

REDESIGNING A. JEDLIK PARK: ENHANCING GREEN SPACE IN A RESIDENTIAL AREA ON THE URBAN EDGE OF NOVÉ ZÁMKY, SLOVAKIA

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Abstract

A. Jedlik Park is located on the south-western edge of Nové Zámky, within a residential area predominantly comprising single-family houses. The park is linked to a large linear green space that runs alongside the River Nitra, approximately 500 metres away. Its primary users are the residents of the surrounding homes. Spanning nearly 2 hectares, the park hosts 150 trees, with a relatively diverse species composition, including 26 different species. However, the green space is fragmented due to a poorly organised and incoherent path system. To address this, master's students in landscape architecture developed four design scenarios within the *Public Green Space Design Studio*, aiming to revitalise the park by incorporating contemporary principles of landscape architecture and public open space design. Each design reconfigures the existing path network into a more continuous and logical circulation system. Additionally, the students proposed introducing new elements and site furniture to enhance the quality of the open space and improve the well-being of local residents. The design scenarios were presented to local government representatives, municipal employees, and nearby residents.

Key words: green infrastructure, landscape architecture, public space, research by design teaching, urban design

Introduction

Public parks play a crucial role in providing open green spaces for everyday recreation of citizens, both in urban (Biľušová et al., 2020) and rural areas (Kuczman et al., 2022; Tóth, 2024). They are multifunctional open spaces (Halajová et al., 2016) and recreation is one of their most important cultural ecosystem services (Biľušová et al., 2017). The quality of ecosystem services provided by parks is directly impacted by the quality of green spaces, vegetation (Rózová et al., 2021), and their natural values (Tóth et al., 2014). Greenery, trees, and natural elements promote the identity of parks and the well-being of their users (Fekete & Abuhayya, 2023). The species composition of urban trees in parks often includes non-traditional (Hus et al., 2021) and synanthropic species (Kamionowski et al., 2023) with a wide range of ecosystem services, values and benefits (Kuczman et al., 2024), including for instance symbolical values (Hus, 2024). Designing urban parks belongs to major assignments in teaching design to landscape architecture students (Biľušová et al., 2023; Tóth et al., 2023). Students can develop diverse multifunctional scenarios (Čibík et al., 2022) or even integrate unconventional interventions in their designs (Back Prochnow & Čibík, 2022). In design studios, we encourage students to interact with local citizens and representatives, to enhance the idea of landscape democracy and the involvement of the local community and the public in the design process (Slobodníková et al., 2022), which supports relational and mental health of urban population (Hrivnák et al., 2023). This paper represents some of the outcomes of the Public Space Design Studio at the Institute of Landscape Architecture at SUA Nitra, where students developed different design concepts and scenarios for a public urban park at the periphery of the district town Nové Zámky.

Material and methods

The A. Jedlik Park is situated at the south-western periphery of the district town Nové Zámky (Nitra Region, Danube Lowland, Western Slovakia), close to the river Nitra, see Fig. 1. A particular and characteristic feature of the park is its urban context, as it is surrounded by single family houses and serves as a central park of the neighbourhood. This is an unusual urban setting as most of extensive residential green spaces in urban landscapes and environments are surrounded by multi-family residential buildings (Vinczeová & Tóth, 2025). Having an extensive green space in the vicinity of housing can be considered an important asset as in many cases, there is a lack of public parks in residential zones (Vinczeová et al., 2024).



Fig. 1: Location of A. Jedlik Park in the peripheral urban structure of the district town Nové Zámky (analyses by Katarína Mankovecká, 2024/left; Patrícia Halová and Veronika Komlósiová, 2024/right).

