

The Emergence of Industrial Tourism in Post-Mining Closure Areas – Project Management Models and Local Practices

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Abstract. Reducing industrial activities has led to the need for identifying and implementing strategies aimed at an economic usage of affected areas pointing to the past industrial age. There are many successful examples globally of using industrial heritage in industrial tourism. In Romania, the achievements are not so advanced, although over time there have been several initiatives to preserve culture, knowledge, tools, equipment, customs, and clothing related to the exploitation of mineral resources. The aim of this paper is to propose a project management model in addressing the needs of communities facing post-mining closure contexts and to examine how an integrated managerial outlook for various stakeholders involved in local tourism portfolios might reach solutions for the ongoing long-term social consequences of mine closures. The paper provides as a case study the transformation of the industrial patrimony of the former Petrita Mining Assembly, which serves as a lesson of industrial archeology, being one of the last ensembles in the area that still retains part of each stage of its evolution. The involvement and contributions of local non-profit organizations, municipalities and local businesses in the emerging of industrial tourism in Petrita are analysed through the proposed managerial model.

1 Introduction

Major industrial regions have been formed as a result of the intensive development of heavy industry in the 18th century Europe and among the most important industrialized areas are countries such as Germany, Belgium, France, Great Britain, Poland, the Czech Republic, Ukraine etc. It is a fact that since the 20th century, due to the promotion of cheap and clean energies, among other factors, the traditional industrial areas in Europe have declined. The decline of industry led to visible changes in the industrial structure worldwide, many factories have been closed due to the collapse of the traditional heavy industry, and among the many negative consequences we can notice large urban areas declining, the loss of a large number of jobs, demographic changes etc. All those areas that represented the industrial revolution were affected by the decline, and the areas that struggled with structural problems had to find another direction of development. The affected communities are still looking for solutions to mitigate

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the negative effects, depending on their resources and opportunities, and there is no panacea that might solve all existing problems.

Abandoned industrial production structures and their associated infrastructure are often a subject of interest not only to environmentalists but, because of their specificity, also to a significant number of interested entities and individuals attracted by those.

This form of tourism provides opportunities for knowing many types of industrial sites and allows tourists to become familiar with the industrial environment. Although there are many approaches to industrial tourism, this concept is not well defined. Even today, some use the term *industrial tourism* when talking about tourism as industry and others to define activities more or less equal to industrial tourism. While some authors define the concept of "visits to operational or non-operational firms ...", others argue that this form of tourism consists of "visiting consumers in production halls that may include educational activities or tasting products with the possibility buy the product" or "visits to business operators where the basic activity is not tourism oriented". [1] The approach used in this research, without excluding the possibility of enriching it with new elements, is the one in which the industrial tourism requires "making visits to companies with the opportunity to learn about their past, present and future." [2]

Industrial tourism is a relatively new branch in the field of tourism promoting sites and events originating previously in industrial production. It is closely related to the notion of industrial culture as a dynamic socio-cultural concept, which evolves together with a transforming economic environment. Tourists can explore the history of industrial production in museums and old industrial sites and enjoy art and performances. By visiting factories and industrial areas they can also get information on the current economic reality of the regions visited and about highly innovative production processes. Changes in industrial production allow tourists to understand the current changes in the landscape of the old-industrial regions as well as in regional and urban development.

In the early 1980s, Western European tourism operations included excursions to industrial sites. At the time, under the influence of the Italian art historian Eugenio Batistes, Europeans began exploring the old and abandoned factories and mines, considering them the first monuments of the industrial age. Most Western companies have become aware of the tourist potential of industrial heritage and have decided to exploit this niche by allowing citizens access.

