

East–west dialogue: The case of residential architectural and urban planning concepts in Kharkiv (1920s–1930s)

Research Article

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Abstract: The article is devoted to exploring parallels in the architectural and urban planning practices of Western and Kharkiv modernism in the 1920s to early 1930s, analyzed through the lens of residential concepts in the capital city of Kharkiv. The study attempts to define key global architectural and urban planning trends of the 1920s–1930s and highlight their distinct realization in Kharkiv. This city served not only as an experimental platform for implementing avant-garde concepts tied to the creation of the “new Soviet person” but also as a venue for incorporating Western modernist approaches to design and socio-architectural concepts. In Kharkiv, these concepts were implemented in the sequence: the “garden city,” the “house-commune,” the functional-spatial model of the “residential combine,” and the “socialist city.” In the context of significant destruction caused by the war initiated by Russia against Ukraine, identifying these implemented concepts in Kharkiv greatly enhances the value of individual architectural objects and entire urban ensembles. This recognition also facilitates their integration into contemporary heritage preservation strategies.

Keywords: *East-west modernist concepts interrelations • Garden-city • House-commune • Kharkiv modernism • Residential combine • Socialist city*

1. Introduction

The capital city of Kharkiv is renowned as an experimental platform for the development of globally recognized early modernist complexes and as a laboratory for shaping a new men to build a new social order. Serving as the capital of Soviet Ukraine from 1919 to 1934, Kharkiv was chosen for its industrial potential and strategic location near key transport routes. It hosted government institutions, implemented new socialist policies, and became a center for avant-garde cultural and architectural experiments. The city’s new administrative center, featuring unique residential areas that combined the concepts of the “house-commune” and the “residential combine,” as well as settlements designed under the “garden city” concept and the expansive industrial “socialist city” of

Kharkiv Tractor Plant (KhTZ), is of interest not only as works of exceptional artistic quality but also as compelling social and typological experiments tied to the vision of creating a “new soviet men and society.” However, the development of social and residential infrastructure in the capital city of Kharkiv occurred not only under the influence of avant-garde Soviet concepts but also in connection with global architectural trends. In the European context, these buildings and complexes are of significant interest to representatives of the Modern Movement as examples of exceptional artistic quality, collectively forming a unique collection that enriches the overall panorama of twentieth-century innovative architecture.

The study of “Kharkiv Constructivism,” due to an unfortunate convergence of historical circumstances, has remained largely in the shadow and still requires dedicated attention and systematic exploration. This need is especially urgent today, as the war initiated by Russia

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against Ukraine continues, with Kharkiv, as a frontline city, enduring daily bombardments and suffering the consequences of urban heritage destruction. The results of the study can be applied in programs aimed at restoring damaged architectural heritage and preserving the surviving cultural monuments of Kharkiv. This research will not only enhance the value of individual buildings as cultural heritage objects but also contribute to a holistic understanding of the spatial-temporal context of Kharkiv's modernist heritage, which is a vital layer in the formation of the city's cultural identity.

The research of Ukrainian scientists, in particular, the works of Bouryak O. [1], Cherkasova K. [2], Shvydenko O. [3], Kachemtseva L. [4], Gella O. [5], Mykhailyshyn O. [6], Linda S. [7], Smolenska S. [8], Remizova O. [9], Vasilenko L. G. [10], Rusanova M. [11], Deryabina O. [12], Lyubavsky R. [13], Didenko K. [14] significantly reveal and help to better understand the architectural and urban planning processes and achievements of the capital period of Kharkiv. An important one is the issue of the *DOCOMOMO International* journal, which was published in April 2024 [15] and was entirely devoted to Kharkiv modernism. Studies by foreign scholars also add additional perspective and information about Ukrainian modernism and the collaboration between Ukrainian architects of the Kharkiv capital period and Western architects, such as C. Crawford [16], H. Umemiya [17], and B. Ciarkowski [18]. Foundational works by W. Curtis [19] and J.-L. Cohen [20] provide comprehensive accounts of how early modernist housing and planning ideas circulated across Europe, the Soviet Union, and beyond. Within this transnational field, the architectural avant-garde of Kharkiv – particularly its experiments with collective housing, garden-city principles, and industrial planning – should be interpreted not as isolated phenomena but as active participants in a shared network of innovation.

Recent scholarship has significantly expanded understanding of these interconnections. Movilla Vega [21] examines the OSA group's formative experiments (1926–1930) and identifies systematic relationships between Soviet “transitional” types of communal housing and contemporary European functionalist schemes. Gierko [22] analyzes interwar housing estates in the Weimar Republic, demonstrating parallel typological and social developments that resonate with Kharkiv's projects. Ludwig [23] highlights the reinterpretation of garden-city ideals within early modernist estates, elucidating how landscape and social design merged in 1920s–1930s housing schemes.

Comparative regional perspectives also enrich the discussion: Tchitchileishvili [24] explores constructivist manifestations in 1920s Batumi, revealing how early modernist

ideas adapted to different local contexts within the Soviet sphere. Further research, for instance, *Architecture in Series: Housing and Communist Idealism* [25], details the exchange of technical and conceptual solutions between Soviet and Western European models, underlining the material dimension of the East–West dialogue in architectural practice. These studies confirm that Kharkiv's modernist heritage should be viewed as an integral component of a broader, transnational architectural modernity that shaped the urban and social vision of the interwar period. Integrating these global perspectives allows the present research to not only reassess Kharkiv's architectural legacy in light of shared European and international tendencies but also identify specific interpretations of the modernist paradigm in the Ukrainian avant-garde's housing and urban planning concepts.

Building upon these insights, there remains a need to deepen the understanding of the context in which Kharkiv's modernist complexes were created by incorporating aspects that reveal the interconnections between the Ukrainian avant-garde and Western modernist trends.

The authors see **the purpose of the study** as an attempt to identify how the global modernist architectural and urban planning trends and concepts of the 1920s and 1930s were reflected and interpreted in the housing practices of the Ukrainian avant-garde, using the capital city of Kharkiv as a case study. To achieve this goal, the study uses the method of systematization of literary, documentary, and archival sources [26–30], as well as a logical genetic approach to studying these parallels and interrelationships.

2. Global trends in housing and urban planning in the 1920s and 1930s

In the early twentieth century, the widespread destruction of cities during World War I intensified the already severe housing shortage that had persisted since the pre-war period. The rapid growth of urban populations due to the influx of rural residents created the task of not only swiftly restoring the housing stock but also significantly increasing it. The issue of post-war reconstruction, primarily related to housing provision, began to enter the political discourse. Architecture and urban planning were presented as almost the sole means of addressing social problems, becoming a trend of the 1920s.

In the professional discourse of architects, particularly within the avant-garde movement (Le Corbusier, Walter

Gropius, Bruno Taut, Ludwig Mies van der Rohe, and others), the idea of addressing social issues through architecture and urban planning gained significant prominence. One of the key concepts of the avant-garde was social reform – the creation of a society for the future through the synthesis of various spheres of human activity: art and industry, the creative work of the artist and machine production. This manifested itself in the introduction of machine production principles into creative practices, as well as nostalgic calls for a return to the values of the age of machines, folk traditions, classical order, and the ideas of the English Arts and Crafts Movement led by the socialist theorist William Morris.

Thus, within the fields of architecture and urban planning, two main, rather contradictory directions emerged: the “technicist” approach, oriented towards scientific and technological achievements, and the “sociocultural” approach, which focused on society and the architectural environment as the starting point for action [31]. The first direction was widely represented in urban planning projects by avant-garde leaders such as Le Corbusier, Walter Gropius, Ernst May, Mies van der Rohe, and others. The second was represented by Patrick Geddes, Thomas Adams, Sir Charles Reilly, Alvar Aalto, and others.

The division between technicism and the sociocultural approach in modernist architecture has been explored by leading theorists. Siegfried Giedion [32] emphasized the synthesis of technology and society. Reyner Banham [33] focused on technological innovations. Manfredo Tafuri [34] analyzed the socio-political dimension of modernism. Kenneth Frampton [35] discussed a balance between technical progress and cultural context. Adrian Forty [36] explored the language of modernism, revealing these contradictions. The works of these authors form the foundation for this conceptual division. Together, they contribute to an understanding of how modernism, amid contradictions, sought to reconcile technological progress with sociocultural sensitivity.

The technicist approach in architecture was characterized by several key features, among which the most significant for this study are the expansion of architecture’s tasks to address the issues of “constructing life,” emphasizing its role as an instrument for social change; utopian concepts aimed at the complete or partial transformation of society; the formation of a new type of person who would align with the ideals of the new society; the transfer of educational functions to specialized institutions such as kindergartens and boarding schools; and an emphasis on the ideas of social justice and the prioritization of public interests over private ones [31]. In addition, the technicist approach involved the rejection of traditional design

forms and the creation of programs with a clear implementation plan, which combined architecture with large-scale social experiments. All these aspects formed a unique developmental trajectory for architecture, aimed at a radical rethinking of its role in society.

The sociocultural approach is characterized by several key features, with the most important for this research being the recognition of the family as the central component of the social unit and a focus on human needs. This approach is marked by a corrective, rather than a revolutionary, strategy that emphasizes gradual improvement over radical change. An important aspect is the preservation of historical monuments and religious buildings, highlighting the significance of cultural heritage. Additionally, this approach prioritizes diagnosis and research over planning, fostering a deeper understanding of the context and needs of society [37].

In the 1920s, cultural connections between Soviet Ukraine and Western countries were quite diverse. Despite differences in political and ideological views, during the 1920s and 1930s, there were shared global trends in residential architecture and urban planning concepts, which are significant for understanding the processes taking place in the construction of the capital city of Kharkiv. Kharkiv became the experimental ground where the most advanced ideas of Ukrainian avant-garde architecture were realized: the garden city, the house-commune, the residential combine, and the socialist city. The concepts of the garden city and the house-commune were applied both in the program for the creation of the capital center and in the development of the industrial complex, while the socialist city was only used in the latter program, and the residential combine was primarily part of the program for the creation of the capital center. These concepts were shaped by both Soviet and global trends, which will be discussed further.

