# LANDSCAPE-ARCHITECTURAL PROPOSAL OF MONOTHEMATIC EDUCATIONAL PATH – WATER AS A MAIN TOPIC

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**Abstract**
The Paper presents the landscape architectural proposal of educational walking route located city of ’s-Hertogenbosch (Den Bosch) in the Netherlands. The low-lying country in Northwestern Europe known for its advanced water management systems, rich cultural heritage, and strong connection between urban environments and surrounding landscapes. Within the Netherlands, the site lies in the province of North Brabant, a southern region characterized by agricultural landscapes, historic towns, and extensive wetland areas. The project focuses on the capital of North Brabant and one of the oldest medieval cities in the country’s - Hertogenbosch, officially founded in 1185. Its urban structure is defined by a dense medieval layout, narrow streets, and a strong relationship with water. The landscape-architectural proposal suggested the trail connecting the city and the open landscape, which several great perception points and fluent connection between nature and urban area.

**Key words:** Recreational activities, landscape architecture, design of walking route, interpretation, The Netherlands

## Introduction

Open landscape and also urban environment with their different forms and structures offer the possibility to build different types of the trails: walking, hiking, cycling trails, educational paths, scenic routs, sport trails, rehabilitation trails, horseback riding trails (Supuka, Bihuňová, 2018). Recreational and educational trails can wind through various types of environments—from urban areas (Čibik et al. 2022), public green spaces (Bihuňová et al. 2017), and suburban zones to open countryside or forested areas (Vavrouchová et al., 2024). Key aspect of trail design is aimed at the choosing of the road(s), based on their length, gradient and the way landscape is experiences (Bell, 2001). Rossman, Schlatter (2008) emphasize that program for the recreation is a designed opportunity for leisure experience to occur. Educational trails could be a platforms for disseminating different types of knowledge (environmental awareness, nature protection, cultural and historical heritage, human interaction with landscapes…) (Juško, Azor, Rozkopál, 2025). Simon Bell (2001) added that the trail should be designed to raise expectations continuously and fulfil those expectations in unexpected ways.

## Material and methods

The project area is located in the Netherlands, a low-lying country in Northwestern Europe known for its advanced water management systems, rich cultural heritage, and strong connection between urban environments and surrounding landscapes. Within the Netherlands, the site lies in the province of North Brabant, a southern region characterized by agricultural landscapes, historic towns, and extensive wetland areas.
It focuses on the city of ’s-Hertogenbosch (Den Bosch), the capital of North Brabant, with approximately 161,500 inhabitants, the city developed at the confluence of several rivers, giving it a strategic role as a trading and defensive center throughout history. Its urban structure is defined by a dense medieval layout, narrow streets, and a strong relationship with water.
The walking route is located along the southern edge of the city, within the Bossche Broek, a protected wetland nature reserve directly connected to the urban core. This exceptional location allows visitors to experience a rapid spatial transition from the compact historical city to an open polder landscape within just a few minutes of walking. The area plays an important role in flood management while simultaneously offering high ecological and recreational value. The Paper presents semestral work, which was elaborated for the subject: Recreational Spaces Design taught at Slovak Uniersity of Agriculture in Nitra.

**Results**

The walk begins along the elegant Stationsweg, continue to the historical centre then continues into the intimate Molenstraat, a narrow and characteristic street lined with small boutiques and cafés. At the end of the street, Saint John's Cathedral suddenly rises above the surrounding buildings. From this point, the long route of 14.7 kilometers gradually leads you away from the urban core and into the surrounding landscape. The path moves toward the Moerputten nature reserve. The Moerputten Bridge lifts you high above the wetlands, offering wide and tranquil views across water, reeds, and sky. The elevated position creates a sense of distance from the city, allowing you to experience the landscape from a new perspective. After crossing the bridge, the route follows quiet, winding paths back toward the city, guiding you gently through the landscape. Westerpark provides a soft transition between nature and city. Water features, green lawns, and tree-lined paths create a calm and reflective atmosphere. The route then leads to the Bastionder, a remarkable underground space that reveals the hidden layers of the city's fortifications. The journey continues across the Paleisbrug, a modern pedestrian bridge that spans the railway and links the historic center with the contemporary Paleiskwartier district. From this vantage point, you can see both the old city skyline and the renewed urban landscape shaped by modern infrastructure. A short final stretch brings you back to the Stationsweg. For those seeking a shorter route, the walk remains closer to the city after visiting Saint John's Cathedral. Instead of heading toward the Moerputten, the path follows the canal directly toward Westerpark. This shorter route still offers a rich experience of water, greenery, and history.


Fig. 1: Analyses of the potential and limits of the area. PROS: 1. The walking route passes through the train and bus station, making it easily accessible, 2. Not everyone is familiar with the history of ´s Hertogenbos, 3. The culture of ´s Hertogenbos is rich, 4. Refreshment is available at the trail, 5. The presence of the water in different forms, 6. Variable environment, which you can pass through. CONS: 1. The history of this locality is not well known, 2. Different surfaces on the trail, 3. One part of the trail is alongside the road.

