

POTENTIAL OF WATER MANAGEMENT FACILITIES IN THE HODONÍN DISTRICT FOR TOURISM

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Abstract

In the past, water management facilities were of fundamental importance in the development of industry, transport, and agriculture. Since 1990, there has started a trend to use them in the development of travel and tourism. This survey used old topographic maps from the years 1763-1768, 1836-1852, 1953-1956, current maps and additional database resources from the site www.vodnimlynny.cz. Based on the survey, there were found more than 200 water management facilities in the district of Hodonín in the period from the middle of the 18th to the middle of the 20th century. Water mills and pole wells were the most represented, which indicates the predominant agricultural production with a long tradition in this area. There were also registered numerous ponds for fish production here. In the first half of the 20th century, construction of the Baťa canal facilitated the transport of coal to industrial plants. This waterway nowadays serves as a tourist attraction number one with the possibility of sightseeing cruises and boat rentals. Another example of the use of the potential of the original WMF is the reconstruction of old watermills to expand the offer of accommodation. An original old watermill and sawmill can be seen in the Strážnice Museum of the Villages of South-east Moravia. However, there are further possibilities how to use historical potential of ex WMF in the district of Hodonín, e.g., a placement of new tourist information boards in the vicinity of tourist routes or a building of new nature trails in places with higher concentration of WMF objects.

Key words: water management facilities, water mill, water way canal, Czech Republic

Introduction

Historic water management facilities have a high potential for the development of tourism in regions. In some regions they may point to the beginnings of industrial development (Havlíček et al., 2022), in others to the mode of transport and transportation of goods (Dostál, Havlíček, Svoboda, 2021) or may refer to the importance of food supply, especially in pond areas (Pavelková et al., 2016). Water management facilities are most attractive in terms of tourism in the case of preservation of the building in its original form to operate the building within the museum, exhibition (Havlíček et al., 2020), or in the form of a building with a slightly changed function (e.g., recreational cruises instead cargo shipping). Some of the original water management facilities have rebuilt for other purposes to provide accommodation options in the field of tourism, or the operation of restaurants (Havlíček et al., 2019, Havlíček et al., 2020). In some cases, it is possible to use defunct water management facilities to support tourism, e.g., to place tourist information boards with maps, old photographs, or paintings or to add artefacts associated with the operation of the building there, such as mill wheels, turbines, or their parts. There is also the possibility of using some nature trails or build a new specialized circuit for pedestrians and cyclists (Havlíček et al., 2019).

The aim of this paper is to evaluate the current importance of historical sites of water management facilities in the development of tourism in the district of Hodonín in the Czech Republic. The following partial goal is to evaluate the potential of water management facilities, or their original locations in the development of tourism.

Materials and methods

Old topographic maps were employed to identify and localize water management facilities in the Hodonín district. The oldest map work represented the first Austrian military mapping from 1763-1768. This mapping has already captured WMFs, and other objects related to the use of water resources in sufficient detail, however, its accuracy is considerably limited due to the cartographic methods employed (Janata, Cajthaml, 2021). The other three military mappings from 1836-1841, 1876 and 1953-1955 already provide sufficient positional accuracy for locating objects, which ranges from 15 to 30 m.

To identify the WMFs, the map keys of the old topographic maps were analysed first and created a procedure for working in geographic information systems. Based on an age-long experience that the positional accuracy of military mappings generally improved in later periods, the WMFs were identified firstly on the 3rd Austrian military survey maps (1876). It was then retrospectively evaluated whether these objects were also registered on the previous two mappings from 1836-1841 and 1763-1768.

Subsequently, objects that were displayed only on the first and second military mapping were also added to the database. In addition to map data, the public database of water mills in the Czech Republic (www.vodnimlyny.cz) was also used. All localized objects are displayed below on a map and in a clearly arranged table. For the purposes of evaluating the use of these objects in tourism in the Hodonín district, the current tourist maps available at www.mapy.cz were studied and follow-up field research was carried out.

Results and Discussion

Based on the study of old topographic maps, a total of 233 water management facilities were registered in the Hodonín district. Most of them were registered in 1876, when a total of 115 buildings were identified in this area, the least in 1953-1957 (Table 1).

