Integration of greenery and architecture: urban reform in Poznań at the turn of the 20th century

Abstract

Various green reforms predicated on the improvement of hygiene and aesthetics of the city were implemented in Poznań at the turn of the 20th century. In addition to large boulevards and parks, great importance was attached to greenery near the residential buildings. Greenery was also an integral part of prominent spaces, harmonizing with their ideology. The aim of the article is to draw attention to these somewhat forgotten innovative proposals and to indicate their inspiring potential for modern times, especially in the for-profit conditions of real estate development and ecological challenges. The examples discussed on the basis of in situ research and archival research show that during the 19th century, the need for everyday contact with greenery increased, and urban nature became more and more accessible to residents.

Key words: urban greenery, democratization and internalization of greenery, front gardens, green spaces, prominent areas

Introduction

The idea that green spaces are an important and multifunctional component of urban space developed on a larger scale in the mid-19th century from the criticism of pathologies caused by rapid and excessive urbanization, which deteriorated conditions in the city.

While green areas were initially introduced as part of large urban renewal plans – for example, during Eugène Haussmann’s Paris, the Vienna Ring Road, which became a model for many European cities – from the point of view of contemporary green and blue infrastructure, the proposed reforms from the turn of the 20th century seem more interesting. Greater importance was then attached to better access to public green spaces, which somehow anticipated the contemporary concepts of urban ecology with its aims to improve public well-being. The aim of the article is to draw attention to the somewhat forgotten innovative reforms implemented in Poznań at the turn of the 20th century, and to show their inspiring potential for modern times.

State of research

The presented issues cover a wide range of topics, ranging from the analysis of ideas and activities from the turn of the 20th century to considerations on the contemporary condition of the urban environment. Reforms based on publications from the era were discussed in relation to Poznań in the works of Hanna Grzeszczuk-Brendel [4] and Grażyna Kodym-Kozaczko [5]. The issue of the current importance of green spaces in the human environment was raised, for example, by Rachel and Stephen Kaplan [1], while the dangers associated with climate change and rise in public awareness of ecological problems were highlighted by, among others, Ewa Bińczyk [6]. The practical
aspects of dealing with green-blue infrastructure, also in the historical context, was discussed in Standardy utrzymania terenów zieleni w miastach [Maintenance standards of green spaces in cities] [7]. The aforementioned publications also provide an extensive bibliography on the subject.

Methods

The discussed examples, taken from in situ and archival research as well as from the subject literature, concern various types of green spaces in Poznań from the turn of the 20th century and are based on the reforms of that time. They focused on improving the existing urban environment by developing new relationships between green spaces and architecture, creating an integral aesthetic, semantic and functional whole. The growing importance of urban greenery is a byproduct of social changes in the 19th century, mainly the improvement of urban hygiene and the democratization of society, which included broadened access to greenery.

Reform ideas were introduced in urban expansion projects of the city, but the most interesting of those ideas concerned greenery in the immediate surroundings of the buildings, which in turn influenced the building floor plans.

Introducing new forms of urban green spaces

Reform activities were prompted mainly by the pathologies prevalent in 19th-century metropolises, which, as a result of rapid urbanization, began to experience the negative effects of excessive population growth and high density housing, which, in turn, led to cyclical epidemics and social unrest. Around the mid-19th century, when modern water supply networks and sewage systems were introduced, special attention was paid to green infrastructure and its role in improving living conditions in the metropolis. For example, in Paris, large-scale work was undertaken to reduce high-density housing and shape green spaces in the city. The main idea behind Hausmann’s plan from 1852 was to introduce broad boulevards lined with rows of trees. They ensured efficient communication, improved ventilation, purified the air and beautified the city. There was a significant change in thinking about the role of greenery – aesthetics was supplemented with a primarily hygienic function, and consequently green areas became increasingly important, as they regulated the urban ecosystem and improved the broadly understood well-being of residents.

