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**NATURE AND RESIDENTIAL ENVIRONMENT
IN THE FIRST GARDEN CITIES IN GALICIA: “SALWATOR”
IN KRAKOW AND “NOVYI SVIT” IN LVIV**

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Abstract. The article discloses the peculiarities of the nature and residential environment in the first garden cities in Galicia: “Salwator” in Krakow and “Novyi Svit” in Lviv. The topicality of the issue is pre-determined by the need for supplementing and developing available scientific researches related to the study of the garden city concept as well as for analyzing profoundly and comparing the architectural and town-planning structures of the garden cities in Galicia at the early stages of their development. Both general scientific methods (historical, comparative, structural analysis), and special field observations have been used. This comprehensive approach has enabled us to point out the special features (planning, functional) of the garden cities as exemplified by Lviv and Krakow. It has been proven that the development of the architecture and town planning of the above cities in the early XXth century corresponds to the general European trends, while the concept of garden cities was implemented in a fragmented way, that is in the form of gardens-on-the-outskirts.

Key words: “garden city”, nature, residential environment, Galicia, “Salwator”, “Novyi Svit”.

Introduction

At the end of the XIXth century, urbanization became a mass phenomenon and was characterized by the increase in the number of urban residents (primarily in large cities), urban settlements, establishment and development of agglomerations. By the way, while in 1800 some 50 mln people lived in cities, in 1900 the figure amounted to already 220 mln people. At the same time, certain unification of the standards of living could be traced among rural and urban residents, while rural residents were going over to the urban way of living (Kvurt, Sytnyk, 2020).

According to the architecture researchers A. Gutnov and V. Glazychev, in the above period most cities already had the so-called “industrial belts” developed, that is integral ring areas of chaotic, unregulated industrial development, full of railway tracks, that alternated with urban slums. Taking the old and prestigious city centres into their “iron clutches”, those industrial outskirts pre-determined the appearances of a modern industrial city (Gutnov, Glazychev, 1990).

Along with the expansion of cities, the number of various problems also increased, which was mainly caused by sci-tech progress. Thus, the environmental situation in cities was deteriorating due to industrial development and the launching of new transport modes. For example, horse tram, and later – electric tram, did not fit well into the narrow streets of the old city centre. At first, horse carriages coexisted with the then-exotic cars, but as soon as their speed increased, it became clear that horse-drawn transport could not compete with it any longer. Cars presupposed new requirements to traffic organization, and, certainly, a lot of inconveniences and dangers for pedestrians. Exhaust car gases, harmful emissions of factories and plants located in the city made the conditions of life in cities in overcrowded residential quarters even more complicated. Deprived of the sun, greening, clean air, cities were intensively moving towards becoming the centres of grave chronic diseases (Gutnov, Glazychev, 1990).

The then-architects and urban planners suggested a whole range of city planning concepts, trying to solve new problems the residents of cities were faced with. Such concepts were produced throughout the XIXth and XXth centuries, in particular, “garden city”, “industrial city”, “city of health”, etc.

Among the first was the idea by the Englishman Ebenezer Howard (1850–1928) about the garden city, published at the turn of the XIX–XXth c. In the opinion of the English journalist and social scientist, the garden city is a small inhabited settlement with an agricultural belt around it. Under E. Howard’s project described in the book “Garden Cities of Tomorrow” (Howard, 1902), the population of the new city was to be 32 thousand residents. Cities were to form a large group, but with one centre. The overall population of such a “constellation” could amount to some 250 thousand residents.

An ideal city, according to E. Howard, was a structure made of round concentric areas. A park was located in the centre of such a city, surrounded by a residential area that consisted of low-storeyed buildings with small holdings. The radius of the residential area was to be about one kilometre. Instead, industrial and agricultural lands were to be located in the periphery.

