GeoJournal of Tourism and Geosites ISSN 2065-0817, E-ISSN 2065-1198

# INDUSTRIAL TOURISM IN THE CONTEXT OF THE INDUSTRIAL HERITAGE

### **Petr BUJOK**

Institute of Geological Engineering, Faculty of Mining and Geology, VSB – Technical University of Ostrava, 17. listopadu 15, 708 00 Ostrava Poruba (Czech Republic), e-mail: petr.bujok@vsb.cz

### **Martin KLEMPA**

Institute of Geological Engineering, Faculty of Mining and Geology, VSB – Technical University of Ostrava, 17. listopadu 15, 708 00 Ostrava Poruba (Czech Republic), e-mail: martin.klempa@vsb.cz

### Jan JELÍNEK

Institute of Geological Engineering, Faculty of Mining and Geology, VSB – Technical University of Ostrava, 17. listopadu 15, 708 00 Ostrava Poruba (Czech Republic), e-mail: jan.jelinek@vsb.cz

### Michal PORZER\*

Institute of Geological Engineering, Faculty of Mining and Geology, VSB – Technical University of Ostrava, 17. listopadu 15, 708 00 Ostrava Poruba (Czech Republic), e-mail: michal.porzer@vsb.cz

### Marina Alejandra G. RODRÍGUEZ GONZALEZ

Institute of Geological Engineering, Faculty of Mining and Geology, VSB – Technical University of Ostrava, 17. listopadu 15, 708 00 Ostrava Poruba (Czech Republic), e-mail: marina.alejandra.g.rodriguez.gonzalez@vsb.cz

Abstract: Industrial tourism is the field that is focused on the recognition of the historical industrial monuments and abandoned facilities. Recently the rising trend in the interest in this branch of tourism can be observed especially in the industrially well developed countries. This field of tourism was just recently a domain of only a limited group of technical enthusiasts but that happens to change as the larger public is beginning to find interest in technical monuments. The industrial legacy of our ancestors is worth our attention especially in our busy time as they represent their skills, resourcefulness and ingenuity. In our modern era it is often beneficial to just "switch off" and observe the marvellous contributions of the past to the development of present society. In this paper the examples of successful utilizations of abandoned industrial facilities are presented. They are great example of conversion of the often dilapidating buildings and compounds into the facilities which plays beneficial and also educational role in society that can be followed not just in Czech Republic but also around the Europe. In many cities or towns some industrial facilities which remained without the employment since their abandonment can be found. Even that they usually don't represent culturally significant monuments they are often buildings which are technically interesting and which are contributing to the local character. The example of Vítkovice ironworking compound and other selected facilities can serve as the inspiration for the similarly affected cities.

Key words: industrial heritage, industrial tourism, technical monuments, Ostrava city

Corresponding author

#### \* \* \* \* \* \*

### **INTRODUCTION – INDUSTRIAL HERITAGE**

The issue of utilization of the industrial heritage (with the focus on the industrial tourism) is not the matter of just late fashion in the Czech Republic. Since 1987 the Section for the Preservation of Industrial Heritage (SOPD) founded under the National Technical Museum by Professor Emil Hlaváček is professionally involved in this field in the Czech Republic. The original plan for the SOPDs functioning was inspired by the activities that took place in the Great Britain. Germany and France where the conservation of the industrial heritage started several decades earlier. These countries were influenced by the cardinal changes in the heavy industry and also mining industry sector since late 1970s. The industrial transformation and introduction of the modern technologies led to the abandonment of the existing facilities that eventually began to be utilized for tourism, expositions, conferences and conventions. The industrial regions of Germany are great example of such transformation. In 1989 the Landtag of North Rhine-Westphalia agreed on the conceptual programme Emscher Park that originated at the Internationale Bauausstellung (International Building Exhibition) which comprised of the 800 km<sup>2</sup> area with 17 cities that were influenced by the industrial transformations. During the 10 years of the programme lifespan there were implemented about 120 projects in the social, cultural, environmental and civil engineering sectors that formed the foundations for the restructuring of the region. The framework of Emscher Park 1989-1999 programme included the conservation and plan for re-utilization of 150 industrial monuments in cooperation of many state and cultural institutions. It led also to the establishment of "Route der Industriekultur", the 400 km long Industrial Heritage Trail which connects 25 industrial locations.

