

*Uliana Ivanochko*

**LANDSCAPE AND SPATIAL CONCEPTS OF LVIV CITY  
DEVELOPMENT IN THE LATE 19 – EARLY 20 CENTURIES:  
OUTLOOKS AND REALITIES OF URBAN SPACE HARMONIZATION**

*Lviv Polytechnic National University, Department of Architectural Design,  
12, S. Bandery str., Lviv, 79013, Ukraine, uliana.ivanochko@gmail.com*

*Received: March 17, 2017 / Revised: March 21, 2017 / Accepted: March 9, 2017*

© Ivanochko U., 2016

**Abstract.** In the late 19 – early 20 centuries while integrating gardens and green spaces into residential area spaces the city of Lviv managed to form a complex system of outdoor intra-block and inter-block gardens, as well as villa and detached housing areas. In 1870–1890 the urban planning solution of south-western districts of Lviv, in particular, Kastelivka in NovyiSvit area, was initiated with construction of villas and detached houses. It appeared to be the first ever attempt in Lviv to arrange a large complex residential area. In 1910 the main changes in Lviv spatial development, related to the experience of creating suburban garden-cities, determined emergence of areas built up with villas and detached houses on the upper plots of the southern and south-western city suburbs, namely within NovyiLviv territory. The latter appeared to be the most favourable for housing a residential area.

**Key words:** landscape and spatial development, Lviv, urban space, gardens, villa construction

## **1. Introduction**

History testifies to the fact that cities appear to bear specific images of modernization processes that take place in a society. Therefore, the latest urban concepts were, to a certain extent, embodied in the architectural and city planning patterns of Lviv at the turn of 19–20 centuries.

At the end of the XIX century the city of Lviv was the third one, following Vienna and Prague, on the top list of the cities of the Austrian provinces. Along with the growth of its political significance (as the capital and a self-governed city), later on, there also came an economic expansion accompanied by rapid and powerful advance in city planning [1, p. 201].

An analysis of the previous and contemporary research has revealed that the city of Lviv, as the capital of one of the crown lands of the Austro-Hungarian Empire, becomes the focus of research attention in a number of scientific papers by investigators of the 19<sup>th</sup>–21<sup>th</sup> centuries [2; 3]. Those authors, including architects, urbanists, historians, art historians, geographers, et al., have focused their research on the dynamics of demographic processes [4; 5; 6; 7], as well as on historical and legal aspects of the municipal life and changes in the administrative reorganization of the city during the Austro-Hungarian period. Some papers contain factual and analytical materials on city building development [8; 9; 10; 11; 12], changes in building and development of downtown and suburban areas, as well as landscape formation (creation of parks and public gardens) [13], improvement in urban hygiene standards [14], construction and legal aspects of building standardization [15; 16; 17].

## **2. Lviv city territorial development**

The spatial development of certain city districts, due to a number of reasons, was uneven.

In 1870 the city population totaled nearly 90.000 residents; there were 253 streets and squares, 2.594 houses, mostly of one- and two-storeys [18, p. 39]. After the reorganization at the beginning of 1871 in Lviv, there were 226 streets, 25 squares, 3.314 building plots (realities) [19, p. 314]. In 1890 the city expanded to as many as 246 streets, 24 squares and 4.495 building plots [19, p. 316].

During the 19<sup>th</sup> century the city area increased in its administrative boundaries up to 3.240 ha, but the living space of it went further beyond the defined borders and developed steadily along the suburbantoll-post road areas and the free spaces between the main streets. It can be explained by the fact that up until the beginning of the 20<sup>th</sup> century the city developed spontaneously and chaotically, as no integral city planning strategy existed.

