

TOURIST CAPITALIZATION OF INDUSTRIAL HERITAGE ELEMENTS: A STRATEGIC DIRECTION OF SUSTAINABLE DEVELOPMENT. CASE STUDY: THE PETROȘANI DEPRESSION

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Abstract: The diversity of technical and industrial heritage artifacts (coal mines, limestone quarries and energy and textiles industrial centers, among others) inside the Petroșani Depression (one of Romania's biggest mining regions) requires their preservation and capitalization by tourism, which is at the same time the best way to display the history and culture of the region. A part of the industrial centers are currently closed down, which allows for their reassessment and reshaping, by identifying ways for renewed technological and economic exploitation. In this context, the purpose of this study is to carry out an analysis of industrial heritage assets, in order to define a strategy for their capitalization as cultural tourism attractions. At the same time, industrial tourism can contribute to changing the negative public perception of the Petroșani Depression and to its acquiring the status of a cultural tourism destination.

Key words: Petroșani Depression, industrial archaeology, cultural heritage, industrial tourism, reuse of industrial space

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1. INTRODUCTION

The Petroșani Depression remains Romania's biggest pitcoal basin, even 12 years after measures were taken to reorganize the economy, which led to numerous mines closing down (Câmpu lui Neag și Valea de Brazi, Petrila Sud, Dâlja Mică and Dâlja Mare, Livezeni; the Dâlja Mică, Dâlja Mare and Livezeni mines are administrative subdivisions of the city of Petroșani). Nowadays, mining, the traditional economic activity of the Petroșani Depression, continues to dominate the local economy and accounts for the bulk of the employed population (40 %) (Iancu, 2007, p. 128).

The area analyzed is characterized by a large variety of cultural heritage assets; standing out among them are the industrial archeology features identified at the level of decommissioned mines. The goal of this study is to carry out a synthetic analysis of the industrial heritage assets and come up with a strategic solution to preserve them and capitalize on them as cultural tourism attractions.

The special attention paid to preserving and capitalizing on technical and industrial heritage assets in Europe and even worldwide makes it necessary to identify, inventory and protect industrial artifacts in the Petroșani Depression. Programs to preserve the industrial patrimony have to be incorporated into economic policies for regional and national development and planning.

2. INDUSTRIAL HERITAGE ASSETS AS CULTURAL GOODS

In the 1990s, the concept of cultural goods was “revolutionized” when its scope expanded to encompass technical and industrial heritage assets. Although at a first glance the association of terms such as “cultural goods” and “industrial heritage” appears a combination of conflicting meanings, the cultural importance of industrial heritage elements is due to the manifold sides of economic assets: historical value (some types of industrial work go back to the prehistoric age); social value, highlighted by the importance of the workforce, which practically exerted an anthropogenic effect on the economic assets, scientific and technological value, reflected by the level of the equipment used in the industry) (Industrial Patrimony Charter, 2003, p. 2).

One other perspective that accounts for the cultural importance of industrial heritage assets is the fact that they have a symbolic and monumental value, and the main purpose of their preservation lies in the need for preservation of the collective memory (Arendt, 1958, Lynch, 1960, Riegel, 1982 quoted by Severcan, Barlas, 2007, p. 679).

Romania decision to include industrial archaeology elements in the field of cultural heritage is grounded in Law no. 6/2008 concerning the legal status of technical and industrial heritage; the law’s main purpose is to define technical and industrial heritage and rank it as an equal to other “traditional” cultural goods. Technical and industrial heritage assets have also been included in the classification of tourist resources drawn by the Ministry of Culture and National Heritage, alongside other categories of tourist resources that make up the structure of the national cultural heritage (archaeological monuments and sites, ethnographic heritage, museums and collections, commemorating monuments, etc.) (The Ministry of Culture and Religious Affairs’ strategy concerning the national cultural heritage, 2008, p. 16).