In the Czech Republic the activities of SOPD were followed by the Research Centre for Industrial Heritage (VCPD) under the Czech Technical University in Prague (ČVUT) which was established in 2002. Since its foundation its main goal is to keep records of industrial heritage on the territory of the Czech Republic. Among other activities the VPCD collects data for various establishments such as Industrial Heritage Register of the Czech Republic, National Heritage Institute, Ministry of Culture, CzechInvest – the agency of the Ministry of Industry and Trade, etc. These institutions cooperate with each other and collected information is assembled in the Industrial Heritage Register. Collected data allows setting the guideline e.g. for the new architectonic proposals on the abandoned industrial facilities re-employment and deeper comparison of the different alternatives.

It is necessary to emphasize that it is required to apply identical criteria for the industrial heritage as for other sights and monuments as this effort demands expert knowledge of various fields such as preservation, urban planning, architecture, ecology, social science and culture. The transformation of North Rhine-Westphalia showed that even the knowledge political aspect is indispensable. The mapping, understanding and especially formation of the remains of the industrial epoch is such a demanding task that it can't be handled by just a single expert institution (Janata, 2009; Fragner & Šenenberg, 2007). In above mentioned countries it is common that this assignment is carried out by the national institutions (e.g. English Heritage) with close cooperation of departments of universities, development agencies and museums which tend to be very active in this matter.

In the Czech Republic the efforts put into the industrial heritage led to the foundation of the Council for Technical Monuments ČKAIT & ČSSI (Czech Chamber of 82

Chartered Engineers and Technicians Engaged in Construction & Czech Union of Civil Engineers) which in cooperation with VCPD and SOPD organized first biennial congress "Vestiges of Industry" in 2001. These events went on in following years in various locations and cities with significant industrial history (Janata, 2009; Orsillo, 2007; Valchářová, 2003). Eventually these regional or local events and conferences grew into the national scale with participants from foreign countries and their essential content was comparison and exchange of experience in the field of industrial heritage.

Good example of such event from Czech Republic is the 2005 edition of Vestiges of Industry. The city of Kladno intensively participated there and the highlight of the conference was its closing part, the Industrial safari in former ironworks Vojtěšská. Also the 2011 edition which took place in Ostrava, where the main topic was "Architecture Through Transformation – The Equilibrium of Preservation, Creative Innovation and Destruction". Another great example of research results is the publication of the above mentioned Council for Technical Monuments ČKAIT & ČSSI that was published in 4 volumes, named Technical Monuments of the Visegrád Countries. It was released in four languages of the Visegrád Group countries (Czech, Hungarian, Polish and Slovak) and also in English language (Fragner, 2005; Šírová & Šír, 2012; Wirth, 2010).

"The Council" published in 2002 another very interesting guide (see Ferris, 2010; Chorzepa, 2005; Wirth, 2010). This work of the group of experts deals with technical and industrial monuments. Great significance bears also the project that was realised during the period of 4 years which consisted of applied research of Ministry of Culture of the Czech Republic under the programme NAKI (National and Cultural Identity). The name of the project was "Industrial Topography of the Czech Republic – The New Utilization of the Industrial Heritage and Cultural Identity". The project was carried out by the VCPD and among its practical outputs belongs the series of publications "Industrial Topography" that is focused also on the excursional tourism and its development (Januszewski, 2004; Wirth, 2010).