The opening of the railroad network in 1861, along with construction of the railway station, eventually resulted in a rapid development of Zhovkva suburban areas in the 70s of thXIX<sup>th</sup> century (during the 1870s and 1880s the volume of construction development increased by 40.9 %). Every other year new railroad lines were laid which turned the city of Lviv into the largest railway junction in Galicia. Unfortunately, the railroad network caused obstacles to public transport. In 1874 the traffic was routed down the newly created Obiizd Street (currently L. Dolynskyi Street) along the rail line to Zamarstynivska Street. More intensively, construction activities stretched in the direction of the main railway station. The Cracowian suburbs of Lviv turned into densely built up areas (during the 1870s and 1880s the volume of construction development increased by 25.8 % and during the 1880s and 1890s by 27.3 %, respectively). The Galician suburbs of Lviv developed extensively, as well (with a registered increase of 54.4 %). Also, high-density building blocks were erected from the eastern part of the downtown. Thus, the densely built-up housing ring around the center of Lviv became closed. Also, construction along the main roads continued. The city building plan acquired more and more the shape of a polygonal star [6].

The 70s of the 19 century witnessed a rapid spatial development of the city. Building construction along the main city streets (Yanivska Street, Horodotska Street, Lychakivska Street, Zhovkivska Street) extended far beyond the city center. Large areas between the main streets of the city still remained undeveloped. The width of the high-density construction ring around the city center increased. In 1872–1877 the Lviv Polytechnic complex was built in the Galician suburbs which made the area more attractive: dispersed buildings surrounded the Polytechnic and extended to NovyiSvit area.

Meanwhile, construction of the Lviv Polytechnic complex, i.e., the Main Building (1877), the academic building for the Chemical Faculty (1876), according to the design by Julian Zachariewicz, on the one hand, became an example for construction of a number of city administrative and public buildings and, on the other hand, laid the foundation for design and construction of educational institutions using its own resources.

The municipal territory expansion and an increase in the number of city residents resulted in problems with public transport provision. In 1879 in Lviv a horse-driven tram was launched. And in 1894 the electric tram started to operate. Gas street lights were introduced in Lviv, and in 1900 the first electric street lights in the city were installed. Until the late 21<sup>th</sup> century implementation of innovations of that time made Lviv plunge completely into modernization processes [20, p. 122–123].

The chronological boundary summarizing the city development in the 19<sup>th</sup> century was the Kraiova (Regional) Exhibition held in 1894. Being organized on a large scale with spectacular events, it symbolized metropolitan ambitions of Lviv and its willingness and readiness for modernization [20, p. 123].

In the Galician suburbs there appeared such building areas as Kastelivka, Vulka, Stryiska Dilnytsia, Sofiiivka-ZaliznaVoda, whereas in the Lychakiv suburbs there emerged Pasiky, Tsetnerivka, Upper Lychakiv. Progressing urbanization and the development of public transport gradually wiped away borders between the outlying and the central city districts.

Lviv city building patterns, just as those of other European cities part of Austria-Hungary, were determined by statements of the law, adopted in 1874, concerning the zoning of the territory of Budapest and defining the number of floors and other basic construction features. The urban area was divided into zones of four types: central zones, where multi-storey residential and public buildings were allowed, industrial zones with factories and housing facilities for workers, zones of residential buildings with less than 3–4 floors and zones of detached houses [21, p. 74]. The Lviv cadastral map of 1879 [22], which showed possible routes of new streets and expansion of the existing ones, as well as division of the newly constructed building blocks into redevelopment areas, laid grounds for working out the strategy for further city planning and development. Besides, within this strategy the radially-directed streets were to be further developed and the districts close in their location to the central part of the city made up the focus of the architects' attention.

The important document which streamlined building processes in the city was the first architectural statute for the royal capital city of Lviv adopted in 1877 [23]. The statute provided regulations for certain

buildings design and construction, standards for their height (depending on location), construction solutions, norms of fire-safety and sanitary requirements. The statute also focused on some city planning aspects related to the construction patterns of streets and squares in Lviv.

