THE UNFINISHED HITLER'S MOTORWAY – A HERITAGE IN THE CONTEMPORARY LANDSCAPE

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Abstract
The unfinished extraterritorial motorway A88 Breslau – Wien, also known as Hitler's motorway, was a strategic construction of the German Reich connecting major centres through the territory of Czechoslovakia (later Protectorate of Bohemia and Moravia). Within the present-day territory of the Czech Republic, work on the Hitler Motorway began in April 1939 and was halted in April 1942, with a total of 85 km of the motorway being built out of a total of 320 km. In 80 years, only three short, isolated sections have been completed as highways or roads. Most of the completed part of the route is kept as a zoning reserve for the construction of a capacity road from Brno to Moravská Třebová. In addition to standard agricultural areas, there are relatively attractive green infrastructure elements in the landscape in several places. They are represented by shrubs, tree vegetation or meadows. Two sites are currently protected as nature reserves and natural monuments. From the point of view of recreation and tourism, some preserved technical infrastructure objects are also attractive, e.g. motorway bridges, culverts, earthworks on notches. The aim of this paper is to evaluate the heritage of the unfinished motorway in the current landscape, with an emphasis on its potential in green infrastructure of the landscape and its use in local and regional tourism and recreation.

Key words: Motorway, history, landscape, green infrastructure, recreation

Introduction

Technical Cultural Heritage represents an important group of tourist attractions. The specific group are transport infrastructures (Hall, 2004), which also contribute to a large extent to the shaping of the landscape. Tunnels, bridges and other technical structures related to transport infrastructure attract and are often visited by specific groups of visitors. As they are often living structures that are still in use, there is a risk from a safety perspective due to trespassing (Skládaná et al., 2016). This is eliminated in the case of remnant transport infrastructure. Former transport corridors are often located in intensively used open landscapes with a lack of greenery, forming a line of abandoned land, as there is usually no immediate reuse of the area for a new function. These areas are subject to spontaneous development and can easily become a biodiversity sanctuary in an agricultural desert despite the inferior quality of the primary successional plant cover as they provide alternative habitat for many species, especially invertebrates, small vertebrates or birds (Denner, 2017; Dylewski et al., 2022). The importance of developing and maintaining green infrastructure is key to improving landscape functions, particularly in agricultural landscape types (Skokanová, González, Slach, 2020; Skokanová et al., 2020).

Historical context

The new transport system based on motorways ("Reichsautobahnen" in German) was intended to be a demonstration of Germany's modernity in the interwar period for the propaganda of the Nazi dictatorship. Standards for German motorways at that time were in many ways superior even to the design parameters for motorways today. This was not only in the radius of curves or gradients, but also in the extraordinary emphasis on integrating the linear construction into the existing landscape (Zeller, 2007). The first section was put into operation in 1935 and by the end of 1941 the length of the network had reached 3,860 km, with another 2,500 km under construction (Weingroff, 2017).
Following the annexation of Austria in the spring of 1938, there was a German demand to connect Breslau (now Wroclaw) and Vienna through Czechoslovakia with a new A88 motorway. The requirement for its construction was included in the Munich Treaty in September 1938.
Within a few months, the project for the entire 320 km long A88 route was ready, 65 km of which were located in the territory of the Protectorate of Bohemia and Moravia (the follow-up of Czechoslovakia after the German occupation in March 1939). Construction started in April 1939 and a total of 83 km of

the route was gradually built (Janda, Lídl, 2008). The activity was completely halted in April 1942, along with all other non-military construction throughout the Third Reich leaving a lot of traces in the landscape in various levels of completeness.

Objective

This paper seeks to find out what the remains of the construction are in the landscape and whether it is possible to visit them at present. The second question is to find out if the phenomenon of the unfinished highway is commemorated in any way to enhance tourist attraction of the area. Last but not least, the aim is to check the significance of the physical remains of the motorway body for the blue-green green infrastructure of the landscape and ecological network in general.

Methodology

The northern section of the A88 construction from the northernmost point near the village of Městečko Trnávka to the intersection with the I/43 road southwest of Svitávka, 29 km in length (out of a total of 83 km under construction), was chosen as a model area (Fig.1) of which 1.5 km is currently in use as a class II road.

In the screening phase physical sites remains of the unfinished motorway (further referred as POI) were selected using literature (Janda, Lídl, 2008) and a web application (Sedlák, 2019) and indicated at least minimal significance according to the cultural heritage assessment methodology (Matěj, Ryšková, 2018). Mapping of the current land use was carried out using recent aerial imagery but the extent of the study area was defined using aerial images from around 1950 showing the state of the unfinished motorway not long after its abandonment. MInimal mapping unit was set at 0.02 ha and a total of 13 land use categories were mapped according to Jandova et al. (2020).

