



CONCEPTUAL DESIGN FOR A CALLIGRAPHY PARK IN THE HOSPITAL AND PARK COMPLEX IN KOBIERZYN

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Summary

The hospital and park complex in Kobierzyn is one of the few sites of its kind both in Poland and in Europe. It was designed at the beginning of the 19th century according to the idea of a city-garden. Although there are currently plans for its complete revalorisation, the paper presents the author's design concept of expanding the hospital park with the area of the neighbouring former arable fields, which, according to the authors, meets contemporary realities and needs. The designed park – together with the neighbouring manor buildings – is harmoniously incorporated into the whole of the hospital-park complex, forming a coherent spatial composition. The design guidelines and solutions are adapted to the existing compositional axes, Art Nouveau aesthetic canons, buildings, trees and even the water reservoir. The project incorporates the design principles of Polish calligraphic parks established at the turn of the 19th and 20th centuries, whose compositional rules dominated Polish garden art for several decades and continue to resonate today. This little-known style crowned the development of 19th-century garden art of free forms – the apparent naturalness of the forms was in fact a space fully subordinated to the designer's efforts. It was also the first composite style that combined geometric and free forms, leaving its mark on contemporary works and continuing to fascinate today with its compositional principles. The project proves the timelessness of these principles and the desirability of employing historical solutions in landscape design.

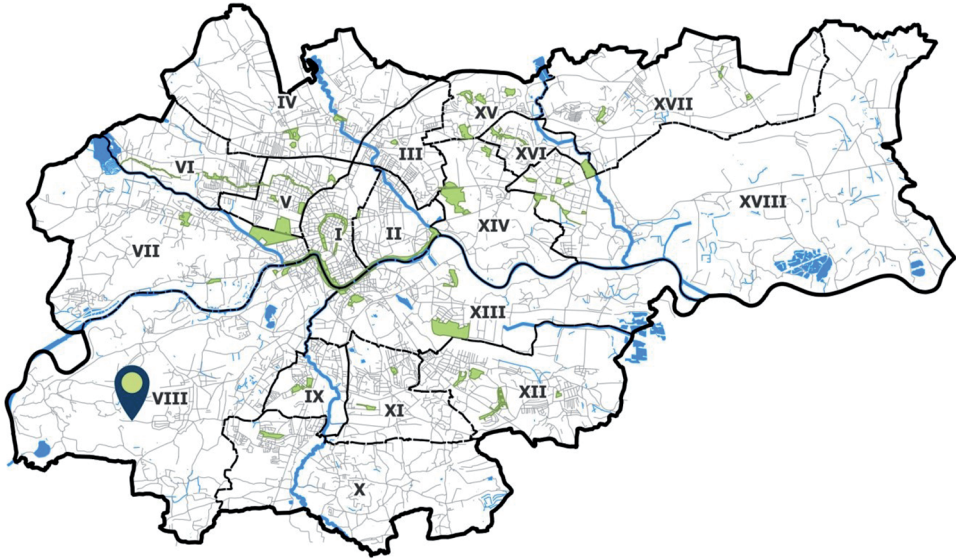
Keywords

aesthetics • cultural heritage • Krakow • Kobierzyn • calligraphic style • landscape design

1. Introduction

The hospital and park complex in Kobierzyn, located in the Malopolska voivodship, about eight kilometres from Krakow, was the most modern and self-sufficient institution for the mentally and psychologically ill in Poland (Fig. 1). It can be compared to the psychiatric clinic in Kulparkovo, near Lviv, which was established a few decades earlier. Similarly, both hospitals were located a few kilometres to the south-western side of their respective cities. They also shared a similar size, buildings' functions and designed greenery. Both hospitals were essentially self-sufficient too, growing crops, planting orchards,

vegetable gardens and building a farm. There was a wealth of greenery designed within the complex: there were many parks, small gardens were planted next to each building, and the main routes were lined with avenues [Staniewska et al. 2021].



