POSSIBILITIES FOR FOSTERING URBAN DEVELOPMENT IN CITIES AND REGIONS THROUGH THE IMPLEMENTATION OF INTERDISCIPLINARY RESEARCH OUTCOMES WITHIN THE FRAMEWORK OF INTERNATIONAL PROJECTS

Milena Krklješ,[1] [0000-0003-4252-258X], *Dejana Nedučin*[2] [0000-0002-9828-072X]

Abstract

Urban development is a critical factor in the overall advancement of society. The discourse on sustainable development of both local environments and entire regions is increasingly framed within a transdisciplinary context. In this framework, diverse heritage plays a crucial role in promoting local values, enhancing cultural dimensions, stimulating tourism, and thereby driving the economic development of communities. The implementation of interdisciplinary findings and conclusions from various thematic frameworks of international projects can significantly contribute to this process. This paper aims to identify and elucidate the potential of various urban design methodologies in urban planning, particularly in areas of significant tangible and intangible heritage. It is considered that local values of distinct locations can be substantially enhanced through urban design that acknowledges and preserves heritage as a generative element. This approach facilitates the connection of disparate places, enhances the visibility of diverse communities, and yields benefits not only at the local level but also across the broader region.

Key words: *urban development, cities, cultural heritage; international projects*

1. Introduction

Urban development in contemporary cities and regions presents a complex challenge that demands innovative, interdisciplinary approaches. As cities confront pressures such as population growth, environmental change, and socio-economic disparities, there is a growing need for sustainable and inclusive development. In this context, interdisciplinary research plays a critical role in identifying and

---

[1] University of Novi Sad, Faculty of Technical Sciences, Serbia, mkrkljes@uns.ac.rs
[2] University of Novi Sad, Faculty of Technical Sciences, Serbia, d.neducin@uns.ac.rs

implementing solutions that address these multifaceted challenges. Cultural heritage, both tangible and intangible, holds exceptional potential to foster not only local development but also international and intercultural connections. Recognizing and harnessing the value of cultural heritage can create powerful synergies in urban development.

This paper explores the possibilities for fostering urban development through the implementation of interdisciplinary research outcomes, with a particular focus on the role of cultural heritage. It examines how the integration of cultural heritage into urban planning and international collaborations can foster sustainability, resilience, and inclusivity in city growth. Drawing on successful case studies and ongoing initiatives, the research demonstrates how leveraging cultural heritage as a key component in urban development projects can promote long-term economic and social benefits for both local communities and broader regions.

2. Cultural heritage as a tool for urban development

In modern cities, the growing demand for industrial and residential space has led to uncontrolled urban sprawl. Historic cities face significant challenges due to suburban expansion and the difficulties of revitalizing their urban cores. These challenges are often exacerbated by modern aesthetics and short-sighted administrative decisions that prioritize superficial heritage renewal while neglecting the need for sustainable solutions. Such solutions should incorporate progressive urban design that respects tradition, enhances heritage, and fosters urban solidarity. Urban regeneration, including the selective expansion of historic areas and the introduction of pedestrian zones, is crucial for sustainable development. It must prioritize long-term sustainability and be aligned with sound economic principles (González González & Torres, 2011). Integrated urban development policies merge architecture, urban planning, and infrastructure to create environments that prioritize high quality of life and sustainability. This approach regenerates cities through sustainable models focused on innovation, urban area rehabilitation, and resilient infrastructure (Sofeska, 2016).

Cultural heritage is a key element in urban development, encompassing both tangible and intangible aspects of the built environment that shape the identity of a region. When integrated into the daily life of communities, it significantly enhances their overall development. Recognizing the potential of cultural heritage, many local communities and administrations now prioritize its role in sustainable urban planning. Beyond the technical responsibility to protect heritage from degradation, there is a growing need to make it accessible to a wider audience and integrate it into sustainable development strategies (ICOMOS, 2011; UNESCO, 2011). The social dimension of sustainable development emphasizes improving citizens' quality of life by promoting social equity and ensuring equal access to education, livelihoods, and resources. This dimension is particularly relevant to cultural heritage, as it is an integral component of sustainable development strategies (Tweed & Sutherland, 2007). The implementation of cultural heritage within urban development goes

beyond tourism. It involves carefully balancing preservation with modernization, ensuring that heritage sites are protected while being adapted for contemporary uses (Figure 1). This process includes enhancing the visibility of heritage sites, developing new, culturally significant events, and improving supporting infrastructure.

Local communities play a vital role, with their cultural practices enriching the region's narrative and fostering social cohesion. To ensure heritage management aligns with urban development, five principles are essential: raising public awareness, encouraging participation, fostering cultural diversity, promoting social and economic viability, and managing change. These principles, when applied in managing historic public spaces, significantly contribute to improving urban environments and preserving cultural values in urban development process (Pourbahador & Brinkhuijsen, 2023).

Figure 1: Two-century-old silk dyeing factory renovated as the Svilara Cultural Station.