2.1 Global trends of the 1920s–1930s

2.1.1 Housing in the garden city concept

One of the most widespread and popular types of affordable housing that attracted the attention of architects in many countries both before and in the early years following World War I was the “garden city.” This concept, originally formulated by Ebenezer Howard in his book *Garden Cities of To-Morrow* (1902), encompassed not only a characteristic and widely known urban planning scheme but also the entire process of construction organization, including its economic and social aspects.

The pioneering English garden cities soon inspired similar initiatives across continental Europe. In the early twentieth century, Howard's ideas were adopted in planned workers' settlements such as Giszowiec near Katowice (1907–1910) in Upper Silesia and Hellerau near Dresden (initiated in 1908), which became emblematic examples of early European adaptations. In England, during World War I, the garden city model received government support. In 1915, Raymond Unwin created "villages for heroes" for workers of military factories. In 1918, the National Garden Cities Committee developed a program for constructing such cities [35]. In 1920, the construction of the Welwyn Garden City began, which was meant to continue the experience of the already built Letchworth (1903). In 1929, near Manchester, the satellite town of Wythenshawe was built, designed by Richard Barry Parker, intended for 100,000 residents.

In the broader Western European context, parallel developments emerged that further explored the material and social dimensions of the garden city ideal. One notable example is *Betondorp* in Amsterdam (1923–1925), an early experiment that applied modern concrete construction to a low-rise workers' neighborhood while maintaining planning principles akin to the "garden suburb." The project can be viewed as a continental adaptation of the garden city idea, reinterpreted through the lens of technological innovation and collective organization [38].

However, the economic independence of these cities was only partial. Their success was ensured by being less remote from large cities compared to Letchworth, but implementing the program on a national scale proved to be impossible.

This concept exhibited features of both the technicist and sociocultural approaches. In Kharkiv, attempts to implement this concept can be found, albeit in an adapted form.

2.1.2 Architecture and urban planning as a tool for solving social problems

Following the collapse of empires, social conflicts intensified in many European countries, including Soviet Ukraine. Revolutions led to wars, uprisings, and dictatorships, such as the regime of Miklós Horthy or the fascism of Benito Mussolini, which competed with communist ideologies. The housing shortage after World War I became a catalyst for the growth of social construction. Even the wealthier classes lost access to the free real estate market, as governments in many European countries took measures to combat rising housing prices. In 1917, the Netherlands, and in 1918, Italy, froze rental prices. These

restrictions led to a decrease in private investment, and the issue required centralized intervention. Thus, geopolitical changes and the collapse of empires spurred social programs in Germany, Hungary, the USSR, and "Red Vienna," influencing other countries as well.

In the context of the aforementioned historical and political changes, the issue of housing in the 1920s became a social and political matter, and architecture began to be viewed as a tool for addressing social problems. Economic plans for the construction of affordable housing were included as key points in the programs of socialist and workers' parties. Building cooperatives were formed, spread, and gained influence, while funding programs for public organizations, administrations, and private entrepreneurs were developed, actively supporting investments in housing construction. In the mid-1920s, Europe saw the largest number of social reforms, including in urban planning. Social initiatives in urban planning not only concerned housing construction but also the creation of infrastructure (such as schools, markets, post offices, laundries, etc.).

Depending on the type of social issues being addressed, these trends could exhibit characteristics of both the technicist and sociocultural approaches. For example, the Soviet "social condenser," according to M. Ginzburg, sought to address social issues by aiming to shape the new Soviet person: "Soviet theory of constructivism outlined the social condenser as a spatial idea, not only embodied in architecture but also influencing the formation of a model of behavior for individuals in the future" [37]. Thus, the concepts of the Ukrainian avant-garde interpreted this trend more in the technicist key of the Soviet narrative.

2.1.3 Housing construction for various social strata

The issue of housing and mass housing construction during the interwar period became one of the most important topics in all industrialized countries. It concerned both the lower-income and middle classes, for whom new housing typologies were being sought. Additionally, a new type of housing for the wealthy emerged, influenced by the latest trend of functionalism, as seen in the Tugendhat Villa and the Stiassni Villa in Brno.

The new social and affordable housing units and blocks of the interwar period were quite diverse in structure: they incorporated both established traditional urban planning schemes and new experimental ones and varied in their location relative to the historical center and industrial zones. In some cases, the construction of affordable housing took the form of infill developments within existing blocks or districts. The new principles of

organizing housing complexes and new typologies were typically implemented in European countries on experimental sites for low-income populations, reflecting a technocratic approach. This was driven by both the growing interest of architects in the topic and the government's focus on the need for new economic construction strategies and relative independence from the consumer market. The main developers were municipal administrations, organizations interested in improving the living conditions of their workers, and the state. The construction was carried out by cooperatives or private firms, which received support from the state or municipal authorities.

In this context, it is worth mentioning the parallel efforts in Western Europe to explore new housing typologies. For instance, the *Cité Frugès* in Pessac (1924–1926) represented an important experiment in the standardization and industrialization of small-scale housing production, emphasizing typification, material efficiency, and clarity of architectural form. Later, the *Siemensstadt* housing estate in Berlin (1929–1931) demonstrated a large-scale approach to neighborhood planning, characterized by a diversity of dwelling types, the integration of communal infrastructure, and a conscious attention to residential density – developments that partially echoed the broader search for new housing models addressing different social groups. These Western European examples illustrate a wide range of experimental solutions, from modular standardization to complex social infrastructure [39,40]. In Kharkiv, this trend was implemented through the distinctive allocation of housing concepts – garden city, house-commune, housing combine, and socialist city – across two key development programs for the capital: the creation of the capital center and the development of the industrial complex.

The house-commune was a type of collective housing rooted in Fourier's phalanstère, characterized by minimal private space and a focus on communal areas to foster a collectivist lifestyle. *Residential combines* also featured well-developed social and service infrastructure, while typically offering fully or nearly fully equipped apartments with more personal space, and embodied a more humane character compared to the house-commune. *The socialist city* was an urban complex designed as a functionally organized environment integrating residential, industrial, and service zones within a unified spatial framework. It was based on principles of rational planning, collective provision of services, and social equality, aiming to foster the “new socialist citizen” through communal living and social interaction.

For the capital center, extreme and experimental typologies were generally not used; instead, comfortable

mono-functional buildings of traditional types were constructed [37], as well as housing complexes following the residential combine concept. Conversely, the development of the industrial complex embraced experimental housing types. Social stratification was also evident within the socialist city concept [31]. However, private houses, such as those seen in Brno, were not present in Kharkiv.

2.1.4 Transition from single- and two-story buildings to multi-story housing

The settlement type connected to large cities via public transport remained popular until the mid-1920s. However, for economic reasons, low-rise developments consisting of individual houses for one or two families gave way to multi-story buildings with denser urban layouts. Advances in construction technologies led to the loss of the economic advantage previously held by low-rise social housing typologies compared to multi-story structures.

By the mid-1920s, low-rise settlements connected to major cities by public transport were still widely favored. However, economic factors caused a shift toward multi-story developments. Notable examples include settlements in France, such as Boulogne, Champigny, La Muette in Drancy, as well as the Villejuif project designed by André Lurçat [35].

In Kharkiv, the period from 1923 to 1925 was closely associated with the construction of workers' settlements consisting of single- or two-story buildings, such as Chervonyi Zhovten (Red October), the settlement in the Chervona Bavariia (Red Bavariia) settlement, and several settlements near Kharkiv's largest machine-building factories. After 1926, a transition to three- and four-story buildings occurred, exemplified by the Artem Settlement (1926–1929) and Chervonyi Promin (Red Ray) (1929–1930). This was followed by the development of five- to seven-story buildings, such as the district behind the State Industry building (*Zaderzhpromya*) and the KhTZ (Kharkiv Tractor Plant) socialist city.

2.1.5 Serviced housing

In the pursuit of new housing typologies between 1925 and 1930, 15,000 apartments were built near Frankfurt under the project of avant-garde architect Ernst May, accommodating 50,000 people and including various service facilities. Complexes designed for 1,200–1,500 residents featured both single-family homes and commune houses. This initiative gained international recognition, and Ernst May's work on providing housing for broad social strata

drew the interest of architects in the Soviet Union, where May was invited to work in 1931.

The Soviet Union exhibited a keen interest in residential and district development projects in Germany, undertaken by figures such as Bruno Taut, Otto Haesler, Walter Gropius, and Ernst May. This interest extended beyond technical and functional aspects to include social considerations. Addressing housing issues became a central theme in the exchange of ideas. When Anatoly Lunacharsky, the People's Commissar for Education, visited the Hufeisensiedlung residential district in Britz, Berlin, led by Bruno Taut, he remarked, "This is socialism built in stone" [41]. Bruno Taut played a key role as an intermediary in fostering relations between Germany and the Soviet Union. Another example of a structure closely resembling a house-commune in its design is the "Bachelor House" in Breslau (1929), designed by Hans Scharoun.

Housing complexes with services were partially implemented through the efforts of the Bauhaus school. In 1922–1923, a standardized housing project and its furnishings were developed and presented to the public as a permanent exhibition.

By the mid-1920s, service-oriented housing had become a widespread phenomenon. It gained particular prominence in Vienna, where the socialist government initiated an ambitious policy of constructing social housing or municipality building (*Gemeindebauten*). This development primarily employed the "hof" typology – three- or four-story buildings arranged around enclosed courtyards. In total, the ten largest complexes of "Red Vienna" included 11,570 apartments [42].