## INDUSTRIAL TOURISM

Abandoned industrial facilities and their purpose-built infrastructure are often in the focus not only of those involved in the preservation of the sights and monuments of industrial and historical origin but recently they also began to attract other parties by their unusual character. The new and quite interesting branch of tourism, known as the **industrial tourism**, emerged as a consequence of this interest. It allows tourists to recognize a typical industrial environment and its evolution by knowing the industrial monuments of various kinds.

This approach proved that it is not necessary to put abandoned industrial objects through the demolition and that their disposal would deprive the touristic potential of the region of valuable features. Nowadays as the public begins to lose its touch with the manufacture the industrial monuments provides the lessons about the progress of the mankind and industry as well as about inventiveness and creativity of our predecessors. The preservation of industrial heritage is in this context not only the matter of experts but also of the modern society.

Nevertheless saving existing industrial object from demolition works is just the first step that has to be followed up by their preservation and restoration as well. The third succeeding step is the complex of activities that allows the access of the public onto these abandoned fascilities which again brings them to life (Januszewski, 2004). The last step is also the intersection point of activities of tourist industry with efforts of preservationist as the industrial monuments significantly enrich the supply of attractive visiting possibilities which draw attention of public.

## THE CITY OF OSTRAVA - PRIMARY DATA

The city of Ostrava is the capital city of the Moravian-Silesian region and the seat which lies on the borderline between Moravia and Silesia at the northeast of the Czech Republic not far from the Czech-Polish border. It is the third largest city in the Czech Republic not just by its population of 300,000 residents but also with its area. It is the second biggest city of Moravia and the biggest one in Silesia. It is still very important industrial and university town. Ostrava is situated at the junction of the Lučina, Oder, Opava and Ostravice rivers in the geomorphological unit Ostrava basin. The location of the city can be seen on the Figure 1.

It was originally a small settlement that was founded above the Ostrá river (present Ostravice river) from which the name Ostrava is derived. Today this river divides the city into two parts, the Moravian Ostrava and the Silesian Ostrava as it also forms a natural border between these historical regions of Moravia and Silesia. First written reference to the village of Silesian Ostrava is dated in year 1229 in the document of the pope Gregorius IX. The settlement Moravian Ostrava is mentioned for the first time in the year 1267 in the testament of Bruno von Schauenburg the Bishop of Olomouc. It received town privileges on the year 1279. The city of Ostrava experienced a significant development in the Middle Age mostly due to its position on the Amber Road which connected central Europe with the Baltic countries. However, after the Thirty Years' War the importance of the city decreased.



Figure 1. The location of the Ostrava city with the outlined position of the Lower Area of Vítkovice (Source: Google Maps, 2014)

The Ostrava city again achieved greater magnitude in 1763 by the discovery of the black coal of high quality in the Burňa valley. This year marked the starting point that led to the mining expansion in the 1840s. In 1828 the leader of the dominion the 84

archbishop of Olomouc Rudolf of Austria founded the ironworks in Ostrava. This ironworking facility later fell under the ownership of the Rothschild family and its name was changed according to its location to the Vítkovice iron works. This step was the beginning of the industrial expansion in the city and Ostrava began to be known by the nickname *The Steel Heart of the Republic* even until the late 20<sup>th</sup> century (Matěj et al., 2009; Volf, 2013).

# THE LOWER AREA OF VÍTKOVICE - HISTORY

The foundation of the iron works in the Ostrava-Vítkovice in the 1828 began with the construction of the puddling facility by the order of the archbishop of Olomouc. It was put into operation in 1830 and experienced a significant growth in 1835 when its ownership went on the banker S.M. Rothschild and his company Vítkovice Mining and Iron Corporation. In the year 1836 there was built the coke blast furnace which was the first of its kind in the whole Austro-Hungarian Empire at that time. For example the local production of rails for the construction of the Emperor Ferdinand Northern Railway, which connected Vienna with the salt mines in Bochnia and Wieliczka, was among the most notable contracts of that time. In 1847 after the growth of demand on the market the rolling mill Anselm was established. Later in 1857 the Hlubina coal mine was developed and served as a source of high quality coal for surrounding colliery and ironworks for a long following years (47 mil. tons of coal was extracted during its operation). Thus the unique complex came to existence where the whole technological process took place within one facility and under the one company.