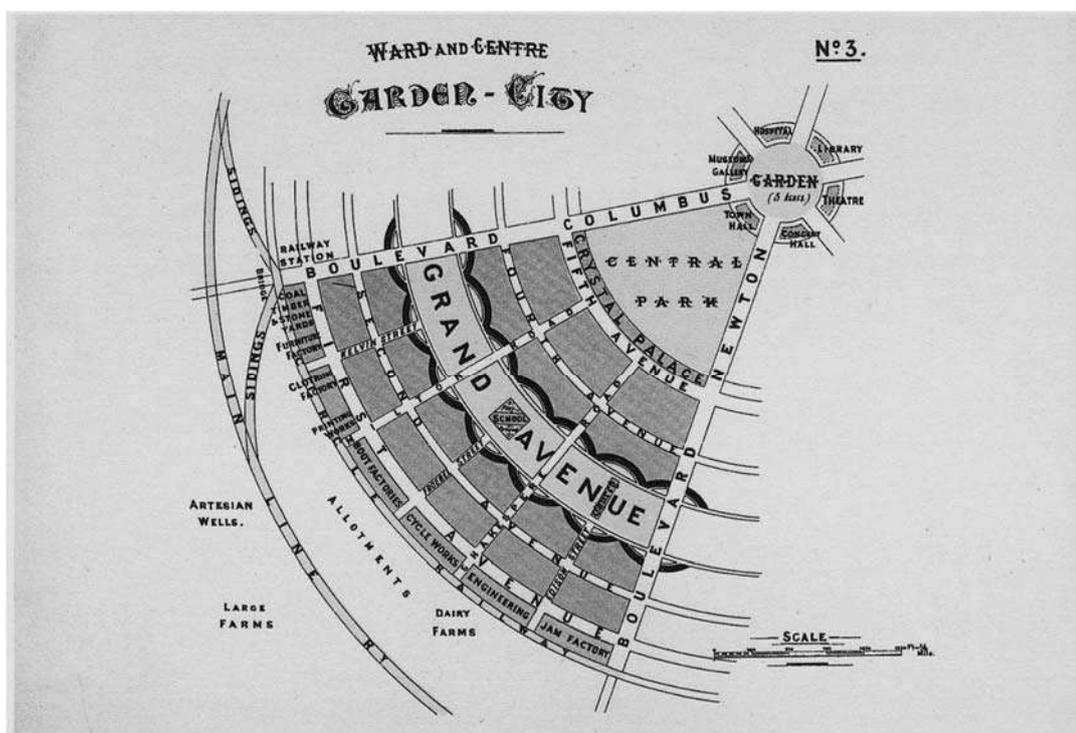


Fig. 1. Garden city plan according to E. Howard,

source: <https://medium.com/precis/мпу-главных-идеи-город-сад-57c9ff8f52f2> (access 1.05.2021)

The British researcher of architecture P. Hall indicates that E. Howard’s garden city back then was, in fact, a progressive way of reconstructing the then capitalist society via cooperative movement development (Hall, 2002). It is undoubted that E. Howard’s garden city concept was reproduced in different

corners of the world and constituted the basis for many architectural and city planning projects of the XXth c., including the ones in the European continent.

In this context S. Ward considered that the then planning ideas were borrowed and transformed from country to country, viz: Britain borrowed from Germany the approaches to zoning arrangement, organic city design and city construction extensions; Germans got fascinated with British housing and everything connected to the garden cities; Frenchmen implemented both the German approach to zoning and the British approach to garden cities. Similarly, the Spanish architect Arturo Sorio y Mata was guided by the principle “each building will stay in a garden” while developing his design of the Linear City in 1892 (Navascues, 1969). Tony Garnier, an architect from Lion, in 1917 suggested his vision of E. Howard’s ideas in his Industrial City design which was treated as utopian and was left without any practical implementation (Garnier, 1988). There should also be pointed out the work by the Frenchman G. Benoît-Lévy who tried to differentiate between the notions of “garden city” and “garden-on-the-outskirts” in his paper entitled “Garden City” in 1910 (Guelton, 2009).