These apartments typically consisted of living rooms and a large kitchen, which also functioned as a living area. The absence of private baths or showers in the new housing was offset by the extensive development of communal amenities, such as public baths, automated laundries, kindergartens, playgrounds, medical and dental clinics, libraries, and lecture halls. Only the largest housing complexes provided the full range of such services, with Karl-Marx-Hof (designed by Karl Ehn, 1927–1930) standing out as the symbol of "Red Vienna."

In addition to the Viennese examples, it is also important to highlight several Western European projects that emphasized the role of collective and communal spaces within residential structures. A number of housing developments of the 1920s and early 1930s focused not only on the internal layout of apartments but also on the integration of shared services and collective open areas such as playgrounds, laundries, and educational or recreational zones. In Berlin and other German cities – particularly in Bruno Taut's works, including the *Hufeisensiedlung*

(1925–1930) and other large-scale housing complexes of that period – the idea of a communal "core" of the neighborhood was deliberately embedded as a means of socialization. This approach partially resonated with the same goals pursued in the communal and service-oriented housing programs of Red Vienna. These strategies reinforce the argument that the negotiation between private and collective space was a pan-European theme, significant also for the Kharkiv experiments [2].

Service-oriented social housing was also constructed in England. During the 1920s and 1930s, the technical departments of London County began implementing the concept of "neighborhood units" – districts designed for populations of 4,000 to 10,000, with essential services located within a 10–15-minute walking distance from the center.

The trend of designing service-oriented housing in Kharkiv was prominently expressed in the house-commune, the residential combine, and later in the concept of the socialist city.

In conclusion, it is essential to note that all the aforementioned trends can be identified in the architectural and urban planning practices of Kharkiv during the 1920s and 1930s. However, for this study, the most significant trends are housing based on the garden city concept, service-oriented housing, and the growing perspective of architecture and urban planning as tools for addressing social issues. These trends are reflected in the four concepts to be discussed in the research.

Among the five trends discussed, both technicist and sociocultural approaches were present. However, as we will observe in the avant-garde housing concepts that crystallized in Kharkiv, the technicist approach predominated.

3. Implementation of avant-garde concepts in Kharkiv

A number of avant-garde concepts and/or models of residential structures were developed during the period when Kharkiv served as the capital. The formation of these concepts can be viewed in the context of both avant-garde Soviet trends and Western architectural and urban planning practices. The stages in the development of these concepts can be broadly outlined in the following sequence: uncritical borrowing of Western "bourgeois" models (e.g., the "garden city"), attempts at social innovation inspired by the classics of utopian socialism (house-commune as a reincarnation of the phalanstère); the design of new functional-spatial models as a means of

realizing social doctrine (residential combine); socio-economic inventions in the context of industrial planning (socialist city). The practical testing of the models created at each of these stages stimulated the search for new solutions [31].

3.1 Garden city

In Kharkiv, during the 1920s and 1930s, attempts were made to implement the garden city concept. The first steps in housing construction were taken during the development of workers' settlements in Kharkiv in 1923. Along with the industrial enterprises of Kharkiv, workers' settlements were built: Metalist (1923–1924, architect V. K. Trotsenko, with the participation of I. H. Taranov-Belozertsyk, V. I. Bohomolov), Chervonyi Zhovten (1924, architect A. Langman), houses in the settlement of Chervona Bavariia (1924–1926), and the Artema (Artem) settlement (1926–1929, architects M. Zelenin, I. Taranov-Belozertsyk, V. Bohomolov). Standardized projects for single-story houses for 2 families, or 2-, 3-, and 4-story section houses with various block section options, were used for their construction. The low-rise, quickly built structures were situated on small plots of land [43] (Figure 1).

The Chervonyi Zhovten settlement (1924–1930s). The land for the settlement was allocated on the north-western outskirts of Kharkiv – the modern Lysa Hora (Bald Mountain) district. The initial buildings of the cooperative settlement were concentrated on a plot bounded by Myronivska, Novyi Pobut (New Life), Ashkhabadska, and Hirska streets. In the future, it was planned to expand the residential area of the district with individual housing construction southward from Novyi Pobut Street to Nyzhnohirska Street [37]. The cooperative settlement was developed by architect A. Langman between 1924 and 1927.

By the end of 1924, 11 wooden houses were built, each containing one or two apartments, with brick facades and tiled roofs, surrounded by hedges, sheds, and utility buildings on Novyi Pobut Street. Additionally, 5 more buildings were constructed, containing 20 apartments, equipped with plumbing and electric lighting. The area of each apartment was 56.5 m².

After 1930, brick two-story four-apartment houses of the third type and a three-story 26-apartment building of the fourth type were constructed on Mironovska Street, located at the corner of Mironovska and Novyi Pobut Streets. Buildings of various types were complemented by two-story four-apartment houses.

After 1925, there was a shift from the construction of low-rise settlements to the erection of three- and four-story buildings. The “Planning Commission of the Ukrainian Executive Committee” [31], in discussing the types of buildings that should be implemented in the city, concluded that only four-story buildings should be built, and only in areas where sewerage and water supply already existed. An example of a settlement with four-story residential buildings is the Artema settlement (1926–1929).

The Artema settlement, located on the southeastern side of the city, was constructed in the second half of the 1920s, where three- to four-story sectional buildings were erected. On the territory of the Artema settlement, four residential buildings designed by architects M. Zelenin, I. Taranov-Belozorov, and V. Bogomolov were built on Morozova Street (Nos. 2, 3, 4, and 5), as well as residential buildings on Chernoglozivska Street (Nos. 3 and 5), constructed in 1928 by I. Taranov-Belozorov and V. Bogomolov [44].

The new administrative center of Kharkiv with a residential district. Alongside the development of the city's master plan and the construction of workers' settlements, in 1923, the development of a new administrative center for the capital of Kharkiv and a residential area adjacent to it began. This area was planned to be located to the east of the historically established city center – the ensemble of Dzerzhinsky Square (now Svobody Square, or in English – Freedom Square). The main hub of the new city center was a round square on the site of the former wasteland behind the University Garden – at that time, it was essentially the outskirts, beyond which, during World War I, were located the city hospital complex and the military hospital barracks. The proposed plan was initially developed by the architect for designing a dacha settlement on this site, influenced in part by Howard's ideas. Architect Trotsenko's preliminary design already defined the formal concept of the future main square of the city – even before the actual design of its ensemble (Figure 2) [45].

In 1925, the construction of a new government center began, with the first manifestation being the building of the Derzhprom (State Industry), designed by architects S. Serafimov, S. Kravets, and M. Felger, built between 1925 and 1928. This building was intended to house numerous republican institutions. The placement of such a large number of institutions required housing for their employees, which was planned to be located in several residential blocks in the district behind the Derzhprom. The administrative block of this administrative complex was separated from the residential area by a strip of roadway and green spaces, the geometry of which adhered to the original concept of the circular main square. This

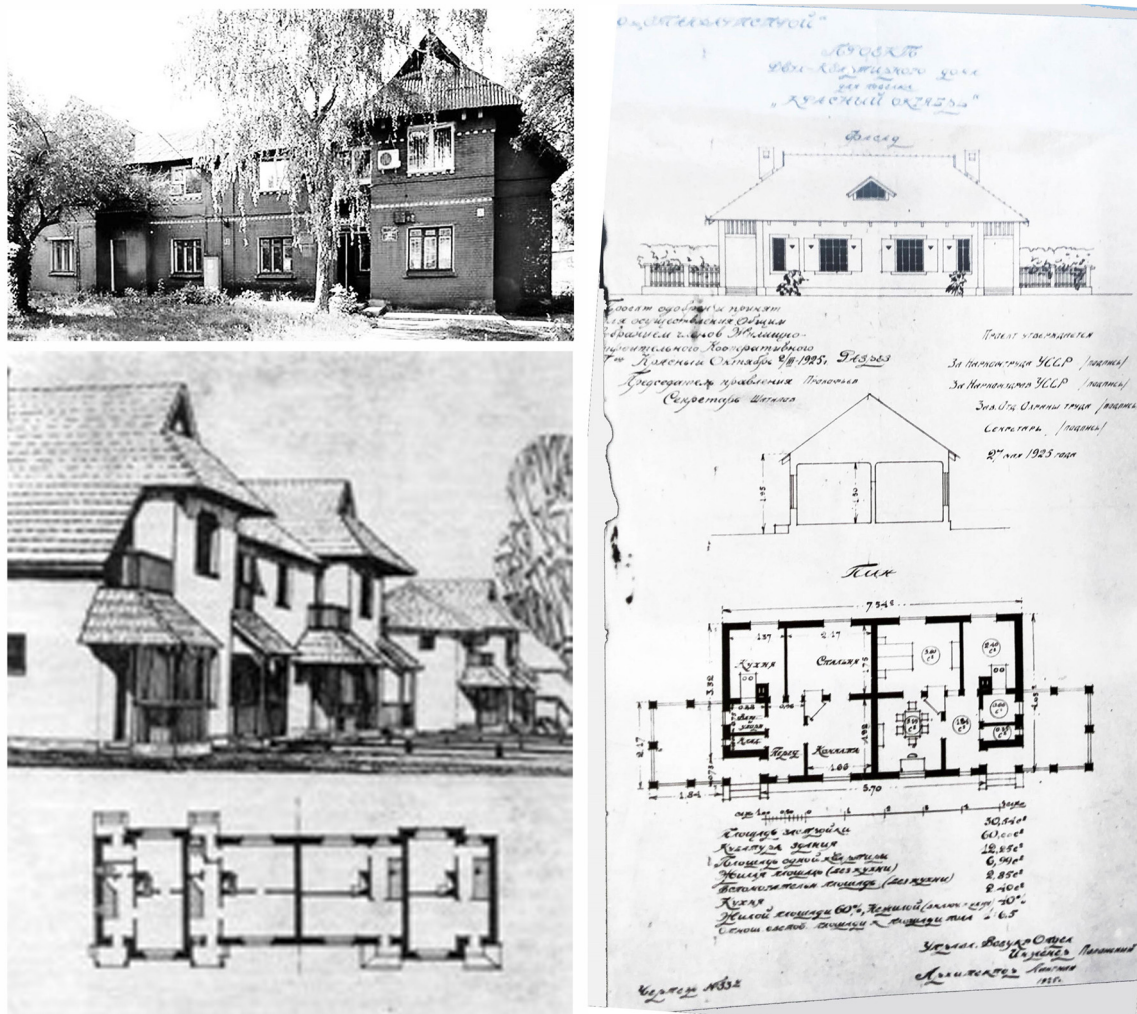


Figure 1. Cottages on the “Garden City” settlements in Kharkiv. Photos and plan for the settlement Metalist V. Trotsenko, 1923–1924, architect V. K. Trotsenko; Cottage project for the settlement Chervonyi Zhovten, 1925, architect A. Langman. Source: Leibfreid Y. Kharkiv. From fortress to capital. Notes on the old city and TsDAMLM – Central State Archives and Museum of Literature and Art of Ukraine, f.8, o.1, d.263.

