

SVITAVA RIVER IN BRNO - EVALUATION OF RECREATIONAL POTENTIAL

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Abstract

The article focuses on the Svitava River in Brno. The historical development of the floodplain is outlined. The article summarizes the changes around the river in the city cadastral area and their impact on recreation. The changes are evaluated for the last ten years. The flow is divided into 7 parts according to city districts, through which the river flows. In each of these parts, an evaluation of the recreational potential is realized according to the methodology by Jan Bína, 2002. The article also includes the processing of planned changes in the river floodplain, including regional and flood protection plans.

Key words: Regional planning, river revitalization, urban area, urban recreation

Introduction

The Svitava River has been connected with the Brno city since the beginning. At first it was an opportunity for development, later it became a limiting factor for the expansion of urban areas. During the 19th century, several regulations took place, which irreversibly affected the river and its floodplain and the consequences of the interventions, which were mainly functional, are still visible in the river floodplain to this day. The flow regulated in this way is less useful in terms of involvement in the urban area and its recreational potential is reduced. In this article we will evaluate the individual parts of the river according to city districts and focus on the latest (and planned) changes in the floodplain that affect recreation.

Material and methods

The river Svitava springs near the village Kukle near the town Svitava at an altitude of 475 m above sea level. Its flow is 98 km long and the catchment area is 1146.9 km². In Brno, it flows into Svatka in the Přízřenice district. Several important streams flow into the river - Křetínka in Letovice, Úmoří and Bělá u Jabloňan, Býkovka in Rájec and Punkva in Blansko. It flows through several larger cities - Svitavy, Letovice, Doubravice nad Svitavou, Rájec-Jestřebí, Blansko and Brno. The river flows for the most part through a relatively narrow cut valley (CUZK, 2022). Svitava flows into the territory of Brno in Obřany (in the north) and in Přízřenice (in the south) it flows into Svatka. The Svitavy River in the city of Brno is 14 km long (CUZK, 2022). Svitava has an average flow (measured at the mouth) of 5.1 m³/s (Čurda in Novák, 2000). It flows through 7 city districts - Obřany, Maloměřice, Brno-North (Cacovice, Husovice, Zábrdovice), Židenice, Černovice, Brno-South (Komárov, Horní Heršpice, Přízřenice), Tuřany (Holásky, Brněnské Ivanovice). There are several larger weirs in Svitava. Svitava was widely used for industrial production and leads to many drives (CUZK, 2022).

Svitava has always flowed through the industrial part of the city. It was a water source for the factories, but over time it became an obstacle to their development. Waterlogged floodplain was a limitation especially for the railway development, which would have to bridge numerous river branches (Hálová - Jahodová, 1975).

The first regulation was carried out in 1848. It took three years to dredge the river channel. The river in the south of Brno flows through a trapezoidal channel with steep walls and shallow depth. Due to low capacity during floods, water overflowed from the riverbed, the entire southern part of Svitava is also unnatural and its eventual return to its original state is de facto impossible. The second regulation wave took place after the Second World War and certainly had a much less devastating impact on the river floodplain (Dřímál, Peša, 1969).

The first examined section measures 6.9 km and belongs to the cadastral territory of Obřany, Maloměřice and Husovice districts. This is the most natural part of river in the city. The riverbed modifications here are minimal. The second part includes the area of the second regulation. It belongs to the Zábrdovice and Židenice districts. Svitava forms the boundary of the local part Trnitá in the length of 1.75 km; it shares this boundary with the already mentioned Židenice and Černovice. Trnitá is, however, part of the Brno-South municipal district, which uses the river as a border up to its confluence with the Svatka River. The total length of the river in this section is 3.2 km. The last part of the river belongs to the municipal district of Brno-South and is 2.4 km long. Before the regulation, the

flow here was only one-kilometre-long and this difference is due to the fact that the confluence was moved downstream during the regulation.

An evaluation of the recreational potential has been prepared for each of these sections, which is commented on in the results.

Results

The first part of the flow is in the most natural state. The river is wide with low banks and meanders. There are paths with benches in the river floodplain, access to water is possible. There are also playgrounds and several parks near the river. The area is suitable for many sports - hiking, running, cycling or even fishing. Paddlers also have the potential. The advantage is good transport links and access. However, the river can endanger buildings that are relatively close. The waterfront is currently being restored in the brownfield area New Zbrojovka in Zábřeh. The riverbed will widen and both banks will have access to a new bridge.

The second river part is in a relatively natural state, but it is not the most suitable for recreation. Svitava is surrounded by an industrial area and although there is a bike path, the area around the river is unsuitable for walking. The obstacle is also two large roads that the visitor must overcome. In the case of Hladíkova Street, an underpass of a busy road bridge is created, which will make recreation much easier. In addition to passing cyclists, the locality is widely used by locals who walk their dogs here. To improve the area, it would definitely be appropriate to add benches, trees and waste bins, which would at least make the use of space more pleasant by local residents.

The last two parts of the river have common features. It is an upright segment along which a cycle path runs throughout. As in the previous part, it is necessary to overcome the busy multi-lane road. This segment is not very widely used, because the Svratka river flows very close, which has much better facilities for recreation. There is no access to water at all; the slopes are very steep and dangerous. Only in the last tens of meters closer to the confluence with Svratka is the surroundings of the river more natural.

Discussion

The problem is the long-term upright part of the river. This segment is not entirely suitable for recreation; in addition, it is a dangerous water management treatment with unsatisfactory capacity. Unfortunately it is not possible to solve this problem, because the land in the floodplain belongs to different owners and the change of the riverbed would be expensive. In industrial zones, the integration of the river into the overall environment is offered, but even here we come across various landowners and, above all, a non-existent local management plan. The integration of the river itself into the urban area is very desirable and will benefit not only the recreation but also the appearance of the place (Löw, 2003).

Conclusion

Recreation near the Svitava River in the Brno is run more by local citizens. Only a small part of the river's surroundings is so attractive that visitors can relax from a greater distance. The only exceptions are cyclists who use bike paths. Although some parts are currently undergoing reclamation, the most exposed section will unfortunately not be able to be adjusted to meet the requirements of modern times in the foreseeable future. The Svitava River will thus perhaps show its full potential to future generations.

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Souhrn

Článek nastiňuje historický vývoj v záplavovém území řeky Svitavy. Zabývá se současným stavem a zaměřuje se zejména na rekreaci v záplavovém území. Zmiňuje probíhající změny a negativní vlivy, které ovlivňují rekreaci v území.

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