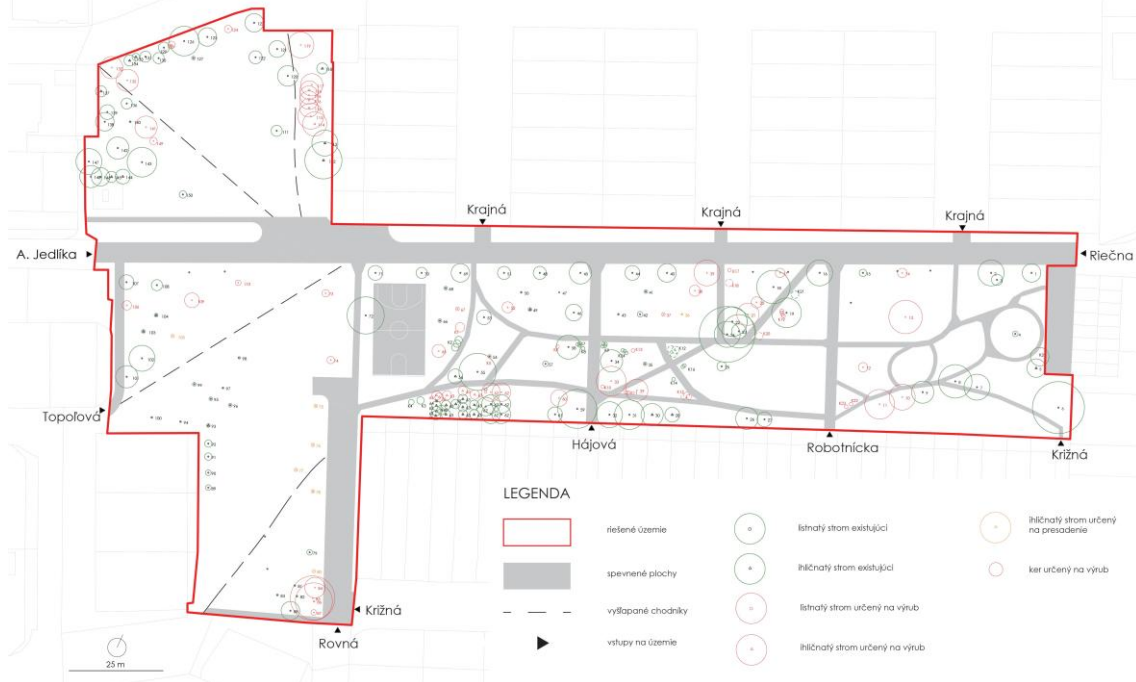


Fig. 2: Current situation of A. Jedlik Park, its path system and woody plant composition (analysis by Tatiana Košťaliková and Barbora Reha, 2024).

The A. Jedlik Park has a rather unorganised and undesigned character. The existing path system includes on one hand paths that are not logical and well used and on the other hand informal paths that reflect the needs of users to shorten their everyday routes in the area. The side paths are covered with asphalt in a bad technical condition. A major part of the path system consists in a promenade-like wide path in the north, which has been recently reconstructed and is used by both pedestrians and cyclists. The dendrological composition of the area is rather young with no old trees. This reflects a relatively young age of the tree plantings, see Fig. 2. Students of the design studio worked in four teams that have developed four different solutions for the site, some of which are presented in the results of this paper.

Results

All four student teams have elaborated a design strategy to make the path system simpler and more functional. Some of the teams developed a more organically shaped path system, see Fig. 3, other teams came up with a more pragmatic geometric morphology.