Source: Authors' own studies

Fig. 1. Location of the hospital and park establishment in Kobierzyn: in the south-western part of the Municipality of Krakow, in the 8th district

The history of Kobierzyn dates back to the beginning of the 20th century, when in 1907 the parliament passed a resolution to build a new hospital, and design work began. The project was developed by a team of Lviv architects under the direction of Władysław Klimczak, an architectural designer of hospital buildings and spas. In Kobierzyn he designed not only the buildings, but also the entire urban composition, which he based on Howard Ebenezer's idea of a city-garden [Ebenezer 1898]. Klimczak created a concentric-radial and peripheral layout, corresponding to the butterfly motif popular in Art Nouveau. He also tried to implement the idea of a therapeutic landscape in the composition of psychiatric hospital complexes, placing great emphasis on the amount and variety of greenery [Staniewska 2020, Staniewska 2022]. The complex consisted of fifteen inpatient pavilions and about forty administrative, functional and residential buildings. It was officially opened on completion in 1917; according to many, Kobierzyn became the most beautiful and modern facility of its kind in Europe [Mazurkiewicz 1912, Staniewska 2018].

During the inter-war period, the hospital was slowly expanded with additional buildings. Since the 1990s, the entire complex has been undergoing a general renovation in stages, and since 2012, most of the wards and administrative buildings have been refurbished, the technical infrastructure has begun to be renovated, the stand of

trees threatening the historic buildings has been removed, self-seeding trees have been cut down and new trees have been planted. The institution is now aiming to modernise the complex while preserving its historic character.

The design concept that is the subject of this paper follows the basic compositional guidelines for the construction of the complex from a century ago. It preserves the therapeutic nature of the area and also refers to the calligraphic style parks (also known as 'prezelgarten') that prevailed in Polish garden art at the time [Majdecki 2007, Trojanowska 2021]. Therefore, the solutions adopted in the project are in line with contemporary design trends and ideas about the therapeutic properties of landscape, while at the same time remaining faithful to the tried and tested historical patterns of the calligraphic style [Ulrich 1984, Williams A. 1998, Bogdanowski 2000, Baster 2011, Winterbotton D. et al. 2015].

2. Object and methodology

The subject of this paper is the conceptual design for a calligraphic park on the former arable fields next to the hospital and park complex in Kobierzyn. This project is to transform this still almost undeveloped area into a place of high aesthetic, therapeutic, educational and recreational value - for patients, hospital staff and residents of neighbouring areas. The project covers an area of 7.8 hectares of land, which currently includes a large lawn (wasteland), run-down farm buildings, renovated buildings 29 and 31A and a flood control tank.

The work on the project consisted of several stages. First, a site visit, photographic documentation and an environment survey were carried out. On the basis of the collected materials, a thorough analysis was made of the existing landscape around Kobierzyn, the hospital and park complex itself and the project area. Historical changes and a historical landscape study were prepared on the basis of Austrian military survey measurements and contemporary maps [Urbański et al. 2017]. A dendrological inventory was also completed in the project area.

This paper presents the results of the aforementioned pre-design studies, integrating them into the description of the design part of the overall study. The paper begins by listing the general design guidelines resulting from the conservation zones and the conservation officer's opinion. Then, it proceeds with a valorisation and detailed guidelines for the different aspects of landscape design. It concludes with the conceptual design of the park - based on the principles of calligraphic park design and previous analysis and design guidelines.

3. Results and discussion

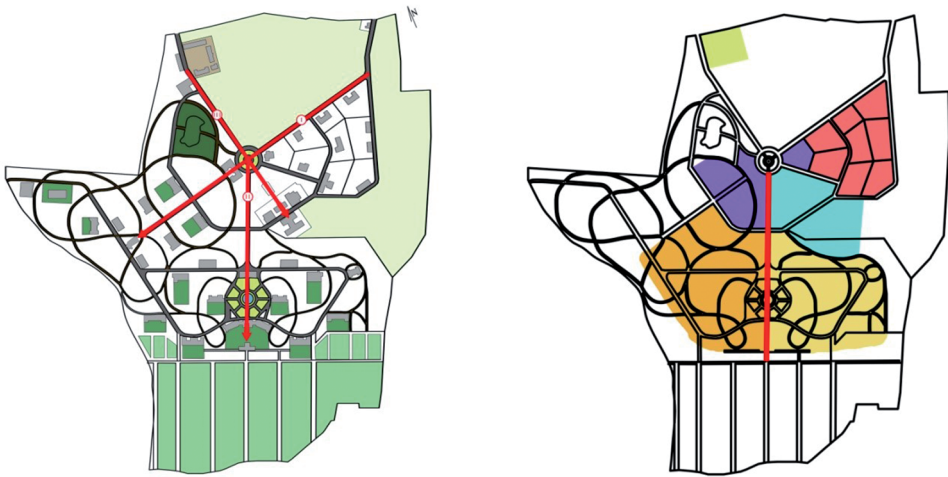
3.1. Designed park as a fragment of the composition of the hospital and park complex