Back then the idea of a garden city in Germany became the basis for designing and constructing housing for the workforce of the Krupp family plan in Margarethenhöhe in Essen in 1912. Such garden cities as Rumerstadt, Siemensstadt, Falkenberg, Hufeisen, Zehlendorf should also be mentioned. The concept was developed by a whole pleiad of German architects like H. Mezendorf, E. Mei, M. Wagner, B. Taut, W. Gropius, and others (Hall, 2002). Also, in his book “The City of Tomorrow” T. Fritsch set out his ideas on further city planning development, which echoed Howard’s ideas in many aspects (Fritsch, 2018). H. Saarinen (1873–1950), a famous Finnish architect, offered more compact solutions in the form of semi-autonomous city districts called “functional concentrations” by the author, separated from one another with narrow green areas (up to 1 km) (Kvurt, Sytnyk, 2020). These districts were to host housing, shops, schools, various labour activity centres, including industrial centres. Such powerful general European trend towards garden city creation could not pass by Lviv and Krakow that was among the largest cities of Eastern Europe at the turn of the XIX–XXth centuries.

Analysis of recent research and publications

The garden city concept, its development and practical implementation have been mostly researched by foreign scientists. It is necessary to highlight the works of such architectural theoreticians as Mervyn Miller (2011), Standish Meacham (1999), Peter Hall (2014), Colin Ward (2014). In these studies, special attention is paid to substantiating the importance of garden cities in overcoming the negative effects of urbanization and the creation of this new type of settlement. Among Ukrainian researchers, we can single out works of I. Berezovetska (2008), Yu. Bohdanova (2004), N. Zakharchyn (2017) and others, who in the context of their research partially consider certain elements of the garden city concept. At the same time, there is no basic research dedicated to the formation and development of the first “garden cities” in Galicia. The purpose of this article is to supplement and develop available scientific researches related to the study of the garden city concept as well as for analyzing profoundly and comparing the architectural and town-planning structures of the garden cities in Galicia at the early stages of their development (on the example of “Salwator” in Krakow and “Novyi Svit” in Lviv).

Results and discussions

In the opinion of researcher I. Berezovetska, the study of the development of the city planning structure of Lviv in the first third of the XXth century gives grounds to claim that back then E. Howard’s garden city concept was only partially implemented in the city. However, within the specific city planning situation, it acquired specific features that are manifested in the fact that the centres of compact garden residential developments were established within the city territory and were connected through radial communications with the central part of the city (Berezovetska, 2008).

A famous urban planner I. Drexler in his book “Wielki Lwów” (“Big Lviv”) does not only disclose his vision of the development of Lviv, which was considerably pre-determined by the implementation of the ideas of garden cities but also outlines the spatial boundaries and the city development strategy. In his opinion, the city lives and develops like a living organism. Substance replacement and cell restoration can be traced in it, periods of health and disease, growth and decay take turns there. In the 20ies of the XXth century, the area of Lviv was 32.23 km², while the number of residents was about 230 thousand people. 21.13 km² of adjacent territories were to be added to the city, and this would result in the total area increase up to 53.36 km². Thus, the so-called “sub-Lviv gminas” were to be added to the structure of the Big Lviv: Klepariv, Zamarstyniv, Znesinnia, Syhnyvka, Kulparkiv, part of Bilohorshcha, Kozelnyky, and Kryvchytsi. I. Drexler also suggested re-planning of available pedestrian ways to connect the city green areas. The master plan of the Big Lviv presupposed the creation of new parks and reconstruction and transformation of already available green areas (Drexler, 1920). Similarly, Polish architect T. Tołwiński in his paper “O szkicowym projekcie rozbudowy miasta Lwowa” describes his own understanding of the garden city concept in Lviv. Green areas were located in T. Tołwiński’s plan more or less uniformly across the city territory, while the industry was mainly located close to railways (Tołwiński, 1924).

