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MYKOLA ORLENKO*, YULIIA IVASHKO**

A private estate as an important unit of the urban-planning structure of the late nineteenth century – the early twentieth century and the significance of historical and architectural site plans in the preservation of the historical urban environment

Abstract
The article deals with the issue of urban development at the Secession period, it reveals the role of a private estate as an urban-planning unit of the late 19th century – beginning of the 20th century, analyses the specific features of private estates in different cities of Ukraine. The role of the historical and architectural site plans in modern conditions for the preservation of the historical environment of the cities was determined.

Key words: private estate, the Secession era, historical and architectural site plans

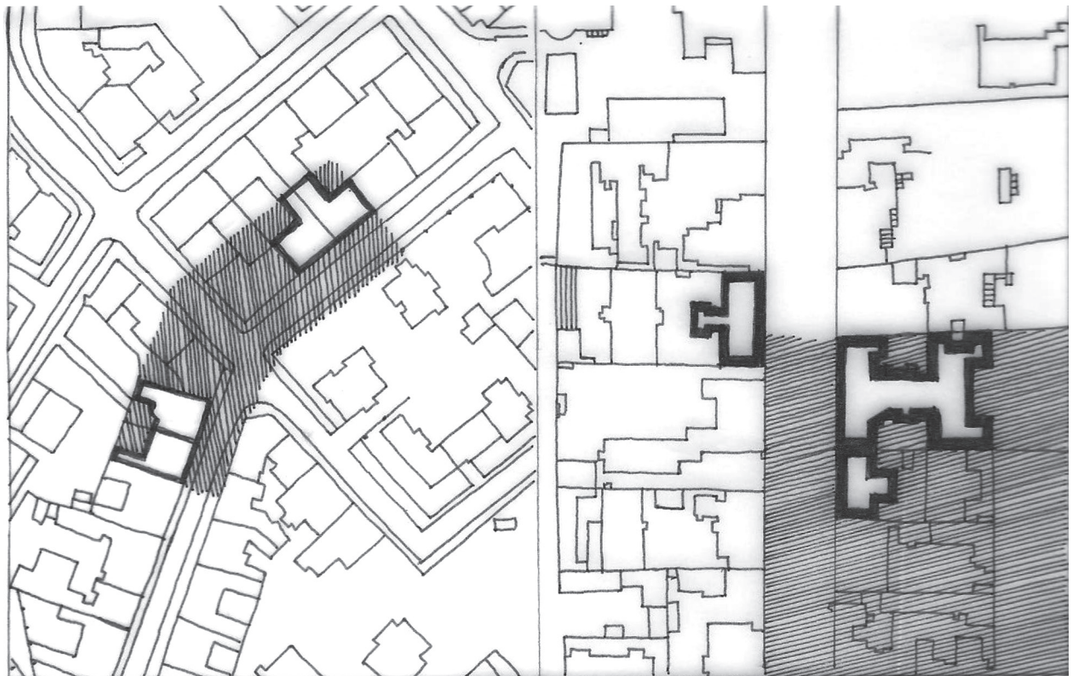
Introduction
An important component of the city during the late nineteenth and early twentieth century is the private estate, the development of which, unlike in the previous centuries, is based on the economic needs of the capitalist period. Due to the rapid growth of cities in the second half of the nineteenth century, the nature of the estate planning has changed, in particular, low-rise mansions and gardens in the courtyard disappear, large estates are divided into several smaller plots and are sold by auction in parts for development purposes. At the turn of the centuries, there was a clear tendency to the urban densification and a decrease in the space of the courtyard of the estate with the formation of small "well-courtyards".
In the period of the formation and development of the Secession style in the territories under the rule of the Austro-Hungarian Empire, in the urban-planning structure, the areas with a high-density development along the "frontage lines" of streets and the areas built-up with low-rise mansions with free estate development are formed (for example, areas of mansions in Lviv, Ivano-Frankivsk, Chernivtsi).
Administrative and legal requirements remained the determining factors influencing the nature of the layout of both the estate as a whole and the dwelling houses in the estate, although there are different views of researchers on the relationship between the land plot plan and the form of plans for the tenement houses [1, 2, 3]. In particular, Ye.I. Kyrychenko believed that the plans of tenement houses were mainly determined not by the shape of the plot, but by the layout options of the sections, making it possible to solve problems of transport, long-term planning and artistic integrity of the urban ensemble. At the turn of the nineteenth – twentieth centuries, the projects and proposals for the reconstruction of cities, emerged. The perception of the city changed – it is not a conglomerate of individual buildings, but an integral association of development. According to Yu. Biriulov, a Ukrainian researcher, there was no direct relationship between the size of the estate and the shape of the plan of the tenement building. On the contrary, T. Skibitskaya, an art historian, was of the opinion that the size of the estates influenced the shape of the plan of tenement buildings, in particular, narrow plots of 10-24 x 14-50 m in size were built up with simple rectangular and L-shaped houses; middle plots, 35-40 x 70 m in size – T-, U-, and H-shaped buildings and buildings in the form of a square with an opening in plan; large plots, 100-200 m of length along the frontage line – houses with complex plans and courtyards. This allowed her to come to the conclusion that it was the parameters of the land plot that were the primary factor, predetermining the type of a site plan of the tenement house.

