

REVITALIZATION OF THE PARK IN THE CENTER OF IVANKA PRI DUNAJI

Gabriel Kuczman, Denis Bechera

Institute of Landscape Architecture, Faculty of Horticulture and Landscape Engineering, Slovak University of Agriculture in Nitra, Tulipánová 7, 949 76, Nitra, Slovakia

<https://doi.org/10.11118/978-80-7509-904-4-0253>

Abstract

Square of Fallen Heroes represents a central municipal space in Ivanka pri Dunaji, which was the subject of a solution by students of the Institute of Landscape Architecture from the Slovak University of Agriculture in Nitra on the basis of an assignment from the municipality of Ivanka pri Dunaji. The location of the village within the settlement system of Slovakia is part of the most developed Bratislava-Trnava settlement agglomeration. The aim of the revitalization of the central park area in the village is to make the space for rest and recreation more attractive for people of different age categories and at the same time to integrate it into the busy area, surrounded by frequent communication routes. Design solutions reflect the requirements of building a landscape-architectural concept in the center of the village, in accordance with current urban trends, which emphasize, in addition to aesthetics, the absorption and retention of water in the territory and the need to eliminate the negative effects of climate change.

Key words: recreation, landscape architecture, environmental education, greenery in the village

Introduction

The public space in the village represents an important living space for the general public. The central spaces of municipalities are also a business card of the cultural, social and society-wide interest of citizens and self-government in public space (Kuczman, Feriancová, 2019). The countryside faces the challenge of renewing its landscape circularly and sustainably (Tóth, 2022b, Čibík et al. 2022). The rural landscape and rural settlements face current global challenges such as climate change or reduction of biodiversity (Rózová et al., 2020, Kuczman, et al., 2022, Tóth, 2022a, Šinka et al., 2019). They face the important task of fulfilling the goals of sustainable development (Schneider, Kalasová, Fialová, (2020), Mariš, 2022), especially the creation of sustainable municipalities and communities. For almost two decades, the attention of municipalities has been focused on the restoration of public spaces from European financial resources (Marišová et al., 2023). These interventions often significantly influenced and changed the image and morphology of the Slovak countryside (Bechera et al. 2022, Bihuňová et al., 2021, Kuczman, Bechera, Rusko, Feriancová, 2021). The European Union announces the ambition of green renewal of the country and countryside, either through the Common Agricultural Policy (CAP) and its eco-schemes or in the context of the EU Strategy for Green Infrastructure (Čibík et al., 2020, Tóth, 2022a) and biodiversity by 2030. Financial mechanisms in the form of structural funds, operational programs or payments for ecosystem services, including direct payments are available. Other financial and project mechanisms such as LEADER/CLLD, Interreg, Life and others are available, which focus on sustainable local development. At the national level, the Village Renewal Program and the Village of the Year competition, organized annually by SAŽP and ZMOS, with the possibility of winning the European Prize for Village Renewal (Gudábová et al., 2022, Majerník et al., 2020), have played an important role for a long time. According to the European Landscape Convention, the Slovak countryside has both everyday and exceptional landscapes. One such challenge for the revitalization of the park space was the central space in the village of Ivanka pri Dunaji. As part of the design study, we analyzed and evaluated the current situation of this central space in a rural residence and developed two different design solutions, which are presented and interpreted in more detail in this paper (Kuczman et al, 2020).

Materials and methods

The Department of Landscape Architecture entrusted the management of the municipality of Ivanka pri Dunaj SPU in Nitra with the request to process the revitalization of the park area. The subject of green renewal of a rural residence as a compulsory subject in the second stage of the master's study is focused precisely on the landscape-architectural modifications of public spaces in rural-type residences. The village of Ivanka pri Dunaji is situated in the south-western part of Slovakia, beyond the border of the capital Bratislava, see Fig.1. The village is part of the most developed Bratislava-

Tрнаva residential agglomeration, and the so-called the Seneca belt, formed by villages located along the D1 highway. It belongs to the area of the Danube Plain.