The transport between each technological unit was realized by means of belt conveyors, transporting bridges and loading devices. Next distinct expansion of this ironworking business originated in 1873 from the fusion of the Rothschild company with the Gutmann brothers and who together established Vítkovice Mining and Iron Corporation (Vítkovické horní a hutní těžířstvo). The production grew especially thanks to the arms industry by e.g. fabrication of the armour plates for Austro-Hungarian battleships (Jičínský, 1875; Majer et al., 1985).

After the Czechoslovakia declared its independence from the Austro-Hungarian Empire (in 1918) the ironworks produced especially seamless containers, boilers, propeller shafts for ships or components for power plants. Originally only an ironworking facility grew to the gigantic scale on the market and expanded even on the field of mechanical engineering. The post-war development brought the transformation of the production and after the nationalization (in 1950s) the facility fell under the government ownership and was also renamed to the Vítkovice Ironworks of Klement Gottwald (Kárníková, 1958; Šuf, 1952; Suldovský, 2006). Until just recent decade it would be nearly impossible to find city or village on the Czech territory without e.g. a bridge, silo or some industrial object that was made in Ostrava-Vítkovice.

However this tradition ended as the ironworks in Vítkovice stopped its production quite unexpectedly in 1998. Due to the reduction of the industrial production the manufacture was at that time almost immediately transferred to the less advanced southern facility called New Ironworks regardless the fact that the Vítkovice Ironworks belonged amongst the most developed facilities in the ironworking industry in Europe at the end of 1980s (Světlík, 2012; Pleskot, 2013).

The coal mining in the above mentioned coal mine Hlubina, one of the deepest coal mines in the Ostrava-Karviná coal basin (1022,6 m), was suspended in 1992. After its abandonment and the closure of the ironworks the remaining industrial objects began to fall into disrepair. Fortunately the thoughts of its demolition were replaced by the proposal of the revitalisation of the area in order to preserve it for the future generations.

# **REVITALISATION OF THE LOWER AREA OF VÍTKOVICE – VISION AND PRACTICE**

On the 4<sup>th</sup> edition of biennial congress Vestiges of Industry in 2007 the managing director of the Vítkovice Company Jan Světlík introduced the vision of the revitalisation of the abandoned industrial facility. During his speech he said: "At the turn of the year 1994 even before the production stopped there was established the extensive monument protection zone around the Lower Area of Vítkovice facility. The Ministry of Culture of the Czech Republic proclaimed the zone of the Hlubina coal mine, the Vítkovice coking plant and the blast furnace as a cultural monument in year 2000 (Figure 2).



Figure 2. Aerial photograph of the national cultural monument area with with the outline of its main objects (Source: www.mapy.cz, 2014)

Later in 2002 it was declared a National Historic Landmark with the idea of a tourist educational trail leading through the part of the complex with the other part being a controlled ruin. In 2004 the privatized Vítkovice Company then rejected the plan of controlled decay of the part of objects. Since the second half of the year 2006 the activities for re-utilization of the whole area began to expand (Figure 3). The vision of our company is to bring back the life to the Lower Area of Vítkovice, the part of the Ostrava city centre." After consideration of arguments Jan Světlík proposed a strategy for the re-employment of the northern part of the Lower Area of Vítkovice where the National Historic Landmark area is situated (Ferris, 2010; Světlík, 2012). Inside the area of the protected monuments will be situated the research facilities and university campus. The central and southern part of the industrial complex will be adjusted so it can be used by engineering companies. These companies are meant to provide the Vítkovice company, which is in the possession of the premises, with the products that are needed for company's 86

development. However the Lower Area of Vítkovice is not meant only for business purposes but also as a residential area with leisure objectives as well. Since 2008 the Lower Area of Vítkovice is inscribed in the European Cultural Heritage list.