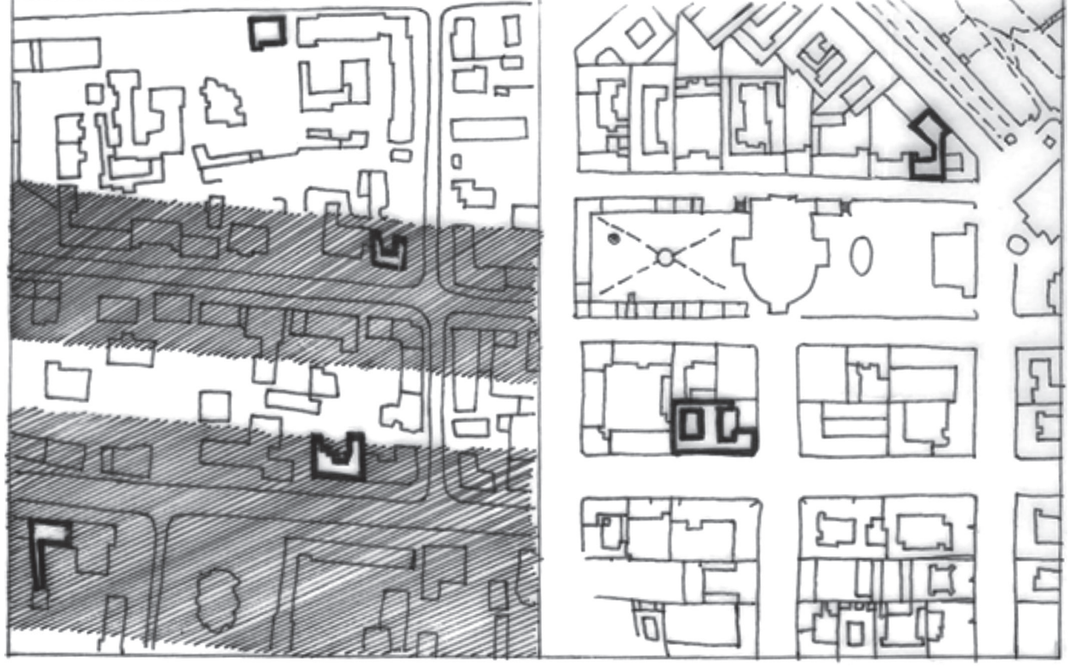
* Mykola Orlenko, Doctor of Architecture, Professor, Kyiv National University of Construction and Architecture, e-mail: n_orlenko2012@ukr.net, ORCID: 0000-0002-4154-2856
** Yuliia Ivashko, Doctor of Architecture, Professor, Kyiv National University of Construction and Architecture, e-mail: yulia-ivashko@ukr.net, ORCID: 0000-0003-4525-9182