Modern Lviv architect I. Yakubovskyi in his scientific research “Rozvytok Arkhitektury Sadybnoho Zhytla Lvova Kintsia XVIII – Pochatku XXI Stolit” (“Development of the Architecture of Garden Housing of Lviv in the Late XVIIIth – Early XXIth Centuries”) also pays great attention to such districts of Lviv with garden development as Kastelivka, Rollerivka, Sofiyivka, Frantsivka; the first workers colony “Na Błonie”, professors’ colony “Vlasna Strikha”, officers’ colony close to Chereshneva street and Svyatoslav square, worker villages in Syhnyvka and Bohdanivka (Yakubovskyi, 2015).

A bright embodiment of the garden city in Lviv is the Novyi Svit area, limited nowadays by Bandera street to the north, Antonovych street to the west, a railway in Kulparkiv to the south, and Kniahynia Olha and Sakharov streets to the east. Starting with the 1860ies the Novyi Svit area started being intensively integrated into Lviv’s urban structure. The impetus for this was provided by the construction of the railroad palaces: that of Karl Ludwig (1861) and the Chernivtsi one (1866), as well as by the construction of the main building of the Technical Academy (currently – National University “Lvivska Politekhnik”) in 1877 in the then Novyi Svit street. Then 2–3-storeyed brick houses on the terms of peasant land tenure with rent, in the eclectic style, with typical façade décor according to Vienna catalogues, started being built around this street (Melnik, 2009).

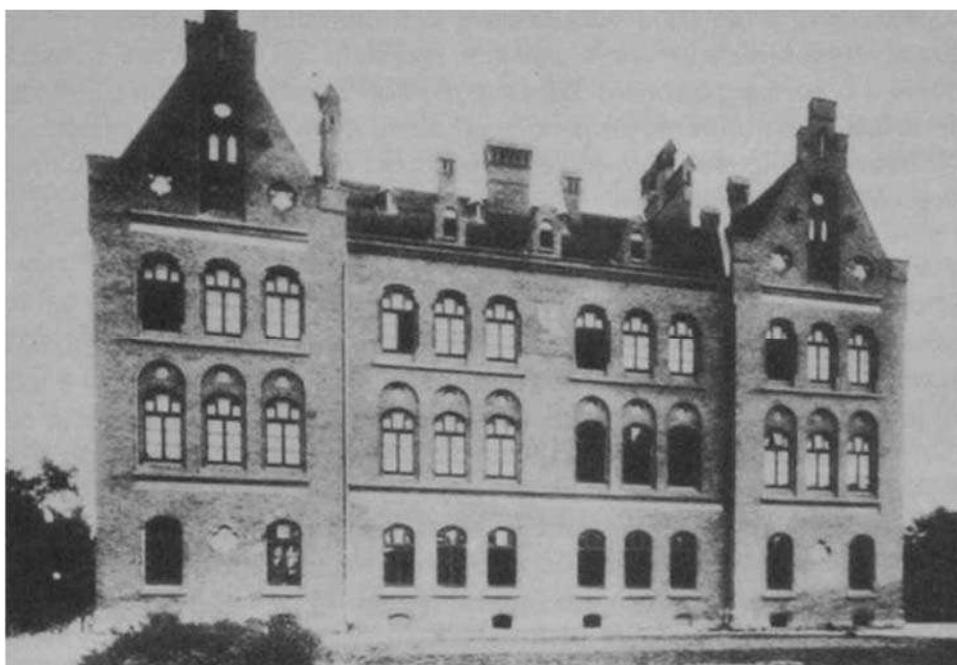


Fig. 2. Maria Magdalena school,
source: <https://photo-lviv.in.ua/mahdusya-odna-z-najdavnishyh-shkil-u-lvovi/> (access 1.05.2021)