In Romania, industrialization was the objective of a centralized economy that sought to transform the country from a mainly agrarian country into an industrial one, to eliminate regional disparities and develop the society at large [3]. The Romanian industrial patrimony is the result of an evolution that marked the formation of the urban landscape, yet the importance of these traces present in the territory is far from being acknowledged and exploited /explored. Over time, important industrial vestiges disappear and their cultural importance is almost unknown among specialists, so that their identification and protection is deemed necessary. The interest in the cultural value of the Romanian industrial fund has increased in recent years and the possibility of its re-use has been debated. Although there are some examples of successful reuse of industrial monuments, however, the Romanian industrial heritage is not considered a priority for public authorities, and the perception of locals is not fully known, being associated mostly with negative memories of precarious working conditions and always controversial negotiations between the workforce, institutions and entrepreneurs.

In the List of Historical Monuments as updated in 2015, the Hunedoara County appears with 518 objectives, of which only about 20 are of technical or industrial value or are associated with the industry, although Hunedoara County was one of the most industrialized in the country, relying its economy on extractive and processing industries. After 1989, most of the industrial units in the region were closed or privatized, continuing to operate,

fragmented and under other tiles. Some communities have approached tourism by developing related industrial tourism activities, using existing patrimony, including setting up museums dedicated to industry, or integrating tour routes into industrial assemblies, enhancing local tourism supply. [4]

The history of Jiu Valley is certainly linked to the discovery and exploitation of coal deposits. [5] In the context of a massive increase in coal demand at national level due to the industrialization process, the population of the Jiu Valley increased from 2,556 inhabitants to nearly 200,000 by 1989. Together with the mining industry and other structures such as educational institutions, research and industrial activities, ensured the socio-economic development of the area. The Jiu Valley coal exploitation situation faced major structural changes since 1989 when Jiu Valley entered a long process of restructuring and reorganization imposed by the industrial decline, materialized in massive layoffs, so that the number of employees decreased from 60,679 in 1989 to only 3,767 in the year 2017. If in 1990 in the Jiu Valley there were 15 mining exploitations, while in the present - 8 are closed, 5 are in the process of closure and there are only 2 functional mines left.

2 A project management framework for the social rehabilitation of mining closure areas

At the individual and social level, in post-communist countries, the obsolescence of the planned/centralized economy and its replacement with a market-oriented economy it was believed it would give rise to more participatory processes that would provide solutions to the problems arising in mono-industrial contexts. In Romania, the last decades have been a witness that, for various reasons and through various factors, this increase in the community involvement of different parties does not occur naturally or as easily as once thought. It is not the case that solutions and efforts are lacking altogether (as we shall see hereafter), but rather, that there is a lack of a formal and institutional arrangements that would make all these efforts cohere and be entangled in a more broad project that would synchronize the time, cost and aim of different plans and actions.

There are a number of ways to depict managerial and social processes related to mine closure, ranging from project management approaches to contingency planning, municipality management or appealing to concepts from stakeholder theory or industrial democracy [6].

Mine-closure contexts lead to a number of serious social problems which cannot be strictly delineated through any of the grids of individual solutions, government intervention or market resource allocation. This is particularly the case because the problems related to mine closure are at the same time individual (the lack of adequate household incomes, insufficient formal training for pursuing other career opportunities etc.) and social-structural (lack of institutional settings that would provide information on the perceived needs of individuals and communities, leading, in its own turn, to inadequate solutions proposals streaming from governmental/municipal initiatives or business pursuits).

A generic framework for approaching the issues related to mine closure effects would have to take into account both the individual and the structural needs and solutions. This would be grounded in an ongoing proactive aggregation and integrations of the efforts of the various categories of stakeholders affected by mine closure difficulties. All the needs could be regarded as entries of for various problem-solving mechanisms that would have as outputs multiple and variegated solutions that cohere to help communities, coping with the shortage of opportunities, to generate creative ideas in a proactive setting.

Our own approach would consist in applying the insights of project management and organizational project maturity models to the managerial challenges confronting individuals, municipalities and businesses. This could be depicted as an integrated project-based structure

of projects, programs and portfolios that would interact with the needs expressed and deliverables required by the three types of community actors.