The entire hospital and park complex in Kobierzyn was entered in the register of monuments as early as 1920 under the number A-893, 17.09.1991. Protection by the conser-

vator covered such elements of the site as general utility buildings, patient pavilions, auxiliary buildings, residential buildings for the hospital staff, technical and industrial facilities, farm buildings, the garden and warming complex and the landscape park.

The composition of the complex was based on three compositional axes (Fig. 2):

- The axis running from east to west, the so-called 'axis of hope', which included the most representative buildings and ended at the highest point of the site – the chapel.
- The axis running in a north-east direction traced from the farm buildings to the theatre and playhouse, which was associated with the use function.
- The axis running from south to north, from pavilion 1, through the pharmacy to the roundabout, dividing the complex into two parts, was related to the medical function.



Source: Authors' own study

Fig. 2. Compositional (left) and functional (right) analysis of the hospital-park complex in Kobierzyn according to the implemented project from 1917. Left: the three compositional axes (red lines), the project area (north, light green). On the right are the functional zones: the manor house on the designed area (green), residential (red), representative (violet), hospital (blue and orange)

The whole arrangement was intended to evoke the shape of a butterfly: the last-mentioned axis passes through the centre of the thorax, and the other two are somewhat its antennae. Thus, reference was made to the Art Nouveau trend of combining different fields of art and science, so often used in the early 19th century. The design concept presented in this paper also alludes to these aesthetic qualities; moreover, it uses the butterfly shape again, this time to design the central part of the calligraphic park. The aforementioned third axis (the thorax of the butterfly) is extended so that it also forms the centre of a new, much smaller butterfly shape, in the middle of the park.

As a result of such design ideas, the 'small butterfly' in the park is positioned between the antennae of the 'large butterfly' that constitutes the entire hospital-park complex. It should also be emphasised that, in accord with the main hallmark of the calligraphic style and the Art Nouveau maxim 'line is strength' - underlying the entire aesthetic canon of Art Nouveau and the trends in garden art that preceded it - the plan for the designed park is also characterised by an attention to the beauty of the free line drawing [Wallis 1967, Hobhouse 2019].

3.2. Present state and valuation of the park

The project site is largely undeveloped. It is mostly occupied by farm buildings on the western side of the area. In the eastern part of the project site is building No. 31A - known as the 'White House' - and a concrete flood pool. At the entrance to the complex is located the renovated building No. 29, which formerly served as a gatehouse with an entrance gate. The existing greenery is mainly found along two avenues: a birch avenue - on the theatre-farm compositional axis, and a maple and hawthorn avenue - at the main entrance to the complex. Also notable is the stand of trees around the white house No. 31A, planted as part of the backyard garden.

The valorisation makes it possible to determine the existing condition of the individual landscape elements and the basic design ideas related to them. The farm buildings, which are currently in a very poor state of repair, should be renovated according to conservation guidelines and given a new function. The other buildings mentioned above (nos. 29 and 31A) are refurbished, so remain unchanged in the design. The flood pool and its surroundings should be treated to a new aesthetic value as it cannot be removed.

