RECOVERY OF TREES AND SHRUBS IN MANOR PARK IN DROBLIN, LEŚNA PODLASKA COMMUNE

Wojciech Durlak, Margot Dudkiewicz

Institute of Ornamental Plants and Landscape Architecture, University of Life Sciences in Lublin Leszczyńskiego str. 58, 20-068 Lublin, wdurlak@autograf.pl

Summary. The study concentrated on the park with the nineteenth-century manor in Droblin. The first mention of the manor in Droblin come from the sixteenth century. In modern times, the park is residually preserved and consists of the baroque central part in the direct vicinity of the manor, and another part which takes the form of the free-style English park. The area of the study covers a surface area of 3 hectares. During the inventory conducted in 2012, 169 items were indicated, including 156 trees belonging to 11 species. Underbrush of shrubs consisted of six plant species. In terms of numbers prevailed: *Tilia cordata* Mill., *Populus nigra* L. i *Fraxinus excelsior* L.

Key words: manor park, Droblin Leśna Podlaska commune, recovery

INTRODUCTION

Rural parks have many functions in human life and the surrounding environment, including the historical, natural, scientific, artistic and functional features. Parks are "forest islands" in the agricultural landscape sparing with forests. Many historic gardens are places with rich collections of trees and shrubs, often of foreign origin, or they reach considerable sizes [Bordewicz and Wrońska-Pilarek 2009, Dudkiewicz and Dąbski 2012, Kałczak and Wrońska-Pilarek 2013]. In the design of landscape, to the palace or mansion typically led the main alley ending with representative, oval driveway in front of the building. Access to the residence was localised on the main axis of the manor or to the side elevation. In front of the facade of the house there was a garden room, next to which rare species of trees were typically planted as solitaire.

Droblin village is situated in Lublin Voivodeship, in bialski district, in the western part of Leśna Podlaska commune. Droblin manor is located 30 km north-west of Biała Podlaska. The park and manor are beautifully situated between the buildings of Droblin village, meadows in the valley of Klukówka River

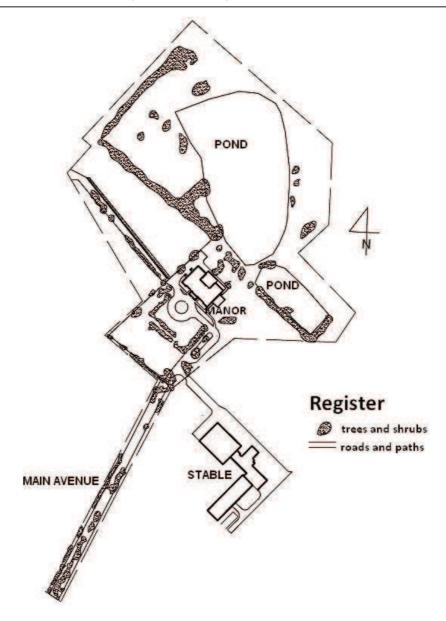


Fig. 1. Plan manor and park in Droblin in 2012 (by M. Dudkiewicz, W. Durlak)

(Krzna tributary), and the surrounding forests. Historically, the property was characterised by an excellent scenic localisation at the river valley and Bukowice manor.

The first mention of the manor in Droblin come from the sixteenth century. At present, the park is residually preserved and consists of the baroque part adjacent to the manor, and free-style English park. The area of the study covered by the park is three hectares, including two driveway alleys. Originally, the manor

park had a larger area, and it was composed of four ponds and utalitarian gardens. Currently, Droblin manor complex consists of the manor house, the remains of the park (subject to entry in the register of historical and environmental conservation) and a stable. In 2010 the manor house was adapted into a restaurant with accommodation facilities.

The aim of this study was to make a dendrological inventory of the park at the nineteenth-century manor house in Droblin. Then, on the basis of the data, an evaluation of woody plants of that object was made. Finally,the most important recommendations on management of trees were determined.

MATERIALS AND METHODS

The research was carried out at two levels – it relied on a query of archival materials and site visit in the area. The sources of historical information were publications of a chronicle, township dossier, cartographic publications (including former military maps) and archival photographs. Vetting of land made it possible to determine the position, the degree of the spatial layout, natural resources of the park and buildings. A detailed dendrological and general architectural inventory of the manor was carried out in 2012. The description of individual species was based on the study by Seneta and Dolatowski [2008].

All inventoried trees and groups of shrubs were applied to a geodetic map using a method of simple perpendicular coordinates measured using a laser rangefinder Leica DISTO A5. In addition, the tree stand was localized using the positioning device (GPS) DAKOTA. Tree trunk circumference was measured at a height of 1.3 m (diameter at breast height), starting from the ground level with an accuracy of 1 cm. Diameter of a tree crown was measured with an accuracy of 0.5 m. In determining the height of trees trigonometric method was used.