Initially, the scope of industrial tourism was defined in terms of industrial units that had been closed down, either as a result of economic causes (dropping mineral resources, or resources running out), or as a result of conditions pertaining to resource capitalization policy; in time, the concept of industrial tourism gained a wider meaning, encompassing trips to industrial units in commission (Elspeth Ann Frew, 2000, p. 20) or even other types of economic facilities, in the sectors of banking, insurance, food production, energy generation, wine-making regions etc. (Hill, Alexander & Cross 1975, Cox&Fox 1991, Macionis 1996, MacCannell 1976, Swarbooke 1995, Kelly and Dixon 1991 quoted by Elspeth, p. 21-30).

Romania, although a late addition to the field of industrial tourism as compared to other European countries, offers a set of models on how to capitalize on industrial heritage assets by including in the tourist circuit various economic facilities: the salt-mine industrial destinations (Slănic Prahova, Târgu Ocna, Turda), trips to vineyards or vineyards’ wine-making facilities (the Recaș Wine Cellars, Rhein Azuga Wine Cellars – the facility that processes wine from the grape of the Dealul Mare vineyard), and trips to mines (Roșia Montană – the Alburnus Maior archaeological site), for instance.

The particularity of decommissioned industrial economic units results from their capacity to reconstruct the historical and cultural past of the area where they are located, and thus serve as archeological remains, which results in some authors’ view of industrial tourism seen as a subcategory of archaeological tourism (Innocenti, 2007, p. 40). The doctrine of industrial archeology thus emerged, which is the scientific premises of industrial tourism; it studies industrial technology assets in the near and distant past

(heavy industrial equipment, machines, means of transport, traditional products, means of production and production technologies) as well as the social and economic aftermath of the industrial revolution (Corti, 1991, p. 11).

Industrial tourism not only capitalizes on economic assets, but at the same time it prevents their destruction (Corti, 1991) and allows tourists to gain an insight into local history (Preite, Maciocco, 2000), as there are cases when industrial heritage assets are the main reasons for selecting a tourist destination.

3. THE CHARACTERISTIC FEATURES OF INDUSTRIAL HERITAGE ASSETS IN THE PETROȘANI DEPRESSION

The historical importance of industrial heritage assets in the Petroșani Depression is highlighted by the history of mining in the area, going back close to two centuries, to when the first land surveys confirmed the suspected existence of mineral resources in the underground of the depression.

The scientific and technological value of the industrial heritage is highlighted by the evolution of technology and industrial equipment used in coal extraction in the mines in the upper Jiu valley. The earliest forms of coal resource exploitation were primitive, which can be accounted for, on the one hand, by the presence of coal close to the surface (exploitations consisted in digging shallow pits to reach outcrops, in several places in the Petroșani, Petrila and Vulcan regions). Mention must be made that this was the first phase in capitalizing on the local coal resources, and it came as the result of private initiative. Soon after, the economic value of the coal reserves captured the interest of the Austrian-Hungarian Empire, which took steps to take over and control mining operations. From that moment on, coal mining in the Jiu valley will undergo thorough changes, and it will become a industrial-scale exploitation. In terms of the technology used, 1890 was a new landmark in the history of mining in the Petroșani Depression, as the first equipment entered service, drilling, shipping and mechanically processing coal, a natural aftermath of the headway made in drilling technique, and topsoil and quarry work was abandoned. Underground mine work gradually expanded (Congress of the Mining Engineers and Technicians' Association, 1931, p. 86). In 1890, in Aninoasa, there was built the first wooden cable car in Romania used in mining industry to transport coal from the mine to the mine separation West Petroșani. In 1892 the Obach company erected the cable car used to cover a distance of 4,000 m, powered by a monocylinder steam engine (Dăbuleanu, Sosoi, Rancea, 1987, p. 29).

In time, as shipping technology progressed, it was put to use in mining, with the construction of the industrial railways. As work began on a large number of mines, it was necessary to build the means of shipping the coal to its final destinations, some of whom were at that time located beyond Romania's borders; the first railway in the depression was laid in 1870. In 1938, the first trolley engines were introduced, which gradually replaced the underground horse-powered coal transport.