Under the non-profit special interest associations of legal entities "Lower Area of Vítkovice" comes also the technical monument Landek Park that includes a coal mine Anselm (currently the largest mining museum in the Czech Republic) in the Ostrava-Petřkovice part of the city. Together with the coal mine Michal, which lies in the Ostrava-Michálkovice district, this complex of monuments is nominated for a place in the UNESCO World Heritage List.

In September 2009 the project of the revitalisation and re-utilisation of the blast furnace and other protected objects (Energy Central Station, Gas Container) of the Lower Area of Vítkovice was granted 500 million of CZK from the EU programme and also from the state budget. The project for the reactivation of the Lower Area of Vítkovice aims to the new employment of the main objects and to make them accessible for public. Eventually the complex should then serve as an educational and socio-cultural centre. Therefore it is obvious that "mere" preservation of the industrial complex is not the main goal and that the efforts are made to enhance the former ruin to the valuable property – the heritage of industrial age. The first part of the above mentioned project for reactivation ended in 2012 and three main objects of the industrial complex were made accessible, the Blast furnace No. 1, the Gas container and the 6<sup>th</sup> Energy Central Station (Valchářová, 2003; Volf, 2013). In the present day the Lower Area of Vítkovice is the largest industrial sight complex in the Czech Republic.



**Figure 3.** The sight of the part of the Lower Area of Vítkovice as seen from the historical train station Ostrava-Střed (Source: Martin Klempa, 2014)

## Blast furnace Nº 1

The history of furnace dates back to the year 1871. In the place where nowadays is situated blast furnace N° 1, was ignited the first of this kinds (blast furnace) known as Scottish type. This metallurgical furnace functioned, with some interruptions, until the year 1902. A new and more efficient furnace was built over the following three years. In the years

1910 – 1911 it went through a very essential modification, an incline elevator driven by a steam engine was introduced. After an overhaul of the blast furnace, was obtained its final version in 1988 (Majer, 1983; Stenberg, 2003). At that time this blast furnace was one of the most modern of its kind in Europe, and at maximum performance was able to produce up to 300 000 tons of special and iron foundry. The last tapping of blast furnace occurred in 1998. According to the project of architect Josef Pleskot, in the years 2011 - 2012 the furnace was structurally adapted as an interactively educational and sightseeing route that leads up to a height of 64 m (Volf, 2013) (Figure 4). Part of the route can be done by using the reconstructed incline elevator. The interior of the furnace can also be viewed.

# Gas holder (container)

The construction of the so-called wet gas holder was finished in 1924. The gas holder had a capacity of 50 000 m<sup>3</sup>, its function was collect cleaned blast furnace gas and maintain the pressure in the gas network. The blast furnace gas, as a by-product in the production of iron, was conducted to a dust catcher, where it was cleaned and an eighty percent of dust was removed, after that was led into the gas cleaning system, where the remaining particles of dust were taken away. The cleaned gas was used as heating medium of air heating; coking chamber of the coking plant was heated by this cleaned gas which served as a fuel for engines of gas piston blowers. In 1998 the operations of the blast furnace were finished and so the operations of the gas holder.



Figure 4. Blast furnace N° 1 (middle) with the "sightseeing" adaptation (Source: Martin Klempa, 2014)

In November 2010, according to the design of the architect Josef Pleskot, preparatory work for the reconstruction of the building was begun. The gas bell was lifted in about 1492 cm. This value corresponds to the year, in which America was discovered; but for the Lower Area of Vítkovice symbolizes the discovery of new possibilities for unique technical sites. Inside the gas-holder were placed installations such as conference rooms, foyer (lobby), coatroom, gallery, and a big hall with a capacity of 1500 visitors. In the year 2012, a multifunctional hall named Gong (Světlík, 2012) was opened (Figure 5). 88

Later in 2013 the hall Gong was elected as the Construction of the year in Czech Republic; in the same year at the International Trade **Fair** EXPO REAL in Munich was ranked among TOP 10 constructions in the World.