Source: Authors’ contribution.

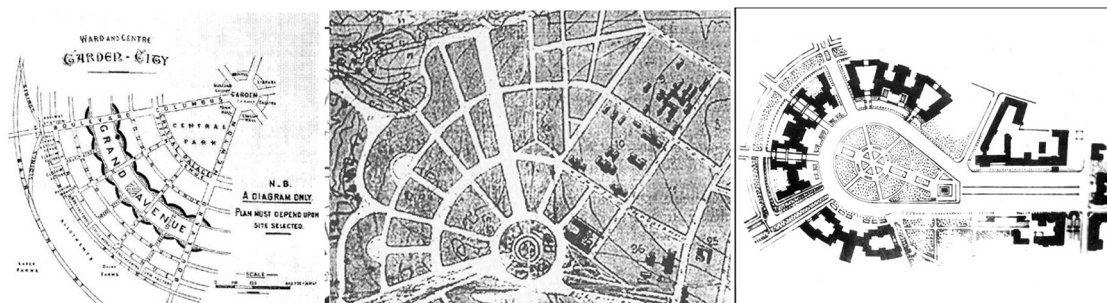


Figure 2. Garden City Concept-Scheme of E. Howard (1898). The proposed plan for designing a dacha settlement in Kharkiv (1923). New administrative and government center Kharkiv (1925). Source: Leibfreid Y. Kharkiv. From fortress to capital. Notes on the old city.

Source: Authors’ contribution.

planning structure (after some refinement) became the foundation for the urban planning scheme of the new administrative and business center of Kharkiv, as well as the adjacent residential area behind the Derzhprom. It marked a transitional stage in the process of transforming the original concept of this district as a dacha settlement (and later the administrative center of Kharkiv) into the “socialist city” of KhTZ (Kharkiv Tractor Plant), which will be discussed further later.

3.2 House-commune

In the mid-1920s, architects made the first attempts to implement the concept of the house-commune, which emerged from the ideas of utopian socialists, primarily Charles Fourier, about the creation of a phalanstère with maximum socialization of everyday life. The concept of the “house-commune” became an important step toward the collectivization and industrialization of domestic life. The need for such housing was justified by the acute housing crisis, economic conditions, and the necessity to abandon remnants of the old way of life in favor of a new approach aimed at

shaping the new Soviet person. This concept clearly belonged to the category of “social condensers” and embodied the technicist approach [37]. Attention was focused on finding economic planning solutions that adhered to the spirit of collectivism – minimalist housing units without bathrooms, with shared kitchens and baths on each floor (or with kitchenette niches and industrial sanitary units), but with large rooms for collective activities and cultural recreation. Washing, cleaning, and cooking were carried out in laundromats, laundry-bath complexes, and factory kitchens, grouped into a separate functional block.

The concept of the house-commune did not take root in Kharkiv. However, several attempts were made to implement this idea.

In 1925, the first attempt was made – the house-commune in Tovkachivka (now 4 Studentska Street). Designed by V. Trotsenko, the complex was built for 2,000 people, consisting of two blocks, and its layout resembled Fourier’s phalanstère. The complex included a section with residential units – the first block, which had a “U”-shaped plan and was a corridor-type building with rooms along the perimeter, lacking amenities, and a service sector, which included a canteen and baths (Figure 3).

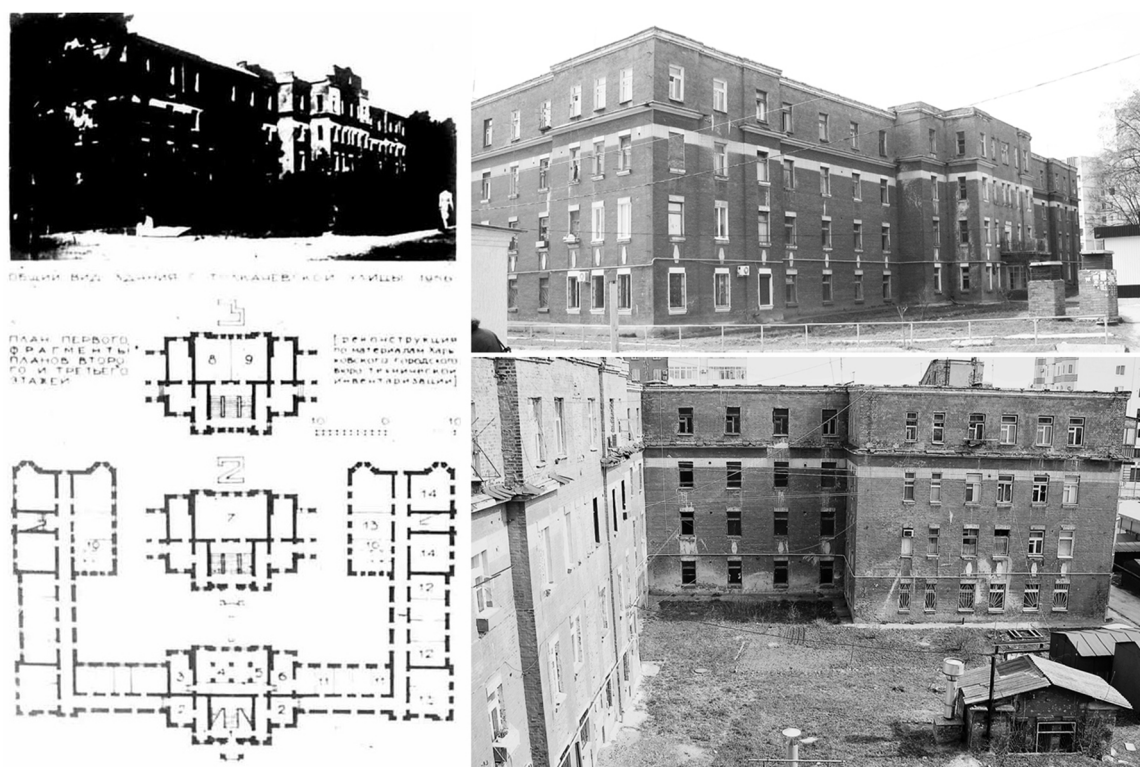


Figure 3. House-commune on the Studentska St.4, Kharkiv. Plan and photos. Source: plan from personal archive of K.Didenko and photos by K.Didenko, 2012.

Source: Authors' contribution.

However, after several years, this complex ceased to function as a house-commune and was repurposed for another one.

Attempts to implement the concept of the “house-commune” were made in residential complexes in the residential area behind Derzhprom at the end of the 1920s: “Novyi Pobut,” (New Life), “P’iat za Try” (Five-Year Plan in 3 Years), and the “Slovo” (The Word) building. However, for various reasons, none of these examples fully realized the intended concept. Let us examine these examples in more detail. In 1930, the construction of the “New Life” complex began, designed by architect M. Pokorny on Nauky Avenue, incorporating elements of the house-commune concept. The complex was located in a block bounded by the modern streets of Danylevsky, Culture, and Nauky Avenue. The plot had a trapezoidal shape with a curved western boundary, where a two-story building for a kindergarten and daycare was constructed. The residential blocks – five apartment buildings – were arranged in rows parallel to Nauky Avenue, occupying the northeastern part of the block, while the southern part was planned for a district factory-kitchen and a school. The apartments in “Novyi Pobut” had sanitary facilities but were mostly without kitchens and bathrooms, which were intended to be replaced by centralized services. The planned factory-kitchen, with a capacity for 6,000 meals, was meant to supply the district with semi-finished dishes. The products from the factory-kitchen would be delivered to in-house kitchens, where they would be prepared and served in an in-house dining hall. The basement floors of the residential buildings were equipped with spaces for club activities, children’s rooms, a dining hall, laundries, and showers. From the second to the fifth floors, two- and three-room apartments were arranged around stairwell halls. The top floor featured a gallery with rooms – cells, restrooms, and spaces for a bachelor dormitory, as well as shared areas and kitchens. The kindergarten, boiler room, bathhouse, laundry, and garage were designed as separate buildings [37].

As a result, much of the original plan was not implemented. For instance, instead of the factory-kitchen, a standardized school building was constructed, which housed an aviation school. A bathhouse was not erected. Moreover, the apartments without kitchens and bathrooms were later converted by the residents themselves.

The residential building “Slovo” was constructed between 1927 and 1930, based on the design by M. Dashkevych, at the corner of Kultury and Literaturna streets. During the conceptual development stage, it was planned to build a house-commune, where residents were to be assigned rooms individually. According to the

regulations, strict restrictions were imposed on transforming individual rooms into family spaces. Married couples were forbidden to combine rooms to create a bedroom and study, emphasizing the principle of collective living and equality. Additionally, it was mandated to avoid moving furniture from one room to another in order to maintain the original function of the living spaces. This approach reflected the ideology of the time, which aimed to reject “bourgeois habits” and introduce a new way of life aligned with the spirit of communist collectivism [46]. The initial plan envisioned creating communal apartments where writers would share living spaces with workers for “mutual education” and supplement missing functions in the apartments with communal service rooms. However, this idea was eventually rejected; instead, the house-commune, a residential building for writers with comfortable apartments. The building, shaped like the letter “C,” has five floors, five entrances, and 66 apartments (each with three to four rooms, a bathroom, a toilet, and a kitchen) [37].