The aftermath of the first World War strongly influenced mining in the Jiu valley, as coal production dropped; in the interwar years, the Romanian state took over the rights to exploit underground resources, and carried out large-scale action to modernize and resize the equipment used on the mine premises and step up the rate of opening new mines in order to increase coal production, with the goal of ensuring supplies for domestic use (railway shipping, industrial units and individual consumers). Extending the scope of underground work became necessary, which led to a set of large-capacity underground tunnelwork, fitted with drillshafts connected to the surface by mechanical coal breakers. Among steps taken to equip the mines, one can mention the construction of a modern coal wash plant in Petroșani, able to process 270 tons an hour, able to wash the entire production of the Petroșani mines, and thus raise

the caloric value of the fuel by more than 30 %, considered among some of the biggest in the world. The wash plant was connected to the Petrila mine by a chain conveyor, to the East mine by a suspended conveyor, and to the Aninoasa and Piscu mines by a second conveyor able to carry 100 tons an hour. All minecart traffic around the wash plant was automated. A complex network of regular-gauge railways connected the facility with the Petroșani rail station (Congress of the Mining Engineers and Technicians' Association, 1931, p. 87-89). At the same time that these steps to modernize obsolete equipment were taken, various studies were carried out to identify new work methods, which contributed to increasing coal production. Electrically-powered coal cutters, mechanical conveyors and rubber conveyor belts were introduced, which allowed for a high output. One could say that by late 1931 the coal mines in the depression were, technically speaking, just as developed as those in other coal-producing countries in Europe. Some data that indicate the scale and national and even European importance of the coal mines inside the depression ought to be mentioned: in 1857 the tertiary mineral coking plant was commissioned in Lupeni; it was the first of its type in Europe; in 1930 the biggest and most modern coal breaker and wash plant in Romania was commissioned in Lupeni (ibid., p. 90).

Numerous industrial heritage assets, previously mentioned (wooden trolley cars, the first mechanical coal breakers, several ancient worktools) are no longer in service and are included in the group of *structures with an evocative value of the past*. However, several ancient pieces of equipment from the early phase of coal resources exploitation are preserved at the Miners' Museum in the city of Petroșani, including items such as a wooden coal barrow (the museum's oldest piece, dating from 1840, the only one left from that period) and a crank-fitted manual ventilator used for partial aeration in the interior of the mine; both exhibits are part of the national heritage.

Preserved items going back to that time also include transport vehicles (3 locomotives) on the premises of the Petroșani roundhouse, which specialists consider genuine "masterpieces" of technique; one of the 3 locomotives is still in running condition. In addition, there are heritage assets from the modern phase of the mine exploitation, located on the premises of decommissioned coal mines and their annexes (the coal wash plants and coal breakers in Petrila Sud, for instance), some of them still in running condition and therefore liable to be included in the group of *mineralurgical installations/machinery*. Their preservation and touristic capitalization should be accompanied by action to have the machines simulate activity, a frequent practice in similar European museums, because it would enhance the attractiveness of the assets, in the context where the scene is even more spectacular if the machinery is very old (Iancu, 2010, p. 496).

Eduards and Llorés (1996) include items of socio-cultural interest among industrial heritage assets, as well; these include workers' housing (colonies). Historically and architecturally, two types of workers' boroughs can be identified in the Petroșani Depression: neighborhoods built during the time of the Habsburg occupation, whose structure is a fundamentally rural one, consisting in colony-type houses with a particular architectural composition, now preserved as "enclaves" in the midst of modern residential boroughs (Iancu, 2010, pp. 230-231). Their historic importance justified the classification of several of them as historical monuments (for instance the "Colonia" borough in the city of Petroșani, the oldest residential borough in the depression). Even nowadays, 19th-century residential neighborhoods contain buildings with special architecture, whose historical and architectural significance is "dulled" by their deterioration and the local authorities' lack of interest in restoring them in order to capitalize on their touristic potential.

The second kind of workers' borough bears the imprint of the "communist" style, easy to notice because of the typical block buildings, lacking any esthetical features.

Workers' boroughs are items with an outstanding historical and cultural importance because they allow one to reconstruct the phases in the historical development of the towns, from their early form of rural-type colonies to urban-type residential complexes.

In addition to mining operations, there are also sectors of industrial activity in the Petroșani Depression (industrial machinery, textiles industry, furniture industry, food production and electricity generation) (figure 1); the latter group of activities were less influenced by industrial reorganization and more by the conversion to free-market economy, a process that resulted in the economic instability of these economic assets, mainly due to the difficulties they faced in coping on the market.