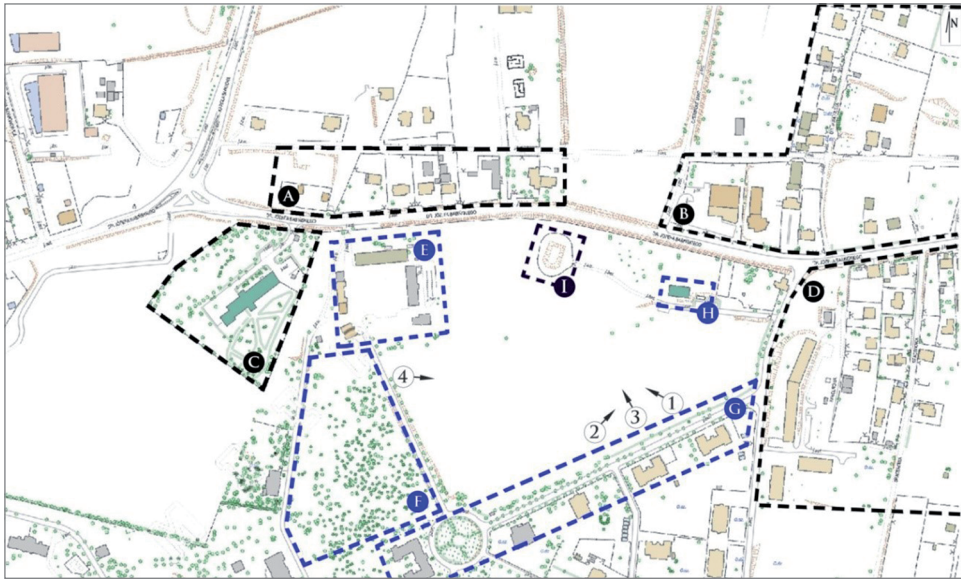
3.3. Composition - general guidelines for park design

The study area is under the following protection zones: strict conservation, strict landscape protection and panoramic protection. This has a significant impact on the overall guidelines (Fig. 3):

- covering the residential blocks on the eastern side of the complex with tall greenery,
- renovation of the manor complex, including the demolition of the barracks in the courtyard,
- protection of all elements of the natural landscape that serve as the buffer zone of the hospital and park complex,
- preservation of the view axis along the access road to the roundabout on the east-west axis, a panorama of Bielany and Przegorzały, and a wide view from Babinski Street (located along the northern boundary of the premise) in the southern direction (to the hospital buildings and the whole project site).

Further guidelines derive from historical compositional principles. The design of the calligraphic park pays tribute to the naturalistic forms of space design that reigned in the 19th century and was crowned in the form of the calligraphic style. The lines of

the free-flowing outline - shaping paths, flowerbeds and the pond's shores - are exposed against the backdrop of huge lawns that open up views of the surrounding landscape. The arrangement of the stand of trees located at the boundary of the complex, as well as the solitary trees and groups of trees along the paths, create a clear sequence of scenic openings for visitors walking along the park paths, while the existing squares provide a stopping point to admire the views. These elements keep the park coherent with the urban composition of the city-garden concept and the surrounding landscape. Meanwhile, undesirable views are obscured.



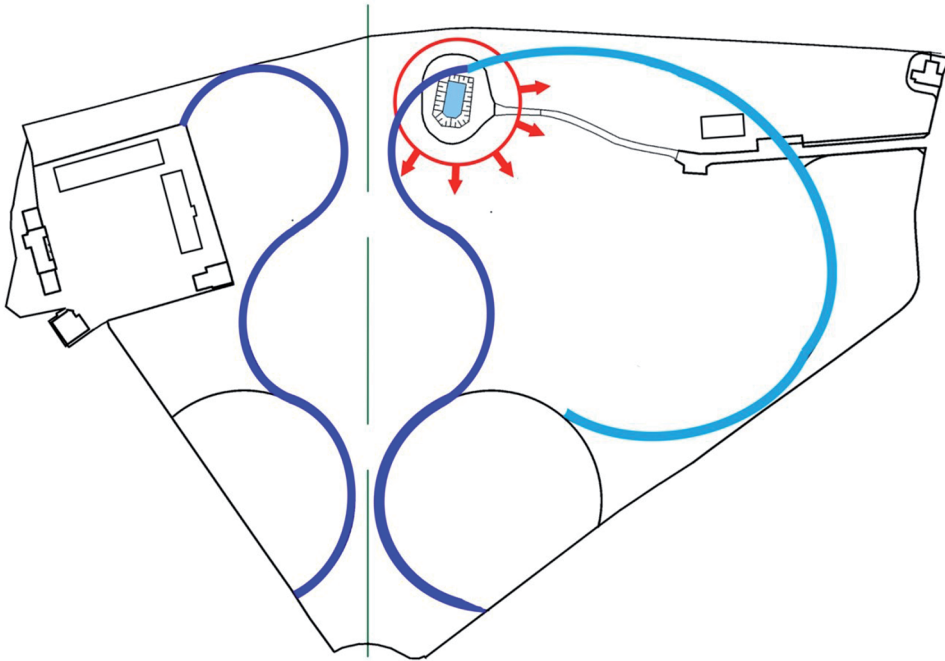
Source: Authors' own study

Fig. 3. General design guidelines. Elements to be screened: single-family dwellings (A, B), multi-family dwellings (D) and the Nursing Home (C); elements to be exposed: manor house (E), park (F), hospital buildings (G), 'White House' (H); elements to be exposed after redesign: pond (I)