The age analysis of tree stand included diameter trunks of individual species, on the basis of which their approximate age was identified using the table of age structure of trees, developed by Majdecki [1980–1986]. Analysis of the spatial composition of the park covered the analysis of historical plans and the analysis of viewing associations of the object with the surrounding landscape.

Photographic documentation with some observations about the proper management of tree stand to be carried out in the park was also performed. The resulting documentation was handed in to the owner of the park, with some recommendations on how to use it for its restoration.

RESULTS

Park in Droblin was not reported in the post-war specialist literature. The property is not listed in the Register of Polish gardens and basic textbooks on Polish art of gardening by Ciolek and Bogdanowski.

The first description of the manor and park in Droblin was inserted in the publication by Fijałkowski and Kseniak [1982] "Parki wiejskie Lubelszczyzny..." "Rural parks of Lublin area"... with some general information about the park stand.

The author of the first record of the manor and park in Droblin made for the Voivodeship Monument Conservator in Lublin in 1983 is Ewa Bończak-Feldman. The paper includes an inventory of the park and a brief historical analysis.

Bończak-Kucharczyk [1983] reports that in the 80s of the last century, the park remained in residual form. The manor and farm were built in the sixteenth century and in the seventeenth century the manor house was surrounded by a garden of the baroque composition, still performing utilitarian functions. In the eighteenth century, the barogue composition of the garden played its decorative role. In the second half of the nineteenth century, the manor and park complex was extended and the park was given landscape features. After 1944, a progressive destruction of property and degradation of its individual components was observed.

Initially, the total area of the park was about 14 hectares. In 1947, there were adverse changes of the manor and park. The authorities allowed the acquisition by local people of all utilitarian parts of the manor and park complex, including ponds and two thirds of the park. Practically most of the buildings of the manor were demolished and a large part of park stand was cut out. Some part of old ponds was dried and turned into meadows. In the years 1947–2010, when described area was used by the school, a part of the park directly adjacent to the manor house was significantly devastated. Only rows of trees surrounding the interior in front of the manor, the trees of the driveway alley and a few trees to the north-east side of the house were left untouched.

In 2012, during the entire inventory of the manor and park in Droblin, 169 dendroflora items were marked. Among them there were inventoried 156 trees belonging to 11 species. In terms of numbers prevail: *Tilia cordata* Mill. (52 pcs), *Populus nigra* L. (40 units) and *Fraxinus excelsior* L. (23 pcs.) The rest are shrubs belonging to six species.

The lanes mainly consist of brushwood of trees that is easily spreading eg. common maple and ash.

List of species and varieties of trees and shrubs growing in Droblin park in 2012

Angiospermae

- Acer platanoides L. 8 specimens, the thickest of which has a circumference of 215 cm, growing at the fence of the eighteenth century part of the park. All trees of the common maple are in good condition.
- Aesculus hippocastanum L. 10 specimens, the thickest of which has a circumference of 235 cm. Trees are located in the oldest part of the park in front of the manor. Most of the trees are attacked by Cameraria ohridella Desch. et Dim. and mushroom stew Guignardia aesculi, causing damage to the leaves of chestnut and their premature fall.

- Alnus glutinosa Gaerth. 4 specimens, the thickest specimen has a circumference of 220 cm. All alder grow at ponds.
- Fraxinus excelsior L. 23 specimens, the thickest one has circumference of 440 cm. The largest specimens of ash are at ponds, in the north-west of the area.
- *Populus nigra* L. 40 specimens with the thickest circumference of 425 cm. Poplars grow throughout the park. The oldest specimens are located in the historic driveway alley.
- Prunus sp. 2 specimens, thicker one, roughly with the circumference of 100 cm is in the naturalistic part of the park, at the pond.
- *Pyrus pyraster* Burgsd. 2 specimens in the form of a shrub, self-seeders located in the historic driveway alley.
- Quercus robur L. 1 specimens with a circumference of 265 cm, located at the manor, on the west side.
- Robinia pseudoacacia L. 13 specimens, the thickest of which has circumference of 145 cm. All Robinia pseudoacacia are on the north side of the manor. Trees appeared as a result of self-seeding and they require thinning.
- Salix alba L. 1 specimen with a circumference of 334 cm located near the pond.
- − Tilia cordata Mill. 52 specimens. The thickest specimen is like a monument
 one guide and three main trunks with the circuits: 400, 85, 65 and 85 cm.
 The health condition of the tree is medium. Tree requires some treatment.

In the area covered by the study there were no plants of Gymnospermae class.

Shrubs in the park of Droblin belong to six species (Table 1). In this area also grow three monumental trees (Table 2).