Figure 5. The reconstructed gas holder – now a multifunctional hall named Gong (Source: Martin Klempa, 2014)



Figure 6. The entrance to the reconstructed building VI. energy center - nowadays "Little world of technology U6" (Source: Martin Klempa, 2014)

# VI. Energy central station

This center was built in the 1930's as a covered area for a pair of gas piston blowing engines which produced compressed air using the blast furnace gas. These historical treasures together weigh 1800 tons and have a cylinder capacity of 13,870 m<sup>3</sup>. The compressed air was led, by external pipes, to the blast furnace number one, where at preheat temperature up to 1200°C supported combustion in the production of pig iron. Based on the project of Helena and Václav Zemánek and in the final phase of architect Zdeněk Fránek, in the *Little World of Technology U6* (Figure 6), the VI. energy central station was reactivated. This is an exposition that tries to explain to children and people in general (using funny, accessible and interactive methods) key technical advances that have influenced the scientific and technological development in Czech Republic and abroad.

The exposition was opened in 2012. Eight themed worlds, situated in two floors and inspired by books of Jules Verne (e.g. Journey to the Center of the Earth, The Begum's Fortune), welcome the visitors. As can be seen, the famous French writer, who was born in the same year in which Vitkovice ironworks was established, guides the visitors throughout the entire exhibition (Světlík, 2012, Pleskot, 2013).

Besides the exhibition, teaching and learning rooms were constructed. This area consists of three classrooms and a large lecture hall (Volf, 2013). Here the lessons are focused on promoting the interest to study in natural science and technical fields.

In the zone of Lower Vitkovice, in September 2014, a completely new building named "Big World of Technology" was opened to the public.



Figure 7. The new building "Big World of Technology" (Source: Martin Klempa, 2014)

## The new building Big World of Technology

The expression of the name of building **Big world of technology** is scanty – minimalist, but offers rich – maximalist experience. Its unforgettable form consists of two main materials, building mirror glass walls and classical fired bricks. It has the shape of an isosceles triangle whose hypotenuse constitutes a glass facade of 125 m long and 12,5 m tall. One hundred and fifty flat glasses which together weigh almost 115 tons compose this facade (Figure 7).

It has been termed as the largest industrial mirror in the World, because it reflects the surrounding industrial buildings and also the nature (Pleskot, 2013). This building with its untypical shape will function as a space to promote the interest in science and technology, and also for an unconventional type of education for the students. Results of the most advanced technologies, scientific discoveries and how the natural laws work are among the topics presented in interactive exhibitions using an attractive and entertaining 90 form. Appropriately this will be complemented by the features of an interactive playroom U6 called "Little World of Technology".

## MAKING THE AREA OF HLUBINA COAL MINE ACCESSIBLE AND THE NEW USE OF THIS ZONE (PART OF NCM – NATIONAL CULTURAL MONUMENTS)

The aim of the project is remodeling the buildings of zone Hlubina coal mine into studios, clubrooms, testing rooms, teaching & learning rooms, areas and halls for presentations; and its fulfillment with non-profit-making activities (e.g., educational, social, cultural and recreational) in the fields of arts, environmental and social sphere. All the objectives and activities in the project are focused on the fact that after the project is completed, the NCM will become an integral part of the urban and regional educational infrastructure with the meaning of use technical monuments for cultural and social activities (Světlík, 2012; Pleskot, 2013). The construction of a public space in the area of NCM and the connections of the technical and road infrastructure are expected. Another element of the end of the project is the connection to the area of Lower Vítkovic with a common sightseeing route that encompasses, inter alia, a tour of Mining tower which forms a visual landmark of the area in question (Figure 8).