Changes in the character of urban greenery also reflect the democratization of 19th-century society. Until the 17th century, only the privileged upper classes were granted access to greenery in cities: the gardens of aristocratic families were a symbol of prestige, an open-air living room next to the palace. Although the first public parks appeared at the end of the 17th century, it was not until the turn of the 19th century that they appeared in larger numbers, also as a result of opening up private gardens to the public (see: [11–13]). The democratization of “green luxury” is evidenced not only in the establishment of parks, such as the Bois de Boulogne and the even more proletarian Bois de Vincennes in Paris, but also in raising the prestige of grand avenues, such as the Champs-Élysées in Paris, Unter den Linden in Berlin, and Wilhelmstrasse (currently Marcinkowskiego St.) in Poznań.

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Home to a highly vocal community striving to improve living conditions in the city, Poznań at the turn of the 20th century was considered an example of multilateral thinking about how green areas should be treated as an integral component of urban and housing reforms. New and unconventional solutions were put forth to improve urban hygiene, shape social interactions, and enrich the symbolic meanings of urban space.

Surrounded by a ring of fortifications, 19th-century Poznań was marked by high density of buildings and a paucity of green areas. Private gardens were disappearing, and despite many efforts, due to lack of space and the high cost of land, no public park, an integral element of the 19th-century European city, was created in Poznań [17, p. 417]. As a result, the only major green area in the city was to be found on Wilhelmstrasse (currently Marcinkowskiego Avenue), which runs alongside Wilhelmplatz (currently Wolności Square). These were the most magnificent elements of David Gilly’s plan to expand Poznań after the incorporation of Greater Poland into the Prussian partition.

Broad avenues, streets and squares densely lined with trees [18, p. 9] gave the new site, which was intended for military marches and parades, a more civilian character offering a place for strolls – the greenery softened Poznań’s image as a Prussian garrison city (Fig. 1). Wilhelmplatz, transformed in the 1870s into a square with a picturesque composition of trees and bushes (see: [19]), took on the role, along with Wilhelmstrasse, of the city’s living room. This only free public space saw a specific accumulation of functions: from strolls to state ceremonies related to, for example, the unveiling of monuments asserting the presence of Prussia (Fig. 2).

2 During the interwar period, reform ideas were continued in Poznań by the wedge-ring system of greenery, which was used by Władysław Czarnecki to tie together the topography of the terrain with the historical ring system [5, 8, 9].

3 This is why proposals calling for a departure from the idea of a metropolis, such as Ebenezer Howard’s garden cities, were never included. See: [10].

4 This facilitated the movement of the army and the police in quelling riots.

5 Cf. [14]. On the role of the Champs-Élysées and the use of green spaces in 19th-century Paris see [15]. See also: [16].

6 Built in 1828–1869.

7 Research by Ostrowska-Kębłowska had attributed authorship of this plan to David Gilly; this finding has been recently put in question by Andreas Billert, who claims that the architect is Christian Friedrich Günther von Goeckingk and Otto Carl Friedrich baron von Voss [17], [18].

8 In 1870 a monument designed by Cäsar Stenzel was erected at Wilhelmplatz, which commemorated the Battle of Nachod. In 1889 in Wilhelmstrasse a monument designed by Robert Baerwald of Wil-
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Excessive building density, lack of cultural and scientific institutions and a shortage of green recreational and entertainment areas made Poznań less and less attractive, especially for German visitors. As part of the policy to strengthen German culture after Germany’s unification in 1871, the Prussian city authorities decided to dismantle the fortifications. After much effort, this process was finally started in 1902.

In order to increase the city’s attractiveness, it was agreed that housing density was to be reduced and extensive green spaces added. This is evidenced by the plans to expand Poznań, which had been prepared by the city’s construction counselor Heinrich Grüder, acting on behalf of the city hall (Fig. 3). The plan from 1890 indicated that only half of the acquired area was allocated for development, although, according to the estimates of the Ministry of Finance in Berlin, it was only 25–30%, as the rest was to be occupied by streets, squares and parks. The city authorities intended to grant residents access to green recreational and representative areas and to compensate for the high-density development of the city center. Green spaces were also an inherent part of elegant residential areas, near large squares with a view of public buildings.