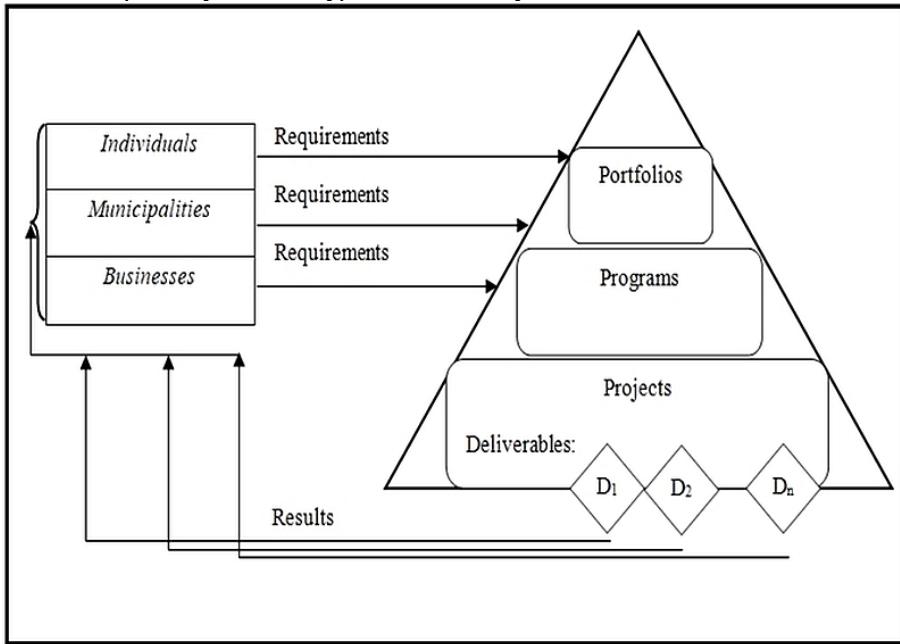


Fig.1. A project management framework for social rehabilitation of mine closure areas

Managing a mining unit is portrayed as a predictive project management cycle, beginning with planning, going through construction and exploitation and ending up with closure [7]. All of these stages could be divided and managed as projects with deliverables and adequate metrics for quality. A useful link for an integrated approach to managing post-closure contexts would come through enhancing the closing stage of a the mine life cycle management, planning for mine closure would be hence completed as a project phase with deliverables such as a number of well equipped and trained entrepreneurs which would leave the mining industry having a new outlook upon their role in the community and the ways into which local business initiatives would supply the local needs in term of generating new jobs [8]. This is akin to environment rehabilitation, but it envisions the rehabilitation of communities and it makes this side a natural part of mine closure procedure [9].

One of the lessons still to be learned in mine closures is related to the failure to engage the stakeholders in due time and in various ways [10]. There is need for a shift form strictly informative meetings to models of interaction that foster transparent decision-making procedures involving most (if not all) of the interested parties.

Both in the process of mine closure and in the further processes of identifying the needs and solutions, individuals could use non-profit organizations as means of social representation. These types of buffer institutions between municipalities, businesses and individuals serve as means to facilitate effective means of communication through data collection and hosting events where synergies between multiple solutions are exposed and promoted.

Municipalities facing mine closure have to plan local intervention based on a formal and ongoing consultative process that would reflect upon and be influence by the actual needs of the stakeholders in the community. The process streaming from planning throughout solution implementation is to be designed as an iterative procedure that constantly uses the feed-back of community members and local entrepreneurs. Keeping in mind the intricacies and

interdependencies of this process, it cannot be modelled as a predictive endeavour – but rather as an adaptive process, that is to a certain degree a trial and error approach [11]. This suggestion is evidently out of sync with the manner into which public administration is generally perceived in Romania.