**Figure 8.** Mining tower of Hlubina coal mine (Source: Martin Klempa, 2014)

**Figure 9.** New facelift of Triple Hall Karolina (Source: Martin Klempa, 2014)

# DEVELOPMENT IN FOLLOWING (SUCCEEDING) AREAS Triple Hall Karolina

Triple Hall Karolina is another project of this area, which is also a work of architect Pleskot. After destruction of the former coking plant Karolina, only the above mentioned historical buildings remained. These historical constructions are the central office and the electric central station (Figure 9) and together create an area covered by a roof for a variety of sporting, social and entertainment events.

The triple hall is situated near to the city center. The remaining part of the coking plant occupies a large, and still under construction, complex of stores and place services called Nova Karolina. This part went through eight years of a continuing and very costly remodeling and includes a habitation and administration (services).

Nova Karolina in Ostrava (NK) with its 32 hectares of area is one of the largest and most interesting development projects in Czech Republic. Besides the shopping and entertainment center Forum NK that is already open, the first stage of the development area NK in Ostrava includes office buildings NK Park and almost two hundred apartments.

## SUMMARY

For European Communities, industrial tourism came to the fore in the last 15 years. This type of tourism not only offers to visitors the opportunity to know local history with sightseeing tours of industrial sites, but also proposes attractive experiences and adventures while discovery. Tourist routes across the continent help to connect industrial heritage and are one of the forms to represent the indispensable values of the European continuity.

The program of the cultural routes of the Council of Europe (officially created in 1987) is managed by an executive agency of the Council of Europe since 1998. This executive agency (The European Institute of Cultural Routes), through new propositions, projects, improvement of job offers and contacts, aims that the Council of Europe and its different members will be successful in the long term applications of scientific, technical and social criteria in industrial heritage in order to protect and develop information about this matter.

The program of the European cultural routes has been presented for example by Laurie Holzer; these are trajectories which based in a specific cultural topic, connect two or more regions. The principle is not new (e.g. Amber Road), but the development of this principle can lead to interesting changes in the promotion and development of these places.

The International Committee for the Conservation of the Industrial Heritage (TICCIH) took place on July 2003 in Nizhny Tagil, Moscow. The Nizhny Tagil Charter for the Industrial Heritage is a document written in this committee and passed by the assembled delegates of TICCIH. The document summarizes the essence of industrial heritage, brings social values into focus, and defines the main priorities and forms how this important part of our cultural heritage can be protected and preserved (Fragner, 2008).

Life to the rhythm of industry creates of Ostrava a metropolis. The city Ostrava guides the visitors into routes which are very different from the typical touristic routes of Czech Republic. These are industrial routes of the 21st century.

The zones of The Lower Area of Vítkovice Company can be proud of the record attendance they recently had. According to statistics, in 2013 places like Blast furnace No. 1, Multifunctional hall Gong, Little World of Technology in U6, and Landek Park were visited by nearly 680 000 people. If is compared to the last year, is approximately 150 000 more visitors.

Social events that take place at the Lower Area of Vítkovice and Landek Park attracted the attention of the visitors and there is no difference between the type of event that the people attend, it can be an international conference about a specialized topic of engineering or medicine; or annual music festivals like Colours of Ostrava, Beats for Love (style Drum and Bass, Techno, House), Rock Ostrava with performances of international stars like Phillip Glass or Gregory Porter; but also can be the student party Majáles.

### **CONCLUSION**

Many groups of prospective clients or tourist in this case, are interested in Technical monuments, and is not about the so called "Steampunk" trend or technical fans of all types, but is about students of engineering and technological disciplines, who are interested to seeing these monuments with the aim to learn the basics of their fields: at this point are established different cooperative links between public sectors and diverse organizations. What is the meaning of steampunk? Well, is a sub-genre of science fiction that typically features steam-powered machinery, especially in a setting inspired by industrialized Western civilization during the 19<sup>th</sup> century. The steampunk is also introduced in the movie industry and music. It is not a surprise that people is getting tired of the penetrating high technology and for this reason they are looking for a romantic way to the beginnings of technology. This trend only shows how great the touristic potential in our technical sites is. Indubitably, the path from a closed factory or closed mine to a successful touristic product is very long, complicated and financially challenging; nevertheless, give it a try worth. Czech Republic has huge potential in this area.

