

The historical elements of Kraków's green system - protection challenges for landscape planning in the 21st century

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Introduction

Krakow was referred by Ebenezer Howard as a natural garden city (Bogdanowski 1979). This flattering opinion emphasized the purposefulness of the green system – the result of evolutionary development of the city since the Middle Ages, supported by fortification and communication factors of the Second Industrial Revolution. Kraków of today, a many times greater size, has lost its harmony. On the one hand an uncontrollable growth, low availability of the significant of green (Staniewska 2014). On the other hand, both touristic and settlement attractiveness historical centre of the UNESCO World Heritage Site List. Low degree of synergistic use of valuable and abundant green, mostly of historical origin – it is an aspect of contrast of Kraków at the beginnings of 21st century – the main problem of this article.

Background/Literature Review

The origin and contemporary state of Kraków's green are well defined in various publications. Most important for the topic of the article are sources and publications on the dynamics of city green changes as natural and anthropogenic processes. Parks and gardens of Kraków were subjects of research in the field of garden art history (Stępniewska 1977; J. Bogdanowski, 1997 and 2001, Klein 1911). In their wake they are followed by monographies on the oldest parks of the city (eg. Zachariasz, 1996, Żółciak and Żółciak, 2007, publishing series "Parks of Kraków" – Marcinek, Myczkowski, Böhm; 2014-15). A necessary background is provided by works describing dynamic development of Kraków from the beginnings of 20th century, when the city incorporated surrounding communities as new districts (Klimas, Lesiak-Przybył, Sokół 2010). The dramaturgy of evolutionary (continuity) versus revolutionary (diversification) directions of city development is visible in comparison of subsequent city spatial development plans – concentric-radial (including Ptaszycka 1951) and orthogonal-raster (Seibert 1977). All the others are attempts to reconcile the conflicting, but already occurred in space consequences of these ideas. Organic and historically conditioned structure of the city in was in 1970ties modified according to the communication-industrial dictate, which was only partially justified by the latitudinal distribution of satellite industrial centers. Perhaps the biggest victim of this conflict has been

the green. It is countered by the city development plans from 1995 (Ziobrowski) and 2003 (Böhm, Zachariasz and others). Since 1996 the city documents formulate a city green development plan based on a system of river parks along the river Vistula and its tributaries (Böhm, Pawłowska and Zachariasz, 1996), that has been complemented by green and preserved open spaces based on the former Kraków Fortress, (Bogdanowski ca. 1960, update and development: Myczkowski, Wielgus et. al. 2010, Śródulska-Wielgus 2005, 2014). Currently the problem of public green spaces is being discussed in the context of sustainable development and improvement of life quality in the city (Staniewska, 2014).

Goals and objectives

The aim of the study is to identify specific examples of historical green of Kraków as the system with its origin and the state of preservation. In particular the green that allows restoration of functional and ecological connections is mentioned. The analysis taking into account various, also less known categories of historical green is a voice in favour of creation of complex and comprehensive Kraków green development. The background is a broader context of planning and urbanistic regulations in Poland. The strategy points out the need of protection, organizing, supplementation and integration of metamorphing green spaces of unused and post-industrial areas, the so called “unwanted green landscapes” (Myczkowski, Wielgus, 2014). The work indicates the need for a new humanitarian and ecological attitude towards green spaces that have lost their initial purposes through reintegration and succession of functions.

Method(s)

Assesment of the state and development trends of Kraków green has been based on sources, such as archival cartography and iconography, historic ordinances and contemporary city documents on spatial planning. Equal weight was put on elaborations – contemporary literature and numerous studies prepared at the Landscape Architecture Institute in Krakow in the 1970s and 1980s. For the scope of the work also landscape and composition studies were carried out. The principal methods of historical green research is pragmatics adopted since the 1970ties in the Kraków landscape architecture environment (Bogdanowski et. al. 1981). It is based on a three-step study: resource registration, evaluation and guidelines. In the analysis phase it requires the structuring of the landscape – the division into elementary enclosures (the criterion of delimitation being the visibility) or individual units (when the criterion is the border interpolation, of the shape, covering and genesis of analysed terrain). Proper allocation and evaluation the particular

elements and units enable detailed comparative studies, which provide integrated and easily accessible data. This kind of database is readable and useful for purposes of strategic decision-making and planning for the design as well as management of sites. The method allows not only the comparison of the state, but also the directions of processes, presented in a form of synthetic models (Wielgus, Środulska-Wielgus 2003, Myczkowski, Wielgus, Forczek-Brataniec et.al. 2012).