The architectural statute implementation contributed to intensification of the regulatory plan developments, primarily in the metropolitan capital cities in the late 19<sup>th</sup> – early 20<sup>th</sup> centuries, wherein the city aesthetics and city hygiene were of crucial importance, the development of street networks, squares and buildings within building blocks with a view to buildings height and façade types was taken into consideration, as well.

Regulatory plan development was aimed at meeting important transport, hygienic and aesthetic requirements for city planning and civil housing. The plan envisaged a series of measures for sanitation and a further territorial development of cities.

The necessity for development of the regulatory plan was caused primarily by a significant increase in the number of Lviv city residents. It created the need for extension of trade, industry, housing and construction activities, as well as for transport development, creation of new extensive building areas, merging urban and suburban communities and territories, and reconstruction of plots destroyed by natural disasters (fire, flood etc) [16, p. 4].

### **3. Architectural urban concepts in the late 19<sup>th</sup> – early 20<sup>th</sup> centuries and their implementation**

Reviewing the development of architectural and planning structure of Lviv within each of the given periods it is possible to trace the ways how the contemporary urban conceptions were embodied at that time and how the representatives of Lviv architectural school contributed to their development and implementation.

#### **3.1. Idea of “sanitation”**

In developing plans for building regulation and sanitation during the 19<sup>th</sup> century it was assumed that new streets were expected to be laid through the medieval building areas, as well as building reconstruction measures were to be taken. These included increasing the number of building storeys, demolition of certain buildings or construction of new larger buildings on the site of individual houses and building blocks, arrangement of passages in the internal spaces of building blocks. Thus, stylistically homogeneous complexes were formed.

Regulatory plans aimed to meet basic communicational, hygienic and aesthetic requirements for urban development. Fire safety standards became more strict.

Suburb expansion led to the creation of representative axes which further determined fundamental trends in the city development. At the same time they served as the main functional connections, e.g. Academichna Street (currently T. Shevchenko Avenue), Sykstuska Street (P. Doroshenko Str.) and Sapiieha Street (present S. Bandera Str.) – suburban links (community center) – railway station, – these were attractive areas for construction of most public buildings. Urban development plans of the most community centers included spatial landscaping elements. The original solution of modern S. Bandera Street became a bright example of implementing the idea of a French Boulevard planted with trees and lawns on both sides. In the late 19<sup>th</sup> – early 20<sup>th</sup> centuries numerous public buildings primarily for banking and commerce were constructed along the main city streets close to the city center, which appeared to be the advantageous urban location.

The city population in between the early 19<sup>th</sup> – early 20<sup>th</sup> centuries increased by four times which resulted in significant quantitative and qualitative changes in housing construction.

While integrating gardens and green spaces into residential area spaces the city of Lviv managed to form a complex system of outdoor intra-block and inter-block gardens, as well as villa and detached housing areas.

#### **3.2. Idea of decentralization**

In 1870–1890 the urban planning solution of south-western districts of Lviv, in particular, Kastelivka in NovyiSvit area (Fig. 1), was initiated. Building villas and detached houses appeared to be a practical technique of implementing ideas proposed in 1889 by C. Sitte, an outstanding Austrian architect and theorist in urban planning [24].

The city planning concept of Baiky district was developed in 1886–1888 [25, p. 144]. Kastelivka became the first attempt in Lviv to arrange a large complex residential area built up with villas (with I. Levinskyi and J. Zachariewicz as design project participants [26, p. 41]). Each of these was constructed by an individual project as an autonomous unit with its own structural system of maintenance (the best known one being “Yulietka” in Strila Street (currently Metrolohichna St) designed by J. Zachariewicz). By that time detached houses and villas within the usual city planning patterns were dispersedly located and did not form any complex areas of individual housing (mainly separate public buildings were designed, more rarely those were building complexes). Within Galician suburbs the Kastelivka area was bounded by Kzhyzhova Str. (A. Pototskyi Str.), Maria Magdalena St, Vuletska Str., Issakovych Str. (currently Gen. Chuprynka Str., O. Kolberh Str., Acad. A. Sakharov Str., I. Horbachevskyi Str.). In terms of the city planning approach Kastelivka was regarded to be a creative experiment solved by challenge of introducing curvilinear streets into natural environment. A certain peculiar compositional axis was I Kotliarevskyi Street and the beginning of I. Nechui-Levytskyi Street. Other streets separated the site into irregularly-shaped smaller areas (due to local topographical conditions) where 64 buildings were to be constructed.