The information boards are primarily designed for an adult audience, as the content focuses on historical context, landscape processes, and spatial relationships. However, the design also considers accessibility for children by using clear layouts, visual elements, and readable compositions. This approach ensures that the boards remain engaging for a broader audience while maintaining their main focus on adult visitors.

The content of the educational boards are: 1. Water as a Weapon, 2. Working with Water, 3. Fortress City & City Landscape Relationship, 4. The Bossche Broek Today, 5. From Defense to Landscape, 6. Emptiness with a Function, 7. The Wet Landscape.

Bossche Broek stands as a living example of this long transformation. It functions simultaneously as a nature reserve, a recreational landscape, and a crucial component of the city's water system. Walking through the area offers insight into how history, water management, and landscape design are deeply intertwined. The route concludes by emphasizing balance: between city and countryside, control and natural processes, past and future. Visitors leave with a deeper understanding of how water continues to shape both the landscape and the life of 's-Hertogenbosch.

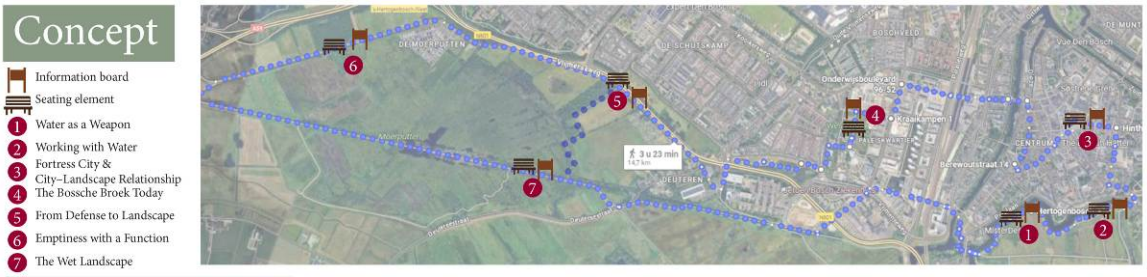

Fig. 2: Landscape- architectural proposal of the recreational and educational route

**Discussion and Conclusion**

There are several publications, which present the cooperation between the minucipalities (Bihuňová, Pomahačová, 2024), scientific institutions Tóth et al., 2018), Land association (Paganová, Kuczman, 2025) or others and Institute of Landscape Architecture FHLE SUA Nitra. Every cooperation gives a unique experience and motivation not only for students but also for teachers.

Presented landscape-architectural proposal of the walking route through ’s-Hertogenbosch offers a varied and accessible experience that combines urban life, culture, and landscape. One of the main strengths of the route is its excellent accessibility: it passes directly through the train and bus station, making it easy to reach for both residents and visitors. Along the route, the culture and identity of ’s-Hertogenbosch are strongly present, with historic streets, landmarks, and characteristic urban spaces that reflect the city’s rich history.

The route provides many opportunities to pause and enjoy the city. Terraces, cafés, and restaurants are located along the way, allowing walkers to take breaks and enjoy food and drinks. In addition, the variety of shops creates an active and lively atmosphere, offering additional recreational opportunities beyond walking alone. The presence of water plays an important role in the experience of the route, as it introduces continuous changes in the landscape, enhances spatial diversity, and prevents monotony during the walk.

Overall, the walking route presents a balanced experience in which accessibility, cultural richness, landscape variation, and recreational opportunities outweigh the challenges. With clear information and careful design, the route successfully connects city and countryside while offering a diverse and engaging walking experience.

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**Souhrn**
Pěší trasa vedoucí oblastí Bossche Broek se odvíjí jako souvislý příběh o vodě, krajině a proměňujícím se vztahu mezi městem ’s-Hertogenbosch a jeho okolím. Hned od prvních kroků do otevřené polderové krajiny se návštěvníci seznamují s územím formovaným vodou. Vlhký a rovinatý charakter této oblasti určuje nejen její ekologii, ale také její historickou roli jako ochranného nárazníkového pásma kolem města. Sezónní záplavy, vysoká hladina podzemní vody a otevřené obzory odhalují krajinu, která se neustále mění a je plná života. Voda se jeví nejen jako přírodní síla, ale také jako strategický nástroj. V minulosti proměnily řízené záplavy okolní mokřady v obranný systém a z vody se stala zbraň, která chránila pevnostní město. Bossche Broek funguje jako zásobárna vody, která absorbuje přebytečné srážky a chrání město před povodněmi. To, co se jeví jako nevyužitý prostor, je ve skutečnosti pečlivě zachovaná krajina, která umožňuje přirozeným procesům, aby se odehrávaly. Absence budov se stává záměrnou a zásadní designovou volbou.

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