Results

According to current data from the Kraków City Hall there are 45 city parks of a total area of nearly 430 hectares. As many as 14 of them are historic parks (mostly from the 19th and early 20th century), some of them are adapted palace parks and vegetation of forts of Kraków Fortress. The phenomenon amongst the green spaces in the centre of Kraków are the Planty – a green ring around the medieval Old City the medieval Old City (replacing from the old city walls), included, along with it, on the UNESCO list The Błonia are an old communal meadow (48 hectares) used since the medieval times as a place for grazing cattle - today a place of meetings and significant cultural events. An important group of half-private and private green includes the old residential gardens – in villas and palaces (significantly reduced) and closed cloister and monastery gardens. Other valuable gardens are located in-between the building blocks especially in the Old City. Their recognition [Bogdanowski, Więckowska et al. 1997] became one of the arguments in favour of protecting the Old City as a Cultural Park (Myczkowski and team, 2011). This form of legal protection of landscape is especially adequate for areas of equally high cultural and natural values. A characteristic of Kraków, a university city, are the green complexes accompanying the scientific functions. Typical for Kraków's green are inner-city and suburban woods (like Las Wolski, Las Bonarka,). It is not possible to include them in the planned green, which is a part of only 1% of Kraków. A total value of city green is increased by the fact that its western borders are located in the Bielańsko-Tyniecki Landscape Park: it increases the statistic to 2% of its area. An important natural-cultural green space are the boulevards of Vistula, Rudawa, Białucha rivers, which have the status and function of parks. The Vistula Boulevards, included in monumental engineering buildings [designed by R. Ingarden, 1905-1909], were once supposed to serve as waterfront harbour on the planned Danube-Oder-Vistula-Dniester waterway. Nowadays it is the part of the EuroVelo 4 cycling route. The example of riverside green exposes the main topics of this article, for they are the main, officially recognized connection between the city green corridors, being in majority a consequence of engineering activities in the landscape. Search for new sources and inspirations for the aforementioned

connection is a current need, because during the last 20 years only a few new city parks have been created in Kraków (Dębicki Park 2004, “The Garden of Experiments” 2007); currently the Duchacki Park is created. The fundamental problem of Kraków is not, however, the slow process of creating new parks. The potential of existing green is not fully used and there too little connections of dispersed recognizes green spots and areas. The distribution of green areas in Krakow does not give all inhabitants equal access to it. Ecological organisations and NGOs are justified in demanding that the so-called air corridors should be protected from being built in and preserved. The traditional areas of composed green are mostly historical private and communal gardens that include plots that are limited in size; they are isolated. Historically they were connected by alleys. If they had survived to the current times, they would have been model examples of greenways. Unfortunately, the city’s development and the communication dictate have mostly deprived them of these characteristics. Aforementioned objectively untouchable waterways stay on of, but not the only, nets of possible system connections of Kraków green. An integration chance for the 21st century Kraków is opened by the green of historical engineering landscapes – shaped by fortification, industry and transportation. They become a still underestimated allies of building the city’s ecological connections. Kraków, founded in the place of the most convenient cross of the Vistula Valley on the north-south axis; it was a critically important point, decisive in terms of communication in this part of Europe. After being annexed by the Austrian Empire it nominally became an Austrian fortress (1850). 40 years later it was the biggest and most important fortress of the Austro-Hungarian monarchy and today it is the best preserved historical fortress in the Middle-Eastern Europe. The building limitations in the fortress’ belt, introduction of great amounts of masking and obstacle vegetation (at least 25 thousand tree seedlings), storing the terrain reserves of military camps and barracks (for ca. 90 thousand soldiers) and supply systems – have created at the threshold of the 20th century a harmonic and picturesque, although far from serving humanitarian purposes, fortified landscape. The biggest one-time “gardening action” in the area of Kraków. Today it consists of about 300 hectares of green are old trees on fortifications, and about the same amount of green of non-fortification buildings (for example the barracks). More than 1000 hectares are still open terrains with bushes and mid-field tree complexes –so-called “side masks” – the most important for the maintenance and building of potential greenways of estimated length of ca. 50 km. The structure of the green ring with the radius of about 8km has been well preserved (ca. 60%); it was much worse for the historical radial roads with their green, mostly downgraded. The green wedges accompanying the active and disused railroads give a chance of re-connecting of this system. The forts (each of them with ca. 4-8 hectares of old trees) are potential parks. Thanks to co-operation of the

Institute of Landscape Architecture with the Board of Municipal Buildings, as well as with the private owners and NGOs, thanks to the support of the Social Fund for Restoration of Monuments of Kraków, today 14 forts, 4 historical barrack complexes and a former airfield are restored as public green. The area of fortified green is already mostly qualified as city's public green. Research is also in progress; there are presenting a dynamic, tense situation – the majority of well recognized, as well as endangered isolated green spots and more, much worse present in city strategies of today, connections between them.