Fig. 1. Plan of Kastelivka

It was only partially that architects managed to fulfil their dreams as Kastelivka appeared to be located too close to the city center. The idea of it emerged in the times of horse carriages, but along with the coming of the age of electric trams and automobiles, the picturesque suburbs were involved in urban multi-storey building construction. Therefore, it was only in some separate areas that it became possible to create fragments of a cherished “garden city”.

The experience of creating suburban garden-cities on the verge of 19<sup>th</sup> and 20<sup>th</sup> centuries determined the emergence of areas built up with villas and detached houses on the upper plots which appeared to be the most favourable for housing in the southern and south-western city suburb territories (Fig. 2). There emerged as well residential colonies for workers (or industrial housing dwellings). Those were Bohdanivka, VlasnaStrikha, Vulky, ZalizniVody, Kozelnyky (NovyiLviv), NoveZnesinnia, NovyiZamarstyniv, NovyiSvit, Levandivka, Syhniivka, Sofiiivka, Profesorska and Kryvchytska colonies [5, p. 26, 60–64; 9, p. 41]. Local suburban settlements presumably of village-type or the so-called rural colonies were also formed. The Lviv city development by constructing new housing estates and residential areas on the city periphery was especially intensified after World War I [4].

The new city villa construction plot was laid in 1907–1914 on the terrain of the so-called Frantsivka located within the boundaries of Obvodova Street (modern I. Trush St), 29 Lystopada Bichna Street and Hrokhovska Street (present S. Rudnytskyi St).



Fig. 2. Areas built up with villas and detached houses

In 1905–1914 villas construction was initiated in Lonshanivka district bounded by present Piskova Street, Bichna Piskova Street (I. Krypiakievych St), Krupiariska Street, Muchna Street, Pauliniv Street (Nizhynska Street), Pshchelna Street (Pchelyna Street, present I. Repin Street), Gening Street (P. Sahaidachnyi Street).

The idea of F. Kassler and A. Osten, who planned to form a villa district on the terrain of Novyi Lviv in 1910, became an interesting city development solution. The new housing district of Zalizna Voda was supposed to occupy the territory of the old Krasuchyn estate. The creators devised a city-garden plan in the form of a rectangle of a huge round square forming the sun sending out six street rays (Fig. 3). It was planned for construction of villas and 2-3-storey houses on the streets surrounded by gardens. Before World War I started they had succeeded in constructing only several houses within the area of present Ternopilska Street (particularly No. 15) (former Tsheshynska Street) and Heroiv Krut Street (No. 6, 6-A) (former Gdanska Street). Karbyshev Street (Krasuchynska Street) and Lytvynenko Street (Gnezynska St) were laid down. In 1960s the planning scheme offered by F. Kassler and A. Osten was destroyed and instead of a sun-resembling square with rays the rectangle of Novyi Lviv was filled with 5-storey “khrushchovka” houses located perpendicularly to the diagonal Moris Terez Street (present Serhiy Lytvynenko Street). The new housing district was to be separated from the city by the Zalizna Voda Garden laid in 1905 on the slopes between Krasuchyn and Sofiivka. Unfortunately the idea of Krasuchyn failed to be implemented in the first half of the twentieth century.



Fig. 3. Zalizna Voda housing district (Novyi Lviv)

#### 4. Conclusions

The urgency of establishing villa housing complexes or green building residential districts in Lviv city suburban areas, to a certain extent, resulted from negative social consequences of urbanization.