Table 1. List of shrubs species in the park and alleys in Droblin in 2012

No.	Species		
	Latin name	Polish name	
1.	Caragana arborescens Lam.	karagana syberyjska	
2.	Corylus avellana L.	leszczyna pospolita	
3.	Crateagus × media	głóg pośredni	
4.	Ligustrum vulgare L.	ligustr pospolity	
5.	Sambucus nigra L.	bez czarny	
6.	Syringa vulgaris L.	lilak pospolity	

Table 2. The list of natural monuments in the park and alleys in Droblin in 2012

		Tree size		
No.	Species	The girth at a height of 1.3 m, cm	Height, m	The scope of the crown,
1.	Tilia cordata Mill.	400, 85, 65, 85	15	15
2.	Tilia cordata Mill.	300	20	8
3.	Fraxinus excelsior L.	425	12	10

As a result of the 2012 inventory, a large depletion of trees and shrubs species was observed comparing to the inventory carried out in 1983. Such situation is a result of a failure to carry out maintenance works in the green park. Some species of conifers still present in the area in the 80s of the last century are no longer present. There is no tradition of planting the orchard and making utilitarian gardens.

The analysis of the age structure of trees show that in the park there are only three valuable specimens of trees older than 160 years (Table 3). The oldest trees are black poplars growing in the historic driveway alley. In terms of age, the trees in lanes nearby ponds and square quarters in front of the manor are special. It was estimated that most of the existing woody plants (62%) come from the period after World War II. They were planted in the park when it belonged to the primary school. 60 trees date back to the second half of the nineteenth century, from the time of park formation in landscape style.

Planting time (years)	Age	Number of trees	Percentage
1948–2012 – trees and shrubs planted after World War II	to 64 years	106	62%
1850–1947 – trees planted in the formative period of the park in the current landscape	159–65 years	60	35%
Trees planted before 1850 – the oldest tree	more than	3	3%

Table 3. The age structure of trees in the park in Droblin in 2012

In front of the manor there is a circular driveway. Passageways in the park used as roads are made of granite (Photo 1). In the north two ponds were rebuilt. A conservator protection does not include a new stable. To the north-east side of the manor there was localized a wooden gazebo and the whole area is not fenced.

Access to the manor is possible from two sides: the paved road at the stables or the historic alley of poplars at the beginning of which there is a roadside cross. The area of the park is illuminated.

In front of the manor there remained the interior from the eighteenth century – the remains of the baroque garden (Photo 2). At the ponds there are visible remains of the free-style composition of the English park – lanes of ash, linden and poplar. The rest of the area are random plantings. Inside, behind the manor, grow a group of self-seeders of *Robinia pseudoacacia*, which covers much of the old viewing axis on Bukowice manor.

Despite the change of the original composition, the manor and park complex in Droblin is an interesting historical place with a valuable dendroflora. Properly conducted restoration of the park will help to maintain the manor and park, emphasize the value of historical sites and improve the aesthetics and functionality of the place.



Fig. 1. View of the front facade of the manor in Droblin in 2012 (by M. Dudkiewicz)



 $Fig.\ 2.\ View\ of\ the\ oldest\ part\ of\ the\ eighteenth-century\ park\ -\ alley\ of\ linden\ and\ chestnut\ trees\\ (by\ M.\ Dudkiewicz)$

CONCLUSION

- 1. Manor and park in Droblin is a valuable natural and cultural heritage object in the landscape of Podlasie.
- 2. On the basis of an inventory 169 items were marked, including 156 trees belonging to 11 species. The rest are shrubs belonging to six species. In terms of numbers prevailed: linden (52 pcs), black poplar (40 pcs) and ash (23 pcs.)
- 3. Lack of care and discontinuation of maintenance works in the manor and park in Droblin together with a rapid spread of self-seeders, causes a series of changes in the old compositional and spatial system and the connection of the objects with the surrounding landscape. A progressive disappearance of the primary elements of composition is observed.
- 4. The results of the detailed dendrological inventory show the need for maintenance works in the tree stand.

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WALORYZACJA DRZEW I KRZEWÓW PARKU DWORSKIEGO W DROBLINIE GM. LEŚNA PODLASKA

Streszczenie. Przedmiotem opracowania był park przy XIX-wiecznym dworze w Droblinie. Pierwsze wzmianki dotyczące ośrodka dworskiego w Droblinie pochodzą z XVI w. W czasach współczesnych park jest szczątkowo zachowany i składa się z barokowej części centralnej w najbliższym sąsiedztwie dworu, a w dalszej części ma formę swobodnego parku angielskiego. Obszar objęty opracowaniem zajmuje powierzchnię 3 ha. Podczas inwentaryzacji przeprowadzonej w 2012 r. oznaczono 169 pozycji, w tym 156 drzew należących do 11 gatunków. Podszyt z krzewów tworzyło 6 gatunków roślin. Pod względem liczebności przeważały: *Tilia cordata* Mill., *Populus nigra* L. i *Fraxinus excelsior* L.

Słowa kluczowe: park dworski, Droblin gm. Leśna Podlaska, waloryzacja