### REFERENCES

- Ferris, B., (2010), *Preservation and re-use/Chatham historic dockyard trust*, sborník mezinárodní konference "Industriální stopy", Praha ČVUT. ISBN 978-80-01-04521-3.
- Fragner, B., (2005), Industriální stopy, České vysoké učení technické v Praze, ISBN 80-239-5440-7.
- Fragner, B., Šenberger, T., (2007), *Stavební fond průmyslového dědictví potenciál udržitelného rozvoje,* časopis Stavebnictví, 11-12/07.
- Chorzepa, J., (2007), Fortyfikacje, 1. Vyd. Warszawa: PWN, Carta Blanca, ISBN 978-83-60887-09-7.
- Janata, M., (2009), Průmyslové dědictví může být katalyzátorem rozvoje 4. Konference CONSTRUCTION (stavební informace, práce, inzerce), 5.11.209.
- Januszewski, S., (2004), *Technika w dziejach cywilizacji z mysla o przyszlosti*, 1. vyd. Wrocław: WPW, ISBN 83-904357-7-2.
- Jičínský, V., (1875), Katechismus důlního větrování pro poddůlní a dozorce, Moravská Ostrava.
- Kárníková, L., (1958), Úloha uhlí v průmyslovém rozvoji Čech do poloviny 19. stol., Praha.
- Majer, J., (1983), Hornictví v českých zemích 1830 1918, in Sborník Národního technického muzea v Praze.
- Majer, J., Matějček, J., Matušek, Z., Novosad, J., Paděra, Z., Pekár, M., Vozár, J., (1985), Uhelné hornictví v ČSSR, Profil Ostrava.
- Matěj, M., Klát, J., Korbelářová, I., (2009), *Kulturní památky Ostravsko karvinského revíru*, Národní památkový ústav, Územní odborné pracoviště v Ostravě. ISBN 978-80-85034-52-3.
- Orsillo, N., (2007), On the Concept of Cultural Landscape and Methods for Protectings Ostrava ´s Post Industrial Mining Cultural Landscape, Sborník příspěvků z mezinárodního kolokvia a odborných seminářů TECHNÉ OSTRAVA, Ostrava: Dům kultury Poklad, ISSN 1214-8807.
- Pleskot, J., (2013), Ostrava je město srovnatelné s Prahou, rozhovor Exkluzivně na ČT24.
- Šírová Motyčková, K., Šír, J. (2012), Technické památky České republiky, Rubico, Olomouc, ISBN 978-80-7346-141-6.
- Stenberg, K., (2003), Nástin dějin českého hornictví, Ostrava.
- Suldovský, J., (2006), Kronika hornictví zemí Koruny české, CDL Design s.r.o. ISBN 80-903760-0-2.
- Světlík, J., (2012), *Revitalizace Dolní oblasti Vítkovice vize*, Urbanismus a územní rozvoj, ročník XV, číslo 1/2012.
- Šuf, J., (1952), Geologie uhelných ložisek, Praha.
- Valchářová, V., (2003), Industriální stopy, Zachráněné plány industriální architektury, ERA 21 III, číslo 4.
- Volf, P., (2013), 1492: Příběh Dolních Vítkovic, Praha: Prostor architektura, inetriér, design, o.p.s. ISBN 978-80-87064-10-8.

Wirth, P., (2010), *Small is successful? How small mining towns tackle the problems left by mining,* Bulletin The International Commitee for the Conservation of the Industrial Heritage, number 47, spring 2010.

www.mapy.cz, 2014

Submitted: 07.10.2014

Revised: 07.05.2015

Accepted and published online 11.05.2015