INDUSTRIAL COMPLEXES AND THEIR ROLE IN INDUSTRIAL TOURISM – EXAMPLE OF CONVERSION

Martin Klempa, Petr Bujok, Michal Porzer, Petr Skupien
Institute of Geological Engineering, VSB-Technical University of Ostrava, 17. listopadu 15, 708 00 Ostrava-Poruba, Czech Republic
e-mail: martin.klempa@vsb.cz; petr.bujok@vsb.cz; michal.porzer@vsb.cz; petr.skupien@vsb.cz

Abstract
Sustainable tourism development meets the needs of present tourists and host regions while protecting and increasing its possibilities for the future. It should lead to management of all resources, so as to meet economic, social and aesthetic needs while maintaining cultural integrity, the most important ecological processes, biological diversity and the processes that make life possible. Sustainable tourism products are products that work in accordance with the local environment, society and culture so that the environment, society and culture can benefit and not to become the victims of tourism development. At present, luckily, it is possible to observe, in a wide range of tourist activities and especially in industrialized countries, also increasing interest in so-called industrial tourism aimed at exploring technical monuments. This form of tourism was initially the domain of narrow range of technically-based supporters, but gradually becomes more attractive to the broader public.

This article deals with the development and transformation of tourism in the Czech Republic on an example of the Podluzi region and one of its centres – the town of Hodonin. From the tourist activities in the region those specifically attractive ones should be mentioned, which are wine and folklore tourism in close connection with gastronomical tourism and then increasingly popular cycling and water tourism. As for the cycling tourism, there are routes (related to the Greenways programme) leading so that they connect all the major winegrowing sites of the region and also the basic backbone network of cycling routes passing through the territory of the Czech Republic. The development of water tourism is closely linked to industrial tourism, where the important technical monument – the Bata’s channel is used as a waterway. The history of the town of Hodonin is briefly mentioned here in the context of the progressive industrialization of the area (ignite and hydrocarbon mining), its significant downturn and subsequent changes in tourist activities.

Keywords: industrial complex, industrial tourism, industrial heritage

1 INTRODUCTION
The theme of the comprehensive utilization of industrial heritage (in terms of industrial tourism) in the Czech Republic is already a matter of the past few decades. Professionally this activity has been started by the Section of Industrial Heritage Protection (SOPD) at the National Technical Museum, founded in 1987 by Professor Emil Hlavacek. As for the theoretical bases, the activities of the Section were very close to the activities that took place at that time, for example in the UK, Germany, or France. Since the late 70s of the 20th century the fundamental structural changes in the sphere of heavy industry and mining have been performed in these countries. Heavy industry has been partially restructured by the introduction of new technologies, and abandoned buildings have been started to be used for industrial tourism, conference tourism, exhibitions, fairs and entertainment industries as well. Such industrial area in Germany can be taken as an example. In 1989, the provincial government of North Rhine - Westphalia accepted the ten years conceptual programme "International Building Exhibition Emscher Park" (IBA), which included 17 towns affected by the industry downturn and involved an area of 800 km². During these years, 120 projects were implemented in the social, cultural, environmental and construction fields, which created a basis for economic and cultural transformations of the region. Within the IBA programme, 150 industrial sites were restored and newly used. Based on this programme, the "Route der Industriekultur" project has arisen. This project was supported by numerous cultural institutions and government offices. This is about a 400 km long route connecting 25 industrial sites.

In the Czech Republic, the activities of the above-mentioned Section were immediately supported by the Research Centre for Industrial Heritage (VCPD) at the Czech Technical University (CTU) in Prague (founded in 2002) whose main aim was and is the mapping and registration of industrial heritage in the Czech Republic. This Centre provides a basis for other institutions and organizations, e.g. the central Registry of the industrial heritage of the Czech Republic, the National Heritage Institute, the Ministry of Culture of the Czech Republic, the government agency CzechInvest and others [1, 3, 10] is not enough. In the above mentioned countries, besides the institutions at the level of state agencies, such as English Heritage, departments at universities and development agencies exist.
Members of the College for Technical Monuments are: the Czech Chamber of Certified Engineers and Technicians and the Czech Union of Civil Engineers, also participated in the preparation of 4 parts of the publication named "Technical monuments of the Visegrad Four" for publication in the languages of the V4 countries (Czech, Hungarian, Polish, Slovak) and English [2].

Already in 2001, the College issued an interesting guidebook with a map of technical monuments in Bohemia, Moravia and Silesia. The four-years applied research project of the Ministry of Culture within the National and Cultural Identity Programme (NAKI) entitled "Industrial topography of the Czech Republic – Adaptive Re-use of Industrial Heritage, as Part of National and Cultural Identity” was very important. The Research Centre for Industrial Heritage of the Architecture Faculty of the Czech Technical University in Prague was its investigator. Among the practical outputs of the project there is a series of publications "Industrial topography", aiming, among others, at developing cognitive tourism.

The paper draws theoretical conclusions on the example of the transformation of the industrial town of Hodonin and its integration into the wider context of tourism in South Moravia. A similar example of such conversion we could find for example in the city of Ostrava (area of former steelworks Dolni Vitkovice).

