

# HISTORICAL DEVELOPMENT, CURRENT CONDITION, AND THE REVALORIZATION PROBLEMS OF PARKS IN FORMER RESIDENCES FROM THE EIGHTEENTH AND NINETEENTH CENTURIES IN VOLHYNIA. CASE-STUDY OF THE RIVNE REGION HISTORICAL PARKS (UKRAINE)

Olga Mykhaylyshyn<sup>1</sup>  0000-0003-3046-7923, Taras Mykytyn<sup>2</sup>  0000-0002-8285-6800,  
Iryna Potapchuk<sup>3</sup>  0000-0003-1526-4351

<sup>1</sup> University of Agriculture in Krakow, Poland; National University of Water and Environmental Engineering, Rivne, Ukraine

<sup>2</sup> Rivne State University of Humanities, Ukraine

<sup>3</sup> National University of Water and Environmental Engineering, Rivne, Ukraine

## ABSTRACT

### Aim of the study

The article is devoted to studying the condition of preservation, transformations in the compositional and planning structure, and the tree species composition of plantations within parks that are monuments of eighteenth and nineteenth century landscape gardening art in historic Volhynia, located within the Rivne region. This research serves as a scientific basis for developing projects aimed at the revalorization of the aforementioned heritage.

### Material and methods

The theoretical foundation of the research is based on the works of Polish and Ukrainian scholars in the fields of European and Polish park design history, landscape architecture, and botany. Primary sources, such as cartographic materials and inventory descriptions, play a crucial role, alongside the accounting documentation of parks classified as historical heritage sites and data from recent field surveys of park plantations in the Rivne region of Ukraine. The methods employed include the historical-genetic method, comparative analysis, synthesis, route surveys, phytocoenotic analysis, and the determination of the taxonomic composition of the plantations.

### Results and conclusions

In the twentieth and twenty-first centuries, significant changes have occurred in the spatial and planning structures of the historical parks in the Rivne region, leading to partial landscape degradation and the loss of stylistic features. Key issues include the reduction of park areas, the introduction of uncharacteristic species or natural self-seeding, which have caused substantial alterations in the parks' compositional structure, the loss of original landscape views, and the overcrowding of plantations. Special attention is required for exotic species that are aging and in decline. Comprehensive and effective revalorization of historical parks can be achieved through a phased restoration of their environment to a state and appearance as close to their original condition as possible. Such efforts can be integrated into student educational programs, community initiatives, or public outreach projects.

**Keywords:** historical parks, spatial and planning structure, taxonomic composition of plantations, revalorization

 e-mail: [olga.mykhaylyshyn@urk.edu.pl](mailto:olga.mykhaylyshyn@urk.edu.pl)

## INTRODUCTION

During the eighteenth and nineteenth centuries, approximately thirty parks were established as part of palace and park compounds in the Rivne region, a territory historically belonging to the Volhynya region of Ukraine (corresponding to modern administrative divisions including Volhynya, Rivne, the eastern part of Zhytomyr, and the northern parts of Ternopil and Khmelnytskyi regions). These parks were created by the social elite of the time, including magnates and nobility.

The historical parks of this region serve as a testament to the transmission of European philosophical, cultural, and architectural trends to the lands of today's Ukraine. This was facilitated through the patronage and cultural stewardship of the upper strata of the Polish elite during the eighteenth and nineteenth centuries, as well as their connections with other European countries, including Italy, France, and England. The parks preserved to this day possess significant cultural and educational potential, functioning as tourist attractions and recreational areas, and also serving as economic drivers for regional and community development. Some of these parks are part of Ukraine's national Nature Reserve Fund, recognized as monuments of landscape gardening art, and are protected at both national and local levels. As of October 1, 2024, the list of such sites includes parks associated with former noble and magnate residences located in the Rivne re-

gion (Tab. 1) (Nature Reserve Fund; State Cadastre of Territories):

The named objects remain in a varying state of preservation, which is determined by factors of historical-cultural, natural, humanitarian, and economic-technological content (Zachariasz et al., 2008; Trzaskowska and Adamiec, 2018). When projecting the general problem of preservation of historical parks to the state of parks of former residences in the territory of Rivne region, it is worth paying attention to the following groups of factors.

Firstly, the change of statehood and political systems during the twentieth century led to a change in the form of ownership of all the preserved objects: the palace and park compounds were nationalized and became property of the state.

Secondly, starting from 1939, when the modern territory of the Rivne region became part of Soviet Ukraine, and continuing to the present day, the parks ceased to be private spaces reserved for leisure activities of a limited circle of individuals – namely, the owners of the estates and their entourage. Most of these parks were transformed into recreational areas or public parks within the settlements where they were located or became part of the grounds of various institutions. As a result, the symbolic content and semantic value of the parks' environments were diminished, leading to the overall degradation of their compositions. The standardization of maintenance approaches often resulted in the loss of the parks' individuality.

**Table 1.** Parks – monuments of landscape gardening art of the Rivne region (source: Authors' own elaboration)

Park category	Of national importance			Of local importance		
	locality	creation date	area, hectares	settlement	creation date	area, hectares
<b>Rivne region</b>	<b>Hoshcha</b>	1972/1990	7.0	<b>Velyki Mezhyrichi</b>	2005	7.0
				Horodok	1993	8.0
				Zirne	1983	17.2
				<b>Mlyniv</b>	1993	25.0
				<b>Mizoch</b>	1983	15.0
				Oleksandriya	1983	5.0
				Ostrozhets	1983	16.0
				Ostrog	1983	0.6
				Tuchyn	1983	10.0

Furthermore, the character of the parks' environments changed with the loss of historical structures and the addition of new ones, including small architectural forms, monuments, and memorials, altering their historical integrity.

Thirdly, a significant problem for most preserved parks is ignorance, misunderstanding, and lack of respect for these objects as elements of historical heritage created by previous generations.

Fourthly, we are witnessing processes of natural aging of trees, taxonomic degradation of plantations, and general degradation of the environment under the influence of time, without proper care and protection, as well as unsystematic planting of new plants without the participation of specialists.

Fifthly, there are spatial planning factors. In the course of the development of the functional and planning structure of settlements during the twentieth and twenty-first centuries, the investigated parks changed in terms of their territory. The consequences of these changes were the reduction of their area, parcelization, territorial division between many users, different degrees of transformations, degradation, and state of maintenance in various areas.

Sixthly, high costs and laboriousness of the revalorization and maintenance of parks are often the main reasons for their neglect and gradual destruction.

Throughout the twentieth and early twenty-first centuries, the environments of historical parks in the Rivne region underwent significant changes. The most critical aspects of these changes are landscape and taxonomic degradation. Landscape degradation refers to the disruption or disappearance of specific types of garden and park landscapes within historic palace and a park, such as the transformation of formal, parkland, garden, or meadow landscapes into forested areas. It is also evident in the reduction of open glades, the obstruction of vistas, and the closure of alleys that once offered near and distant perspectives. Taxonomic degradation occurs and persists due to the natural aging of individual trees (particularly exotic species), insufficient care for plantations, anthropogenic impacts, and similar factors. The study of landscape and park plantation changes is crucial, as it allows for the identification of negative trends, the assessment of the scale of changes, the implementation of measures to slow down these processes, and the proposal of strategies

for the revalorization of historical parks or their specific elements.