Tab. 1: Water management facilities in the Hodonín district

Facility type	1763-1768	1836-1841	1876	1953-1957
Grain mill	81	74	72	37
Balance-pole well	2	8	32	4
Floodgate	0	18	1	0
Well	0	1	0	16
Water tower	0	0	0	13
Water bridge	0	0	1	5
Water tank	0	0	3	0
Water refrigerator (Behälter)	1	1	0	1
Dam keeper building	0	0	2	0
Walk mill	1	1	1	0
Fish hatchery	0	0	0	1
Wellspring	1	1	1	0
Hydropower plant	0	0	1	0
Sawmill	0	0	1	0

In all periods, the most common type of building were watermills, their representation was not even throughout the territory, they were mostly concentrated on the Velička watercourse in the west of the district, it is a river with a regular flow springing in the White Carpathians (Fig. 1).

A higher occurrence of water mills was also recorded on the river Kyjovka in the northern part of the territory. Most of the former water mills in the Hodonín district are currently used for housing, some have been demolished, only 2 water mills are used for accommodation (the Hatěcký mill on the river Velička, the Kuchyňkův mill on the river Kyjovka). One mill building was adapted to the restaurant, it is a mill in the village of Velká nad Veličkou. In the case of several non-operating mills, the possibility of changing the original function is being considered, the project of conversion into a library and café in the village of Svatobořice is being developed the most. Rebuilt mills from other parts of the Czech Republic are the inspiration for building accommodation capacities (Havlíček et al., 2020).

In the vicinity of the river Velička, there is an educational trail with a newly installed tourist information board, which introduces visitors to the circumstances of building an above-average number of watermills in the area.

In similar ways, it would be appropriate to use the potential of water management facilities in other localities with their higher concentration, especially at the rivers Kyjovka and Trkmanka.

A reminder of the importance of water mills in the region is presented in the form of an exposition of a water mill and sawmill in the Museum of the Village of Southeast Moravia in Strážnice, the mill building is relocated from the White Carpathians (Fig. 2).

The second most common category of water management facilities in the Hodonín district are balance-pole wells (syn. sweep wells or shadoofs). It is a type of well that is typical of agricultural landscapes in floodplains and lowlands with low groundwater levels. Their current largest representation in European countries is in Hungary.

The potential for the restoration of these buildings in the Hodonín district can be found in every major agricultural village. Balance-pole wells could serve here as a reminder of the typical element that co-

created, even in the relatively recent past, the scenery of rural life in this region and visibly demonstrated the influence of nearby historical territory of today's Hungary. In the Hodonín district, the exhibit of the balance-pole well is presented only in the Museum of the Village of South-East Moravia (Fig. 3).

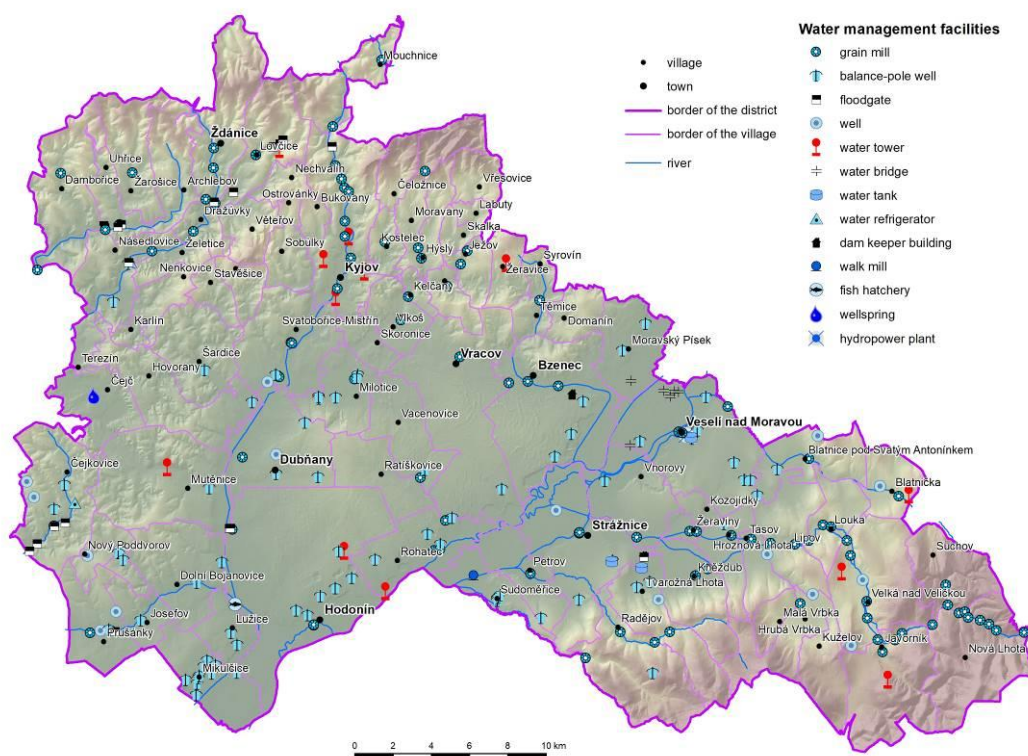


Fig. 1: Water management facilities in the Hodonín district



Fig. 2: The residential part of the mill in the exposition of the Museum of South-East Moravia in the town of Strážnice