The area of Kastelivka villas became the peculiarity of Novyi Svit. It was named in honour of the Italian Castelli family which started residing in Lviv in the XVIIth century. In the 1880ies the leading Lviv architects Yu. Zakharevych and I. Levynskyi decided to buy a land plot in Kastelivka and to build a colony of one-family houses there following the popular urban garden city concept. Kastelivka development was started from the eastern side of Bayky. The starting point was the so-called “Mahdusia” – Maria Magdalena school built in 1883 at the crossroads of the current S. Bandera and General Chuprynka streets. The main axis for Kastelivka was “Na Villakh” street (currently – I. Kotlyrevskyi street) (Prokopiv, 2016). According to Kastelivka construction and development design, the authors planned 64 villas and some more additional constructions that would benefit the autonomous functioning of the Lviv garden city. Yu. Zakharevych and I. Levynskyi tried to combine the architectural type of neo-romantic villa with the adjacent garden plot, which would correspond to Howard’s ideas. Kastelivka was to become a component of the complex of parks to surround the historical city centre¹. The Sobko Lake marked in the plan as two separate water reservoirs were to perform the recreational function and was considered to be the plot decoration. According to the reminiscences of contemporaries, at the end of the XIXth century real estate in Kastelivka was the most expensive in Lviv.

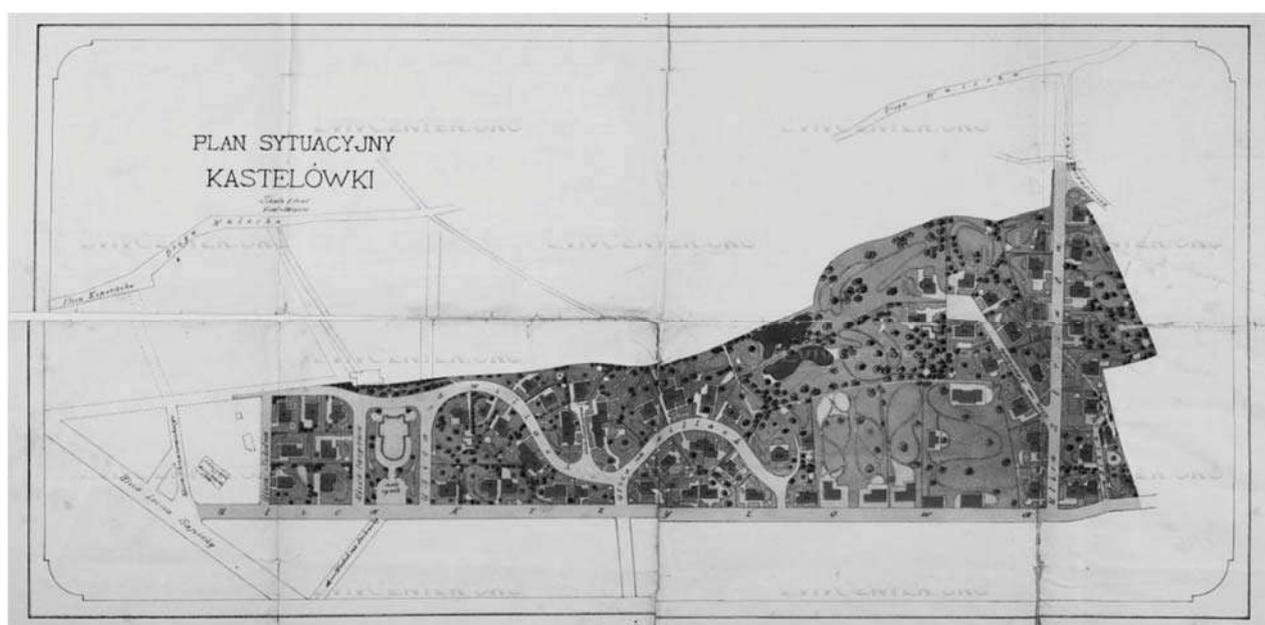


Fig. 3. Draft Kastelivka construction plan, source: <https://photo-lviv.in.ua/misto-sad-kastelivka-abo-de-zamozhni-mischany-trymaly-svojih-kohanok/> (access 1.05.2021)

Unlike Kastelivka, the planning scheme of which was distinguished for its picturesque nature, garden development quarters of the first third of the XXth c. were characterized by clear geometrical nature (designing of only parallel or perpendicular streets), rational and economic planning solutions. The quarters of the comprehensive garden development in Lviv were distinguished for their capacity and had from 14 to over 70 buildings (Berezovetska, 2008).