The aim of this article is to study the state of preservation, transformations in the compositional and planning structure, and the tree species composition of plantations within parks that are heritage monuments of eighteenth and nineteenth century landscape gardening art in historic Volhynya, located within the Rivne region. This research serves as a scientific basis for developing projects aimed at the revalorization of these heritage objects.

## MATERIAL AND METHODS

The study focuses on four historical parks in the Rivne region: Mlyniv (Młynów), Velyki Mezhyrichi (Międzyrzecz Korzecki vel Wielki Międzyrzecz), Mizoch (Mizocz), and Hoshcha (Hoszcza). For the first three sites, historical data spanning different time periods (from the eighteenth to twenty-first century) regarding the landscape composition and taxonomic structure of plantings have been preserved. Research on the park in Hoshcha primarily addresses changes in the dendrological species composition of plantings, given its status as a dendrological park.

The available data form the basis for a comparative analysis and for identifying the characteristics of landscape and phytocoenotic dynamics. Key resources for this study include nineteenth-century publications dedicated to the theory of park construction (Czartoryska, 1805; Giżycki, 1827a, b), factographic and analytical publications on the historical parks of the Volhynyan residences authored by Aftanazy (1988); Yu. Klymenko and A. Klymenko (2009); Brzezińska-Marjanowska (2015), works dedicated to the problems and methodology of the revalorization and evaluation of historical parks (Zachariasz, 2008; Trzaskowska and Adamiec, 2018; Uruszczak, 2023), archival materials (park inventories and plans), published materials from the inventory of the studied parks conducted in the late 1930s (Ciołek and Żelechowska, 1939), unpublished results from inventory and preliminary design studies of the 1980s–1990s, as well as data obtained through fieldwork conducted by the authors in the 2010s–2020s.

The study employed methods that facilitate the assessment of the condition of selected historical parks

in the Rivne region and their plantations, serving as a foundation for their revalorization. At the first stage, the historical-genetic method was used to identify the spatial-planning features and compositional techniques employed in shaping the residential parks of the eighteenth and nineteenth centuries, contextualized within European and Polish traditions. At the second stage, a combination of comparative methods and the graph-analytical method was primarily applied to examine changes in the planning structure of the studied parks throughout their existence. Additionally, the route survey method and phytocoenotic analysis were utilized to investigate changes in the phytocoenotic structure of the plantations. In the final stage, using methods of analysis and synthesis, general recommendations were formulated regarding approaches to the revalorization of the parks.

## DISCUSSIONS AND RESULTS

### **The context of the development of residential park construction in Volhynya during the mid-eighteenth century and the nineteenth century**

The development of garden and park design in the historical region of Volhynya (including the modern Rivne region) during its time as part of the Polish–Lithuanian Commonwealth (throughout the eighteenth century) and later as part of the Russian Empire (1795–1917) reflects the region’s integration into the philosophical and design context of each period. This included the adoption of English philosophical concepts, such as those by E. Shaftesbury (1671–1713) and W. Hogarth (1697–1764), which emphasized reverence for living nature as an integral part of human existence, the harmony of “nature”, order, functionality, and the preservation of the *genius loci* of any natural landscape. It is well-documented that the English theory of landscape park development became foundational for shaping the park zones of residences in the Polish–Lithuanian Commonwealth as early as the 1770s, closely linked to English classicism (Neopalladianism). Another source of inspiration and a model for organizing park landscapes were the gardens of China. The dissemination of their general principles was also facilitated by the English, notably through the influential work of landscape architect William Chambers, *On the oriental gardening* (1773). In Poland, the promotion of English

park ideas was particularly advanced by August Mozyński’s work, *Rozprawa o ogrodnictwie angielskim* (*Essay on English gardening*, 1774) (Łakomska, 2008).

The popularization of new park construction concepts in the Polish–Lithuanian Commonwealth was also facilitated by the publication of specialized works on the subject: *Les jardins ou l’Art d’embellir les paysages: pöeme* (*Gardens*) by J. Delille (1782), *Myśli różne o sposobie zakładania ogrodów* (*Various thoughts on the methods of garden layout*) by I. Czartoryska (1805), and *O przyozdobieniu siedlisk wiejskich* (*On the decoration of country estates*) by F. Giżycki (1827a, b).

F. Giżycki argued that “the second half of the eighteenth century marked the beginning of a new great era in the history of garden art, an era of the revival of good taste and aesthetic beauty” (Giżycki, 1827a). The embodiment of this era was the English (landscape) park. Giżycki’s work was a concentrated body of knowledge on English parks: from their typological classification (formal, melancholic, those where water is the central element, rustic, pastoral, frightening) to the functional structure and layout of specific areas: flower gardens (*parterres*); promenades; animal enclosures, etc. (Giżycki, 1827a). A mandatory feature of the park was the orchard near the gardener’s house, along with the so cold trebhouses (greenhouses), and a vegetable garden next to the kitchen building.

It is well known that the creation of compositions in landscape parks was also based on the formation of a system of signs – a characteristic feature of sentimentalism and romanticism in landscape architecture of the late eighteenth century and early nineteenth century. According to the popular thesis that nature is a garden that should not be altered but rather adorned, plants were selected to create a unique, emotionally charged environment. The primary criterion was the semantic correspondence of each group of trees and plants to their placement in the park compositions (Giżycki, 1827b).

The spread of such approaches in Volhynya was also facilitated by the landscape and hydrological features of the region: the gently rolling terrain with valleys, ravines, low hills, numerous bodies of water, and forested areas with varying dendrological compositions, on the basis of which these parks were created.

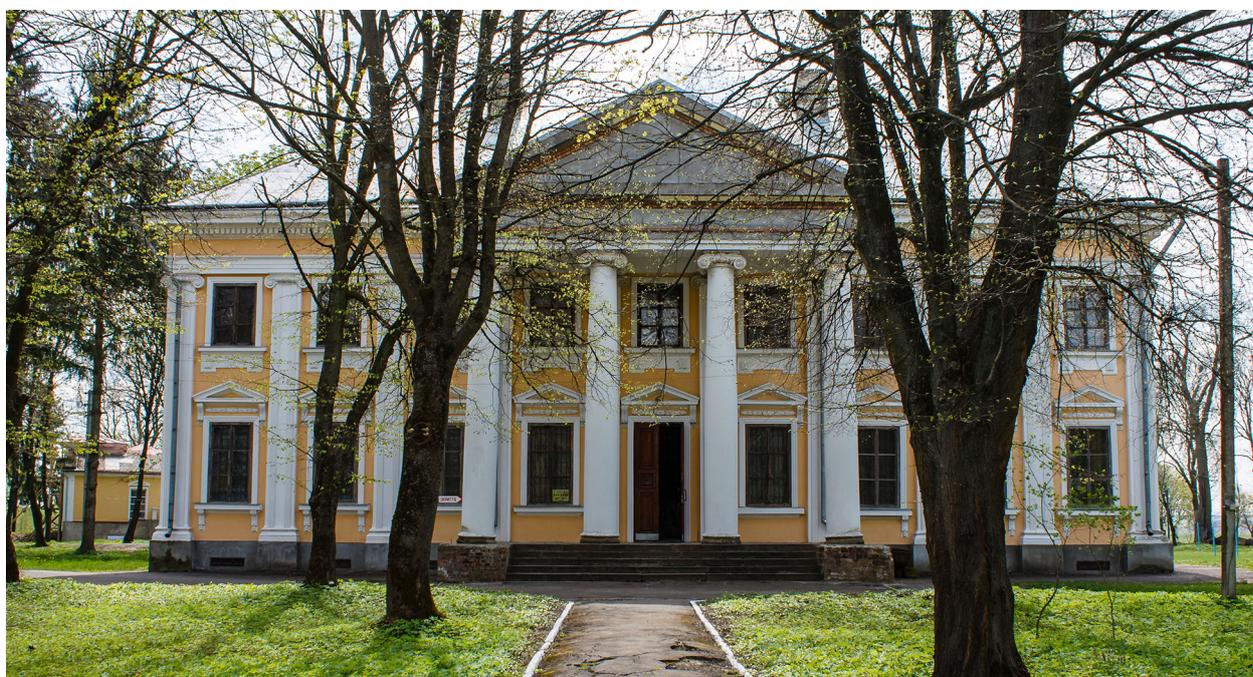
Parks in the residences of aristocrats and wealthy nobles spanned hundreds of morgs (A *morg* was a land unit of area measurement in the Polish-Lithuanian Commonwealth. The “Crown morg” (*M. koronny*) was approximately 0.6 hectares). The creation of these parks in Volhynya “often required more than one village, sometimes an entire estate. The passion for park creation (– Ed.) destroyed more than one Polish noble fortune...” (Stecki, 1864). During the peak of park construction in Volhynya (second half of the eighteenth century – early nineteenth century), the owners of these residences invited renowned park designers and gardeners from the Polish-Lithuanian Commonwealth (J. Burgignon, W. Kronenberg). To this day, parks or their fragments designed by D. Mikler (MacCler) in Mlyniv, Mizoch, Horodok, and others have been preserved.