Discussion

None of historical ideas for Krakow's green areas have been implemented consistently and fully, the changes of concepts of green complexes have led to the disintegration of historical complex and haven't brought a consequential income of new ideas. The liberalisation of the spatial planning system in 2003 has led to a situation where local zoning plans ceased to be the mandatory tool for shaping the city space and they may apply to fragments of the city area. Hence, various types of developments executed on the basis of the so-called administrative decisions considerably affect valuable natural areas, wasteland and areas of potential public green. In this way, the implementation of any systemic solutions is difficult. The monumental parks, including the prior residential parks, constitute the often closed areas, usually used for the purposes linked with the neighbouring building. To support the construction of new public parks a so-called ranking list of city public green areas intended for public parks has been created. The parks from this list however are not founded due to an unclear status of ownership of the plots and lack of funds for redemption of private plots of land. Residents of the newly built residential areas increasingly report demands of the establishment of public parks in their neighbourhood. This comes in the context of city-wide applications to the budget of civil and public consultation. Said situation requires decisive actions on planning an administrative levels. An important, yet very vague program of green development within Kraków city and its surroundings can be found within the strategic documents of government of Małopolska Voivodeship. In 2015 work has begun on a document "Strategy for the development and management of green areas in Kraków for the years 2017-2030." It has taken into account all the existing studies and projects, and is currently at the initial stage of the public consultations, in which the article's authors also take part.

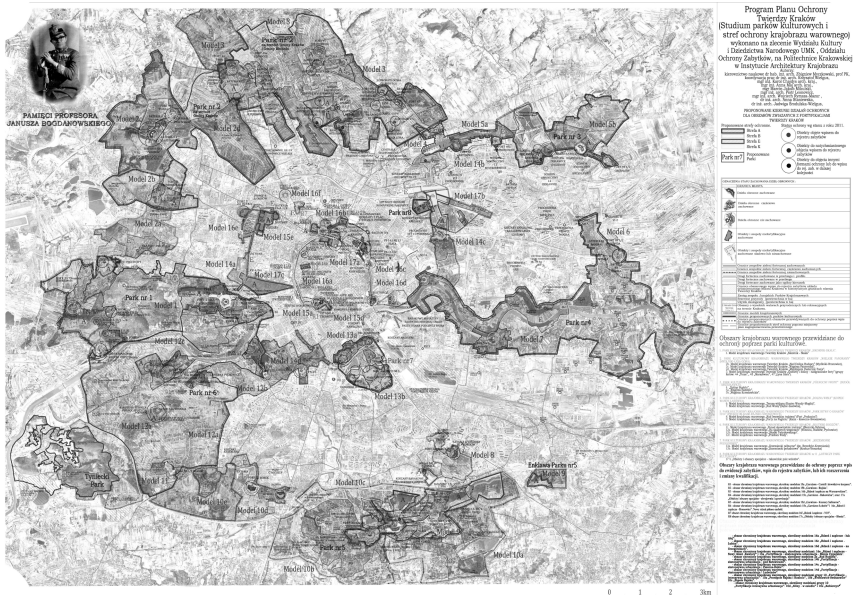


Figure 1. An outline plan of cultural landscape parks of the Krakow Fortress (source: Wielgus et al., 2010) to be further incorporated into the Krakow green and open space strategy (About a Future of the former Fortress Krakow, Myczkowski, Wielgus& Wielgus, Staniewska and the team, 2010)

Conclusion

Krakow's green system has high natural, historical and landscape values; however, it requires interdisciplinary studies that would allow its optimal and integrated use and complementation with new green areas. It is in a kind of a “latent state”, the great and changing resource of post-military and post-industrial green. It is still a long way to integrated city green. There is an urgent need to:

- manage registry entries of historic monuments and including composed green complexes in cultural parks as holistic system of landscape protection;
- maintain city green areas, together with legal regulations of their availability, moving and cleaning of open terrains, also those not being owned by the city, in order to preserve its natural character;
- consistently create the city green system, which would include many various types of available green spaces in varying degrees of equipment – historical and modern;