The type of collective decisions in mine closure areas regards aspects such as: identifying the most suitable usage of the land and infrastructure disturbed beforehand by mining; identifying and reaching all the parts interested in or affected by the mine closure; methods of inventorying the needs and solutions of the various stakeholders. The question now is: How are such decisions to be approached in a project management framework as the one provided above in figure 1? Our proposal is that any of the actors (individuals, municipalities and businesses) could initiate the occurrence of a formal/institutional collective effort that would assign the coordination, execution and the tracking of deliverables to specific actors committed to be part of a long-term strategy to socially rehabilitate mine closure areas. A partnership between municipalities, businesses and non-profits could also be formalized and become legally incorporated, serving hence as board governing the project management of each component of the framework.

3 Perspectives for industrial tourism in Petrila – a project framework appraisal

During the last years, in the Jiu Valley, a strategy is being developed aiming at the reconversion of the area through the reuse of industrial patrimony. The fact that the industrial spaces have their beauty and their suppleness or that, on the contrary, they are cumbersome, but with their own charm - it is increasingly acknowledged. Old industrial premises should not be demolished or abandoned, but rather reconverted, assumed to be interesting, attractive, functional spaces.

One of the solutions for reconversion of the industrial heritage in the Jiu Valley, which is increasingly being discussed by locals and municipalities, refers to the transformation of the former mining units into tourist objectives, in order to reintegrate these spaces into the economic circuit.

Like all the cities of the Jiu Valley and, in fact, all post-industrial cities, Petrila is looking for a formula to revive as a phoenix bird, from its own ashes. As usually in mono-industrial regions, the mechanism that led to the development of the city and the formation of Petrila community, under the influence of social and economic factors, now is acting with the same force but in the opposite direction, leading to a slow contracting of the community. Hence, interventions on the reusage of the industrial patrimony are part of a general program of regeneration through culture.

At the Petrila mining site there are the most extensive actions for the regeneration of the industrial patrimony through cultural actions coordinated by Planeta Petrila Association, founded in January 2018, but following a dialogue initiated by the architects in 2012, aiming in the long run at the conversion of the former Petrila mining operation into a cultural, administrative centre and economic of the city. In this sense, the first steps are achieved by organizing small cultural and community events that will grow over time and support fundraising opportunities for the whole site conversion.

The timeline of the events leading to the initiatives and formation of Planeta Petrila Association is given in Figure 2 – below.

The "Planeta Petrila" Association was incorporated in 2018, in parallel with the cultural events that transformed the Petrila Mine Assembly into the most visited architectural objective in the Jiu Valley. The association is the result of the initiatives of municipalities (Petrila City Hall), civil society (Ideilagram), former miners and architects, who saved the mine's buildings from demolition.