The residential complex “P’iat za Try” was planned for the same-named housing cooperative “P’iat za Try,” and a plot of land was allocated on Nauky Avenue, which was envisioned as the main and most beautiful avenue. The project involved the construction of five residential blocks, each with 60 apartments (apartments without bathrooms), as well as a utility block. The latter was planned to house a kindergarten and nursery for 130 children, a summer playground for 150 children, a spacious barber shop, a meeting hall, a dining room, a management office, a radio hub, repair workshops, laundry and drying rooms, as well as garages for bicycles and motorcycles.

However, during the implementation of the project, a scandal arose because of the exceptionally poor construction quality and the disregard for the original design. Staircases were built at a 45-degree angle, beams passed through chimneys, posing a fire hazard, while the walls, windows, and doors had cracks and gaps, and the facades were crooked. Additionally, it was discovered that there was no technical project, the main facade faced the courtyard, the windows of the bathrooms and kitchens were oriented toward the street, and instead of the utility block, a residential block was built.

Despite these issues, the residential complex was completed, albeit with significant changes and reductions in the initially planned social, cultural, and service facilities. For example, one of the standalone blocks was never constructed, garages were not built, and instead of spacious rooms like the dining room and meeting hall in the utility block, only a modest red corner was created. Nevertheless, construction was finished, and the building was put into

operation in 1935. The building has survived to this day, although its appearance has been altered. In the 1980s, one of the central sections of the building on Kultury Street collapsed and was replaced with a later addition that significantly differs from the original architectural design [37].

3.3 Residential combine

The period from 1927 to 1934 in Kharkiv is closely associated with the concepts of the residential combine and the socialist city. Beginning in 1927, construction activity in the Soviet Union surged significantly. The centralization of management and design, coupled with preparations for full-scale industrialization of production capacities, facilitated this expansion. In Kharkiv, by the late 1920s, large-scale construction of residential combines began. Similar to house-communes, these were extensive complexes integrating residential spaces with facilities for domestic, social, and cultural services within a unified structure. They included not only dining halls, factory-style kitchens, baths, laundries, and essential goods stores but also clubs, library-reading rooms, kindergartens, and schools. The concept of the residential combine emerged as an architectural solution that transformed and evolved the idea of the house-commune, adapting it to be more livable. Compared to the house-commune concept, the residential combine demonstrated a greater sense of humanity while still retaining the characteristics of a “social condenser.” Such complexes featured fully equipped apartments with kitchens, often with bathrooms (though exceptions occurred), lavatories, and occasionally even servants’ rooms. This set them apart from house-communes, where residential units could not ideologically be considered fully independent. These buildings or building complexes often occupied entire city blocks, incorporating the aforementioned functions.

The difference between the concept of the residential combine and its predecessor in Soviet Ukraine lay in a new understanding of its purpose. Instead of focusing on processes of individual development, which were central to the design of house-communes, the emphasis shifted toward processes of social production. The residential block was viewed as a component of a larger technological complex, alongside household-service as well as educational and upbringing complexes.

First, to enable women to participate in production on an equal footing with men, they needed to be freed from household labor through the creation of public dining halls, factory kitchens, laundries, dry cleaners, and similar

facilities. Second, the state sought to take over the crucial function of child-rearing – from nurseries and kindergartens to schools, boarding schools, colleges, and universities. The separation of children from families and their immersion into a system of “scientific upbringing” aimed to maximize the formation of a new individual, free from “vestiges of capitalism.”

The systematic implementation of such a social program was to be facilitated by residential combines (complexes of “enlarged housing”), which were actively promoted in the Constructivist journal *Modern Architecture* (CA) [47].

The design and construction of residential combines in Kharkiv during 1929–1930 exhibit similarities to the development of similar projects in Vienna between 1919 and 1934, the period known as “Red Vienna.” As previously noted, Austria’s capital saw the construction of ten large serviced complexes, including Sandleitenhof, Engelsplatzhof, Karl-Marx-Hof, Karl-Seitz-Hof, Rabenhof, George-Washington-Hof, Siedlung Freihof, Wildganshof, and others [42].

Shifting focus back to Kharkiv, it is important to note that the implementation of the residential combine concept was significantly more successful than that of the house-commune. In the capital city of Kharkiv, the concept gained considerable traction, both within the boundaries of the new administrative-residential district and in isolated instances in the central part of the city.

Within the new capital center behind the Derzhprom, the concept of the residential combine was most fully realized in two residential complexes: Chervonyi Promyslovets (Red Industrialist) and Budynok Spetsialistiv (House of Specialists). These complexes integrated the majority of public, educational, and socio-cultural functions. To the southeast of the new administrative center, in what is now known as the quiet center, the Dzerzhynets (named after Dzerzhinsky) complex was constructed. Meanwhile, near the railway station, the House of Specialists of the Southern Railway was built (*Budynok Spetsialistiv Pivdennoji Zaliznytsi*).

Chervonyi Promyslovets was constructed between 1929 and 1930 based on the design by architect S. Kravets. It is located on the first line of residential blocks behind the State Industrial Building, or more precisely, directly opposite it. The complex occupies almost the entire expansive city block, extending along the arc of Independence Avenue between the radial streets of Yuriy Zoyfer and Les Kurbas. The buildings are arranged around the perimeter, leaving a spacious central courtyard-garden. This inner courtyard was designed to accommodate children’s and sports playgrounds, a small

swimming pool, and green planting areas. According to the plan, a pedestrian pathway ran through the courtyard, dividing the area into two phases of development, corresponding to the first and second buildings of the complex.

The ground floors of the buildings, located along Independence Avenue and Les Kurbas Street, were designated for service facilities. These included a nursery, a kindergarten, shops, and other public institutions, as well as a pharmacy. In the early years after World War II, the first floor of one of the buildings temporarily housed School No. 105, which later relocated to a separate building in one of the neighboring blocks.

The design of the first building, located along Independence Avenue, included a basement level. A portion of this basement, entirely above ground, was intended for the temporary housing of a kindergarten, which was to operate until the completion of the second building. Additionally, this area was planned to house the building management office and the Red Corner (a space for soviet cultural propaganda activities). The design also included a dormitory for single residents, with accommodations for 23 people, a temporary dining hall, and a janitor's apartment on this floor. At the rear of the basement, the central heating plant and storage facilities for institutional needs were to be located [27].

The residential part of the complex consisted of fully equipped apartments, ranging from three to five rooms, each with a kitchen, a bathroom with a bath and a toilet.

Initially, the ground floor of the second building in the Chervonyi Promyslovets complex was also designated exclusively for public functions. However, during the construction, which began in 1930, changes were made to the plan, and part of the first floor was repurposed for residential use.

The Budynok Spetsialistiv complex was located in the first line of residential blocks adjacent to Chervonyi Promyslovets and was designed and constructed between 1934 and 1936 by architect L. Lemish. It occupied the entire city block bounded by the radial streets – Nauky Avenue and Les Kurbas Street – as well as the ring roads – Independence Avenue and Boris Chychybabin Street. The complex consists of two “C”-shaped buildings, which extend their facades along Nauky Avenue and Romain Rolland Street. Between these buildings, two linear slab-like structures are positioned parallel to each other. The interior courtyard buildings have seven floors, while the “C”-shaped structures are limited to five stories.

The residential part of the complex featured fully equipped apartments, comprising three to five spacious rooms. Each apartment was equipped with a separate kitchen and a bathroom with a bath and a toilet. This

layout was designed to provide comfortable living conditions, characteristic of residential combines [31].

On the ground floors of the buildings facing Independence Avenue, retail shops selling consumer goods and groceries were provided. Along Independence Avenue and Romain Rolland Street, entrances to household service facilities were located. These included a library with a reading room, a music school named after L. Beethoven, and a club where various events were held, including film screenings and New Year celebrations.

In addition, the ground floors housed a ticket office, a branch of clinic No. 26, the “Bread” and “Gastronomy” shops, a consumer goods store, and the “Homemade Cuisine” facility. The infrastructure of the complex also included a laundry, dry cleaners, and a kindergarten, providing its residents with a wide range of essential services [37].

The *Dzerzhynets* residential combine was built in 1931, based on the design by D. Torov and A. Linetsky, located at 11 Bagaliia Street. Unlike previous examples, it was smaller in scale, as it was constructed within an already established historical block.

According to the 1929 design, the *Dzerzhynets* project, created by D. Torov, included not only residential units but also a dedicated heating plant, a grocery store, and a laundry in the basement, as well as a nursery and kindergarten, a summer and winter dining hall with kitchens, storage rooms, and a space for food storage. The planned apartments were to consist of two or four rooms, most of which were to have separate bathrooms. The design also included a small dormitory for single employees and visiting staff. At this stage of the design, it is noteworthy that the apartments did not include kitchens, which indicated the initial inclination of this residential complex toward the house-commune concept.

However, changes were made to the original design, for which architect A. Linetsky was invited. Kitchens were added to each apartment, and the laundry was relocated from the basement to the boiler building, where it was replaced by a large five-room dormitory. Additionally, two basement apartments were converted into kitchenettes. On the first floor, one public dining hall was removed, and the nursery was moved to the second floor. The two apartments above the store were merged into a single five-room apartment. Other apartments also underwent modifications; for instance, on several floors, three two-room apartments were reconfigured into two: a four-room and a two-room apartment. In addition to these changes, a solarium was installed on the roof for the kindergarten.