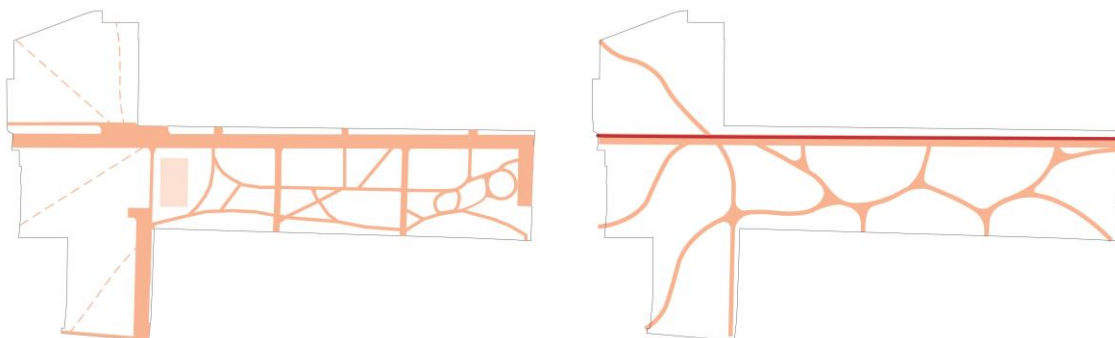


Fig. 3: Comparison of the existing path system (on the left) to the proposed redesign of the paths in the park (on the right) (path design concept developed by Patrícia Plánková, Klára Remenárová, Jozef Jánošík, 2024).