In the adjacent areas of the area of interest, there are several cultural and historical landmarks such as the mansion, which is a romantic building in the park with a distinct silhouette, and on the other side of the park there is a Roman Catholic church. The social, cultural and sports life of the village is implemented through a wide range of activities of the local government, voluntary, interest and civic associations, which have also shown interest in the revitalization of the park. Citizens are actively involved in the activities of local associations within the Economic Development and Social Development Program of the Ivanka pri Dunaji municipality. The airport M.R. Štefánika is located in the immediate vicinity of the village. The area of the planned park is 17,230 m².

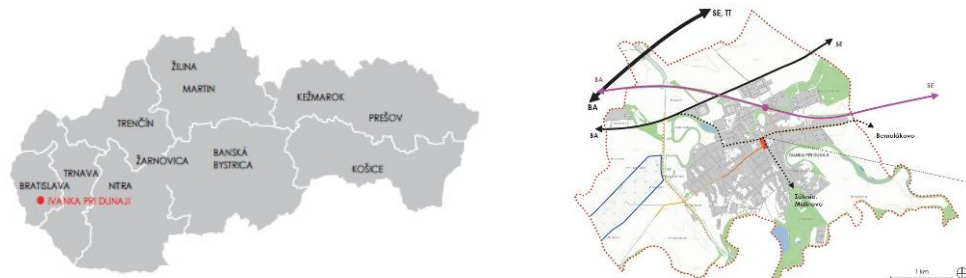


Fig 1: Localization of the addressed territory within the Slovak Republic

From the point of view of the research by design approach, the goal of the paper is to define the key principles of design that students apply in their design solutions (Kuczman, 2018). The method consisted of two main parts: 1) analysis (wider relationships, historical, functional, spatial, traffic, visual and landscape analysis and a detailed inventory of woody plants and with measures for cutting and treating trees. 2) design (students worked in a design group that developed two different design concepts (Kuczman et al., 2020).

Results

The result of the creative activity of students from the master's degree was creative solution proposals in two creative variant solutions. They presented new functional uses of the park space to the general public, the so-called park of fallen heroes and adjacent street spaces. The proposed park space introduces new possibilities of recreational use into the space, taking into account the requirements of the residents and the municipality for the functional use of the territory, with a connection to the cultural-historical elements and objects in the space and in the surrounding area. The overall concept of the floor plan solution is shown in fig. 2.

A total of 87 trees were inventoried in the park, of which 17 species and 11 species of trees were grouped in the form of dense plantings. The main interventions in the greenery were directed mainly to the removal of severely damaged trees that threatened the safety of people in the space and to the illumination of the park, especially on the lower floor, in order to ensure the openness of the space in the park and highlight the main lines of sight to the surrounding cultural and historical objects. 66 pieces of trees, 883 pieces of bushes in the form of green walls ensuring the protection of the area from the frequent surrounding traffic were added. The color effect in the park area is completed by 2156 pieces of perennials in the form of mixed perennial beds and 7777 pieces of bulbs with a spring appearance. The revitalized park creates a recreational environment for people of different age groups. The park space is divided into several functional areas that offer a number of active and passive options. The southwestern part of the park offers citizens a gathering space with stands and seating, visualisation, see Fig. 3.

The designed space forms a connecting area between the surrounding church garden and a small market, which ensures social contact of the residents. At the same time, it is also one of the entrance areas to the park. The park is crossed by the main path, along which there is a cycle path that connects to the surrounding areas. The walkway was transformed from the old castle road, which in the past formed an important connecting element towards Bratislava. The routing is preserved, but adapted to a green solution, as the function of the connecting roads is currently already the surrounding roads. Along this connecting line, mixed perennial beds are designed to complete the park in color. From this trail, there are several interesting views of the surrounding cultural-historical objects, such as the mansion built in the Rococo style in the third quarter of the 18th century for the Grassalkovich family. Communication results in another meeting space with a dominant monument to

fallen soldiers in the SNP. The internal structure of the park forms a space shaded by original trees with dense crowns, which create a pleasant environment for residents to relax. This potential was used for different age structures of people, such as: play areas for children with additional small architecture, a space for relaxation and rest with a footpath, see Fig. 4, in the next zone, a space for dog walkers.