A bright example here is the design suggested by F. Kassler and A. Osten in 1910, which presupposed the construction of a whole area of villas in Novyi Svit. They designed the garden city as a rectangle with a large round area-sun in the centre giving birth to six streets-rays.

In the 1920s and 1930s, the Novyi Svit district expanded into a new private villa area (Frantsivka) – from Ye. Konovalts street along S. Rudnytskyi street. A famous artist I. Trust was one of the first to erect a building with a workshop there. The buildings are performed in the style of functionalism, with accurately measured proportions and following right geometrical forms, with rectangular windows with no architectural decor. The Novyi Svit district located in the then outskirts of

In the opinion of Ukrainian researcher Yu. Bohdanova, Lviv, though being the capital of the “Kingdom of Galicia and Lodomeria”, was still lagging behind Krakow in terms of construction and planning. The city above Vistula had already hosted a project competition “Big Krakow” (1908), while in Lviv the need for developing the master plan for city development and the prospects of a suburban community joining were only under discussion. The key idea of the Krakow competition in which well-known “artists and technicians” were involved was to expand the city due to the neighbouring community joining, with the application of the latest achievements in the field of city planning, sanitation and hygiene, city economy, etc. Based on the results of the competition the construction statute of Krakow dated July 17, 1883, was to be revised (Bohdanova, 2004).

Thanks to the “Big Krakow” competition many suburban gminas joined the city and got a new boost for development. For example, Salwator microdistrict – the former village of Zwierzynets. Since 1909 small housing estates started being built in Salwator. Just by 1912, some 30 villas were built. They were designed by Krakow architects R. Bandurski and A. Kramarski³.



Fig. 6. The building of A. Kramarski at 11 Bl. Bronislaw street, source: [https://pl.wikipedia.org/wiki/Salwator_\(Kraków\)#/media/Plik:Alfred_Kramarski_house,_11_Bl_Bronislawy_street,_Salwator,_Krakow,_Poland.jpg](https://pl.wikipedia.org/wiki/Salwator_(Kraków)#/media/Plik:Alfred_Kramarski_house,_11_Bl_Bronislawy_street,_Salwator,_Krakow,_Poland.jpg) (access 1.05.2021)

Salwator development was initiated by the Society of Residential Construction for Officials, which announced a competition for the development of the south-eastern part of Bl. Bronislaw slope along Władysław Anczyc and Gontyna streets. Artificial embankments that used to be a part of the Austrian fortifications caused an unconventional villa arrangement in the semi-round form – the residential area ideally fitted the landscape. Salwator creators filled the new microdistrict with an integral natural framework that consisted of quite a several small holdings, front gardens and different greenery. Even though most estates were built in the style of picturesque historicism, almost each of them was characterized by the spirit of individualism. In 1913 tram connection of Salwator with other parts of Krakow was established. That contributed to the growing popularity of the Krakow garden city among citizens, particularly, among the elite. No wonder that professors of Jagiellonian University, well-known representatives of the world of art and culture, politicians and lawyers lived there². In the interwar period, the garden residential construction of Salwator was performed under the designs by F. Liebling, H. Jasenski and L. Voytychko.



Fig. 7. Schematic depiction of the coverage of the territory of Lviv and Krakow by the Novyi Svit and Salwator districts

It has been clarified that the area of the Novyi Svit district located in Lviv makes some 1.7 km². The construction corresponding to the city planning concept of the garden city is located mainly in Kastelivka (between modern General Chuprynka, O. Colberg, Academician A. Sakharov, I. Nechuy-Levytskyi, I. Horbachevskiy streets) and Frantsivka (delineated by Ye. Konovalts, Hipsova, Hordynskiykh,

Academician Rudnytskyi, M. Zalizniak, Khudoznia, I. Trush, E. Orzeszko streets). This city planning concept is mainly implemented in the form of adjoining buildings. That means that besides the residential house (individual or in blocks) some small holdings and a utility building for household needs were also available there. In other parts of Novyi Svit, in particular, at the beginning of Ye. Konovalets, Yefremov, Antonovych streets, there prevails combined and perimetral type of territory development. The percentage of construction development in Novyi Svit makes about 33 %. A high level of greening in the area should be pointed out (trees, bushes, flower beds, lawns): it makes some 50–60 % (depending on the type of construction development).