The task of reaching a compromise between wanting to build low-density housing and expectations that the former fortress areas be profitable was entrusted to the famous urban planner Josef Stübben, who was commissioned to plan the expansion of Poznań in 1903. He proposed to surround the 19th-century downtown with boulevards in the de-fortified area. They were to be adorned with parks and squares in lieu of former bastions and cemeteries. Individual sections of variable widths (between 15 and 40 m) were to be lined by various types of greenery and buildings (Fig. 4).

In the process of expanding the city at the beginning of the 20th century, the government played an important role, as it was intent on introducing larger green areas in Poznań. In agreement with Berlin’s officials, the various functions of green spaces were presented, such as primarily ventilation and decreasing building density as a way to improve hygiene, but also their importance in displaying monuments and stately public buildings. It was pointed out that for people working in the city, contact with nature offers a psychological benefit, providing an opportunity to regenerate their strength. It was even argued that in the flatland region of Greater Poland, picturesque parks and boulevards significantly increase the attractiveness of Poznań, thereby drawing in new residents. This indicates that the decision-makers of that time were well versed in the latest urban trends and activities, originating from reformist urban planning, in which the assumptions underlying urban greenery played a fundamental role.

Most green spaces were planned in housing complexes for wealthy residents of Poznań – villas and tenement houses in “spacious compositions” were to have [...] particularly beautiful streets lined with trees and were intended as [...] quiet streets for strolling [...] with detached houses and front gardens [21, p. 34]. The increasing amount of greenery in public spaces – rows of trees along the streets, front gardens, and lower density housing, where private gardens are visible to the public – indicates that there was a growing need for direct contact with green areas among the residents of Poznań, much like in many other European cities. In poorer
districts, higher density buildings were planned without outbuildings, which made room for larger, green courtyards. There were also many squares and parks, and the areas beyond the rings were not intended for future development.

Greenery was best integrated with architecture in residential complexes, where young, reformist architects educated primarily in Berlin-Charlottenburg implemented various design ideas. The most popular of these were semi-private areas in new districts that primarily took the form of front gardens, which increased the prestige of the buildings and enriched their aesthetic and recreational values. These strips of greenery between the tenement houses and the street complemented the rows of trees of the streets, increased their width and created a buffer between the street traffic and apartments on the lower floors. In Poznań, many of these front gardens have been preserved in wealthy
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Tenement houses in today’s Mickiewicz Street, Popliński Street and Roosevelt Street.

Of fundamental importance in the reform concepts was the rejection of outbuildings, thereby allowing more sunlight and ventilation into the courtyards, which could then be developed as common green areas and playgrounds. The Deutsche-Beamten-Wohnungs-Bau-Verein building complex in Skryta Street is a prime example of architectural creativity\(^{11}\) (Fig. 5). The outer courtyards are connected to the inner streets, creating a picturesque interpenetration of the space thanks to the shape of the tenement houses: protruding wings and receding façades, with lawns, trees and shrubs between them. They beautified the surroundings, created a favourable microclimate and conditions for urban wildlife. Such compositions of greenery influenced the layout of rooms in apartments. As courtyards were replacing the 19th-century courtyards-wells, residents could appreciate the areas behind the building, which eliminated the necessity of placing the most important rooms in the front of the building.

The proximity of green spaces had a significant impact on the prestige and financial value of tenement houses, as evidenced by the so-called Johowa district, intended for the most affluent residents in a carefully chosen location by the investor\(^{12}\). What made this district more attractive than the villa district in Sołacz was the proximity of the botanical garden created in 1902 on the grounds of a tree nursery which cultivated ornamental trees and shrubs. It was run from 1834 by the Gesellschaft zur Verschönerung der Stadt und ihrer Umgebung (Society for the Beautification of the City and its Surroundings), whose goal was, among other things, to plant trees along the streets and in squares as well as to plant flower beds. The tree nursery was handed over to the city on condition that the public botanical garden remain there\(^{13}\). It is difficult to say whether the decision-makers were aware of similar schemes, for example Central Park in New York, created in 1857–1872 according to Frederick Law Olmsted’s design, which also contributed to the increase in the value of neighbouring properties.