In the mid- to late nineteenth century, new parks in the estates of Volhynya’s aristocracy and nobility were not designed from scratch; instead, the existing parks were reconstructed. The main methods of modernization included redesigning layouts and introducing exotic tree species, shrubs, bush-like plants, and

flowering herbaceous plants. A notable example of transforming a landscape park into an arboretum is the unique park of the Walewski-Lenkiewicz estate in Hoshcha.

#### **Peculiarities of the spatial planning structure and the condition of plantings in selected historical parks of former residences in the Rivne region**

**Park in Mlyniv (Młynów).** An example of an early Romantic park with sentimental elements is the park of the Chodkiewicz family residence in Mlyniv, created at the end of the eighteenth century by D. Mikler with the involvement of the architect and gardener of the Mlyniv residence, Leopold Schlegel (1785–1803). The core of the residence, designed according to the Palladian scheme, was an early Neoclassical palace (destroyed during World War II) and a surviving wing located along the main axis next to the palace (Fig. 1). There are designs (Brzezińska-Marjanowska, 2014) and textual sources (inventories from 1792 and 1798 (Klucz młynowski 1792, 832/5; 1798, 832/4) that have been preserved to this day, which document the initial layout (Italian-style park) and the dendro-spe-



**Fig 1.** Mlyniv. Palace wing (source: photo by L. Holub, 2015, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=42893024>)

cies composition of the plantings. Among the most common tree species were poplars (walnut, American, balsamic, white), willows, wild chestnuts (bitter chestnuts), American acacia, Turkish hazel, camphor tree, maple, alder, mountain ash, aspen, domestic apples, pears, and cherries. Bosquets were formed from linden trees, and park alleys from birch trees.

The sentimental character of the park from the late eighteenth century was reflected in the names of the pavilions located on its grounds: “Domek Filozoficzny” (Philosophical House), “Templum” (Fig. 2), “Camera Obscura”, as well as the names of distant areas – “Straszny Kał” (Scary Corner) and “Ostatnia Ofiara” (The Last Victim). A typical feature was the placement of a small hill next to the flower garden: “pagórek Winnica” (Vineyard Hill), “kopiec Kościuszki” (Kościuszko Mound). The creation of a sentimental mood was further enhanced by the positioning of a monument in the form of a stone urn dedicated to Hetman W. Rzewuski, and a small obelisk, among picturesque groups of trees and shrubs.

During the first third of the nineteenth century, the park underwent several reconstructions and, by the

1830s, had been fully transformed into a landscape park, as recorded in the 1830 residence plan (Plan ogrodu w Młynowie, 1830). As a result of the reconstruction, the park lost almost all of its regularity in the palace area; however, characteristic elements such as the terracing of the land, “mythologization”, a significant number of park sculptures (statues of Minerva, Lady, Cleopatra, Faun, Antinous, Aurora, Flora, Latona, Apollo, Adonis), linear artificial canals with cascades, and numerous poplars on the territory, remained as signs of the original style (Mykhaylyshyn, 2000).

The composition of plantings in the landscape park in Mlyniv was documented in a study by G. Ciołek and K. Żelechowska, conducted in 1938 (Ciołek and Żelechowska, 1939). The authors did not specify the species composition; however, the park plan provided in the text gives an idea of the changes in its layout over the course of a century compared to its 1830 condition. The park area is distinctly divided into two parts. One of them is representative, connected with the palace (destroyed during World War II) and the palace wing. The other lies on both sides of a wide canal –



**Fig. 2.** Mlyniv. “Templum” (source: photo by L. Holub, 2015, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=40010544>)

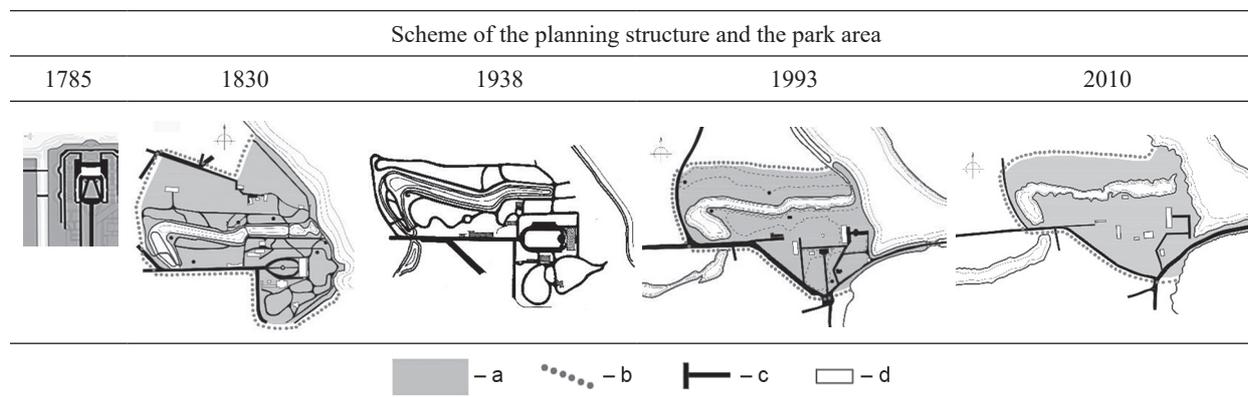
a branch of the Ikva River – and represents a closed composition, closely linked to the local topography. The axis of the main approach continues from the opposite side of the palace with a visual corridor leading to the Ikva River and the town of Mlyniv, formed by tree curtains. To the south of the wing, there is a wide glade – a riding area – surrounded by old trees, as well as the romantic building of “Templum” (Fig. 3).