In terms of an analysis of the industrial heritage, the diversity of industrial operations in the Petroșani Depression reflects added cultural and technological value, which could be capitalized on, in several functional categories (the introduction in the tourist circuit of other kinds of industrial units in addition to the coal mines).

Quarries can also serve as genuine tourist attractions because of the types of anthropogenic landscape they create (Preite, Maciocco, 2000). Due to the Bănița village being located in a limestone soil area, a limestone quarry was opened there, which stands out in terms of size and the changes it has brought to the landscape; it can also serve as a tourist attraction and be included in the tourist circuit.

Regions with a functionally industrial nature in numerous European countries (especially in those that have undergone industrial decentralization and where there are several types of industries), allowed the individualization of diverse forms of industrial heritage that nowadays generate tourist inflows particular to each category of industrial heritage (for instance, in addition to coal mines in the Sardinia mining basin there are other types of mines: silver, lead, zinc, copper, tin and iron, which have been preserved and included in the tourist circuit; their touristic capitalization is achieved by defining several distinct areas of mineral importance, and designing theme tour routes, circuits of coal mines but also of the silver and copper mines, etc.).

Industrial heritage in general, and the industrial heritage of the Petroșani Depression in particular, stands out due to its unique visual nature; mining towns stand out because of industrial constructions, most of the times prominent and dominating the horizon (drilling towers, smokestacks, furnaces, mine entrances).

In this current period of deindustrialization, overlapping with the time of cultural and touristic capitalization of mining towns, industrial centers stand as a group apart, alongside other categories of culturally or touristically consecrated towns. In this respect, specialized studies include traditional industrial urban centers in the category of cultural towns, due to the cultural heritage consisting in industrial heritage assets on industrial sites or industrial facilities still in service.

4. TOURIST CAPITALIZATION OF INDUSTRIAL HERITAGE ASSETS IN THE PETROȘANI DEPRESSION

In order to touristically capitalize on industrial heritage elements, the mines - nowadays no longer in service - should be included in a large-scale process of preservation and converted into theme museums (ecomuseums). The ecomuseum represents, conceptually, a museum of the territory. "The "eco" prefix draws attention to the numerous relational ties between people and the ambient: the habitat is the living space, the ecological niche of the human species in its confrontation with its own history" (Massarente, Ronchetta, 2004, p. 12).

Ecomuseums are considered outdoors museums of technology (Severcan, Barlas, 2007, p. 678, Stuart, 2008, p. 9) or museums *in situ* (Damien et Sobry, 2001 quoted by Tătar, Gozner, Pawlicz, p. 76) that can ensure direct access of the public interested in discovering industrial heritage.