The most significant change introduced by architect Linetsky was the vertical organization of the public sector in one wing of the building – within the tower: the first

floor housed the kindergarten, the second floor the nursery, the third floor the dormitory, the fourth floor the winter dining hall, the fifth floor the kitchen, and the summer dining hall was located on the flat roof. Access to the public sector for all residents was provided via the first-floor corridor.

The main entrance to the building was located on the front façade, where a vestibule was situated. Each of the stairwells had its own exit to the courtyard, and the design also included three elevators [28].

Budynok spetsialistiv Pivdennoi zaliznytsi (House of Specialists of the Southern Railway), constructed between 1926 and 1936, was designed by O. Beketov with the participation of Frolov. This complex, which rightfully qualifies as a residential combine, included a residential section with fully equipped apartments and a dormitory, a school, a kindergarten with a nursery, shops, and other service functions. It occupied the corner of the block bounded by Yevhen Kotlyar Street, Slavyanska Street, and Blagovishchenska Street.

The building was constructed in four phases. From 1926 to 1929, the first phase was completed. By the end of 1930, the third phase was to be finished, extending the

existing building from phases one and two. The third and fourth phases were completed by 1936.

The main section of the building was designed with six floors containing apartments, while the side wings had five floors. In total, there were 77 apartments, each fully equipped with spacious living rooms, a bathroom, a toilet, and a kitchen. The apartments were served by seven staircases with elevators, four of which had exits to the street with internal connections to the courtyard, while three had exits solely to the courtyard through the basement floor (Figures 4 and 5) [29].

3.4 Socialist city

The idea of the “socialist city” is closely related to the implementation of the “linear city” concept, the concept of the garden city, and was also, in part, a transfer of the organizational model used in residential combines to the spatial scale of entire city blocks. This approach was tied to the main objective of fostering both social and personal development and creating the “new man”. On the other hand, the socialist city was designed as a complement to

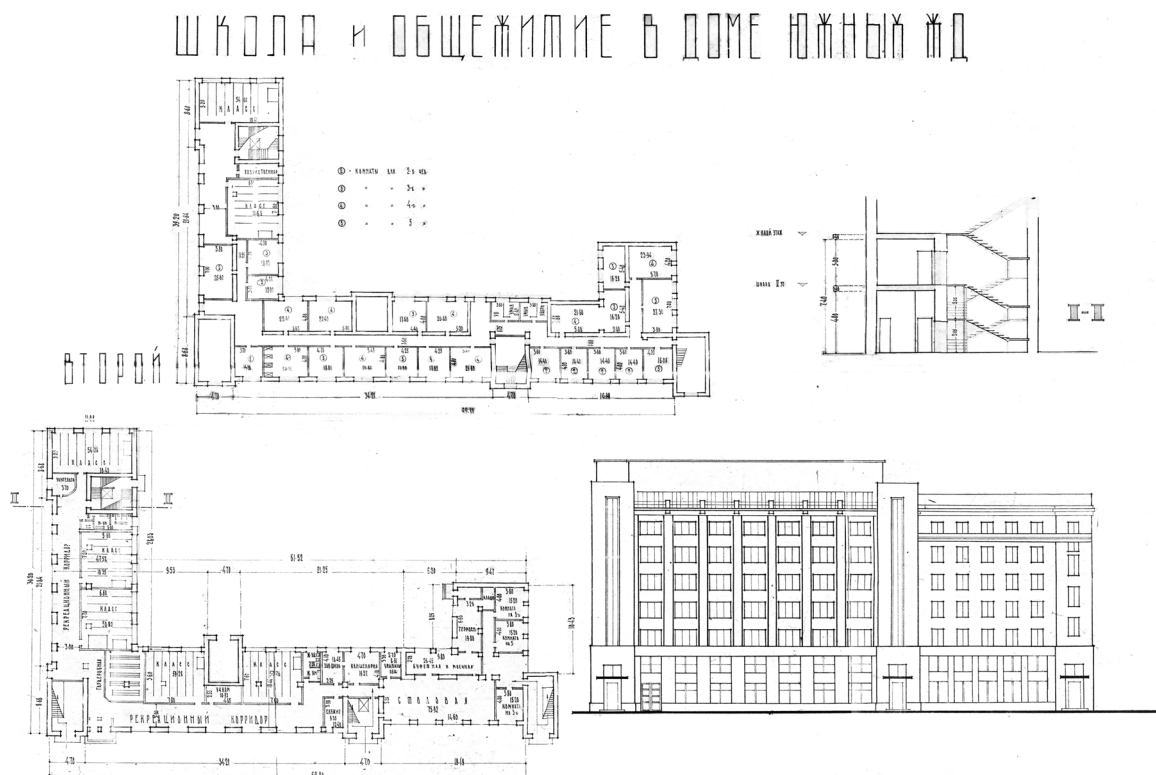


Figure 4. The school and dormitory of the House of Specialists of the Southern Railway, plans, façade and section. Source: SAKhR–State Archives of Kharkiv Region, f. 1777, inv.2, case 261.

Source: Authors' contribution.

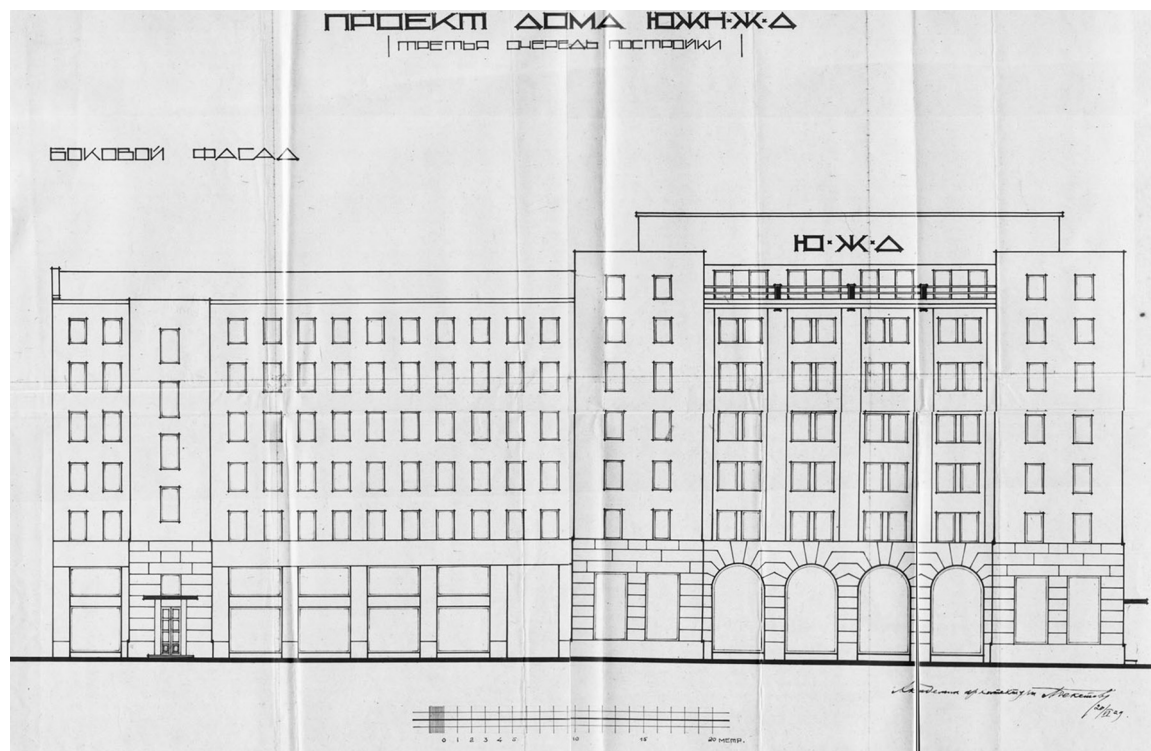


Figure 5. House of Specialists of the Southern Railway site façade Source: SAKhR–State Archives of Kharkiv Region, f. 1777, inv.2, case 261.

Source: Authors' contribution.

industry, as a “city within the framework of a unified national economic plan” [37], serving as infrastructure and a supporting base for production. Urban planners and architects addressed the rational placement of distribution system facilities within the city and their connections to residential areas, evaluating factors such as traffic schedules, intensity, and the adequacy and capacity of service facilities. This type of settlement and service provision during production became an integral part of the development program for the industrial complex of Kharkiv.

Between 1930 and 1932, the socialist city “Novyi Kharkiv” (New Kharkiv) or the socialist city of the KhTZ (Kharkiv Tractor Factory) was designed and constructed, with planning and construction managed by Dipromisto under the leadership of architect P. Alyoshyn. The “Novyi Kharkiv” project implemented the idea of the socialist city – an urban settlement organized according to the new principles of the socialist way of life, grounded in planning and production. The core of the project was the functional-flow planning scheme of the “linear city,” with a clear division between industrial and residential zones, separated by a 500-meter green belt. The planning structure of the residential district was based on a rectangular street grid, oriented toward the main transport links between

the industrial area and the socialist city, with Kharkiv itself connected by a high-speed road (today Heroes of Kharkiv Avenue) and the perpendicular wide Prospekt Industrialnyi (Industrial Avenue), which provided the primary transportation link between the residential and industrial zones. A boulevard-alley, 120 meters wide, was planned to run through the central part of the city, parallel to the high-speed road, with social and cultural service facilities and several recreation buildings to be placed amidst greenery along its length. The urban structure of the socialist city “Novyi Kharkiv” is also linked to the concept of the garden city through the idea of dividing the space into zones or belts. However, whereas in the garden city, this division forms a closed radial-ring scheme, where industrial enterprises, warehouses, markets, and agricultural facilities serving the city are located in the outer belt, in the linear city, this scheme is fragmented, with its opposite ends anchored by industrial and agricultural zones.