The preserved documents and subsequent research allow us to conclude that the park was artificially created on open terrain. The documentation of the structure and condition of the plantings, carried out in the early 1990s, indicated that the native plantings here include common hornbeam (age – 200 years), small-leaved lime (age – 250 years), and sharp-leaved maple (180–200 years). Specifically, in the palace area, groups of small-leaved lime, rough elm, and solitary sharp-leaved maples were noted. Curtains of common maple, common ash, and sycamore maple formed picturesque outlines of the glades. On the park boundary, rough elm (age – 250 years), a bouquet planting of black poplar (age at the time of the study – about 300 years), two small-leaved lime trees, several pear trees, and several specimens of ash aged 180 years were located. Furthermore, on the park’s territory, there are also 120-year-old sycamore maples, a 180-year-old common ash, and 130-year-old white poplars (Passport... Mlyniv, 1993).

As of 2024, the plantings in the park are predominantly represented by the following species: small-

leaved lime, rough elm, common oak, black poplar, hanging birch, common hornbeam, sharp-leaved maple, common ash, and common bird cherry. In the wetter areas, there are occurrences of sticky alder and trembling poplar (aspen). The shrubs include common viburnum, red dogwood, and European spindle. Among the introduced tree species, there are specimens of horse chestnut, common locust (white acacia), domestic apple, crack willow, ash-leaved maple, and blue spruce (gray form); (Tab. 2).

**Park in Velyki Mezhyrichi (Międzyrzecz Korecki vel Wielki Międzyrzecz).** The park is an integral part of the unique ensemble from the late eighteenth century, with the palace section still preserved to this day. The early Neoclassical palace, built according to the design of the renowned Warsaw architect Sz.B. Cug in the 1790s, is connected by covered, concave galleries to two symmetrically located wings, which form a grand, semi-open courtyard (*cour d’honneur*); (Fig. 4). On the opposite side, a relatively small landscape park adjoins the palace. As in the previous case, the first detailed research on this site was conducted in 1938 by K. Żelechowska and G. Ciołek. In their brief report on the park, the authors noted the presence of linden alleys and groups of elms and larches – picturesque accents near the entrance gate to the residence. An important contribution was also the documentation of the layout of the ensemble, which had been preserved at that time (Ciołek and Żelechowska, 1939). The botanical garden, established after 1814 when



**Fig. 3.** Changes in the planning structure and the area of the park in Mlyniv (end of the eighteenth century – beginning of the twenty-first century): a) territory of the park, b) boundary of the park, c) alleys, paths, d) buildings of the residence (source: drawing by O. Mykhaylyshyn and I. Potapchuk)

**Table 2.** Representation of taxa of woody plants in the park in Mlyniv in 1792–2024 (source: Authors’ own elaboration based on: Klucz młynowski, 1792, 832/5; Passport... Mlyniv, 1993; Author’s field surveys, 2024)

Species	1792	1993	2024	Species	1792	1993	2024
<i>Carpinus betulus</i>		+	+	<i>Aesculus hippocastanum</i>	+	+	+
<i>Tilia cordata</i>	+	+	+	<i>Acer pseudoplatanus</i>	+	+	
<i>Acer platanoides</i>	+	+	+	<i>Acer negundo</i>	+		+
<i>Robinia pseudoacacia</i>		+	+	<i>Tilia cordata f. pyramidalis</i>	+	+	
<i>Betula pendula</i>	+	+	+	<i>Rhus typhina</i>	+		
<i>Ulmus glabra</i>		+	+	<i>Populus alba</i>	+	+	
<i>Salix alba</i>	+	+		<i>Populus nigra</i>	+	+	+
<i>Salix alba f. pendula</i>	+	+		<i>Populus nigra f. pyramidalis</i>	+		
<i>Salix fragilis</i>			+	<i>Populus simonii</i>		+	
<i>Alnus glutinosa</i>	+		+	<i>Populus tremula</i>	+		+
<i>Acacia americana</i>	+			<i>Prunus padus</i>			+
<i>Sorbus aucuparia</i>	+	+		<i>Malus domestica</i>			+
<i>Quercus robur</i>			+	<i>Picea abies</i>	+	+	+
<i>Cinnamomum camphora</i>	+			<i>Picea pungens Engelm. f. glauca Reg.</i>			+
				<i>Fraxinus excelsior</i>		+	+



**Fig. 4.** Velyki Mezhyrichi. Palace (source: photo by O. Mykhaylyshyn, 2021)

Velyki Mezhyrichi came into the possession of Count Józef Stecki (Aftanazy, 1988), was also of significant value. However, no further information about the botanical garden or the species of introduced plantings has been found to date.

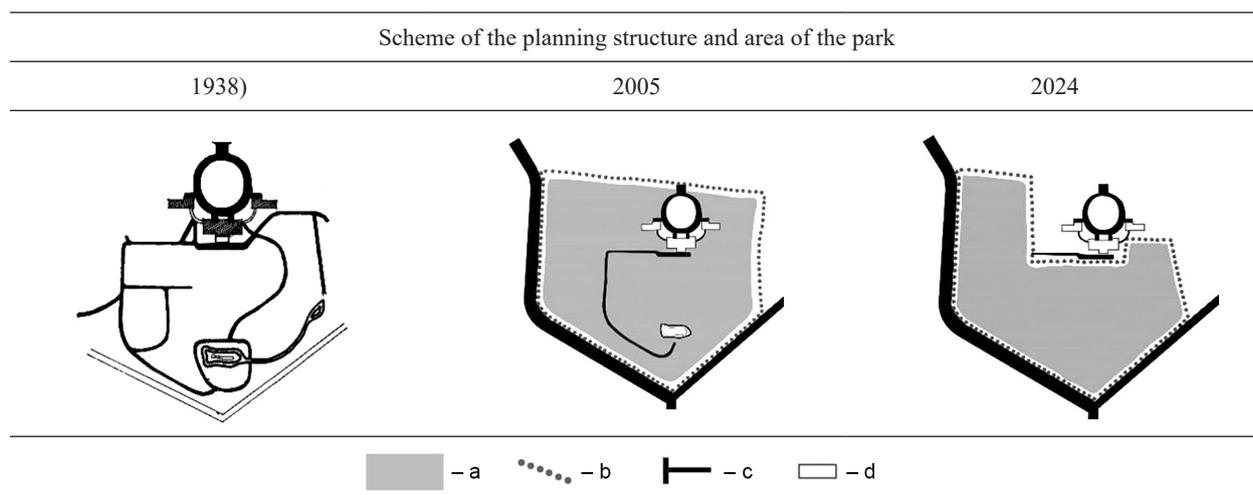
Throughout the twentieth century and the beginning of the twenty-first century, the park's planning structure has virtually completely degraded, and the park's area has shrunk, as evidenced by the documented records (Materials... Velyki Mezhyrichi..., 2010) and the diagrams showing the changes in the park's area (Fig. 5).

According to the classification of garden and park landscapes (by L. Rubtsov 1956), the dominant landscape type in Velyki Mezhyrichi is the park landscape, which occupies about 40% of the vegetated area. The forest type is poorly expressed and occupies about 10%, while the garden type covers approximately 35% (the basis of the latter is an orchard, predominantly apple trees). The regular type is almost absent. The remaining territory is occupied by meadow areas. The modern character of the vegetation within the park, as well as its regional features, indicate that the park was artificially created on open land. This is evidenced by the small role played by indigenous tree species in the formation of the forest stand and the significant spread of introduced species, with

a predominance of park and garden landscape types, almost no forest type, and scattered plantings of a significant number of trees.