Fig 2: Situation plan of landscape architecture developed by students (Authors: Angyal, J., Stanček, T., Sršňová L., teacher / head of the design studio: Gabriel Kuczman, Denis Bechera)



Fig. 3: View in the southwestern part of the park of the meeting area with stands and furniture (Authors: Angyal, J., Stanček, T., Sršňová L., teacher head of the design studio: Gabriel Kuczman, Denis Bechera)

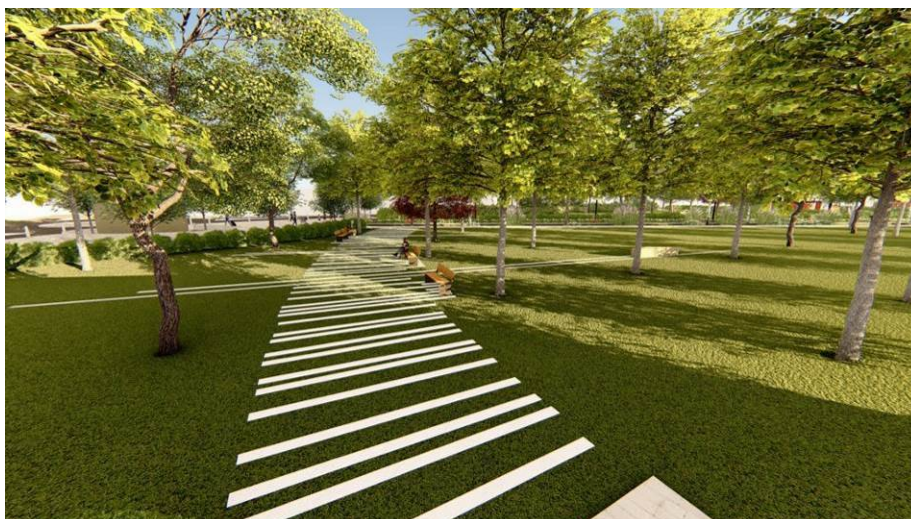


Fig. 4: Visualization of the park area with use for relaxation surrounded by greenery (Authors: Angyal, J., Stanček, T., Sršňová L., teacher / head of the design studio: Gabriel Kuczman, Denis Bechera)

Ecological solutions in the park are enhanced by a dry polder, a terrain depression in the shape of a channel, which would capture rainwater and at the same time would be an interesting attraction of the space. Mixed perennial beds are proposed for the banks, which would cover the slope along the entire space. The proposals were presented to local residents, members of the municipal assembly and the mayor at a regular meeting of the local government in the village of Ivanka pri Dunaji, who initiated the possibility of realizing this park area in the village.

Conclusion

Enhancing central parks in municipalities is an essential part of supporting social life in municipalities. The case studies were consulted by representatives of the local government and the citizens of the village, which resulted in concrete landscape-architectural solutions. This paper presents the main results of the process of analytical and creative thinking of students in the master's degree at ÚKA SPU in Nitra.

References

- Gudábová, V., Ailer, Š., Izakovičová, Z. et al. (2022). Aktuálne problémy pôdohospodárskeho výskumu z pohľadu odboru rozvoja a revitalizácie vidieka. In *The concept of development of agricultural science and research for the years 2021-2027* ISBN 978-80-8058-654-6. 88-102.
- Bechera, D., Kuczman, G., & Čibík, M. (2022). Evaluation Of Woody Plants Located In Rural Public Park Areas. In: *PRLP-with Environment Hand in Hand... Proceedings of the 13th Conference*, 120-123.
- Bihuňová, M., Supuka, J., et. al. (2021). Urban green areas and woody plant composition: Dwelling space quality factor in the klokočina housing estate. *Ekologia Bratislava*, 40(1), 80-90.
- Čibík, M., Back Prochnow, S., Stiles, R., Štěpánková, R. (2020). Recognising Green Infrastructure as a Part of the Fourth Nature Concept Through University Campuses. In *Acta Horticulturae et Regiotecture*, 23(2): 71-75.
- Čibík, M., Kuczman, G., & Bechera, D. (2022). Possibilities of unused rural agricultural land renewal using strategies of contemporary eco-socialism. Paper presented at the *PRLP with Environment Hand in Hand... Proceedings of the 13th Conference*, 229-232.
- Kuczman, G., Feriancová, Ľ. (2019). Podpora regionálnych špecifik v krajinnno-architektonickej tvorbe v podmienkach slovenského vidieka. In *XXII. Medz. kol. o regionálných viedach*. Brno MU. ISBN 978-80-210-9268-6. 449-454.
- Kuczman, G., Bechera, D., Rusko, M., Feriancová, Ľ. (2021). Hodnotenie súčasného stavu skladby drevín okolia kultúrno-historických objektov v sídlach vidieckeho typu. In *MŽP 2021*. ISBN N 978-80-973844-1-8. 163-168.
- Kuczman, G., Bechera, D., & Tóth, A. (2022). Evaluation of non-forest woody vegetation along roads in the rural landscape. In *PRLP Protection-with Environment Hand in Hand... Proceedings of the 13th Conference*, 110-113.