Public participatio|n is widely recognized as an effective approach to addressing urban challenges and enhancing functional urban spaces (Shuib et al., 2015; Syukron, 2022). Community awareness and appreciation of their own heritage can stimulate greater visitation, thereby improving both individual sites and the broader region. International organizations responsible for cultural heritage protection, such as UNESCO and ICOMOS, emphasize the need for holistic and integrated heritage impact assessments that consider both technical and social dimensions. These assessments support decision-making processes across various levels of urban heritage management (Ornelas et al., 2023).

Appropriate planning of public spaces is critical in improving the quality of life, especially in developing countries where socio-economic disparities affect social and territorial cohesion. Public participation in these decision-making processes is vital for fostering local engagement and ensuring that urban planning addresses the needs of the population (Jiménez-Caldera et al., 2024). By fostering dialogue and collaboration among stakeholders, public participation minimizes potential conflicts and enables the sustainable development of heritage tourism,

benefiting both local communities and the broader urban environment (Aas et al., 2005).

3. International projects as framework for the fostering of urban development

Research focused on issues of urban development is undoubtedly significant, as its findings can be implemented in current urban planning projects and recommendations. Through an interdisciplinary approach, it is possible to influence decision-making and initiate activities at various institutional levels, aiming to improve the condition of cultural heritage, which in turn would have a positive impact on the urban development of the area.

Different options of integration of heritage and urban development along the Danube River have been implemented through 3 different EU-funded international projects: Interreg Danube Transnational Programme DTP 1-1-249-2.2 DANUrB - Danube Urban Brand - a regional network building through tourism and education to strengthen the Danube cultural identity and solidarity, Interreg Danube Transnational Programme DTP3-1- 359-2.2 LIVING DANUBE LIMES - Valorising cultural heritage and fostering sustainable tourism by LIVING the common heritage on the DANUBE LIMES as basis for a Cultural Route and ERASMUS + PROGRAMME: Innovative Teaching for Inclusive Development in Small and Medium Sized Danubian Cities – DANUBIAN SMCs, 2019-1-RO01-KA203-063878.

Within the mentioned projects in cities along the Danube River (Figure 2), various aspects of cultural heritage, which can serve as a catalyst for urban development, were examined. Workshops for students and educators, the results of which were published and made accessible to a wide range of interested parties, along with numerous stakeholders involved in the projects, contributed to the activation and increased visibility of the region's urban heritage within urban areas.
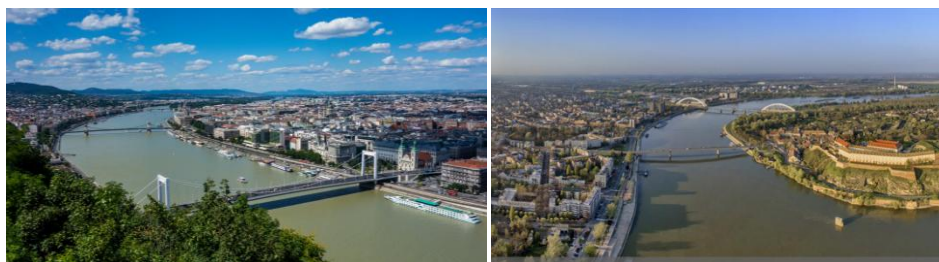

Figure 2: Novi Sad, Serbia (on left) and Budapest, Hungary (on right).

Although the spatial framework for the implementation of the projects was extremely broad and comprehensive, which has resulted in numerous differences between settlements across the various Danube regions, especially in terms of socio-economic inequality, all regions participated equally in the activities and implementation of the results to improve the level of development both locally and

regionally. However, each project emphasized a different aspect of integrating cultural heritage into urban development.

In the DANUrB project, the focus was on enhancing tourism potential to foster cross-border cultural connections between settlements along the Danube by exploring underutilized cultural and social resources for better economic and cultural development, aiming to highlight and strengthen the regional identity of cultural heritage along the Danube.

By concentrating on the heritage of the Roman Limes and striving to present the traces that exist along the Danube from the Roman Empire, the thematic framework of the Living Danube Limes project encompassed ancient sites along the river, combining tangible and intangible heritage. It emphasized a shared history while supporting cultural and natural differences along the former borders of the Roman Empire, which was a transnational cultural and economic waterway. The main goal of the project was to design activities that would bring history to life, offering a wide range of different tourism and educational products, thereby boosting the region's tourism development.

Like the two previously mentioned projects, DANUrB+ is a project with a thematic framework that covers settlements along the Danube, aiming to promote the rational use of cultural heritage and resources in peripheral and border cities and areas along the river. It seeks to create new opportunities for enhancing the attractiveness of selected settlements and reactivating underutilized cultural heritage to strengthen the Danube's identity (Krklješ et al., 2023). By analyzing the settlements along the river, possibilities emerge for creating a comprehensive urban development, one that involves cultural heritage and connects communities under a distinctive tourist brand. This approach could significantly increase the number of visitors and stimulate economic growth within these regions (Krklješ & Nedučin, 2023).

