

LANDSCAPE INFRASTRUCTURE IN THE HISTORIC URBAN ENVIRONMENT



Workshop focused on **the landscape structure of cities in relation to its identity, urban and historical values** and on the environmental change induced by the **needs and adaptation to climate change**

26.6. 2024 9:00

DEPARTMENT OF LANDSCAPE ARCHITECTURE

Faculty of Architecture

Czech Technical University in Prague

Thákurova 9

166 34 Praha 6 - Dejvice

Urban landscape assessment options using the blue-green infrastructure coefficient

Jan Kopp

University of West Bohemia in Pilsen, Faculty of Economics, Univerzitní 22, 30614 Pilsen

E-mail: kopp@fek.zcu.cz

A coefficient has been created to evaluate green space and stormwater management in the Czech Republic. The coefficient was created by adapting and testing the Helsinki Green Factor index. The KMZI assesses the ecosystem functions of green spaces (e.g. microclimate, biodiversity, habitat) and the functions of the natural water cycle (water retention, infiltration, evaporation and purification). Measurement outputs in the city of Pilsen are in the project (<https://doi.org/10.24132/ZCU.2023.12006>).

Support for blue-green infrastructure projects in the capital city Prague

Tereza Líbová

Magistrál hlavní m. Prague, Jungmannova 35, 11000 Prague 1 - Nové Město

E-mail: tereza.libova@praha.eu

Since 2018, the City of Prague has been systematically and financially supporting the development of adaptation projects. The Climate Commission of the Capital City of Prague was created. The second implementation period of the projects is currently ending. For the period 2025 - 2029, the City of Prague is applying for the first phase. Prague is trying to set the parameters for the selection of projects so that they fulfil the ecosystem services of blue-green infrastructure to the highest possible extent.

Societal benefits of blue-green infrastructure in the light of economic evaluation

Jan Macháč

J. E. Purkyně University in Ústí nad Labem, Faculty of Social and Economic Sciences, Moskevská 54, 400 96 Ústí nad Labem

E-mail: jan.machac@ujep.cz

Economic evaluation helps to enforce environmental measures. Aesthetics, water runoff control, noise and dust reduction or microclimate improvement are evaluated. The result is a monetary unit and a return on investment. For this purpose, a modified cost-benefit analysis is developed. The evaluation procedure and its results were shown in 3 examples (rain bed, green roof and community garden).

Moravian Square in Brno: What do we want from public space?

Martina Mrázová

Mendel University, Faculty of Horticulture, Valtická 337, 69144 Lednice

E-mail: svikovam@gmail.com

An example is the reconstruction of Moravian Square in Brno, which recently transformed a neglected public space into a popular leisure destination. The reconstruction, however, ignored the history of the place, its wider urban relations and issues of sustainability.

Creating Feeling Maps of Public Space on the Example of the City of Olomouc

Jiří Pánek

Palacký University in Olomouc, Faculty of Science, 17. listopadu 12, 771 46 Olomouc

E-mail: Jiri.Panek@upol.cz

The feelings map offers the opportunity to involve citizens in gathering information and opinions about the places where they live. PocitoveMapy.cz is a web platform that combines a classic questionnaire survey with the tools of geographic information systems and online maps. Feel maps are used for planning public spaces in towns and cities, but they can also be used at the level of buildings, streets, housing estates and for the analysis of larger units - regions or countries. It is most often used by municipalities/cities to determine safety (feeling safe), traffic quality (congestion, parking, bike lanes, etc.), environmental attractiveness (I like it here) and nature (quality of green spaces, lack of green spaces, etc.).