2 INDUSTRIAL TOURISM

Abandoned industrial manufacturing facilities and related infrastructure often become a subject of interest not only of the conservationists but also, thanks to their differences, started to attract other applicants. As a result, there is a very interesting and specific tourism sector often called industrial tourism. This form of tourism offers the acquaintance with all kinds of industrial sites and enables tourists to get familiar with the typical industrial environment and development of industry. This clearly shows that even if some industrial production had been terminated, there is no need to destroy production facilities and manufacturing equipment. At a time when people are gradually losing contact with production, such technical facilities become not only a source of knowledge, but also an important evidence of the technology development by humans and significant creative work of our ancestors. Therefore, retaining these objects cannot be considered only a professional activity of monument preserving institutions, but also an important task for all the contemporary human society. However, the retaining is only the first stage, which must be followed by the second stage when conservation and renovation lead to the renewing of these industrial monuments. Then the third phase, characterized by activities of making these historic buildings accessible to the public [5, 8] starts. And here, heritage preservation efforts meet the tourism, as technical monuments have become an important attraction for visitors (see Fig. 1).

Figure 1: Interrelationship and interpenetration of various sectors of tourism with industrial tourism (Bujok, 2015).

Nowadays, when serious problems of globalization are often discussed in the media and many people are struggling to find their place in society, it is certainly not for harm to turn to the legacy of our ancestors. Technical monuments are an interesting example of their skills and ingenuity. More detailed deliberation shows that the topic of technical heritage is very broad – it includes industrial buildings, transport, timber, power engineering, electrical engineering, mining, metallurgy, foundry, mechanical engineering, equipment of...
chemical, ceramic, leather, paper, food and textile industry, gas industry, glass, water, or military installations. However, not all the topics are equally attractive, and sights classification by types is sometimes problematic because some of them do not fit neatly to one field of human activity. Examples include hydroelectric power stations, which can be classified to the hydro energy, water works, or power engineering.

In the present text, the example of an entirely different region follows (the Podluzi region and its urban centre – the town of Hodonin).

3 CONVERSION EXAMPLE OF INDUSTRIAL SITES SUITABLE FOR TOURISM – THE TOWN OF HODONIN AND SURROUNDINGS

The town of Hodonin with more than 26,000 inhabitants belongs to the largest towns in South Moravia (Fig. 2). The history of the original settlement, located along the right bank of the Morava River (today forms the border with the Slovak Republic) goes back to the Late Stone Age. It was situated at an important crossroads of trade routes, e.g. the famous Amber Road spreading from the Baltics to the Middle Danube and Mediterranean areas. The settlement then obtained the municipal authority in 1228. The actual development of the town came in 1841, when the railway station of so-called the Emperor Ferdinand Northern Railway connecting Vienna, Krakow, and salt mines in Wieliczka was built [6, 7, 9].

Figure 2: Localization of the area of interest in Central Europe (Google, 2015)

The significant industrial development of the region is particularly associated with the mining of lignite in the South Moravian lignite Basin (Kyjovska and Dubnanska layers) since 1824. The extracted lignite was used for the heating of households, local glassworks, sugar refineries, brick plants, and later on for energy production in heat power stations, for example in Hodonin [9].

Another important stage of development of the region occurred in the 20s and 30s of the last century, when oil and gas deposits were discovered and their industrial mining was started (Fig. 3). A variety of oil products began to be intensively used by the rapidly developing chemical industry. Furthermore, after the First World War, the emerging automotive industry contributed to increasing demand for oil. Crude oil was also used for the production of all sorts of lubricant greases, waxes, oils, polishes, and for the production of pitch, which every brewery needed for the maintenance of barrels [7, 9].

The city development was not only associated with industrial activities. In 1865, the Svatopluk reading club was founded, which in 1889 changed its name to the Municipal Meeting and since 1919 to the Educational Association of Masaryk. Here it should be mentioned that Tomas Garrigue Masaryk, a philosopher, scientist and a politician, a founder of Czechoslovakia and its first president was born in Hodonin on March 7, 1850. The foundation of the Federal House of Artists in 1913 was a major success ranking among cultural events. The house became the main centre of art in Moravia at that time [7].
The attractiveness of the city has significantly increased since the 50s of the last century. An indoor ice rink was opened in 1958, a swimming pool in 1968 and a zoo in 1976. Already in 1978 the town was awarded the spa status. In one of the youngest spas in the Czech Republic (operation started in 1979) they treat diseases of the musculoskeletal and cardiovascular system. Unique iodobromine (tertiary) mineral water called brine, acquired from three deep wells, is the main active ingredient of treatment. In those years, the town of Hodonin was an important tourist base for the entire micro-region thanks to its accommodation capacities.