The vegetation covers about 95% of the area. The prevailing type is the sparse forest (occupying 70% of the area), alternating with dense alleys of trees. In the formation of this type of vegetation, introduced and some local species play the main role. Specifically, there are well-defined alleys and rows of low elms, gray walnuts (in the extreme western and southwestern outskirts of the park), ash-leaved maples, American maples, common horse chestnuts, black mulberries, and domestic apple trees (in the fruit orchard). There are also alleys and rows of indigenous species, including Norway spruce, black alder, silver birch, small-leaved linden, sugar maple, and common ash.

Research on the park's plantings revealed that 37 species of trees and shrubs grow here, some of which were planted over 200 years ago, at the end of the eighteenth century, during the development of the residence of the Stecki family and the formation of the palace and park ensemble. In particular, the following century-old trees have been preserved: 7 low elms ( $D = 2.75\text{--}1.30\text{ m}$ ), 1 smooth elm ( $D = 3.30\text{ m}$ ), 2 black alders ( $D = 1.85\text{ m}, 1.30\text{ m}$ ), 7 common horse chestnuts ( $D = 3.80\text{--}2.55\text{ m}$ ), 8 ash-leaved maples, 8 small-



**Fig. 5.** Changes in the planning structure and territory of the park in Velyki Mezhyrichi during 1938–2024: a) territory of the park, b) boundary of the park, c) alleys, paths, d) buildings of the residence (source: drawing by O. Mykhaylyshyn and I. Potapchuk)

leaved lindens (D = 3.10–2.05 m), 4 silver birches (bark-bursted) (D = 2.60–2.05 m), 2 European spruces (D = 1.50 m, 1.30 m), 1 black mulberry (D = 1.65m), 1 common hornbeam (D = 2.32 m), 2 sugar maples (D = 3.10 m, 2.80 m), 3 common ashes (D = 3.55–2.10 m), 1 common oak (D = 1.90 m), 1 common pear (D = 1.95 m), 2 gray walnuts (D = 2.35 m, 1.55 m), and also an ancient dogwood shrub.

In addition to these, other species of tree plantings grow in the park: common hazel, Greek walnut, crack willow, white willow, smooth elm (mountain), domestic apple, wild apple, berry apple, domestic plum, spreading plum (cherry plum), true dogwood, lance-leaved ash, and American ash (Materials... Velyki Mezhyrichi..., 2010); (Tab. 3).

**The park in Mizoch (Mizocz)** also became one of the objects researched by the faculty of the Warsaw University of Technology, K. Żelechowska and G. Ciołek, during a scientific expedition to Volhynya in 1938. Like the park in Velyki Mezhyrichi, it was recognized as one of the most valuable preserved parks of the magnate residences in Volhynya. Describing this object, the researchers pointed to the

formation of park compositions on terraces and the species-based development of park landscapes (Ciołek and Żelechowska, 1939).

The park was established at the end of the 1750s when the owner of Mizoch was Count Józef Kajetan Dunin-Karwicki. The park was finalized at the end of the eighteenth century during the time of Krzysztof Dunin-Karwicki. It is likely that during the same period, the central part of the residence was also formed, consisting of two wings, two guardhouses, and two utility buildings. To this day, one guardhouse has been preserved, although its original architectural appearance has been completely lost. All these structures were located along the main axis of the formal part of the residence – the linden alley (Passport... Mizoch, 1989).

The planning of the park involved D. Mikler, who at that time was working on the layout of the Palestine park in the estates of Prince Lubomirski near Dubno.

In the northern, main part of the park in Mizoch, three artificial terraces were formed, descending towards the Stubelka River. On the upper plateau, there were the palace, utility buildings, and a large and

**Table 3.** Representation of taxa of woody plants in the park in Velyki Mezhyrichi in 1938–2010 (source: Authors' own elaboration based on: Ciołek and Żelechowska, 1939; Materials... Velyki Mezhyrichi..., 2010)

Species	1938	2010	Species	1938	2010
<i>Betula pendula</i>	+	+	<i>Acer negundo</i>	+	+
<i>Alnus glutinosa</i>	+	+	<i>Tilia cordata</i>	+	+
<i>Carpinus betulus</i>	+	+	<i>Larix decidua</i>	+	+
<i>Quercus robur</i>	+	+	<i>Prunus domestica</i>		+
<i>Salix alba</i>		+	<i>Prunus cerasifera</i>		+
<i>Ulmus glabra</i> Huds.	+	+	<i>Morus nigra</i>	+	+
<i>Ulmus laevis</i>	+	+	<i>Malus domestica</i>		+
<i>Ulmus pumila</i>	+	+	<i>Malus sylvestris</i>		+
<i>Juglans regia</i>	+		<i>Malus baccata</i>		+
<i>Juglans cinerea</i>	+	+	<i>Picea abies</i>	+	+
<i>Pyrus communis</i>	+	+	<i>Fraxinus excelsior</i>		+
<i>Aesculus hippocastanum</i>	+	+	<i>Fraxinus americana</i>		+
<i>Acer platanoides</i>	+	+	<i>Fraxinus lanceolata</i>		+

small garden. The park is divided from west to east by the riverbed, where the upper and lower dams were constructed, creating a large pond. In the park (to the southwest of the center of the residence), a Neo-Gothic greenhouse was built (now in a state of ruin); (Fig. 6). The roads along the dams were lined with pyramidal poplars. In the southwestern part of the park, on the opposite bank of the river, a nature reserve called “Sosnyna” was established. This area housed an animal enclosure where deer, roe deer, fallow deer, elk, wild boars, pheasants, and peacocks were kept. To the east of this area, a terraced apple orchard was planted.

After 1939, the park began to deteriorate and fall into disrepair. In the 1970s, an attempt was made to revalorize the park by partially changing its function and transforming it into a local recreational park. The work was only partially completed: the park’s greenhouse was restored, and the territory was cleared (Fig. 7).

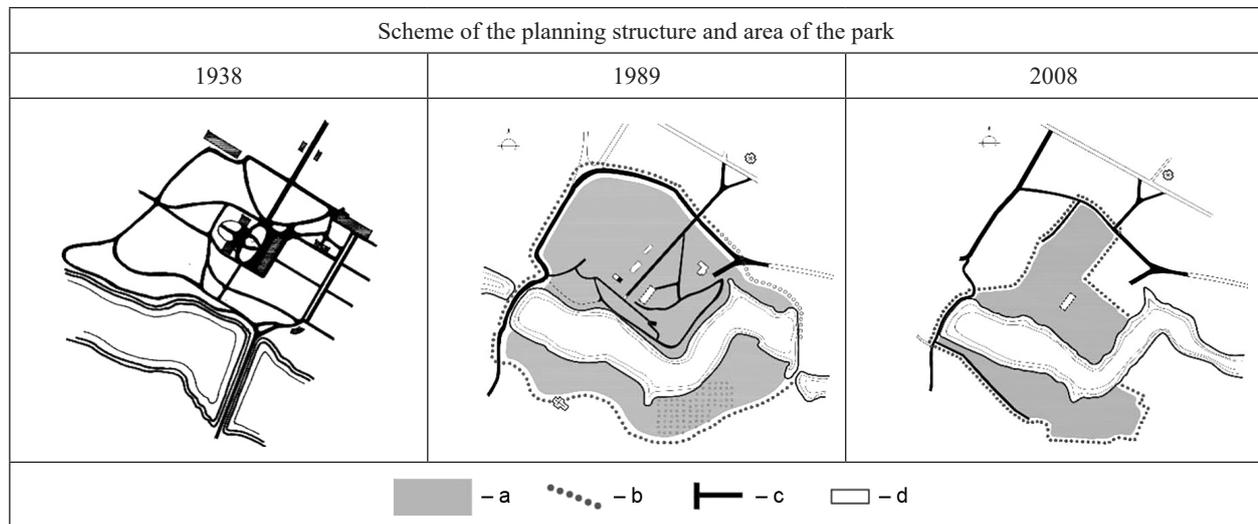
The current vegetation characteristics within the park suggest that the park was most likely created artificially on an open site or on land where a forest had been entirely cleared. This is supported by the mini-

mal involvement of indigenous tree species (such as sharp-leaved maple and false-plane maple) in the formation of the tree stand, and the significant spread of introduced tree species.