The park, which intertwined with the semi-private front gardens on the tree-lined street, became a kind of private garden for the residents of the district (Fig. 6). Additionally, the large apartments with an average area of 200–250 m\(^2\) became even more prestigious and attractive thanks to the connected courtyards planned as a common garden in the style of English parks with winding alleys planted with trees and shrubs. In 1902, Max Johow planned the entire layout, in which the outlines of green areas were connected with the contours of reformist tenement houses.

This abundance of green spaces, their well-thought-out, complementary types and functions – neighbourhood (yards), semi-private (front yards) and public (botanical garden, streets lined with trees) – determined the attractiveness of a district and raised the standard of tenement houses and their financial value both for the investor as well as the residents.

Urban green spaces were also becoming increasingly prevalent in working-class areas. The model here was not recreational parks and villa gardens, but the model of a rural farm – small plots of land to be cultivated by tenants were planned in the backyards, such as in Poznań’s working-class housing estates before World War I: in today’s Wawrzyńca Street and in the housing estate in Marcellńska

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\(^{11}\) The design was by Martin Mucha and most likely Anton Künnzel from 1905.

\(^{12}\) Max Johow, along with Emil Asmus, was an investor and the main person responsible for the urban concepts from 1902–1903. The people who lived there were mainly senior government and military officials, professors and merchants who were able to afford the high rent, which amounted to 2,500 Marks annually.

\(^{13}\) The Botanical Garden was intended to be a decorative garden, meant to be a place for relaxation and recreation. The name Botanical Garden originates from the fact that on these parcels of land plants for educational purposes in schools were cultivated (acc. to: [24, p. 120]).
The close connection between the architecture of public buildings and green areas intensified the richness of cultural meanings that had been introduced in the city. A perfectly composed square with a free-form design, unusual for official public spaces, harmonized with the irregular layout of the buildings, and at the same time complemented and softened the ideological message of the Imperial District. As a result, more people began to use it: while it is difficult to imagine Poles walking by the monument of the “Iron Chancellor”, a bench amidst the greenery surrounding the monument may seem neutral in meaning, even in a strongly ideological space. Therefore, the composition of the square was an important element of the social aspect of the public space. Similarly to the discussed examples, it foretold a new way of treating the city as a holistic urban/natural environment.

Conclusions

The examples discussed above prove that the need for everyday contact with green spaces, felt more strongly since the turn of the 19th century, was internalized by the city the residents of that era, with the middle class treating it not so much as a determinant of luxury, but of a new type of comfort. This was accompanied by democratized access to urban green spaces and the development of new forms of contact with greenery. The need for contact with nature also had a philosophical basis: the growing alienation felt by those living in a city at the turn of the 19th century, detached from their existence in nature, evoked nostalgia and contributed to the idealization of nature in general. It is
worth noting that preference was given to designs in the English garden style, illustrating the free state of nature, friendly to humans and even harmonizing with them.\footnote{18}

The value of the reforms implemented in Poznań at the turn of the 20th century has to do with the variety of ideas for urban green areas, which demonstrated multifaceted thinking about human needs and the harmony of urban spaces. The proximity of trees, bushes and parks increased the comfort of living, ensured urban ventilation and air purification, while the integration of architecture and greenery enriched the city fabric. Thanks to this, innovative architectural and green designs were developed for the surroundings of apartments and public spaces. Greenery was implemented as an essential setting for official buildings, often emphasizing their ideological meaning, which plays a much smaller role today.\footnote{19}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig8.png}
\caption{Fritz Teubner, plan of a working-class housing estate with home gardens in Marcelińska Street, 1911 (source: State Archives in Poznań, ref. 4549)}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig8.png}
\caption{Fritz Teubner, plan osiedla robotniczego z przydomowymi ogródami uprawnymi przy ul. Marcelińskiej, 1911 (źródło: Archiwum Państwowe w Poznaniu, sygn. 4549)}
\end{figure}

Schlegel, Friedrich Schelling, and Gottfried Wilhelm Leibniz. See also the discussions in: [26]–[28], as well as the bibliography provided in the referenced sources.