3.4. Detailed design guidelines and the design

The first stage of the project involved a detailed compositional and communication analysis. On its basis, the main axis of the entire park area was delineated as the aforementioned extension of the existing compositional axis, and then two main four-metre wide paths symmetrical to this axis were designed, forming shapes resembling the thorax and curved antennae of a butterfly. Later, the circle of the lower part of the butterfly's thorax was extended to connect with the first and third of the above-mentioned axes of the whole complex (and thus the paths within the boundaries of the project site). The next step was to design a path in a wide arc leading around the

entire park. These design solutions linked the project area compositionally to the whole complex, and also shaped the butterfly-like form – as an aesthetic leitmotif of the project (Fig. 4). The enlargement of the fire pool and two entrances were also designed at this stage: the first, on the north-west side to the car park (by the manor house) and the second, to the east, just behind the building no. 29.

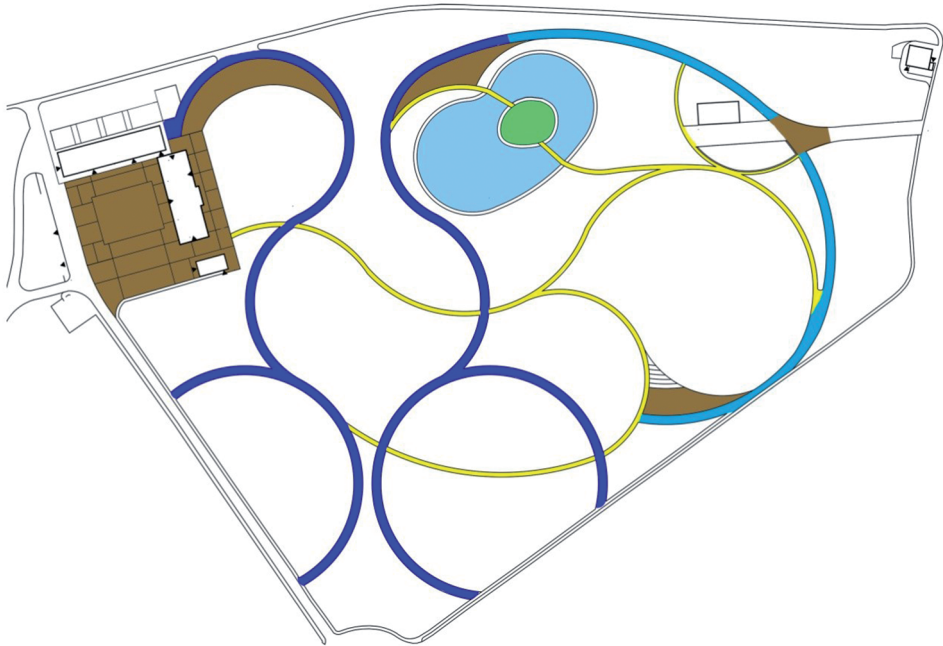


Source: Authors' own study

Fig. 4. Stage I of the project - compositional and aesthetic connection of the designed park with the whole hospital-park complex. Extension of the compositional axis (dashed green line), formation of a butterfly shape (dark blue lines - main paths) and a path encircling the entire park (blue line), redesign of the water reservoir (red line)

The second stage consisted of laying out additional, narrower paths, the so-called *ambulatio*, two metres wide, made of compacted mineral paving, which fit into the whole area and gave the impression of fluidity and dynamism. Four squares were designed in the shape of arches matching the arcs of these paths, emphasising their calligraphic form: at the entrance near the manor house (from which the whole park and the buildings can be seen), at the pond, at the 'white house' and at the main road to the complex, from which there is a view of Bielany with Przegorzaly. The pond was also conceived to resemble a bean, with a flowing outline of the banks. This added to the calligraphic character of the park since it is a fundamental feature of the calligraphic style. In addition, the area next to the manor house and the other buildings was land-

scaped to accommodate important ceremonies, exhibitions or concerts. The changes were made based on the rectangular module, which corresponded to the layout of the buildings and entrances; the most important element of the composition became the garden located in the middle of the manor house, consisting of four symmetrical quarters, surrounded by a perimeter of yew trees in a garth shape (Fig. 5).