Requirements for MZI projects from the perspective of IPR

Ing. Karel Slánský

Institute of Planning and Development of the City of Prague, Vyšehradská 57, 128 00 Prague 2 - Nové Město

E-mail: slansky@ipr.praha.eu

IPR (Institute of Planning and Development of the City of Prague) addresses the concept of development of architecture, urban planning and city administration. It also strives to introduce nature-friendly measures into the city's public spaces. In 2021, a standard was created (Urban Standard for Planning, Planting and Care of Street Trees as an Important Element of Blue-Green Infrastructure for Climate Change Adaptation). IPR collaborates in applying the standard in projects and realisations. The presentation showed both positive and negative experiences in implementing the standard. Importance of good project specification and cooperation of all.

Public spaces and green infrastructure of the city

Ing. arch Martin Špičák

Institute of Planning and Development of the City of Prague, Vyšehradská 57, 128 00 Prague 2 - Nové Město

E-mail: spicak@ipr.praha.eu

Prague is to become a city that can respond to climate change and strengthen ecosystem services within its technical limits. This systemic tool will be the public space master plan. It will consist of an online mapping application that will allow the generation of a report on a specific area (e.g. data from the metropolitan plan, from the tree planting database, from the database of the catalogue of recommended public space elements or from the conservation database). The content of the generator will be non-binding, will have a uniform data structure and will cover the entire city. It monitors about 100 phenomena related to the development of public spaces. 21 phenomena relate to the green infrastructure of the city. For each phenomenon, a so-called certainty index is established, which determines the extent to which the phenomenon is discussed. The presentation showed the functionality of this tool and its possible applications for specific urban actors.

Contemporary landscape in a historical setting. Problem areas and practical examples **doc. PhDr. Jana Tichá, Ph.D.**

Czech Technical University, Faculty of Architecture, Thákurova 9, 160 00 Prague 6
E-mail: jana.ticha@fa.cvut.cz

Practical examples created in dialogue between architects/landscape architects and conservation authorities (green roofs, road surfaces and public spaces, trees in streets and squares, parks and gardens, artificial water features and watercourses and their surroundings). Reference projects and realisations: Stanislav Fiala, collaboration with Jan Kocourek: DRN, Prague (2012-2017), Stanislav Fiala, collaboration with Jan Kocourek, Špork Palace, Prague (2012-2018), Josef Pleskot, Reconstruction of the castle brewery in Litomyšl (2001-2006), Tomáš Rusín and Ivan Wahla, Smetana Square, Litomyšl, design (2022), Josef Pleskot, Passage through the Powder Bridge embankment and modifications to the Jelení moat, Prague Castle (1999-2002), Martin Rusina and Martin Frei, collaboration Jakub Finger and Mirka Svorová, Loučná River Embankment, Litomyšl (2013-2017), Tadeáš Goryczka, Robert Konieczny, permaculture design Denisa Tomášková, PLATO Ostrava, Garden of Presence (2022-2023).

Basis for determining the indicator of accessibility of green areas in the green infrastructure concept

Alois Vokoun

Silva Tarouca Research Institute for Landscape and Ornamental Horticulture, v.v.i.,
Květnové nám. 391, 252 43 Průhonice
E-mail: vokoun@vukoz.cz

The creation of the indicator of the availability of public green spaces in the settlement was developed within the framework of the project Centre for Landscape and Biodiversity (DIVLAND). This indicator was developed on the basis of the identification of green spaces, their quantitative and qualitative evaluation in the ground. Following Maier et al. (2020), the methodology recommends the physical accessibility of public park green spaces (between 0.5 and 1 ha) within 300 m of residential areas. The output can be used as a basis for strategic and spatial planning, green space management.

Discussion

Discussion between conservationists, authorities and planners regarding the assessment of the introduction of blue-green infrastructure in historic centres. Historically, squares and streets did not have trees, but without trees it will be impossible to live in a historic city that is warming and overheating due to climate change. Issues of historic and cultural value, archaeological sites, transportation, downtown water retention, tree planting, and rain gardens were discussed. Discussion revealed the importance of communication from the beginning of the project. It was suggested that a model area be created where a model solution would be developed through collaboration of all stakeholders. Finally, the creation of a publication was discussed - a practical manual that would specifically address and give guidelines for each conservation zone and area and define cultural values.