The park’s main landscape type is parkland (according to L. Rubtsov), combined with open meadow areas. Forested areas are limited, occupying about 20% of the total area, with an unclear boundary between the various landscapes. The regular landscape type occupies 10% of the area and is located near the built-up zone. The garden landscape type is absent. At the time the landscape architecture heritage passport was compiled in the late 1980s, the park contained some of the oldest examples of arboreal plantings. Among these were: common oak, warty birch (age – 200 years), common hornbeam, maple-ash, common ash (age – 130 years), sharp-leaved maple, and small-leaved lime (age – 180 years), European larch (age – 120 years), black poplar (age – 150 years) (Passport... Mizoch, 1989). Vegetation covers 85% of the park’s area, with woody-shrub vegetation covering about 70% of the entire vegetated area. According to our studies, there



**Fig. 6.** Mizoch. Greenhouse (source: photo by V. Luts, 2021)



**Fig. 7.** Changes in the planning structure and area of the park in Mizoch in 1938–2008: a) territory of the park, b) boundary of the park, c) alleys, paths, d) buildings of the residence (source: drawing by O. Mykhaylyshyn and I. Potapchuk)

are 36 species of woody plants in the park, representing about 17% of the park's floral diversity (Materials... Mizoch..., 2010).

The tree vegetation is most pronounced in the northern, northeastern, and southern parts of the park, occupying the first and second floodplain terraces. The primary role in the formation of the tree layer in these areas is played by local species such as sharp-leaved maple, false-plane maple, common ash, small-leaved lime, and common hornbeam, as well as introduced species like common horse chestnut, black locust, and American ash. In some sections, the presence of European spruce and poplars – both black and balsamic – has increased, as well as white willow (the weeping form). The aforementioned and other species found in the park are listed in Table 4. A comparison of the dendro-species composition indicates the preservation of historical species, while also highlighting the appearance of atypical plantings and highly invasive species such as white acacia and trembling poplar.

Despite its neglect and extensive degradation, the park remains a model of a landscape park, harmoniously integrated into the surrounding landscape.

**The park in Hoshcha (Hoszcza)** is recognized as a national-level heritage park in Ukraine (since 1979). The park's current area is 7 hectares, which is half of its original size.

According to the well-known researcher of residences, R. Aftanazy, the park was established in the eighteenth century and covered several hectares (Aftanazy, 1988). The majority of the park featured landscape planning with free-flowing contours of alleys and paths. The dominant tree species included pines, larches, spruces, oaks, limes, horse chestnuts, and other species, totaling 27 types of trees.

The park also contains a palace, which was likely built in the late eighteenth century. The palace underwent numerous reconstructions, acquiring stylistic elements of a country house of the “chalet” type with European modern influences. The residence was owned by the Polish families of Lenkiewicz and Walewski from the eighteenth century until the 1870s. In the 1840s, the Lenkiewicz family reconstructed the park, which at that time covered 15 hectares. After World War I, the Hoshcha estate was purchased by the government of the Second Polish Republic. During the interwar period (1921–1939), the palace was used as a military base for a border guard corps.

After World War II, during the Soviet period, a cinema, a restaurant, an open-air cinema, a cultural center, and the district party committee building (currently the House of the Youth) were built within the park's territory. Part of the parkland was developed with residential estates.

**Table 4.** Representation of taxa of woody plants in the park in Mizoch in 1938–2010 (source: Authors’ own elaboration based on: Ciolek and Żelechowska, 1939; Passport... Mizoch, 1989; Materials... Mizoch..., 2010)

Species	1938	1989	2010	Species	1938	1989	2010
<i>Betula pendula</i>	+	+	+	<i>Acer negundo</i>		+	+
<i>Fagus sylvatica</i>	+	+		<i>Acer pseudoplatanus</i>	+	+	+
<i>Alnus glutinosa</i>	+	+	+	<i>Tilia cordata</i> Mill.	+	+	+
<i>Carpinus betulus</i>	+	+	+	<i>Tilia platyphyllos</i>			+
<i>Quercus robur</i>	+	+	+	<i>Larix decidua</i>	+	+	+
<i>Pinus sylvestris</i>	+	+		<i>Prunus cerasifera</i>			+
<i>Betula papyrifera</i>			+	<i>Populus tremula</i>			+
<i>Robinia pseudoacacia</i>		+		<i>Populus italica</i> (du Roi) Moench	+		+
<i>Salix alba</i>			+	<i>Populus balsamifera</i>	+		+
<i>Prunus avium</i>			+	<i>Populus nigra</i>	+	+	+
<i>Ulmus glabra</i> Huds.			+	<i>Malus domestica</i>			+
<i>Sorbus aucuparia</i>			+	<i>Picea abies</i>	+		+
<i>Pyrus communis</i>			+	<i>Picea pungens</i> f. <i>glauca</i>		+	+
<i>Aesculus hippocastanum</i>	+	+	+	<i>Fraxinus excelsior</i>	+	+	+
<i>Populus simonii</i>		+		<i>Fraxinus excelsior</i> f. <i>pendula</i>		+	
<i>Acer platanoides</i>	+	+	+	<i>Fraxinus americana</i>			+



**Fig. 8.** Hoshcha. Palace (source: photo by O. Mykhaylyshyn, 2024)

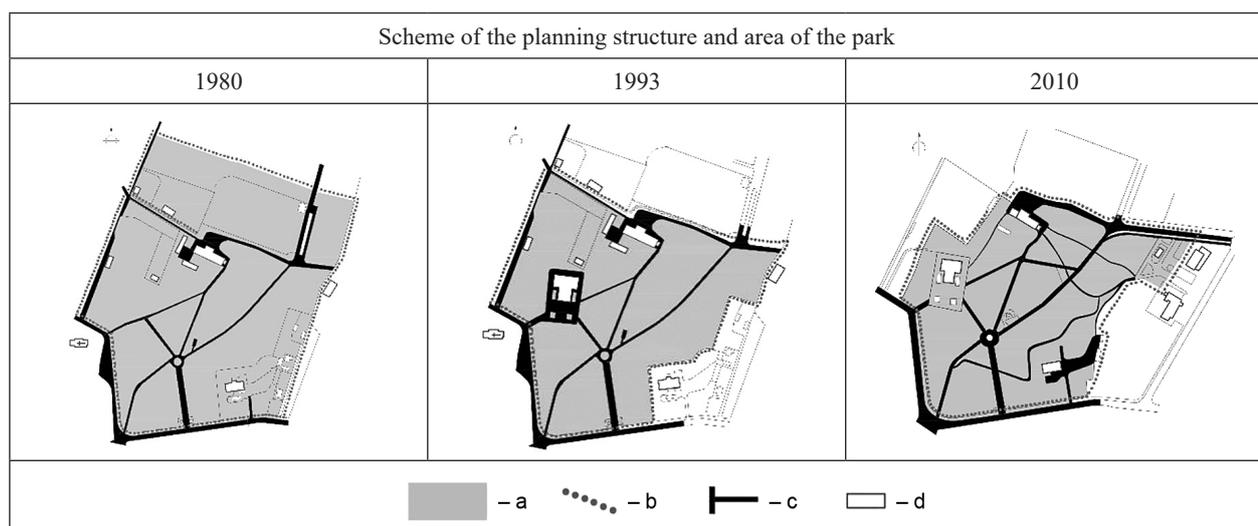
It is currently difficult to define the exact boundaries of the park as they were in the eighteenth and nineteenth centuries due to the lack of cartographic sources. However, it is likely that the outermost line of plantings (maples, horse chestnuts, sharp-leaved maples, and common ashes, with individual trees reaching diameters over 1 meter) marked the eastern boundary of the lost park territory (including the military base, the current stadium, the orchard, and a small park). Thus, during the twentieth century, the park suffered significant land losses. The palace, which was likely situated in the center of the park, is now on its outskirts (Passport... Hoshcha, 1993).