According to the project, the city was to include residential complexes and other service facilities: a Palace of Culture, City Hall, a square for rallies, a district club, banks, a post office, telegraph, telephone station, a department store, and shops. Additionally, the plan called for the construction of a seven-year school, a ten-year school,

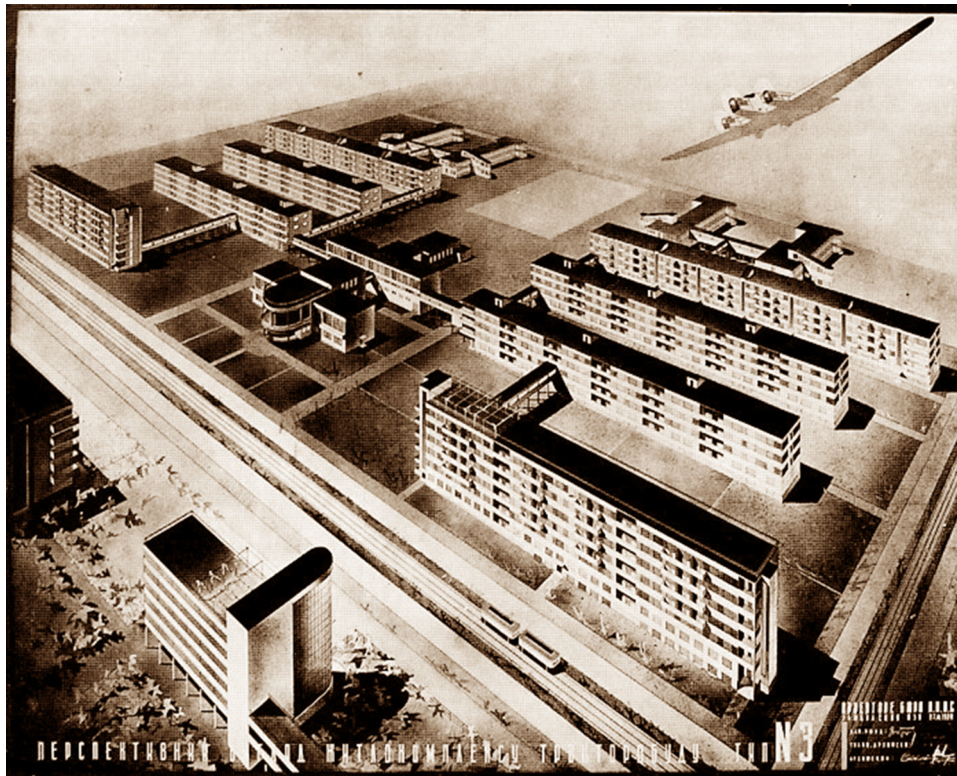


Figure 6. Perspective drawing for the residential combined block for Kharkiv Tractor Plant KhtZ. TsDAML – Central State Archives and Museum of Literature and Art of Ukraine, f.8, inv.1, case 263.

Source: Authors' contribution.

vocational schools, technical institutes, a central dispensary, a children's club, a culture and recreation park, a physical culture palace, a museum, an opera house, a cinema, a radio theater, hotels, recreation homes, sanatoriums, and hospitals. The new standard of service was to be provided by laundries, a tram depot, a fire station, a garage, a railway station, food production complexes, a kitchen factory, nurseries and greenhouses, a grain silo, refrigerators, and a waste processing plant. The design also included a crematorium and a cemetery [44].

The search for a new type of housing with the collectivization of domestic life, or the “social condenser,” left its mark on the designs of the first phase of urban development. Here, the structures were designed on the principle of residential combines, and each of the ones considered a self-contained unit with essential service elements, a communal courtyard space, and a partially collective organization of living. However, in contrast to the residential combine concept discussed earlier, this design applied the principle of separating residential and functional spaces (such as shops, nurseries, cinemas, and production facilities) [48], by placing them in

separate buildings that were intended to be connected by glass walkways for convenience (Figure 6). These walkways were to be located on the second floors, linking residential buildings with service institutions such as polyclinics, club canteens, sports halls, schools, and kindergartens. Residential blocks were divided into apartments for family living and corridor-style dormitories for singles. Over 50% of the area in each quarter planned for this dispersed housing complex was to be allocated for green spaces [49].

However, the original design concepts were only partially realized: to expedite and reduce construction costs, the transition corridors between buildings were abandoned, flat roofs with solariums were replaced by gabled roofs, and the public sector was reduced to a club-canteen, excluding the sports block.

It should be noted that the socialist city “Novyi Kharkiv” represents only a partial realization of a much larger vision, constituting less than half of the original plan (Figure 7). In 1930, residential quarters covering an area of 8–10 hectares were designated, and the first phase of construction was launched. Five quarters were selected

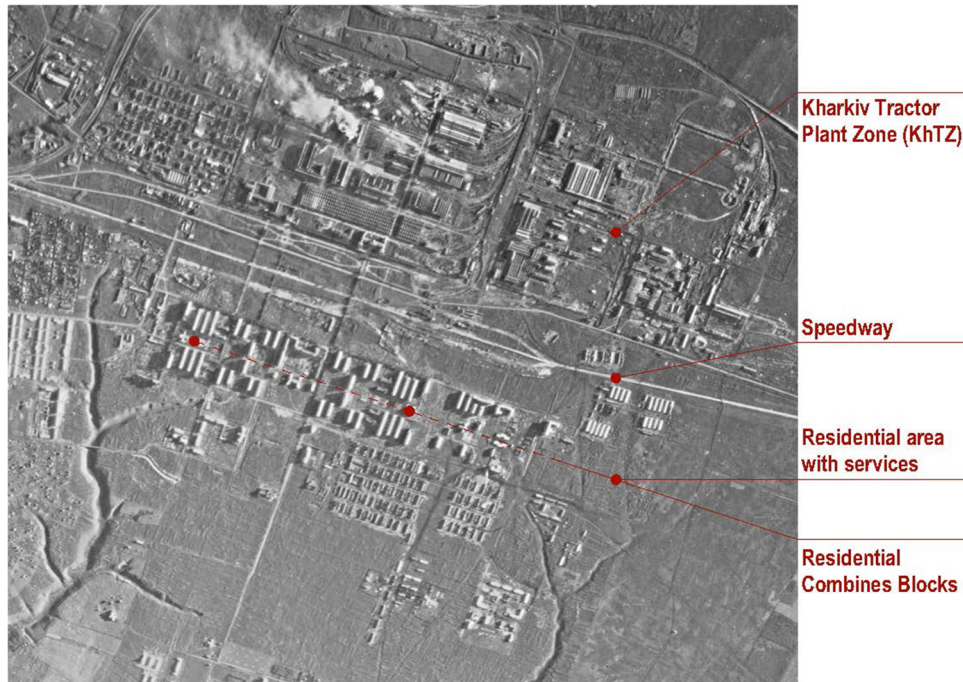


Figure 7. The developed part of the territory of KhTZ. Functional zones. Source: K. Didenko based on a 1941 German aerial photo.
Source: Authors' contribution.

for development in the western part of the city, located between the tractor plant and the adjacent green zone, and these were completed. The development that occurred afterward, following World War II, no longer adhered to the initially conceived master plan.

4. Conclusions

The study identifies global modernist trends in housing and urban planning of the 1920s–1930s: housing in the garden city concept, architecture and urban planning as a tool for solving social problems, housing construction for various social strata, transition from single- and two-story buildings to multi-story housing, serviced housing.

It is demonstrated that in the 1920s, the formation of architectural and urban planning concepts in Soviet Ukraine occurred not only in line with avant-garde Soviet ideas but also in harmony with the main social principles of Western practices, in the following sequence: garden city, house-commune, residential combine, and socialist city. Each model evolved from and was tested through the practical experience of the previous one, stimulating new approaches to design.

The *garden city* model, developed by utopian social reformer Ebenezer Howard at the turn of the nineteenth and twentieth centuries, was well known and influential among architects. Its European examples (Letchworth, Welwyn Garden City, Hellerau near Dresden, Giszowiec near Katowice, Harborne, Hilversum, among others) inspired Soviet Ukrainian professionals both before World War I and in the early post-war years. In Kharkiv, the principles of the garden city were embodied in workers' cottage settlements such as "Metallist," "Chervonyi Zhovten," and "Chervona Bavaria," as well as in the projects for the new administrative center and the socialist city of the Kharkiv Tractor Plant (KhTZ).

The *house-commune concept*, rooted in Fourier's phalanstère, emphasized minimal private space and extensive communal facilities intended to foster a collectivist lifestyle and the formation of the "new Soviet person." Emerging from the housing crisis and economic hardship of the 1920s, it was conceived as part of the broader "social condenser" movement and reflected a technocratic design approach. In Kharkiv, several projects were developed between the mid-1920s and early 1930s, including a large complex for 2,000 residents on Studentska Street (later repurposed) and partially realized examples such as the "Novyi Pobut" and "P'iat za Try" housing complexes.

The social and residential infrastructure of Kharkiv's administrative-governmental complex embodied the modernist concept of the *residential combine*, influenced by the Union of Contemporary Architects (OSA) and analogous to Vienna's large-scale housing ensembles. These multifunctional structures integrated living spaces with domestic, social, and cultural facilities – dining halls, factory kitchens, baths, laundries, shops, clubs, reading rooms, kindergartens, and schools – forming unified community environments. The residential units were fully equipped, typically including living rooms, kitchens, toilets, and, in most cases, bathrooms. While conceptually related to the house-commune and the “social condenser” movement, the residential combine incorporated more humane, socio-cultural features. In Kharkiv, notable examples included “Chervonyi Promyslovets” and “Budynok Specialistiv” behind the Derzhprom, as well as “Dzerzhynets” and “Budynok Specialistiv Pivdennoji Zaliznytsi.” The settlement of “Novyi Kharkiv” (the socialist city of Kharkiv Tractor Plant) realized the *socialist city model* – an urban settlement organized according to the principles of the new socialist way of life, integrating planning and production. Its urban structure exemplifies the “linear city” concept, linked to the garden city through zoned space; unlike the garden city's closed radial-ring scheme, the linear city arranges industrial and agricultural zones at opposite ends. The idea of the residential combine was implemented across individual blocks, with residential and service units, communal courtyards, and leisure areas promoting collective values, along with basic amenities. Unlike the traditional residential combine, where functions were integrated into a single building, these blocks were conceived as separate units connected by glass walkways, which were never realized.