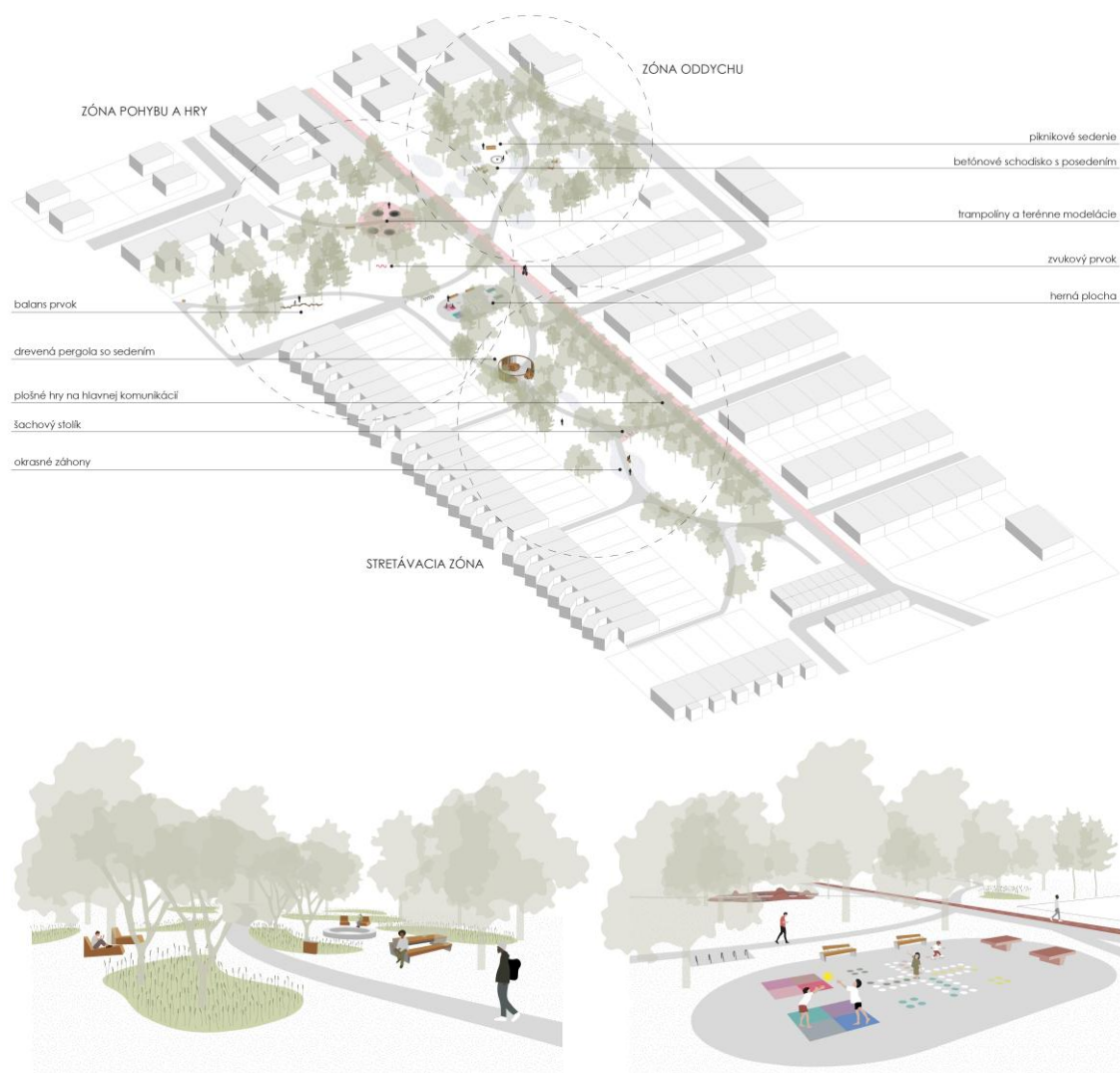




Fig. 4: Students redesigned the park, while introducing areas for leisure, recreation, sports and games (design by Patrícia Plánková, Klára Remenárová, Jozef Jánošík, 2024 / three visuals on the top; by Roman Blaho, František Golčiter, Timotej Kupčík, 2024 / two visuals at the bottom).

Discussion

Teaching design in cooperation with municipalities has multiple benefits. Students can interact with local stakeholders and users and bring real change to public open spaces. The design solutions presented in this paper were presented both to representatives of the municipality, as well as to citizens directly in the park (Antoni, 2024). This is an initial step how to involve local communities in planning and design processes (Slobodníková & Tóth, 2022). Inhabitants should be involved throughout the design and revitalisation process, to enhance their attachment to the site and initiate a process of place making (Biľušová et al., 2020).

Conclusion

The different design solutions developed by students of landscape architecture can serve as inspirations and initiators of change. Citizens can now better envision possibilities of revitalisation and enhancement of their park and formulate their desires and needs. The municipality can use the designs as a basis for procuring a professional design project that can build upon the ideas generated by students.

References

- Antoni, M. (2024). Prezentovali víziu budúceho Jedlikovho parku. In *Castrum Novum*, 34(22): 3.
- Back Prochnow, S., & Čibík, M. (2022). Unconventional interventions on redeveloping unused urban landscapes based on social interactions. *Acta Horticulturae et Regiotecturae*, 25(1), 92–98.
- Biľušová, M., Halajová, D., & Tóth, A. (2017). Revitalization and recreational proposal of the Váh riverbank. In *Public recreation and landscape protection – With nature hand in hand*, pp. 311–316.
- Biľušová, M., Tóth, A., & Halajová, D. (2020). Public city parks and their role for everyday recreation – The example of city park revitalisation in Martin. In *Public recreation and landscape protection – With sense hand in hand?* pp. 371–374.
- Biľušová, M., Čibík, M., Štěpánková, R., & Tóth, A. (2023). Landscape–architectural proposal of Jandura Park in Canberra, Australia: Experience of bilateral cooperation between two universities. In *Public recreation and landscape protection – With sense hand in hand?* pp. 135–139.
- Čibík, M., Biľušová, M., & Tóth, A. (2022). Scenarios for open space conversion from an exhibition ground to a sustainable multifunctional urban park. In *Public recreation and landscape protection – With sense hand in hand?* pp. 297–301.
- Fekete, A., & Abuhayya, M. (2023). Urban green spaces: the role of greenery and natural elements in promoting visitors' attachment and well-being. *Acta Horticulturae et Regiotecturae*, 26(2), pp. 157–167.
- Halajová, D., Biľušová, M., Tóth, A., & Fusková, V. (2016). Memorial landscapes & outdoor recreation: Evidence of landscape multifunctionality by the case study Jankov Vŕšok, Slovakia. In *Public recreation and landscape protection – With nature hand in hand*, pp. 105–113.
- Hrivnák, M., Moritz, P., Melichová, K., & Bellérová, S. (2023). Does civic engagement support relational and mental health of urban population? *Societies*, 13(46), 1. <https://doi.org/10.3390/soc13010046>