The concept of a modern garden-city is grounded on such original ideas of settlements and advanced technological design approaches. The purpose of harmonizing the architectural residential environment with modern design techniques crucially requires application of comprehensive approaches to arranging green

landscaped areas for individual and general public use, as well as of an individual development of each area revealing its natural potential.

## References

- [1] Siomochkin I. Narodzhennia industrialnoi ery // Istoryko-kulturni ta kraieznavchi narysy. Lvivshchyna. – Lviv: Tsentr Yevropy, 1998.
- [2] Istoriiia Lvova. U trokh tomakh. – T. 2. – Lviv, 2007.
- [3] Arkhitektura Lvova: chas i styli. XIII-XXI st. – Lviv: Tsentr Yevropy, 2008.
- [4] Sepial M. Rozvytok mista Lvova u XIX stolitti // Arkhitektura Lwowa XIX wieku. Arkhitektura Lvova XIX stolittia. – Krakiv: Mizhnarodnyi Tsentr Kultury u Krakovi, 1997.
- [5] Stepaniv O. Suchasnyi Lviv. – Perevydannia z 1943 r. Stereotypne. – Lviv: Feniks, 1992.
- [6] Drexler I. Wielki Lwów. Le Grand Leopold // Lwów w cyfrach. – Dodatek. Miesięcznik statystyczny. – Lwów: Nakł. Gminy m. Lwowa, 1920. – Nr. 1. Rok XV.
- [7] Hoszowski S. Ekonomiczny rozwój Lwowa w latach 1772–1914. – Lwów: Nakładem izby przemysłowo-handlowej, 1935.
- [8] Lypka R. Arkhitektura spadshchyna Lvova – fenomen vzaiemodii riznykh kultur // Lviv: Istorychni narysy / Red. kol. Ya. Isaievych, F. Steblii, M. Lytvyn. – Lviv: Instytut ukrainoznavstva im. I. Krypiakevycha Natsionalnoi akademii nauk Ukrainy, 1996.
- [9] Trehubova T. O., Mykh R. M. Lviv. Arkhitekturno-istorychni narys. – Kyiv: Budivelnyk, 1989.
- [10] Chodynicky I. Historija stołecznoho Królestva Galicyi i Lodomeryi miasta Lwowa od założenia jego aż do czasów terażniejszych w r. 1829 wydana. – Wydanie wznowione, tanie. – Lwów: Karol Wild, 1865.
- [11] Kowalczyk M. Szkic projektu ustawy budowniczej. – Lwów: Drukarnia W. Lozińskiego, 1892.
- [12] Ostaszewski-Barański K. Rozwój Król. stoł. miasta Lwowa (1848–1895). – Lwów: Nakładem autora, 1895.
- [13] Maksymiuk T. Problemy rekonstruktsii ta restavratsii istorychnykh parkiv Lvova // Urbanistychno-arkhitekturni problemy mist Halychyny – Problemy urbanistychno-arkhitektoniczne miast Galicji: Tezy dopovidei 2-oi ukrainsko-polskoi konferentsii / Red. kolehiia: B. Cherkas, A. Rudnytskyi, M. Bevz, V. Bulinski, S. Yukhnovych, Y. Nakonechna. – Lviv, Tysovets, 1992. – P. 45.
- [14] Feliński R. Budowa miast. Z il. i planami miast. – Lwów: Nakł. Księgarni Gubrynowicza i syna, 1916.
- [15] Ivanochko U. Budivelno-pravovi zakhody shchodo terytorialno-planuvalnoho rozvytku Lvova u KhIKh stolitti // Visnyk Derzhavnogo universytetu “Lvivska politekhnika”. Arkhitektura. – Lviv, 1999. – No. 375. – P. 214–216.
- [16] Drexler I. Techniczny substrat do konkursu na plan rozszerzenia i regulacyi m. Lwowa. (Z tablicą). – Lwów: I. Związkowa Drukarnia, 1914.
- [17] Semsroth K. Vom Regulierungsplan zum räumlichen Entwicklungskonzept. Städtebauliche Entwicklungslinien in Österreich im Spiegel der Rechtsgrundlagen: Habilitationsschrift / Technische Universität Wien. – Wien, 1985.
- [18] Merunowicz T. Wyniki samorządu w Galicyi. Z powodu 50-lecia istnienia urzędów autonomicznych w Galicyi. – Lwów: Nakł. Księgarni W. Gubrynowicza i Syna, 1916.
- [19] Kowalczyk M. Rozwój terytorialny miasta // Miasto Lwów w okresie samorządu 1870–1895. – Lwów, 1896.
- [20] Oseredchuk M. A. Hromadskyi prostir Lvova na zlami XIX–XX stolit // Humanitarnyi zhurnal. – 2013. – No. 3. – P. 116–127.
- [21] Stanislavskyi A. Y. Planirovka y zastroika horodov Ukrainy. – Kiev: Budivelnyk, 1971.
- [22] Tsentralnyi Derzhavnyi Istorychnyi arkhiv Ukrainy u Lvovi (dali – TsDIA Ukrainy u Lvovi), f. 186, op. 8, spr. 631. Lviv z peredmistiamy. – 1879 r. – 53 arkushi; Tam zhe. F. 720, op. 1, spr. 616. Kadastrova karta m. Lvova. – 1879 r. – Ark. 1–11.
- [23] TsDIA Ukrainy u Lvovi, f. 146, op. 7, spr. 4153. Polozhennia pro poriadok budivnytstva u m. Lvovi i vypyska z dokladu ministra vnutrishnikh sprav. – 1877 r. – S. 6–41.
- [24] Zitte K. Khudozhestvennye osnovy gradostroitelstva: Per. s nem. Ya. A. Krastinysha. – [Perevod. izd.] Der Städtebau nach seinen künstlerischen Grundsätzen / Camillo Sitte. – Wien: Verlag von Carl Graeser. – Moskva: Stroizdat, 1993.
- [25] Linda S. M. Zhytlove budivnytstvo Lvova u druhii polovyni XIX stolittia // Zapysky Naukovoho tovarystva im. Shevchenka. – Lviv, 2001. – T. CCXLI. Pratsi Komisii arkitektury ta mistobuduvannia. – P. 126–153.
- [26] Krajewski A. Lwowskie przedmieścia // Biblioteka Lwowska. – VIII. – Lwów: Wydawnictwo Towarzystwa Miłośników Przeszłości Lwowa, 1909.