In 1980, a project for the reconstruction of Hoshcha Park was developed by the Central Republican Botanical Garden of Ukraine (author N. Uspenska). The project proposed removing all the estate buildings from the park, creating an elaborate network of paths, and constructing a memorial to those who perished in the 1941–1945 war. A simplified version of the project was implemented. The estate buildings and gardens were retained, the road network was significantly reduced, and a small pond was created, though it soon became overgrown. Near one of the park entrances, a monument to Taras Shevchenko was erected. The project developers did not aim to revalorize the park

as a historical object. Instead, the plan was to transform it into a public park for culture and recreation. A subsequent step in the park's development was the creation of a planting reconstruction project in 2001, involving specialists from the M. Hryshko National Botanical Garden of the National Academy of Sciences of Ukraine (Fig. 9).

According to Ukrainian researchers Yu. Klymenko and A. Klymenko, the park in Hoshcha, established at the end of the eighteenth century, was created on the basis of or on the site of oak forests. This is supported by the absence of old common pines, the presence of a single old common oak ( $D = 110$  cm), as well as the relatively small contribution of the common hornbeam in the plantings, with a predominance of young hornbeam specimens. Therefore, the primary landscape of the Hoshcha park is forested, occupying more than 60% of the green area. Both park and regular landscape types of the garden-park landscape occupy 15% each. The main area of the garden landscape consists of orchards with Greek and domestic apples. The park also contains rows of domestic plums and domestic apples (Yu. Klymenko, A. Klymenko, 2009).

Overall, the park is home to 48 tree and shrub species, with a total of 1462 specimens recorded as of



**Fig. 9.** Changes in the planning structure and territory of the park in Hoshcha in the twentieth century – early twenty-first century: a) territory of the park, b) boundary of the park, c) alleys, paths, d) buildings (source: drawing by O. Mykhaylyshyn and I. Potapchuk)

2009. The most common species include: small-leaved linden, sycamore maple, common ash, sharp-leaved maple, common horse chestnut, European spruce, common robinia, common hornbeam, silver birch, and domestic apple. A significant portion of the most widespread species are represented by specimens with relatively small diameters, indicating their origin from self-sown plants in recent decades. The park is highly dense and shaded.

A few old specimens of less common species have survived in the park: one Ginkgo biloba, one Weymouth pine, three black pines, four European larches, one pyramidal common oak, one weeping ash, one wide-leaved linden with “split leaves”, one eight-leaved horse chestnut, and one sharp-leaved maple. As of 2009, the oldest plantings included common

oaks (D = 110 cm), common spruces, common horse chestnuts, common ashes, black poplars (D = 162 cm), and aspen (D = 140 cm). With the exception of the common horse chestnuts, common ashes, and black poplars, other species may need to be replanted due to the potential risk of their death (the most significant of these are the weeping ash, pyramidal common oak, and black pine).

A historic landscape feature in the park is the old linden alley leading to the palace.

The main plantings in the park consist of a variety of species, with no single species dominating. These include small-leaved linden, sycamore maple, common ash, sharp-leaved maple, common horse chestnut, European spruce, common robinia, common hornbeam, and silver birch (Tab. 5).

**Table 5.** Representation of taxa of woody plants in the park in Hoshcha from the eighteenth–nineteenth centuries (?) to 2009 (source: Authors’ own elaboration based on: Yu. Klymenko and A. Klymenko, 2009; Passport... Hoshcha, 1993)

Species	XVIII–XIX (?)	2001–2009	Species	XVIII–XIX (?)	2001–2009
<i>Robinia pseudoacacia</i>		+	<i>Acer pseudoplatanus</i>		+
<i>Betula pendula</i>		+	<i>Tilia cordata</i>	+	+
<i>Ginkgo biloba</i>	+	+	<i>Tilia platyphyllos</i> 'Laciniata	+	+
<i>Pinus strobus</i>	+	+	<i>Larix decidua</i>	+	+
<i>Aesculus octandra</i> Marsh	+	+	<i>Prunus domestica</i>		+
<i>Carpinus betulus</i>		+	<i>Pinus nigra</i>		+
<i>Pyrus</i>		+	<i>Populus simonii</i>		+
<i>Ulmus pumila</i>		+	<i>Populus tremula</i>		+
<i>Juglans regia</i>		+	<i>Populus nigra</i>	+	+
<i>Quercus robur</i>	+	+	<i>Malus domestica</i>		+
<i>Quercus robur</i> <i>pyramidalis</i>	+	+	<i>Picea abies</i>	+	+
<i>Aesculus hippocastanum</i>	+	+	<i>Fraxinus excelsior</i>	+	+
<i>Acer platanoides</i>		+	<i>Fraxinus excelsior</i> f. <i>pendula</i>	+	+
<i>Acer platanoides</i> <i>Schwedleri</i>	+	+			

## CONCLUSIONS

As the comparative analysis shows, throughout the twentieth and twenty-first centuries, significant changes have taken place in the spatial and planning structure of the historical parks of Rivne region. As a result, the parks have partially lost their stylistic features, which once reflected the historical and cultural context of their creation and their integration with European park-building trends of the eighteenth and nineteenth centuries. Therefore, in the preserved parts of the parks, it is advisable to restore the layout based on available archival plans, in order to revive the park landscapes.

Despite the generally preserved species composition of the plantings (trees), significant problems include the reduction in park areas, the planting or self-seeding of species not native to a particular park, leading to partial changes in the compositional structure of plantings, landscape degradation, and the loss of original park views. In all of the the studied parks, for a long period, species such as ash-leaved maple, sharp-leaved maple, sycamore maple, common horse chestnut, silver birch, common ash, domestic apple, cherry plum, common hornbeam, and rough elm have been growing. Although these are native species for the region, they pose a threat of dominating the park plantings.

At the same time, exotic species that are aging and do not naturally regenerate require special attention. It is essential to improve the growing conditions of valuable plants, facilitate their natural renewal, or prepare replacements in the form of young specimens of the same species. Additionally, low-value plant sprouts that contribute to overgrowth should be removed.

In today's conditions, a full-scale comprehensive revivification of historical parks in Ukraine is a complex task. However, it is entirely possible to gradually restore the parks' environment to a state and appearance that closely resembles the original. Such work can be carried out as part of the educational process for students of various study majors under the guidance of faculty (geodetic surveys of the area, inventory of plantings, development of concepts and revivification projects, plant selection, etc.), as public initiatives by local residents (cleaning and clearing the area), and as part of educational projects involving specialists (informing and popularizing heritage) for the development of domestic tourism.