- Hus, M., Paganová, V. and Raček, M. (2021). Non-traditional alley tree species for urban conditions. *Acta Hort.* 1331, pp. 151-158.
- Hus, M. (2024). Trees as a part of small sacral architecture in the Liptov region. In *Public recreation and landscape protection – With environment hand in hand!* pp. 351–358.
- Kamionowski, F., Fornal-Pienak, B., & Biľušová, M. (2023). Application of synanthropic plants in the design of green spaces in Warsaw (Poland). *Acta Horticulturae Et Regiotecturae*, 26(2), 168–172.
- Kuczman, G., Bechera, D., & Tóth, A. (2022). Evaluation of non-forest woody vegetation along roads in the rural landscape. In *Public recreation and landscape protection – With sense hand in hand?* pp. 110–113.
- Kuczman, G., Bechera, D., Rózová, Z., & Tóth, A. (2024). Roadside vegetation functions, woody plant values, and ecosystem services in rural streetscapes: A qualitative study on rural settlements in Western Slovakia. *Land*, 13(3), 272.
- Rózová, Z., Tóth, A., & Pástorová, A. (2021). The impact of vegetation quality and composition on recreational cultural ecosystem services. In *Public recreation and landscape protection – With man hand in hand!* pp. 478–481.
- Slobodníková, K., & Tóth, A. (2022). Hands on the local green: Community-based projects of green space co-design in Slovakia. In *Public recreation and landscape protection – With sense hand in hand?* pp. 157–161.
- Tóth, A., Biľušová, M., Halajová, D., & Štěpánková, R. (2014). Towards an inclusive approach to recreation and landscape protection. In *Public recreation and landscape protection – With man hand in hand?* pp. 335–339.
- Tóth, A., Supuka, J., Kristiánová, K., Vaněk, J., Salašová, A., & Sitta, V. (2023). Landscape architecture education history in Slovakia and the Czech Republic. In *The Routledge handbook of landscape architecture education*, pp. 233–242.
- Tóth, A. (2024). Park of chocolate: Design ideas for a historical village park at a chocolate factory. In *Public recreation and landscape protection – With environment hand in hand! Proceedings of the 15th conference*, pp. 227–231.
- Vinczeová, Z., Legros Štěpánková, R., Štěpánková, R., & Tóth, A. (2024). Recreational potential of the Agrokomplex National Exhibition Center, State Enterprise in the Chrenová Urban District Nitra, Slovakia. In *Public recreation and landscape protection - with environment hand in hand*, pp. 263–267.
- Vinczeová, Z., & Tóth, A. (2025). Urban Green Spaces and Collective Housing: Spatial Patterns and Ecosystem Services for Sustainable Residential Development. *Sustainability*, 17(6), 2538.

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Souhrn

Na park navazuje rozsáhlá liniová zeleň, která vede podél řeky Nitry ve vzdálenosti přibližně 500 metrů. Jeho primárními uživateli jsou obyvatelé okolních domů. Park se rozkládá na ploše téměř 2 ha a nachází se v něm 150 stromů s poměrně pestrá druhová skladba, která zahrnuje 26 různých druhů. Zelená plocha je však roztržitá kvůli špatně organizovanému a nesouvislému systému cest. K vyřešení tohoto problému vypracovali studenti magisterského studia krajinářské architektury v rámci ateliéru návrhu veřejné zeleně čtyři scénáře, jejichž cílem bylo revitalizovat park začleněním současných zásad krajinářské architektury a navrhování veřejných otevřených prostor. Každý návrh rekonfiguruje stávající síť cest do souvislejšího a logičtějšího systému pohybu. Kromě toho studenti navrhli zavedení nových prvků a mobiliáře, které by zvýšily kvalitu otevřeného prostoru a zlepšily pohodu místních obyvatel. Scénáře návrhů byly představeny zástupcům místní samosprávy, zaměstnancům obce a obyvatelům z blízkého okolí.

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