4. Conclusions

Urban development involves the integration of architecture, urban planning, design, and infrastructure within a framework that prioritizes sustainability and a high quality of life. This concept encompasses the transformation of cities, guiding urban planning models toward sustainable capital formation, innovation, the rehabilitation of specific urban areas, and the establishment of resilient urban infrastructure. It promotes a forward-thinking model of urban growth, emphasizing the need to reorient traditional urbanization approaches. Rather than relying on conventional planning methods, it calls for the creation of an adaptive urban structure.

A key aspect of this urban development model is its consideration of cultural heritage within a broader urban context, which includes social, cultural, economic, and environmental dimensions. By integrating these layers, this approach provides a mechanism to balance urban growth with quality of life through strategic planning and resource management. This balance is crucial for ensuring that urban expansion

Forging the Future: Pioneering Approaches in Business,
Management and Economics Engineering to Overcome
Emerging Global Challenges - 2024

does not compromise the cultural, environmental, and social integrity of a city, while fostering innovation and sustainability in the process.

The UNESCO (2021) guidelines articulate the significance of fostering economic opportunities for local communities through strategic public and private investments, as well as promoting innovative local entrepreneurship that supports sustainable development. This approach encourages the utilization of local resources and the advancement of creative industries, which simultaneously safeguard associated intangible heritage. Furthermore, the guidelines emphasize the essential function of national and local regulatory frameworks, coupled with rigorous monitoring and impact assessments of economic, social, and environmental changes.

Such measures are crucial to ensuring that these transformations do not undermine the authenticity and integrity of world heritage sites. Ultimately, these strategies are vital for the long-term conservation of the area's outstanding universal values, reinforcing the interconnectedness of cultural heritage and sustainable development.

The aforementioned projects exemplify how cultural heritage can be effectively integrated with international expertise to foster a dynamic and economically advantageous urban environment. By leveraging cultural heritage alongside other urban resources, this approach can serve as a foundational element for sustainable urban development. Such a synergy not only enhances the economic viability of urban areas but also enriches the cultural fabric, contributing to a holistic approach to urban development.

Acknowledgments

REFERENCES

[1]   Aas, C., Ladkin, A., & Fletcher, J. (2005). Stakeholder collaboration and heritage management. *Annals of Tourism Research, 32*(1), 28–48. https://doi.org/10.1016/j.annals.2004.04.005

[2]   González González, M. J., & Torres, L. (2011). Urban development and sustainability. *European Journal of Geography*, *2*, 38–50. https://eurogeojournal.eu/articles/2_4_URBAN%20DEVELOPMENT%20%20AND%20SUSTAINABILITY_GONZ.pdf

[3]   ICOMOS. (2011). *Guidance on heritage impact assessments for cultural world heritage properties*. Paris, France.
        https://www.iccrom.org/sites/default/files/2018-07/icomos_guidance_on_heritage_impact_assessments_for_cultural_world_heritage_properties.pdf

[4]   Krklješ, M., & Nedučin, D. (2023), Cultural Heritage as a Potential for Connecting Settlements along the Danube River - Case Study. *Proceedings of the International Conference of Contemporary Affairs in Architecture and Urbanism: ICCAUA-2023.* (pp. 853–858), June 14-16, 2023, Istanbul. Alanya University, Alanya. https://doi.org/10.38027/iccaua2023en0302

[5]   Krklješ, M., Reba, D., Carević Tomić, M., & Medenica Todorović, R. (2023). Experiences from projects implemented within the Interreg EU Danube transnational programme and its potential for further research and inter-institutional cooperation. *XXIX Skup TRENDOVI RAZVOJA: "UNIVERZITET PRED NOVIM IZAZOVIMA".* (pp. 383–386), Vrnjačka Banja, 8 - 11. 02. 2023. ISBN 978-86-6022-554-4.
        http://www.trend.uns.ac.rs/stskup/trend_2023/TREND2023-ZBORNIK-RADOVA.pdf

[6]   Ornelas, C., Sousa, F., Guedes, M. J., & Breda-Vázquez, I. (2023). Monitoring and Assessment Heritage Tool: Quantify and classify urban heritage buildings. *Cities, 137*, 104274. https://doi.org/10.1016/j.cities.2023.104274

[7]   Pourbahador, P., Brinkhuijsen, M. (2023). Municipal strategies for protecting the sense of place through public space management in historic cities: A case study of Amsterdam. *Cities, 136*, 104242.
        https://doi.org/10.1016/j.cities.2023.104242

[8]   Sofeska, E. (2016). Relevant Factors in Sustainable Urban Development of Urban Planning Methodology and Implementation of Concepts for Sustainable Planning (Planning Documentation for the Master Plan Skopje 2001–2020), *Procedia Environmental Sciences, 34*, 140–151.
        https://doi.org/10.1016/j.proenv.2016.04.014

[9]   Tweed, C., & Sutherland, M. (2007). Built cultural heritage and sustainable urban development. *Landscape and Urban Planning, 83*(1), 62–69.
        https://doi.org/10.1016/j.landurbplan.2007.05.008

[10]   UNESCO (2011). *Recommendation on the historic urban landscape*.
        https://whc.unesco.org/document/160163

[11]   UNESCO (2021). *The operational guidelines for the implementation of the World Heritage Convention.* https://whc.unesco.org/en/guidelines