\footnote{18} This is in opposition to geometric gardens, which expressed domination of nature. Coexistence between nature and the human in English gardens was emphasized by greenery that reflected various mental states. See, for example: [28].

\footnote{19} Their aesthetic and ecological function is more often taken into account.
Thus, the proposed reforms retained their value in contemporary urban space, becoming its integral, if not its most valuable, component. Democratized and diverse forms of greenery developed in the 19th century, either as enclaves in cities or at least as substitutes for nature, play an even greater role in the altered civilisational conditions of the Anthropocene era. For contemporary designers, decision-makers and residents, such historical propositions may inspire us to enrich the forms and functions of the green spaces currently created20.

Summary

When drawing inspiration from the presented examples, one should keep in mind that all the discussed complexes were created in the conditions of a capitalist economy. In today’s building practice, solutions from the turn of the 20th century have been forgotten, which reconciled financial efficiency with the requirements of new urban comfort, closely related to greenery ensuring regulation and stabilization of the urban ecosystem.

A comparison of historical and contemporary ideas and activities may be the subject of further research. In the context of the current condition of cities, attention should be paid to the synergy of activities of all participants: city authorities, investors, architects, urban planners and residents. This would avoid such negative processes as urban sprawl or excessively high density of housing estates. The efforts made by the city authorities and the arguments invoked at the turn of the 20th century are completely consistent with contemporary expectations regarding blue-green infrastructure: greenery was and is necessary for the physical and mental well-being of residents, contributes to the improvement and balance of the urban ecosystem, and leads to sustainable development.

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20 On the topic of nature in the Anthropocene, see: [6], [29].
Słowa kluczowe: miejska zieleń, demokratyzacja i internalizacja zieleni, przedogródki, zielone kwartały zabudowy, tereny reprezentacyjne

narastała potrzeba codziennego kontaktu z zielenią, a miejska natura stawała się coraz bardziej dostępna dla mieszkańców.

Zieleń była też integralną częścią przestrzeni reprezentacyjnych, współgrając z ich ideologią. Celem artykułu jest zwrócenie uwagi na te nieco zapomniane założenia reformatorskie na przełomie XIX i XX w. Obok wielkich bulwarów czy parków bardzo dużą wagę przywiązywano do układów zieleni w pobliżu mieszkania.

Streszczenie

Integration założenia reformatorskie w Poznaniu na przełomie XIX i XX w.

Różnorodne reformatorskie założenia zieleni traktowane jako istotny czynnik poprawiający higienę i estetykę miasta były realizowane w Poznaniu na przełomie XIX i XX w. Obok wielkich bulwarów czy parków bardzo dużą wagę przywiązywano do układów zieleni w pobliżu mieszkania. Zeleń była też integralną częścią przestrzeni reprezentacyjnych, współpracująca z ich ideologią. Celem artykułu jest zwrócenie uwagi na te nieco zapomniane nowatorskie propozycje oraz wskazanie ich potencjału inspirującego dla współczesności, szczególnie w warunkach deweloperskiego dążenia do zysku i wyzwań ekologicznych. Przykłady omówione na podstawie badań in situ oraz kwerend archiwalnych uświadamiają, że w ciągu XIX w. narastała potrzeba codziennego kontaktu z zielenią, a miejska natura stawała się coraz bardziej dostępna dla mieszkańców.

Słowa kluczowe: miejska zielen, demokratyzacja i internalizacja zieleni, przedogródki, zielone kwartały zabudowy, tereny reprezentacyjne