Уляна Іваночко

## ЛАНДШАФТНО-ПРОСТОРОВІ КОНЦЕПЦІЇ РОЗВИТКУ ЛЬВОВА КІНЦЯ ХІХ – ПОЧАТКУ ХХ СТОЛІТЬ: ПЕРСПЕКТИВИ ТА РЕАЛЬНОСТІ ГАРМОНІЗАЦІЇ МІСЬКОГО ПРОСТОРУ

**Анотація.** Наприкінці ХІХ – початку ХХ ст. завдяки процесу інтеграції садів і зелених просторів у сельбищні території Львів отримав цілу систему зовнішніх міжквартальних та внутрішньоквартальних садів, райони віллової забудови. У 1870–1890 рр. було розпочато містобудівне вирішення південно-західних районів міста, зокрема, Кастелівки на Новому Світі, реалізацією забудови здебільшого особняками та віллами, яка стала першою спробою у Львові організації комплексної великої житлової ділянки. Основні зміни у просторовому розвитку Львова, що були пов'язані з практикою створення на передмістях міст-садів послужили закладенню у 1910 р. на найсприятливіших для проживання підвищених ділянках південних околиць міста, а саме на теренах Нового Львова ділянки вілл.

**Ключові слова:** ландшафтно-просторовий розвиток, Львів, міський простір, сади, віллова забудова.