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References

- [1] Bouryak O. (2015). Processes and institutions of reproduction of architectural professionalism in the national architecture 2nd half of the XX - early XXI centuries. (ScD Thesis, KhNUBA), Ukraine, Kharkiv.
- [2] Cherkasova, Ye. T. (2014). Justification of the boundaries of the buffer zone of the House of State Industry in Kharkiv (Ukraine) taking into account the factors of visual influences. *Vestnik SAGASU*, 17, 40–44.
- [3] Shvydenko O. (2014). The value and preservation of architectural monuments of 1910-1940s, inscribed on the World Heritage List. *Scientific Bulletin of Construction*, 76(2), 10–14.
- [4] Kachemtseva L. et al. (2021). UIPT: The history of emergence and architectural and urban planning peculiarities of formation of the complex in late 1920s-1930s. *Scientific Bulletin of Construction*, 106(4), 45–50.
- [5] Gella, O., Kachemtseva, L. (2018). The influence of utopian ideas on urban planning practice in Kharkiv in the 1920s and 1930s. *Scientific Bulletin of Construction*, 93(3), 41–49.
- [6] Mykhaylyshyn, O. (2022). Architecture of avant-garde in Ukraine in 1921-1939: origins, ways of spreading, main features: case study of Volyn. *Docomomo Journal*, 67, 56–64. <https://doi.org/10.52200/docomomo.67.06>
- [7] Linda, S., Mychajlyszyn, O. (2017). Visual symbols of new identity in cities of modern Ukraine during the interwar period. *Budownictwo I Architektura*, 16(3), 065–076. https://doi.org/10.24358/Bud-Arch_17_163_07
- [8] Smolenska, S., Nägelke, H.-D. (2023). Architect Hans Poelzig: A project for Ukraine. *Budownictwo I Architektura*, 22(3), 059–072. <https://doi.org/10.35784/bud-arch.4241>.
- [9] Remizova O. (2024). Composition methods of the soviet architectural Avant-Garde: Svoboda square in Kharkiv. *Docomomo Journal*, 70, 28–35. <https://doi.org/10.52200/docomomo.70.04>.
- [10] Vasilenko L. G. (1991). International interrelations and their influence on the innovative architecture of the Ukrainian SSR in the 1920s, early 1930s (PhD Thesis), Ukraine
- [11] Rusanova M, Maimeskul O. (2024). Modernist monuments of freedom square in kharkiv: destruction, restora-

- tion, reconstruction. *Docomomo* [Internet], 70, 36–43, 10.52200/docomomo.70.05. Available from <https://docomomojournal.com/index.php/journal/article/view/433>
- [12] Deryabina, O. (2013). *Avant-garde concepts of forming in the architecture of Kharkiv clubs* (PhD Thesis, KhNUBA), Ukraine, Kharkiv.
- [13] Liubavskiy, R. (2022). The image of “socialist cities” in Kharkiv and Zaporizhzhia in guidebooks in the second half of XX – early XXI centuries. *Наукові записки НаУКМА. Історичні науки* 5, 55–61. <https://doi.org/10.18523/2617-3417.2022.5.55-61>.
- [14] Didenko, K. (2024). Mono-functional housing and changing concepts in kharkiv residential architecture during the capital period. *Docomomo Journal*, 70, 70–77. <https://doi.org/10.52200/docomomo.70.09>
- [15] From Constructivism to Modernism in Kharkiv. (2024). *Docomomo Journal* 70 <https://doi.org/10.52200/docomomo.70>
- [16] Crawford, C. (2022). *Spatial revolution. Architecture and planning in the early soviet union*. Ithaca and London: Cornell University Press.
- [17] Umemiya, H. (2022). The international competition for the state Ukrainian Theater (1930): Application proposals from Japan. *Docomomo Journal*, (67), 48–54. <https://doi.org/10.52200/docomomo.67.05>
- [18] Ciarkowski, B., Miarczyński, M. (2024). The unfinished revolution? The palace of culture of the railway workers in Kharkiv. *Docomomo Journal*, (70), 52–59. <https://doi.org/10.52200/docomomo.70.07>
- [19] Curtis W.J.R. (1996). *Modern architecture Since 1900*. 3rd edn. London: Phaidon Press.
- [20] Cohen J.-L. (2012). *The Future of Architecture Since 1889: A Worldwide History*. London: Phaidon Press.
- [21] Movilla Vega D. (2020). Housing and revolution: From the Dom-Kommuna to the transitional type of Experimental House (1926–30). *Architectural Histories*, 8(1), 2. doi: 10.5334/ah.264
- [22] Gierko, A. (2024). Urban landscape transformation praxis on the example of interwar housing estates in the weimar republic. *Buildings*, 14(4), 900. <https://doi.org/10.3390/buildings14040900>
- [23] Ludwig, B. (2021). The greenery of early modernist housing estates. *Sustainability*, 13(7), 3921. <https://doi.org/10.3390/su13073921>
- [24] Tchitchileishvili M. (2025). Constructivism in 1920s Architecture in Batumi (on the Example of Residential Houses). *Black Sea Region at the Crossroads of Civilizations*, 2(2), 615–642. doi: 10.61671/bsrcc.v2i2.8730
- [25] Zarecor K.E. (2020). Housing and Communist Idealism: Interwar Origins of Soviet Mass Housing Programs. In: Skrodzka A, Lu X, Marciniak K, editors. *The Oxford Handbook of Communist Visual Cultures*. Oxford: Oxford University Press, pp. 44–64. Online edition 2019 Jul 2. 10.1093/oxfordhb/9780190885533.001.0001.
- [26] SAKhR–State Archives of Kharkiv Region, f. 1777, inv.2, case 192. Slovo.
- [27] SAKhR–State Archives of Kharkiv Region, f. 1777, inv.2, case 178. Red Industrialist
- [28] SAKhR–State Archives of Kharkiv Region, f. 1777, inv.2, case 396. Dzerzhynets
- [29] SAKhR–State Archives of Kharkiv Region, f. 1777, inv.2, case 261. Residential Cooperative of Southern Railway
- [30] SAKhR –State Archives of Kharkiv Region, f. 1777, inv.2, case 261. Residential Cooperative of Southern Railway
- [31] Didenko, K. (2023). Social and residential programs in the architecture of the capital city of Kharkiv Vinnytsia. Publishing House European Scientific Platform, <https://doi.org/10.36074/Didenko-monograph.2023>
- [32] Giedion, S. (2008). *Space, Time and Architecture: The Growth of a New Tradition*. Fifth Revised and Enlarged Edition Harvard University Press
- [33] Banham, R. (1960). *Theory and Design in the First Machine Age*. USA: Praeger Publishers Inc
- [34] Manfredo, T. (1976). *Architecture and Utopia Design and Capitalist Development*. London: The MIT Press
- [35] Frampton K. (1980). *Modern Architecture: A Critical History*. London: Thames & Hudson Ltd.
- [36] Forty, A. (2000). *Words and Buildings A vocabulary of Modern Architecture*. New York: Thames & Hudson
- [37] Didenko, K., Gella, O. (2024). Architecture of the administrative centre of Kharkiv, the capital – laboratory for the creation of the New Man: from concept to implementation. *Budownictwo I Architektura*, 23(4), 5–23. <https://doi.org/10.35784/bud-arch.5886>
- [38] Het Betondorp – Geschiedenis van het Betondorp. (tot1977). *Betondorp.org*. Available from: <https://www.betondorp.org/geschiedenis.html>
- [39] Cohen J. L. (2013). *Le Corbusier: An Atlas of Modern Landscapes*. New York: Museum of Modern Art.
- [40] Mumford E. (2000). *The CIAM Discourse on Urbanism, 1928–1960*. Cambridge, MA: MIT Press.
- [41] Zalivako A. (2006). Connections between Germany and Soviet Russia’s Avant-garde architecture – Examples from the 1920s in Berlin and Moscow. *The Soviet Heritage and European Modernism*, 139–145.
- [42] Blau E. (1999). *The Architecture of Red Vienna, 1919–1934*. Massachusetts, The MIT Press
- [43] Kooperator (1924). From the life of the Kharkiv housing cooperative. *Zhytlo robitnyka*, 15–16, 46–49.

-
- [44] Gella, O., Didenko K. (2024). Transformation of the garden city concept in Kharkiv in the first third of the 20th century. *Scientific Bulletin of Construction*, 111, 18–26, doi: 10.33042/2311-7257.2024.111.1.3.
- [45] Kondrashenko F. (1929). The project of the administrative center and the scheme of development of the residential sector around Dzerzhinskyj Square in Kharkiv, *New Generation*, 12, 68–74.
- [46] Polotskyj O. (1930). New life –new man. Report at the debate at the October Depot in Kharkiv. *Chervony Shlyakh*, 5–6, 186–195.
- [47] Ginzburg, M. (1927). Constructivism as a method of laboratory and pedagogical work. *Contemporary Architecture*, 6, 160–166.
- [48] Milyutin N. (1930). *Sotsgorod. The Problem of Building Socialist Cities. The Basic Issues of Rational Planning and Construction of the USSR's Human Settlements.* State Publishing House Moscow Leningrad.
- [49] Leibfreid, Y., Poliakova, Y. (1998). *Kharkiv. From fortress to capital: Notes on the old city.* Kharkiv: Folio.