The field survey focused on current tourism use including verification of the accessibility of the POI for hikers, cyclists, and tourists using individual cars. At the same time, awareness of sites of interest was monitored through information signs or electronic applications (e.g. geocaching). In addition, refinement of land use mapped from aerial photographs was conducted as well as photo-documentation of the current status of POI and the motorway corridor in the landscape. Subsequently, the recreational and conservation potential of the unfinished motorway features was assessed based on mapping, archival sources, information from spatial plans, protected site records and field survey.

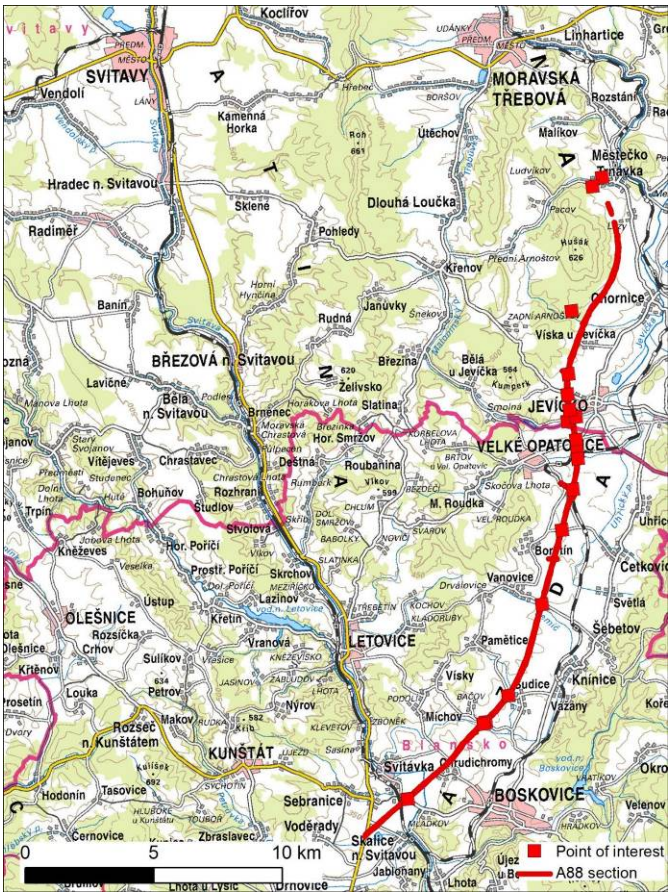

Fig. 1: Northern part of the unfinished A88 motorway and POIs identified

Results & Discussion

In the study area, we identified a total of 19 POI (see Fig. 1), of which the majority - 16 (84.2%) - were various bridge structures (Fig. 3-5), mostly at a higher stage of completion, lacking only the completion of the roadway. The remaining POI are 2 sites associated with work camps and the final site is the northernmost point of the construction works. Most of the POI are well accessed via paved roads, 12 (63.2%) in total, further 4 (21.1%) are accessible via unpaved roads and only 2 sites (10.5%) are not located on any road or trail. Five POI (26.3%) are located on a marked hiking trail and 7 POIs (36.8%) are on a marked bike trail. Despite the relatively extensive accessibility of various POI, only one site (Soviet POW cemetery - see Fig. 2) is commemorated and marked with information materials. Contrary to this informational gap is the popularity of the POI among geocaching enthusiasts, where as many as 8 of the 19 identified POI have a thematic cache with their listings containing much information about the history of the motorway.

Fig. 2: Soviet POW cemetery

Fig. 3: Bridge over road W of Jevíčko

Fig. 4: Two-span bridge

Fig. 5: Parabolic bridge SW of Sudice

As seen in Table 1, forest is currently the predominant land use category (66.59%) in the area of interest, with other categories with high proportions being shrub, bush (14.66%) and permanent grassland (7.66%). All of these land use categories have a high potential for improving landscape functions through green infrastructure. Some of the land in these sections of the highway is now used as arable land or fruit orchard with grassing. The other areas are mainly made up of temporary landfills for construction materials and timber.

There are roads with an asphalt surface in the impermeable surface category, semi-paved roads and unpaved roads that run through the motorway body and connect the surrounding land or run directly along the axis of the motorway section. Water bodies are also provided to improve landscape functions in agricultural landscapes. Wetlands and smaller water bodies have been created in the cuts on several sections and have the potential to support some specialised animal species (amphibians, birds, insects).

The course of the motorway alignment has a high potential for enhancing landscape functions, specifically as green infrastructure features in the landscape. Especially in the sections where the new motorway will already be routed, the addition of green infrastructure to the territorial system of ecological stability, possibly as small-scale specially protected areas, is appropriate. Similarly, two protected areas (natural monuments) in the vicinity of Brno and Kuřim are already used for nature protection. There are 10 local biocentres, 5 significant landscape elements, 8 ecologically significant landscape segments in the evaluated section A88. More than half of the sections of the motorway are identified in the spatial plans as local bio-corridors, i.e. linear elements of green infrastructure. At the

same time, the vast majority of the motorway is also classified as a mixed area in undeveloped land with a predominantly natural function. Most sections of the motorway thus have a high potential for improved functions after 80 years, especially in agricultural landscape types. They are key habitats for animal migration and refugium (see Fig. 6). Some of the water bodies and wetlands in the profile of the highway corridor provide suitable habitat for amphibians, birds and insects. Unfortunately, however, it was confirmed during the field survey that some wetland and water body sites are affected by illegal dumping of waste (see Fig. 7).

