable fact that makes the architectural heritage of the capital city of Kharkiv unique, mono-functional residential buildings were
built, which are vivid examples of Ukrainian avant-garde architecture and require special attention. Mono-functional housing was created as part of the programs for the creation of the capital’s center and the development of the industrial complex, in addition to the above-mentioned concepts. Emphasizing the presence of “mono-functional” residential complexes built into the programs for the creation of the capital’s administrative and governmental center and the formation of the Kharkiv industrial complex is necessary to understand the full picture of the residential architecture of the capital city of Kharkiv.

The article presents mono-functional residential buildings built in the 1920s and 1930s, erected as part of the programs for the development of the industrial complex and the creation of the metropolitan center. Three residential buildings that were selected for consideration as representatives of housing for different representatives of the communist elite and built as part of the program for the creation of the metropolitan center are examined in detail: Residential House Slovo, Residential House Komunar and Residential House Radyansky Knyhar. A detailed examination of these buildings is the first step towards introducing buildings that are outstanding monuments of residential architecture in the capital city of Kharkiv into international architectural research.

REFERENCES


REFERENCES


ARCHIVES

CSSA - Central State Scientific and Technical Archive, fonds 1, inventory 24, case 5. Komunar.

CSSA - Central State Scientific and Technical Archive, fonds 1, inventory 24, case 6. Tabachnyk.

CSSA - Central State Scientific and Technical Archive, fonds 1, inventory 24, case 7. Slovo.

SADR - State Archives of Kharkiv Region, fonds 1777, inventory 2, case 94. Tabachnyk.

SADR - State Archives of Kharkiv Region, fonds 1777, inventory 2, case 183. Komunar.

SADR - State Archives of Kharkiv Region, fonds 1777, inventory 2, case 192. Slovo.

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