Main part

1. The specific layouts of the estates of the era of Secession in different cities of Ukraine.
In Lviv, as in Kyiv, there are the same U-, L– and H-shaped, rectangular and approximately rectangular types of estates development, however, there are specific options of development with the buildings with the irregular shape of the layout (which is explained by the domination of the narrow parcelled principle of building) and ensemble development in the Art Nouveau style within one estate or within neighbouring estates. Compared to Kyiv, in Lviv, there are more examples of the corner buildings in the Secession style, just as more variants of plans for corner houses are known. The plans of the plots are narrow or close to the square, with dense development; in contrast to Kyiv, where the corner buildings are mainly L-shaped, in Lviv the same type of the plan can be found in the ribbon building and in the corner buildings (Fig. 1)
In addition, Kyiv urban development of the Secession period had the following qualities (Fig. 1). In the ribbon and corner development, rectangular shapes of the plots were spread: in the ribbon development – narrow, stretched in depth of the plot; in the corner development – rectangular and close to the square; there were also ribbon and corner plots of irregular shape; according to the length of the frontage line, the plots were divided into narrow (19–24 m), medium (25–50 m) and wide (50 m and more). If the plot is close in size to the square, there are more opportunities for its dense development, if the plot is narrow and elongated, it is easier to "fit" a T-shaped facade house or rectangular building, since then it is possible to build a courtyard house parallel to the façade building.
Corner plots were always closer in shape to the square than the ribbon plots, they were more densely built-up, with a small courtyard. A corner building is usually L-shaped, less often with a complex site plan, it is higher than in ribbon buildings, it is two-section, two-facade, its planning is more complex than in ribbon buildings, it is always an accent building (in accordance with the then construction legislation). The ribbon development is more often single-section, without elevators, T-shaped in plan, with 4-5-room apartments on the floor, its number of storeys is lower than in the corner development, it is not always an accent one. Ribbon plots often have a front length of up to 30 m, they can be narrow and very long and wide and short, elongated in length along the frontage. On all types of plots, the façade house stands across the entire width of the site, unless it is already close one to it or soon another façade house is planned.
There were such options of the urban development of the Secession period: the facade house is located along the frontage line, the courtyard is little built-up; a facade house is built along the frontage line, and there is a courtyard house parallel to it in the yard; L-shaped site development; U-shaped site development; H-shaped site development; ribbon site development of high density: the possibility of a certain location of houses with different site plans was due primarily to both the size and proportions of the plots. In total, four groups of sites can be categorized according to the proportions and aspect ratio.
Thus, on the basis of the study of the private estates with buildings of the late nineteenth – early twentieth centuries, in the urban development plans of the main cities – centres of the concentrated location of the objects of the Secession style architecture – Lviv, Kyiv, Kharkiv and Odessa – it is possible to determine the most common types of the development of estates. So, in Lviv, along with the U-sha-

ill. 1. Comparative analysis of the location of private estates of the Secession epoch in Lviv (left) and Kyiv (right). Drawings of Yu. Ivashko according to the archival sources





ill. 2. Comparative analysis of the location of private estates of the Secession period in Kharkiv (left) and Odessa (right). Drawing: Yu. Ivashko according to the archival sources

ped, L-shaped and rectangular development of estates, there is a specific Renaissance-derived type of development with a "well-courtyards" without a driveway to the courtyard. In Kyiv, alongside with the common types of the site development (a facade house constructed along the frontage line and little built-up yard, a facade house with a parallel building in the yard, L-shaped, U-shaped, H-shaped and ribbon building) there is a complex type of development with several courtyards. In Kharkiv, along with the T-shaped, L-shaped and rectangular buildings, there is a specific type of site development with a common courtyard for several houses (Fig. 2). In Odessa, where there is the ribbon, L-shaped buildings in the private estates of the era of the domination of the Art Nouveau style, a specific type of site development with a closed landscaped courtyard (ill. 2).