## REFERENCES

- Aftanazy, R. (1988). *Materiały do dziejów rezydencji. Dawne województwo wołyńskie*. Vol. Va. Warszawa: PAN IS.
- Brzezińska-Marjanowska, W. (2015). *Klasykystyczne założenia pałacowo-ogrodowe na Wołyniu 1780–1831*. Warszawa–Toruń: Tako.
- Ciołek, G., Żelechowska, K. (1939). *Ze studiów nad założeniami ogrodowymi Wołynia*. Sprawozdanie z badań z roku 1938. *Biuletyn Historii Sztuki i Kultury*, 1, 19–46.
- Czartoryska, I. (1805). *Myśli różne o sposobie zakładania ogrodów*. Wrocław: Druk Korna.
- Giżycki, F. (1827a). *O przyozdobieniu siedlisk wiejskich*. Vol. 1. Warszawa: Nakładem i drukiem N. Glücksberga.
- Giżycki, F. (1827b). *O przyozdobieniu siedlisk wiejskich*. Vol. 2. Warszawa: Nakładem i drukiem N. Glücksberga.
- Klymenko, Yu., Klymenko, A. (2009). Planting of ancient parks-monuments of horticultural art of the Rivne region. *Naukovi dopovidi NUBiP*, 2 (14), <http://www.nbu.gov.ua/e-journals/Nd/2009-2/09kyairr.pdf> (accessed: April 10, 2024).
- Klucz młynowski, *Inwentarz dóbr z lat 1791–1820*. Opisanie pałacu i ogrodu młynowskiego. MNK, Biblioteka Książąt Czartoryskich, Dział Archiwum i rękopisów Czartoryskich, sygn. 832.
- Łakomska, B. (2008). *Miłośnicy „chińskości” w dawnej Polsce*. Od siedemnastego do początków dziewiętnastego wieku. Warszawa: Neriton.
- Materials on the protection of the natural environment for an object of the nature reserve fund: Velyki Mezhyrichi Park, a monument of local significance in garden and park art. The village of Velyki Mezhyrichi, Korets District, Rivne Oblast. (2010). Rivne (manuscript).
- Materials on the environmental protection of a nature reserve fund object: A park – monument of local significance in garden and park art “Mizoch ridge”. Mizoch village of Zdolbuniv district, Rivne Oblast (2010). Rivne (manuscript).
- Mykhaylyshyn, O. (2000). *Palatsovo-parkovi ansamblu Volhynya 2-ji polovyny XVIII–XIX stolit’*. Kyiv: NDI-TIAM.
- Nature Reserve Fund of Ukraine. Monuments of garden and park art. <https://pzf.land.kiev.ua/pzf8-14.html> (accessed: April 8, 2024).
- Mat of the landscape object. Park, end of the 18th century in Mlyniv (1993). Ukrainian Special Scientific and Restoration Project Institute, Lviv (manuscript).
- Passport of the landscape object. Park, 18th–19th century in Hoshcha (1993). Ukrainian Special Scientific and Restoration Project Institute, Lviv (manuscript).

- Passport of the landscape object. Park, the end of the 18th century in Mizoch (1989). Ukrainian Special Scientific and Restoration Project Institute, Lviv (manuscript).
- Plan ogrodu w Młynowie (1830). Sporządził Tadeusz Nawski. MNK, Biblioteka Książąt Czartoryskich, Archiwum młynowskie, sygn. 829.
- Rubtsov, L. (1956). *Sadovo-parkovi landshaft*. Kyiv: Izd-vo AN USSR.
- State cadastre of territories and objects of the nature reserve fund. [https://data.gov.ua/dataset/mepr\\_05](https://data.gov.ua/dataset/mepr_05) (accessed: April 8, 2024).
- Stecki, T.J. (1864). Wołyń pod względem statystycznym, historycznym i archeologicznym. Vol. 1. Lwów: Druk i nakład Zakł. Nar. im. Ossolinskih.
- Trzaskowska, E., Adamiec, P. (2018). Współczesne problemy zabytkowych parków Lubelszczyzny. *Topiarus. Landscape Studies*, 7, 73–79.
- Uruszczak, M. (2023). Zastosowanie punktowej oceny stanu zachowania zabytkowych założeń rezydencjonalno-ogrodowych. Studium przypadku: Wicimice i Igllice (województwo zachodniopomorskie). *Acta Scientiarum Polonorum. Formatio Circumiectus*, 22 (4), 75–92.
- Zachariasz A. (2008). Zabytkowe ogrody – problem rewaloryzacji, utrzymania i zarządzania w świetle zaleceń Karty Florenckiej. *Zarządzanie krajobrazem kulturowym. Prace Komisji Krajobrazu Kulturowego*, 10, 150–161.

## ROZWÓJ HISTORYCZNY, STAN OBECNY I PROBLEM REWALORYZACJI PARKÓW PRZY DAWNYCH REZYDENCJACH Z XVIII–XIX WIEKU NA WOŁYNIU. STUDIUM NA PRZYKŁADZIE WYBRANYCH HISTORYCZNYCH PARKÓW OBWODU RÓWIEŃSKIEGO (UKRAINA)

### ABSTRAKT

#### Cel pracy

Artykuł poświęcony jest badaniu stanu zachowania, transformacjom w strukturze kompozycyjnej i planistycznej oraz składzie gatunkowym drzewostanów w parkach, które są zabytkami XVIII–XIX-wiecznego ogrodnictwa krajobrazowego na historycznym Wołyniu, położonych na terenie obwodu rówieńskiego. Badania te stanowią podstawę naukową do opracowania projektów rewaloryzacji tych parków.

#### Materiał i metody

Podstawą teoretyczną badań są prace polskich i ukraińskich uczonych z zakresu historii projektowania parków europejskich i polskich, architektury krajobrazu oraz botaniki. Kluczowe znaczenie mają źródła pierwotne, takie jak materiały kartograficzne i opisy inwentaryzacyjne, dokumentacja ewidencyjna parków uznanych za pomniki historii oraz dane z ostatnich badań terenowych drzewostanów parkowych w obwodzie rówieńskim na Ukrainie. Wykorzystane metody to metoda historyczno-genetyczna, analiza porównawcza, synteza, badania trasowe, analiza fitocenozyczna oraz określenie składu taksonomicznego drzewostanów.

#### Wyniki i wnioski

W XX i XXI wieku w strukturach przestrzennych i planistycznych historycznych parków w obwodzie rówieńskim zaszły znaczne zmiany, prowadzące do częściowej degradacji krajobrazu oraz utraty cech stylistycznych. Kluczowe problemy to zmniejszenie powierzchni parków, wprowadzenie niecharakterystycznych gatunków lub samosiewów, które spowodowały istotne zmiany w kompozycji, utratę pierwotnych osi widokowych. Szczególną uwagę należy poświęcić gatunkom egzotycznym, które są w stanie zagęszczenia i zaniku. Kompleksowa i skuteczna rewaloryzacja historycznych parków może zostać osiągnięta przez etapowe przywracanie ich do stanu i wyglądu jak najbardziej zbliżonego do pierwotnego. Takie działania mogą być włączone do programów kształcenia studentów, inicjatyw społecznych lub projektów edukacji publicznej.

**Słowa kluczowe:** parki historyczne, struktura przestrzenna i planistyczna, skład taksonomiczny drzewostanów, rewaloryzacja