Source: Authors' own study

Fig. 5. Phase II of the project – providing the park with a calligraphic character. Creation of the remaining paths (ambulatory) and the squares located next to them, redesigning the pond and the manor house

The third stage of the work consisted of designing the greenery, which also had to take into account the principles of greenery design in the calligraphic parks from the turn of the 20th century (Fig. 6). Almost all the existing trees were left, only the few that did not fit into the new composition were removed. Four forms of designed greenery can be distinguished that were included in the project. The first are avenues – the existing maple and hawthorn avenue at the entrance to the complex and the birch avenue at the road to the manor house. The second form are tree stands – located at the northern and south-eastern borders of the premises – which are intended to obscure the view of residential areas and buildings with low landscape value. A dense stand of trees is also located by the viewing terrace, where a gazebo is situated. The third form consists of so-called groupings – several trees, usually located at the intersections of paths. Their function is to emphasise the intersections in space and to

define (limit) the view from the hospital buildings in the upper part of the complex. The last form are solitaires, i.e. particularly exposed trees, planted singly in open areas. They stand out from other trees because of their interesting habit and leaf colour. It is worth emphasising that each type of greenery is designed in such a way that the tall greenery together creates multi-plane views not only from the marked-out squares, but from every spot in the park.



Source: Authors' own study

Fig. 6. Stage III of the project - greenery project. Existing avenues (yellow); planned: solitary trees (light green), groups (green), compact tree stands (dark green)

Following the example of calligraphic parks, only isolated forms of low and medium greenery have been designed. It features a composition of perennial beds, above-water/water plants and flowerbeds in concrete boxes. The flowerbeds of various surfaces are arranged in an arc along the paths, emphasising their shape and referring to the Art Nouveau aesthetic canon of forming lines. Each is dominated by one colour (red, orange, yellow, white, pink or purple); each contains grass, shrubs and flowering perennials. This combination keeps the premise decorated throughout the year. The vegetation around the pond consists of three zones: the riparian zone - the area that is waterlogged (but not flooded), the shallow water zone (15-30 cm deep) and the deep water zone (up to 50 cm). These plants vary in habit, flower colour and leaf texture. The riparian zone contains: Siebold's plantain lily (*Hosta sieboldiana*), which has blue-coloured leaves;

ostrich fern (*Matteuccia struthiopteris*), which is intended to add lightness to the bed; *Geranium palustre* with a ground-covering function; *Astilbe* × *arendsii* with ornamental panicles; queen of the meadow (*Filipendula ulmaria*); and heart-leaved bergenia (*Bergenia cordifolia*). The shallow water zone has: beautiful violet-blue Siberian iris (*Iris sibirica*), yellow iris (*Iris pseudacorus*), flowering rush (*Butomus umbellatus*), chestnut-leaved Rodgersia (*Rodgersia aesculifolia*), and common sedge (*Carex nigra*). In the deep-water zone, two varieties of water lily (*Nymphaea*) have been proposed: the pink 'Starburst' and the white 'Pygmaea Alba' [Oleksyn 2011].

The final stage of the work was the delineation of view axes, vistas and panoramic views (Fig. 7).



Source: Authors' own study

Fig. 7. Stage IV of the project - design of the vistas

The beauty of the project site and its surrounding landscape has been acknowledged in the design works. Indeed, there is an external view towards the Bielany Monastery and Przegorzaly to the north-west, while internal views include the southern part of the site and the exposure of the two avenues together with the hospital buildings above them. The design retains these scenic linkages whilst also taking into account the location of the new trees, the refurbished grange buildings, or the

beautiful existing solitary tree and the two new pergolas in the middle of the park. These views begin at well-defined vantage points: the hospital buildings located along the boundaries of the project site, the access road on the south side and the planned squares along the paths.

The design guidelines thus set out served as the basis for the execution of the project (Fig. 8).