- designate green corridors (ecological, walking and cycling connections) between individual elements of the system, greenways can be used as a model here (using a system of the former Krakow Fortress and the green along the rivers of the water system of Krakow);
- draw up zoning plans in which areas for future district parks could be secured and establish urban parks in new districts - there are no such spaces in the newest housing estates which were mostly established by developers under land development decisions;
- recognise that a lot of usable land is used by Krakow inhabitants as green recreational areas but minimum maintenance standards are required. It is necessary to regulate the principles of availability for valuable natural areas (ban on use of quads and ATVs), waste bins, mowing meadows to keep their character) and which are not the city's property.
- A comprehensive strategy for the green system of Krakow should be a creative and multidisciplinary concept integrating landscape and heritage management combined with the environmental protection. This idea is also deeply rooted in sustainable planning and has a distinctive social aspect (Pawłowska, Staniewska, 2014) as it refers to the quality of life (as stated in the European Landscape Convention).

References

- Bogdanowski J., Więckowska J. (eds.), 1997, *Katalog Parków i Ogródów w Polsce....*, t.I., Warszawa
- Bogdanowski J., 1979, *Warownie i zieleń twierdzy Kraków*, Kraków
- Bogdanowski J., 1981, *Architektura krajobrazu*, Kraków
- Klimas, M.; Lesiak-Przybył, M.; Sokół, A., 2010; *Greater Krakow: expansion of the city borders in the years 1910-1915*, selected materials from the State Archive in Krakow, Kraków;
- Kudłek J., Pępkowska A., Walasz K., Weiner J., 2005; *Koncepcja ochrony różnorodności biologicznej miasta Krakowa*, Kraków, Inst. Nauk o Środowisku Uniw. Jagiellońskiego, <http://www.eko.uj.edu.pl/przyrodakrakowa/download/koncepcja.pdf> (last accessed: 8.02.2016)
- Łakomy K. 2010; *Genius loci in garden art (historical and contemporary aspects)*, [in:] *Genius loci w sztuce ogrodowej (aspekty historyczne i współczesne)*, Mitkowska, A.; Mirek, Z. ; Hodor, K. (eds.); „Technical Transactions”, 5-A/2010, issue 13, year 107, Krakow 2010, pp. 5-11,
- Pawłowska, K.; Staniewska, A., 2014; *Social participation in urban planning in Polish cities*, [in:] *Dissertations of Cultural Landscape Commission (Prace Komisji Krajobrazu Kulturowego)*, nr 23/2014, pp. 109-134,
- Staniewska, A. 2014; *Park landscape of Krakow - latent potential*, [in:]

- Przestrzeń i FORMA, nr 21/2014, pp. 483-498, Wydawnictwo Uczelniane Zachodniopomorskiego Uniwersytetu Technologicznego w Szczecinie, Szczecin, e-ISSN 2391-7725 | ISSN 1895-3247, online: http://www.pif.zut.edu.pl/pif-21_pdf/D-08_PiF21_Staniewska.pdf
- Stępniewska B., 1977; *Ogrody Krakowa*, Wydawnictwo Literackie, Cracoviana. Seria Zabytki, Kraków,
- Myczkowski, Z., Wielgus K., Brzoskwina, W., Chajdys, K., Mikulski, M. Maj, A., Rojkowska, H., Szkoła, M. Staniewska, A Środulska-Wielgus, J., 2010,
- O przyszłość Twierdzy Kraków...* Atlas Twierdzy Kraków, Tom. V, Seria II., Wyd. Wydział Kultury i Dziedzictwa Narodowego Urzędu Miasta Krakowa, Oddział Ochrony Zabytków, Kraków
- Środulska-Wielgus J., 2014; *The green of Krakow fortress as a background of the project for the protected zone of fortified landscape* [in:] *Architektura krajobrazu*, 2/2014, (ed.) I., wyd. UP we Wrocławiu, Wrocław, pp. 4 - 17
- Torowska J., 2001; *Parki Krakowa, część pierwsza*, Kraków
- Zachariasz A., 1996; *Park Krakowski znany i nieznan*, [w:] *Teka Komisji Urbanistyki i Architektury*, t. XXVIII, Kraków, pp. 203-228
- Żółciak K., Żółciak J., 2007; *Park im. Wojciecha Bednarskiego*, Seria Parki Krakowa 4, Kraków,
- Myczkowski Z., Wielgus K., Forczek-Brataniec U., Chajdys K., Latusek K., Nosalska P., Rymśa-Mazur W., Zapolska O. 2011, *Plan ochrony Parku Kulturowego Stare Miasto w Krakowie*. Instytut Architektury Krajobrazu, Politechniki Krakowskiej, Kraków.