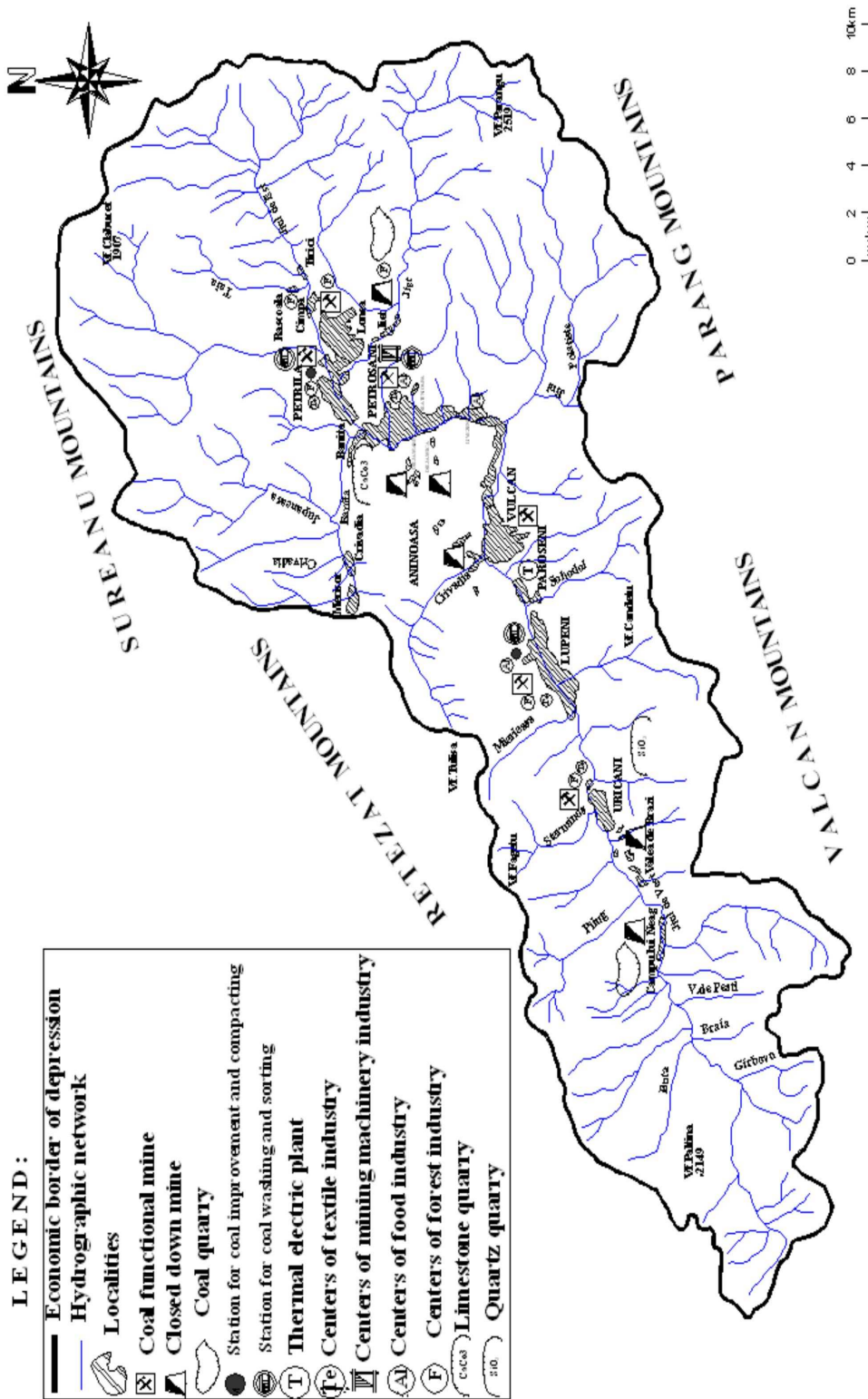


Figure 1. Map of material industrial culture density in the Petrosani Depression.
(Source: Authors' elaboration based on Acad)

Eduards and Llurés (1996) have created a classification of industrial tourist attractions where mines and surface quarries are included in the “productive attractions” category, because they are linked to geological structure. Due to their nature as fixed (non-current) cultural assets, the authors consider this feature differentiates them from traditional outdoors museums, which are created by transferring artifacts in the collection from various other areas. The creation of the ecomuseum supposes an ample action which overcomes the limits of conserving and exhibiting the various objects that belong to the industrial inventory, which allows the conservation of the area and the evocation of its history. Ecomuseums also have an important social content, the result of their role in awakening the local community’s awareness of the importance of its own history, which results in the involvement and collaboration of other regional and national administrative structures, meant to make their own contributions to the expression of local and regional identities (Massarente, Ronchetta, 2004, p. 22). The ecomuseum thus becomes a means of reflecting history and marking the cultural memory of the respective region. At the same time, it contributes to social cohesion, getting the local population involved in the project of cultural and touristic capitalization of the living space, and at the same time allows the population to train and grow accustomed to playing the host. To this goal, the staff that will work on the ecomuseums in the Petroșani Depression will be selected from among people who used to work in the mining industry; this is especially valid in the case of tour guides, because they have a very large volume of information, which might ensure a complex image on the mining culture of the region.

Ecomuseums at the same time act as a source of revenue for the local community.

The mines in the upper Jiu valley are joined into a genuine organic system, which might be converted into tourist assets by creating a network of ecomuseums.