Tab. 1: Current land-use of areas affected by A88 construction

Land use category	Area ha	Share %
Arable land	5.95	3.69
Fruit orchard with grassing	2.06	1.27
Permanent grassland	12.36	7.66
Clearing, windfall	0.09	0.06
Shrub, bush	23.66	14.66
Forest	107.46	66.59
Unpaved road	2.42	1.50
Semi-paved road	0.44	0.27
Railway	0.09	0.05
Other area	2.54	1.57
Impermeable surface	3.22	1.99
Water area	0.14	0.08
Built-up area	0.96	0.59

Fig. 6: Vegetated body of motorway

Fig. 7 Wetland - waste dump

Future outlook

The construction of an expressway from Brno to the north is planned for a long time in the A88 axis, using the unfinished A88 as much as possible. Therefore, only those sections where the expressway will no longer follow the original 1939-1942 route have the potential for nature and landscape protection. Specifically, the sections near the villages of Chrudichomy and Sudice and the entire northern part between Víska u Jevíčka and Městečko Trnávka. These sections can thus serve as green infrastructure for the landscape. The semi-natural sections also have potential for local recreation such as walks for local residents and also to improve the permeability of the landscape.

Conclusion

After more than 80 years, the unfinished sections of the A88 motorway offer recreational and nature conservation uses for both local residents and tourists. However, the tourist potential is not fully exploited at all the objects of interest, many objects cannot be accessed using existing tourist routes, and the surviving transport structures of bridges and tunnels usually lack information signs. With regard to current land use in sections of the motorway, it would be useful to link elements of semi-natural greenery and water bodies to the planned ecological network and to work on appropriate management of the greenery. Current information on planned new road construction indicates that some sections of the motorway carriageway will not be utilised. It is desirable that the cultural and historical heritage and nature conservation potential of these features is safeguarded.

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Souhrn

Nedokončená exteritoriální dálnice A88 Breslau - Wien, známá také jako Hitlerova dálnice, byla strategickou stavbou Německé říše spojující hlavní centra přes území Československa (později Protektorátu Čechy a Morava). Na území dnešní České republiky byly práce na dálnici A88 zahájeny v dubnu 1939 a zastaveny v dubnu 1942, přičemž se stavělo celkem 83 km dálnice z celkových 320 km. Jako modelové území byl vybrán severní úsek stavby A88 od nejsevernějšího bodu u obce Městečko Trnávka po křižovatku se silnicí I/43 jihozápadně od Svitávky v délce 29 km (z celkových 83 km ve výstavbě).

Jako hmotné pozůstatky nedokončené dálnice alespoň minimálního významu bylo podle metodiky hodnocení kulturního dědictví identifikováno celkem 19 zájmových bodů. Většina bodů zájmu je dobře přístupná po zpevněných komunikacích (63 %), 5 bodů zájmu (26 %) se nachází na značené turistické trase a 7 bodů zájmu (37 %) na značené cyklotrase. Pouze jedna lokalita, hřbitov sovětských válečných zajatců, je připomínkována a označena informačními materiály.

Převažující kategorií využití půdy v modelovém území je les (66,6 %), dalšími kategoriemi s vysokým podílem jsou keře, křoviny (14,7 %) a trvalé travní porosty (7,7 %). Všechny tyto kategorie využití půdy mají vysoký potenciál pro zlepšení funkcí krajiny prostřednictvím zelené infrastruktury. V kategorii nepropustných povrchů se nacházejí komunikace s asfaltovým povrchem, polopropustné komunikace a nezpevněné komunikace, které procházejí tělesem dálnice a propojují okolní pozemky nebo vedou přímo v ose dálničního úseku. Pro zlepšení krajinných funkcí v zemědělské krajině jsou k dispozici také vodní plochy. V zářezech na několika úsecích byly vytvořeny mokřady a menší vodní plochy, které mají potenciál podporovat některé specializované druhy živočichů (obojživelníky, ptáky, hmyz), a to i přesto, že některé lokality mokřadů a vodních ploch jsou zasaženy nelegálním ukládáním odpadu, jak bylo potvrzeno během terénního šetření.
V ose A88 je dlouhodobě plánována výstavba rychlostní komunikace z Brna na sever, která v maximální možné míře využívá nedokončenou A88. Potenciál pro ochranu přírody a krajiny mají proto pouze ty úseky, kde rychlostní silnice již nebude sledovat původní trasu z let 1939-1942. Tyto úseky tak mohou sloužit jako zelená infrastruktura pro krajinu. Polopřírodní úseky mají také potenciál pro místní rekreaci, například pro procházky pro obyvatele, a pro zlepšení prostupnosti krajiny.

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