ill. 3. The house at 13 Nechui-Levitskyi Street in Lviv. Photo: Yu. Ivashko

By 1859, the number of floors in the buildings of estates in Odessa was regulated by the border of porto-franko, the unrealized draft of the mandatory regulations of the building part and the mandatory construction rules of the 1903 City Council. The dimensions of the plots with houses in the Secession style in Odessa were generally larger than in Kyiv, and the most common types of the site plans were L-shaped (for corner areas) and complex, with preferences to the ribbon building (for corner and row consisting of several volumes.

Analysis of zones of concentration of objects of the Secession style in the main centres of this style clearly proves that although the areas of concentration of objects of Secession in Lviv are outside its medieval historical centre, they are subordinated to the medieval principle of narrow parcelled building up to the frontage lines (ill. 3); the Secession objects of Kyiv and Odessa are fit into a rigid ribbon development along the frontage lines (ill. 4), but in Kharkiv there is an alternation of rigid ribbon development and town house development in the streets with a concentration of the objects of Secession.

The greatest variety of place and role of the object of the Secession style in the urban environment is observed in Lviv, where its strong influence on the urban environment is noted, there is a noticeable concentration of objects of the architecture of the Secession style within the area (Fig. 3). The moderate influence of objects of the Secession architecture on the urban environment in Kyiv and more – in Kharkiv, is noted; there is a significant spreading of objects of Secession within the site and an elongation of the site along the streets. In Odessa, there is no influence of the Secession on the urban environment, it is "dissolved" in the building of eclecticism, the manifestation of the specific features of the Secession style is observed at the level of a ribbon element of development.

The main difference between the development of Kyiv and Lviv estates was as follows: the larger size of plots, the lower density of construction within the estate and the presence of a large unclosed yard space. The form of the site plan of the tenement house was determined both by dimensions of the site and the financial capabilities of the owner. In this design scheme, the facade became the "secondary" element with respect to the site plan and the house plan, and the facade composition was based on the plan.

2. A private house as a part of the plot and features of its planning during the Secession period

The influence of Secession in planning was expressed primarily in the appearance of asymmetric plans with oval or curved main staircase, often open in the interior, which become the semantic and compositional centre of the house, and a departure from the rigid enfilade and corridor layout. However, planning of most houses of the Secession style corresponded to the specifics of the tenement housing of that period; herewith, the planning of the houses of Western centres felt the influence of medieval and European traditions, while in other centres it was more distinct like the tenement housing in the Russian Empire.

The layouts of Kyiv houses in the Secession style are mostly T-shaped single-section, less often – U-shaped single-section (ribbon) and L-shaped two-section (corner), however these types of plans are peculiar not only to the Art Nouveau, but also to the entire tenement development of Kyiv of the late nineteenth century – the early twentieth century. We can speak about specific planning of the Secession style only in the case of rare houses ("House with Chimeras" at 10 Bankova St., and the house at 33 O. Honchar St.), since in Kyiv, the Secession remained "facade style"; the patterns of complication of plans starting from 1910 was not observed, the same traditional T-, U-, L– and H-shaped and rectangular houses were built, only a single type of complex planning emerged in multi-storey tenement complexes, and a residential section formed in traditional types of plans, a more rational planning approach was outlined.