Fig. 3: Balance-pole well in the Museum of the Village of South-East Moravia

In the district of Hodonín, there was a high concentration of ponds in the past, as evidenced by the number of registered floodgates in 1836-1841 (Fig. 1). However, the number of water bodies decreased significantly after the construction of sugar factories in the region (Havlíček et al. 2013). The localities of some preserved pond dikes also have potential for tourism. Interesting water management facilities also include a water refrigerator (Behälter), mostly a smaller wooden structure for storing food or fish, in which cooling is provided by flowing water.

The most important WMF in the Hodonín district is the Baťa canal, which was built in 1934-1938. It was originally established for the transport of coal from the mine in the village of Ratíškovice to the factories of the Baťa company in the city of Zlín. Today, the Baťa Canal is used for recreational boating and sightseeing cruises (Fig. 4a, 4 b). There are several ports with boat rentals, along the canal are built bike paths and refreshments. However, there is still the possibility of expanding facilities and services, as well as a potential connection with the Morava River to the port in the city of Hodonín.



Fig. 4a, 4b: The Baťa Canal, a dock in Strážnice, a section of the canal around Strážnice

Conclusion

Based on a detailed study of old topographic maps of the First, Second and Third Austrian military mapping, there were identified 233 water management facilities in the Hodonín district. Water mills were the most represented, of which only 3 buildings are currently used for accommodation and meals. Several non-operating water mills offer the possibility of reconstruction to provide accommodation, restaurant services or to place a permanent exhibition.

The tourist information board in the place of higher occurrence of water mills has so far been established only at the cluster of mills on the river Velička. There is still the potential in the district to increase the promotion of preserved but also demolished buildings through new nature trails, information boards or leaflets and other promotional materials for tourists.

Great potential can be seen in the promotion of balance-pole wells, which were most abundant in traditional agricultural areas, especially in the cadastres of villages located in floodplains. Currently, one exhibit of the balance-pole well is presented only in the Museum of the Village of Southeast Moravia in the town of Strážnice.

At the same time, there is also an exposition of a residential building of a water mill and a sawmill, relocated from the surrounding village from the White Carpathians. The most extensive and most

important attraction is the Baťa water canal, in which freight transport has been replaced by recreational cruising. However, there is also potential for improving services for tourists.

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Souhrn

Historické vodohospodářské objekty mají vysoký potenciál pro rozvoj cestovního ruchu regionu, mohou poukazovat na počátky rozvoje průmyslu, na způsob dopravy a přepravy zboží, na význam v zásobování potravinami, zejména v rybníčních oblastech. Cílem tohoto příspěvku bylo vyhodnocení aktuálního významu historických lokalit vodohospodářských objektů v rozvoji cestovního ruchu v okrese Hodonín v České republice. Navazujícím dílčím cílem pak bylo vyhodnocení potenciálu vodohospodářských objektů, případně jejich původních lokalit v rozvoji cestovního ruchu. V okrese Hodonín se nacházelo historicky 233 vodohospodářských objektů. Nejvíce byly zastoupeny vodní mlýny, z nich jsou aktuálně k ubytování a stravování využívány pouze 3 objekty. U několika nevyužívaných vodních mlýnů existuje potenciál k přestavbě objektů pro účely expozice, ubytování nebo restaurace. Informační cedule ke koncentraci vodních mlýnů jsou pouze u řeky Velička, existuje potenciál k vyšší propagaci dochovaných i zaniklých objektů pomocí naučné stezky, informačních panelů, propagačních materiálů v obci. Velký potenciál lze spatřit v propagaci studen s vahadly, které byly koncentrovány v zemědělských obcích v nivách řek. Aktuálně je jeden exponát studny s vahadlem prezentován pouze v Muzeu vesnice jihovýchodní Moravy ve městě Strážnice. Zároveň je zde i expozice obytné budovy vodního mlýna a pily, přenesených z okolní obce z pohorí Bílých Karpat. Největší atrakcí je Baťův vodní kanál, ve kterém byla nákladní doprava nahrazena rekreační plavbou. I zde však existuje potenciál na zlepšení služeb pro turisty

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