- Kuczman, G., Bechera, D., Angyal, J., Stanček, T., Sršňová L. (2020). Revitalizácia centrálnej časti obce Ivanka pri Dunaji. SPU- ÚKA.
- Kuczman, G. (2018). Aplikácia krajinnno-architektonických stratégií vo výskume a tvorbe vidieckej krajiny. Habilitačná práca. 149 s.
- Majernik, M., Majernik, S., Rusko, M., et al. (2020). Management with application of the financial analysis in the food industry in Slovakia. *Annals of DAAAM and Proceedings of the International DAAAM Symposium*. 31(1): 348–355.
- Mariš, M. (2022). Economics of sustainable development and its environmental impact in the EU Union: Case study. In *Ecocycles*. ISSN 2416-2140, 37-46.
- Marišová, E., Štěpánková, R., et. al. (2023). Prerequisites for cooperation between self-government and state administration in the construction sector of the SR in the light of the new legislation. In *Eastern European Journal of Transnational Relations*. ISSN 2544-9214, 199-208.
- Rózová, Z., Supuka, J., Klein, J., Jasenka, M., Tóth, A., Štefl, L. (2020). Effect of Vegetation Structure on Urban Climate Mitigation. In *Acta Horticulturae et Regiotecturae*, 23(2): 60-65.
- Schneider, J., Kalasová, Ž., & Fialová, J. (2020). Ecosystem services and disservices of watercourses and water areas.
- Šinka, K., Kuczman, G., Billiková, M., & Supuka, J. (2019). Vegetation structures of the city and their use for recreation activities. Paper presented at the Public Recreation and Landscape Protection-with Sense Hand in Hand... Conference Proceeding, 466-472.
- Tóth, A. (2022a). Planning and Designing Green Infrastructure across Landscapes and Scales. In *Acta Horticulturae et Regiotecturae*, 25(1):1-7.
- Tóth, A. (2022b). Re-Designing a Rural Park Square and Churchyard in Poľný Kesov, Slovakia. In *Public Recreation and Landscape Protection-with Environment Hand in Hand... Proceedings of the 13th Conference*, 268-272.

Acknowledgement

This paper is an outcome of the cultural and educational project KEGA 004SPU-4/2023 KR:EK:IN - Landscape Economy for an Innovative and Sustainable Interdisciplinary University Education in Slovakia.

Souhrn

Příspěvek představuje krajinně-architektonická řešení centrálního parkového prostoru ve vesnici Ivanka u Dunaje. Požadavkem na zpracování revitalizace parkového prostoru pověřilo vedení samosprávy Ivanka při Dunaji SPU v Nitre Ústav krajinné architektury, který ve spolupráci se studenty v rámci předmětu Obnova zeleně venkovského sídla zpracovaly kreativní návrhy s důrazem na rekreaci a podporu sociálního využití parku nejen místním obyvatelům. Případové studie byly prezentovány veřejnosti, poslancům obecního zasedání na zasedání samosprávy v obci Ivanka u Dunaje, který inicioval možnosti realizace parkového prostoru na venkově.

Contact:

Gabriel Kuczman, doc., Ing., PhD.

E-mail: gabriel.kuczman@uniag.sk

Open Access. This article is licensed under the terms of the Creative Commons Attribution 4.0 International License, CC-BY 4.0 (<https://creativecommons.org/licenses/by/4.0/>)