In the construction of private estates of Kharkiv in the late nineteenth century – the early twentieth century, not architectural and composite, but administrative and legal requirements prevailed; resulting in the outspread of the "facadeism" phenomenon in the main buildings, oriented to the street and located along the frontage lines of development site. However, despite this, unlike Kyiv and Odessa, in Kharkiv (as in Lviv) there are ensembles of entire streets with a concentrated arrangement of architectural objects in the Secession style (Fig. 5.6). At the beginning of the twentieth century, in the development of private estates, there is a tendency to increase the area by consolidating small estates into larger ones with multi-storey tenement housing and shops. The sizes of the plots in Kharkiv averaged 15–20 meters along the front and 30–40 meters in depth, that is, they were narrower than the average in Kyiv. Active development of sites was stimulated by bank lending.

ill. 4. The house at 2 Marazliivska Street in Odessa.
Photo: Yu. Ivashko

The peculiarity of sites development in the Secession style in Odessa was, in comparison with Kyiv, denser development of private sites and the emergence of large residential complexes built by means of joint-stock companies and other societies.

3.The role of historical and architectural site plans in the preservation of the historical environment of the city

The objects of the architecture of the Secession epoch are a significant part of the monument-protective buildings. In Lviv, on the territory of the medieval city, there are few objects of Secession style, and they are located outside the former borders of the medieval walls of the city, a zone of concentration of objects of Secession is observed on the territory of the city development of the late nineteenth century – the early twentieth century, adjacent to the historical territory of the city. The smaller zone of concentration of objects of Secession is located in the area of the National University "Lviv Polytechnic" and is elongated along the streets of Stepan Bandera and General Chuprynka, and even less, local, along a part of Shota Rustaveli Street.

In Kyiv, there was an active invasion of the Secession style building into the historical structure of the city, so the five areas of the concentrated location of the objects of Secession included both – the new streets, built at the end of the nineteenth century, after the esplanade rules were cancelled, and old streets.

ill. 5. The House of the decorative Secession at 6 Sumska street, in Kharkiv. Photo: Yu. Ivashko.
ill. 6. The house of the rationalistic Secession at 80 Sumska street, in Kharkiv. Photo: Yu. Ivashko.

In Kharkiv, unlike other major centres of Secession, four zones of concentration of the objects of Secession are markedly elongated in nature and are concentrated mainly along the main streets. At the same time, due to the fact that in Kharkiv there were neither the "construction boom" and the rapid growth of the urban population so noticeable as in Kyiv, nor the active process of replacing low-rise and mid-rise buildings with medium and high-rise tenement buildings. In Kharkiv, the tenement development is concentrated mainly along the main streets, and the buildings of side streets can be low-rise and mid-rise. As a result, in the zones of concentration of the objects of Secession in Kharkiv, next to large-scale tenement houses, there are also mansions in the Art Nouveau style.

In all four main centres of the zone of concentrated location of the objects of the architecture of the Secession style, are within the protected areas and historical areas, which facilitate the development of a legislative framework for their protection [3, p. 175-176]. T. D. Tovstenko identifies three building groups according to their value: ensembles and individual monuments of architecture, history and culture; buildings of stylistic value; buildings that have lost their value due to rebuilding, she emphasises special role of modern objects in the urban planning environment [5, p. 9, 13].

A unique example of preservation and reconstruction of the original idea of landscaping of the estate, is an example of adaptation of a plot with a house at 10 Bankova street in Kyiv for the Residence of the President of Ukraine (Fig.8).

On the east the site shares borders with Bankova street, on the west – with a steep slope of the hill in the direction of Mykolaivska Square (now I. Franko Square) and the Solovtsov Theater (now the I. Franko Theater), in the north – with a plot of 8 Bankova Street , and in the south – with a plot of 12 Bankova Street.

In pre-revolutionary times, the estate had only one exit on Bankova Street and was separated from the neighboring estate by a firewall, and its courtyard was at the level of Mykolaivska Square near the Solovtsov Theater. Since the height difference was significant (from 177.5 to 187.8 m), the driveway from the yard to Bankova Street began at the level of the basement, then all around through the level of the roof of the barn and stables, and through the passage in the house to Bankova Street.

For the period of the survey of the technical condition of the house at 10 Bankova Street and the surrounding area, it was found that the house is in the emergency condition, the area of the territory is 0.16 hectares, the protection zone has not been developed. Regarding the state of improvement of the estate, it was noted that the territory retained its original planning solution, however, small architectural forms were lost and the territory adjacent to the house was not landscaped. The dry area, the roadway, the household yard was asphalted, but the surface was cracked, there were little blistering and deflections and it was in poor condition.