Among the new branches, it is necessary to mention, in particular, the industrial tourism. Significant lignite mining is now a history. Since the 90s of the 20th century the mining has been phased out. The last mine ("Mir" - Peace) in Mikulcice ended up in 2014. The most significant memory of "mining" history is the Bata’s channel [1, 7]. This technical and natural monument was built between 1934 and 1938 on the initiative of the famous shoes entrepreneur Jan Antonin Bata. Originally it was used to transport lignite from Ratiskovice to the Otrokovic power plant and to irrigate the meadows and fields. The length of the Bata’s channel from Otrokovic to Svatonovice is currently around 60 km. Some parts of it follow the Morava River, other parts follow the artificially hallowed channel segments. Overall, it is navigable from Kromeriz to Hodonin. Today, this waterway is used for water tourism. [9] A tipper for lignite located not far from Hodonin near Sudomerice is one of interesting technical sights of the channel (rail cars with lignite were picked up there and emptied into tugboats by a tilting mechanism) (Fig. 4). It is also recommended to visit the Museum "In the wagon" in Ratiskovice nearby. In two railcars, the history of mining is documented here – the mining of lignite in the region and the subsequent transport of coal by towboats to the Bata enterprise in Zlin and Otrokovic. Other permanent exhibition of mining and glass industry is situated in the above mentioned Dubnany (first mines in the area).
Over the years, the mining of crude oil and natural gas has been shifted away from the town, but the residence of a state company – since 1945 the Czechoslovak Oil Mines (later – Moravian Oil Mines), in 1992 transformed within the privatization project to the joint stock company MND – is still in Hodonin. The architecturally impressive building of the current Directorate-General of the company is now an integral part of the town.

Visitors seeking for reminding on hydrocarbon mining can visit the memorial at the oldest bearing Nesyt (right at the edge of the town), or the Museum of Oil Mining and Geology built in a historic building of military barracks from the Austro-Hungarian period (Fig. 5). This very successful exhibition captures the tradition of the oil business in the Czech and Slovak Republics, geology of Moravia and history of exploration and mining of natural hydrocarbons.

![Figure 5: Historic building of military barracks – today the Museum of Oil Mining and Geology (Klempa, 2015)](image)

4 CONCLUSION

During the last 15 years, the industrial tourism shifted to the fore of the European Communities’ interest. It offers knowledge of local history in the form of monuments of industrial heritage, but also engaging experiences and adventure of discovery. One of the ways to contribute to and present the indispensable values of the European continuity is linking the evidence of the industrial heritage in the form of tourist routes across the continent.

The European Institute of Cultural Routes, an agency managed by the Council of Europe under the European Cultural Convention since 1998, which by propositions, projects, enhancing offers and contacts promotes a situation so that the Council of Europe and its partners from different countries are successful, in the long run, in the application of scientific, technical and social criteria of industrial heritage to keep and develop information about it.

The programme for creating European industrial routes was unveiled by, for example, Laurie Holzer. These are the trajectories, linking two or more districts or regions on the base of some cultural topics. Generally there is nothing new, but the development of these principles and contacts can lead to an interesting change in the advertising and promotion of these places and to their improvement as well.

An important congress of the International Committee for the Conservation of the Industrial Heritage (TICCIH) took place in July 2003 in Nizhny Tagil in Moscow. The delegates here wrote a Charter of Industrial Heritage (The Nizhny Tagil Charter for the Industrial Heritage). This document summarizes the essence of the industrial heritage, draws attention to the societal values and also defines the main priorities and ways how to protect this integral part of our cultural legacy and to help to its conservation [4].

Technical monuments have a few interesting groups of potential tourists. It's not just nostalgic "Steampunk nature" and technical enthusiasm of all kinds, but perhaps students in engineering and technology who are keen to look for the things they learn and which are the basis of their brunch of study. It is possible to
establish cooperation between different public sector organizations. This trend shows how touristically potential our technical monuments are. Of course, the way from closed factories or closed mines to a successful tourism product is very long and costly and difficult to organize. Still, it is worth to try. The Czech Republic has a great potential in this area.

Generally it can be stated that the tourism has undergone, particularly over the past 25 years, great changes as well as changed the economic character of our whole country. Heavy industry retreated into the background; mining, quarrying as well as metallurgical industries were extensively damped. With the demise of these industry sectors, the affected regions were seeking for various options to employ the "loosen" labour force not only in innovative technologies. One of the ways was the development of tourism. In typical industrial areas that cannot offer "traditional" tourist attractions, e.g. historical architectural monuments, cultural sights as museums and galleries, or spa, it was a complex and long-lasting process.

An example can be the town of Hodonin in the Podluzi region, originally agricultural, famous for wine and gardening where mining and quarrying (lignite, oil and natural gas) for almost one and a half centuries influenced many events, but where after closing (lignite) and partial damping (hydrocarbons), the transition to other activities – particularly to the tourism sector – is much easier.

There are a lot of other technical attractions (especially contemporary ones) in the Hodonin region, which could be presented closer to a wider audience. In many cases it would be achievable simply by the inclusion of small branches to the existing wine cycling trails. On the Podluzi tourist trail, for example, collecting oil centres in the municipalities of Hrusky and Podvorov, and technological equipment for the underground gas storage Tvrdonice might be situated. Alongside the trails, it is also possible to see the typical surface mining equipment called mining trestles, which completes the atmosphere of the local landscape for a couple of decades. Connecting the traditional tourist attractions with industrial tourism has still a hidden significant tourist potential.

REFERENCES