Source: Authors' own study

Fig. 8. Design concept of the park. I - pond, II - viewing terrace, III - manor house, IV - pergolas, V - viewing terrace, VI - didactic part (seats), VII - car park, VIII - viewing terrace, IX - car park

4. Conclusions

Common until the Second World War, calligraphic parks were the culmination of a long 19th-century process of searching for perfection in the shaping of apparently natural forms in the landscape. Although the basic design idea was to create an impression of the total naturalness of space, 'naturalness' did not at all mean 'arbitrariness'. On

the contrary, hundreds of Polish calligraphic parks even ‘at first glance’ were incredibly similar to each other. This was undoubtedly influenced by the canon of beauty in drawing lines, applied for several decades in both Polish calligraphy and garden art. These aesthetic values and spatial solutions have lasted to this day, and are used in a multi-faceted approach to landscape composition, in which the design of the transport system, water elements, greenery and architecture must also be consistent with the designed vistas. Therefore, the presented contemporary design of the park in Kobierzyn can – in the opinion of the Authors – be considered fully compatible with the historical hospital and park complex in terms of composition, character of the shaped space, stylistic consistency, landscape forms and aesthetics.

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References

- Baster P. 2011. Polskie parki kaligraficzne. AGH, Kraków, 31–108.
- Bogdanowski J. 2000. Polskie ogrody ozdobne. Arkady, Warszawa, 153–180.
- Ebenezer H. 1898. Garden Cities of Tomorrow. Swan Sonnenschein & Co., London.
- Hobhouse P. 2005. The Story of Gardening: A cultural history of famous gardens from around the world. Hardcover – International Edition.
- Majdecki L. 2007. Historia ogrodów. T. 2. Od VIII wieku do współczesności. PWN, Warszawa, 359–365, 428–429.
- Mazurkiewicz J. 1912. O opiece nad umysłowo chorymi w Galicyi i o nowym Zakładzie krajowym w Kobierzynie. Przegląd Lekarski, 51, 1.
- Oleksyn H. 2011. Kompozycje roślinne w kształtowaniu terenów zieleni. Uniwersytet Przyrodniczy w Poznaniu, Poznań.
- Staniewska A. 2018. Gardens in mental hospitals at the turn of the 19th and 20th century – reinterpretation. Ogrody szpitali psychiatrycznych z przełomu XIX i XX wieku – reinterpretacja. Wiadomości Konserwatorskie [Journal of Heritage Conservation], 53, 55–56.
- Staniewska A. 2020. Oblędne ogrody: idea krajobrazu terapeutycznego w kompozycji zespołów szpitali psychiatrycznych XIX i początku XX wieku, Kraków.
- Staniewska A. 2022. Gardens of Historic Mental Health Hospitals and Their Potential Use for Green Therapy Purposes. Land, 11, 1618.
- Staniewska A., Hałyna P., Lukashchuk H., Kliusa T., Karolina K. 2021. Values of the Historical Parks and Gardens of Psychiatric Hospitals in Kulparków and Kobierzyn as the Basis for Their Revalorization [Walory historycznych założeń parków i ogrodów wokół szpitali psychiatrycznych w Kulparkowie i Kobierzynie jako podstawa ich rewaloryzacji]. Wiadomości Konserwatorskie [Journal of Heritage Conservation], 67, 22–34.
- Trojanowska M. 2021. Parki i ogrody terapeutyczne. PWN, Warszawa, 16–17, 206–211.
- Ulrich R. 1984. View through a window may influence recovery from surgery. Science, 224, 42–421.
- Urbański P., Walerzak M., Wilkaniec A., Rosada A. 2017. Ideogramy rekonstrukcji i wirtualne modele przestrzenne tworzone na bazie historycznych map topograficznych w badaniach zabytkowych zespołów rezydencjonalno-ogrodowych. Teka Komisji Urbanistyki i Architektury PAN, Oddział w Krakowie, XLV, 151–167.

Wallis M. 1967. Secesja. Arkady, Warszawa.

Williams A. 1998. Therapeutic landscapes in holistic medicine. *Social Science & Medicine*, 46, 9, 1193–1203.

Winterbotton D., Wagenfeld A. 2015. Therapeutic gardens. Design for healing spaces. Timber Press, Portland, London.

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