The area of the Salwator district located in Krakow is less than 0.1 km. The Krakow garden city was located in-between Bl. Bronisław, Władysław Anczyc and Gontyna streets. The basis of the residential construction in Salwator was made by two- and three-storeyed individual estates and estates arranged in blocks. In the latter, besides traditional small holdings, front gardens were supposed to be located between the estates and the roads to perform a buffer function. The dominating type of Salwator territory construction is free construction. The percentage of development in this area does not exceed 30 %. Thanks to a well-developed green framework an adequate level of greening was achieved, it was 65 %.

Conclusions

Despite the fact the first garden cities did not meet the expectations for the city planning situation improvement, the garden city concept became the basis for city planning and produced a great impact on the views of urban planners as well as led to numerous attempts of bringing this idea into life. Development of architecture and city planning in Lviv and Krakow at the turn of the XIX–XXth c. corresponded to the general European trends. The garden city concept was implemented in a fragmented way and the form of gardens-on-the-suburbs.

The designs of today are aligned with much older competition plans of “Big Lviv” and “Big Krakow”. The garden cities as a form of unique residential and natural environment constitute a new direction of research both in architecture, city planning, and landscape architecture and restoration.

The “Novyi Svit” district in Lviv and “Salwator” district in Krakow, as the first embodiments of the garden city concept in Galicia, require a well-grounded strategy for their regulation and preservation. While “Salwator”, due to its peripheral arrangement within the city structure and careful treatment by the community, is in the status close to the authentic one, “Novyi Svit” has undergone substantial interferences running counter to architectural and city planning intentions of the district architects.

The garden city is one of the options for solving the problem of developing and ensuring the balance between the nature of the environment and the high urbanistic load characteristic of the present day. The modern garden city concept aims to combine original principles and approaches suggested by E. Howard with modern technological methods of designing. The main goal is to ensure an adequate and harmonious residential environment for each person.

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Endnotes

1. Detailed plan of the territory limited by Kyivska – Yefremov – Melnyk – Gen. Chuprynka Streets in the City of Lviv, 2012. Available at: <https://city-adm.lviv.ua/lmr/detalni-plani-teritorij-old/2281-detalnyi-plan-terytorii-obmezhenoi-vul-kyivska-yefremova-melnyka-hen-chuprynky-u-m-lvovi> (accessed 1.05.2021).

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СУТНІСТЬ І ЖИТЛОВЕ СЕРЕДОВИЩЕ ПЕРШИХ МІСТ-САДІВ У ГАЛИЧИНІ: "САЛЬВАТОР" У КРАКОВІ ТА "НОВИЙ СВІТ" У ЛЬВОВІ

***Анотація.** Розкрито особливості сутності та житлового середовища перших міст-садів у Галичині на прикладі "Сальватора" у Кракові та "Нового Світу" у Львові. Актуальність теми визначається потребою доповнити та розвинути наявні наукові розвідки, пов'язані з вивченням концепції міста-саду, а також проаналізувати та зіставити архітектурно-містобудівні структури міст-садів у Галичині на ранніх етапах їхнього розвитку. Під час написання роботи використано загальнонаукові методи (історичний, порівняльний, структурний аналіз) і спеціальні натурні дослідження. Застосований комплексний підхід дав можливість виокремити особливості (планувальні, функціональні) міст-садів на прикладі Львова та Кракова. Доведено, що розвиток архітектури та містобудування згаданих міст на початку ХХ ст. загалом відповідав загальноєвропейським тенденціям, натомість концепція міст-садів була втілена фрагментовано, тобто у формі передмість-садів.*

***Ключові слова:** "місто-сад", сутність, житлове середовище, Галичина, "Сальватор", "Новий Світ".*