The development of the site plan was based on the preservation and reconstruction of the author's intention of the landscape volume spatial composition; it provided for the restoration of existing elements, reconstruction of lost details, reproduction of unfulfilled scenes of landscape organization and elements of landscape plastics with adaptation to the residence of the President of Ukraine; restoration and installation of fences, pylon and main gate , restoration with partial reconstruction of the courtyard, rock garden, reproduction of terraced gardens, retaining walls, construction of the stairs from the lower level to Bankova Street. It was provided for to pave the pavement areas, platforms, roads and paths with granite slabs and granite mosaic, facing of retaining walls, parapets, stairs with natural stone. Lanterns, garden sofas, benches and urns were made using casting and forging techniques. The compositions of the garden of stones from boulders and raw stone were restored. A grotto and an artificial lake were arranged; they were covered with rustic stone. Plants were selected for landscaping, which were used in the landscape design in the Secession period – rhododendrons,

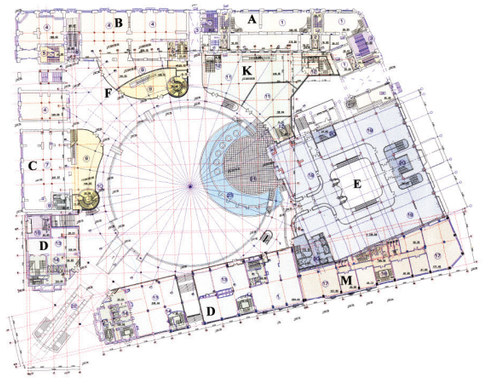


Fig. 7. The house at 10 Bankova Street (Amenties), fot. Ukrrestavratsiya

magnolias, cypresses, thujas, junipers, irises, gladioli, lilies, flowering plants that are twisted. This, together, allowed to recreate a unique image of a private house with introduction of the Secession features at all levels – from the smallest architectural detail of the house to the elements of the landscape design.

General conclusion

The principles of development of streets with a concentrated location of the objects of Secession in the main architectural centres of this style, depended on the principles of development typical for a particular city, the location of zones of Secession in the main architectural centres relative to the borders of the reserves and historical areas, is also marked by specific features.

Due to its specific occurrence and short duration (on average up to twenty years), the style of Secession on the territory of Ukraine did not have city-forming significance. It manifested as an object style – in some cases at the level of ensemble development of individual streets or residential complexes (and then in rare architectural centres), and the manifestation of style as observed at the level of the facade (or facades) of the house up to individual details. It is at the level of the façade where the main features of varieties of Secession (decorative, rationalistic, classicized) can be observed – decorativeness, asymmetry, polychrome, curvilinearity of the decorative Secession; lack of decor, monochrome, geometric forms of the Rationalistic Secession; symmetry, decorativeness and flatness of the Classicized Secession.

Based on the existing monument protective and restoration sources, in our opinion, the zones of concentration of the objects of the Secession style architecture in the main neighbourhoods can be classified as the historical environment of the first category, that is, where the authentic structure of the urban planning spatial framework is preserved and only some individual "sign" objects are restorated [3, p. 175-176]. This is explained by the good state of the preservation of historical city development, mostly of the same time period, by a significant concentration of monuments of the Secession period as single-style objects and solidity of development. But the zones of concentrated location of objects of the Secession style in small cities can be attributed to the historical environment of the second, and in some cases – the third category, that is, with the permission of more active intervention in the historical structure of the spatial framework [3, p. 175-176]. In the main centres, in zones of concentration of architectural objects of the Secession style, the preference is given to a holistic restoration of objects while preserving the building along the streets along the "frontage lines" and not necessarily maintaining the low-value courtyard buildings deep in the neighbourhoods.

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