The project to capitalize on the industrial material culture by creating a network of museums throughout the region is one way to represent the shared identity of communities, by means of the cultural effects left by the mining industry on the landscape. The similar economic evolution of the communities in the region allowed for the emergence of a unitary image, which highlights a shared culture, too. One can thus create a project for innovative development, meant to generate a new way to use the industrial space, which will create the foundation of durable development of the depression (Iancu, 2008, p. 464).

The cultural system will be built to center on the presence of the already existing cultural assets (the Mining Museum) and those that will be created by converting decommissioned mines into ecomuseums, and by the conversion of other economic units; each museum will have its own name (Iancu, 2010, p. 468). To this goal, a project was created to convert the Aninoasa mine into a museum, but the large expenses involved require an extended period of time to access the grants, the current stage of the project.

The large number of mining facilities in the depression indicates the large scale of the industrial heritage, characterized by outstanding cultural value, which creates the premises for reconstructing part of the history of mining in Romania.

In the context of decreasing mining activity in the depression, a decrease that has had negative effects in both economic and social terms, reusing industrial space can be a viable means to reorganize a region considered doomed to stagnation, an action that can contribute to reviving the local economy.

5. INDIVIDUALIZING THE PETROȘANI DEPRESSION AS A DESTINATION OF INDUSTRIAL TOURISM

The presence of a rich and diverse cultural patrimony (local rural culture features, industrial heritage, local historical assets - historical artifacts from the Dacian period) requires turning the Petroșani Depression into a tourist destination with profound cultural meanings.

Nowadays, the Petroșani Depression does not benefit from a favourable public image, because of the aftereffects of the mining industry and their influence on the tourists' perception (the stark and gloomy industrial landscape), as well as the misconception that industrial towns lack any cultural assets. This perception can be accounted for by the absence of information on the local cultural and historical features, which significantly lowers the chances of the tourist region under analysis exerting an attraction over tourists (Iancu, 2010, p. 481). It therefore becomes necessary to create an action plan for intense tourist promotion of the depression.

The symbol image - because of its key features - has a fundamental importance in promoting the image of a tourist destination (Dumbrăveanu, 2004, p. 322). The depression's symbol image should focus on the core of the history of the region, that is on its key industrial element, transposed into a new light by highlighting its historical and cultural content, grounded in the touristic capitalization of mining-industry and related assets. Because this action is limited at a national scale, it would also serve as the feature differentiating the tourist offer from other destinations (Iancu, 2010, p. 482). Nowadays, as means of communicate in the field of tourism advertising boom, it becomes increasingly difficult to create an image of a particular tourist destination that would be so attractive that it would catch the attention of an important number of potential tourists and persuade them to travel there.

Industrial activity has left a series of marks in the tourist region under study, which be nowadays identified by means of a series of elements with cultural and historical value, with a symbolic value for the local community, which can be reshaped by means of industrial tourism.

In order to prevent its becoming a mere page in the history book, the industrial heritage of the Petroșani Depression needs to be preserved and enhanced; these joined actions are meant to highlight this space, which at a first glance can seem obscure and apparently devoid of esthetic and cultural meanings. The strategy to promote the Petroșani Depression as a tourist destination must center on local identity, highlighting its particular cultural, historical and social features.

6. CONCLUSIONS

The mining industry shaped not only the land, turning it into an essentially urban and industrial landscape, but it has also culturally created the enduring collective memory of the industrial society, a stronger memory than in any other field of work, due to the difficult nature of work in the underground.

The variety of cultural and historical tourist resources is the result of the presence of cultural heritage fixed and current assets, with the technical and industrial heritage elements - widely dispersed across the Petroșani Depression – especially standing out. In the current context, it is necessary to rethink the means to develop the area under study by implementing economic operations that would serve as an alternative to mining.

The current time of industrial downsizing allows one to discover the cultural and tourist features of the mining towns, where increasing numbers of tourists are attracted every year, eager to visit the industrial heritage assets.

Industrial tourism allows for the establishment of a close link between the cultural heritage of the area, tourism and the cultural system (ecomuseums).

In numerous European countries, where mining no longer has an economic relevance, it has been reconsidered and reshaped by turning closed down mines into ecomuseums, which serves as the most suggestive models to illustrate the mining industry, economically, socially, culturally and technology-wise.

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