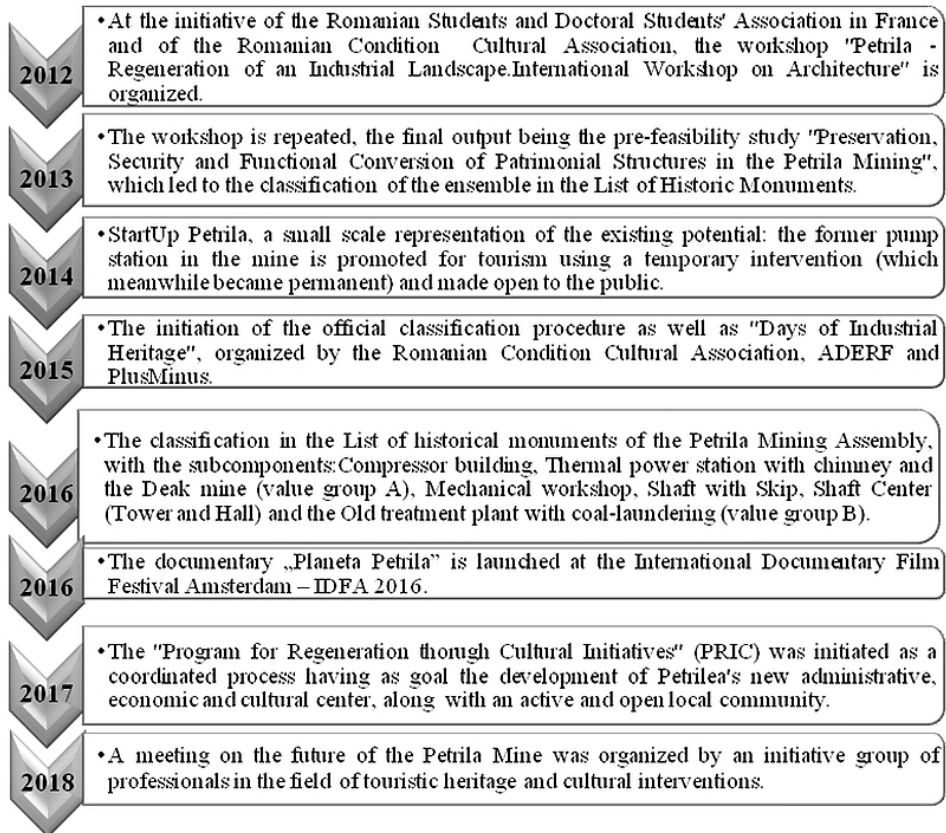


Fig.2. Timeline of actions committed to the reconversion of Petrila Mining Assembly

How does this approach in the region of Petrila comply with the managerial model mentioned above in section 2 of this paper? There are a number of commonalities worth signalling. First and foremost – this is a proactive social engagement movement streaming out of the concern expressed by various categories of stakeholders. Secondly - the association offers the institutional backbone in terms of being a formal setting for: strategy building, establishing goals and deliverables and metrics for baselines. Thirdly – individuals, municipalities and private-owned entities are the initiators and framers of this context for deliverables that would promote, develop and enhance industrial tourism in Petrila.

If we do encounter, at least in an embryonic stage, both the social structures and the project management processes, the question now becomes: what could threaten such a local model in Petrila? First of all – as it always happens in project management, the main factor of success is linked to the ongoing support and commitment of the most important stakeholders and sponsors. Especially in areas where decision making processes are politicized, there is always the risk that in the long run municipalities would not show the same level of involvement as initially manifested. Secondly – we stressed beforehand the overwhelming importance of integrating many solutions to balance the effects of mine closure. Industrial tourism might provide, via multiple deliverables, significant solution to mine closure effects, but these should be integrated in a chain of value creation that would involve parties which *prima facie* have no connection to industrial tourism, as such. Thirdly – and related to the last point, business owners are to be engaged into identifying opportunities for profit which would reallocate capital and work supplies to a future that is

partially foreseeable (due to ongoing local initiatives) and will be successful only if it will entail market structures and solutions.

4 Conclusions

Industrial tourism is one of the promising solutions to social rehabilitation of mine closure areas through alternative usages of industrial heritage. Amidst the various approaches to mine closure management, the enhancement of a project management framework – in order to synergize the efforts of individuals, municipalities and businesses in identifying the needs and the solution thereto – provides a solid theoretical and practical background for approaching the complexities of mine closure contexts.

We have depicted, analyzed and explained the recent developments pertaining to industrial tourism in the town of Petrila – in the Jiu Valley coal area. The findings of putting the developments in Petrila against the grid of a project management framework are mainly positive in terms of complying with the requirements of the model, when it comes to the institutional setting and the project management process. The perils and limits of the developments in Petrila were identified as linked with the instability of political long-term commitments, the need for a larger array of solutions that would be linked to industrial tourism and the requirement that multiple business opportunities should be exposed in the processes related to the industrial tourism in Petrila.

A suggestion for further research would consist in analyzing industrial tourism along with other proposed solutions for Jiu Valley's social rehabilitation, in order to specify how (and to what degree) the different outputs of these solutions cohere and what managerial tools would be helpful in facilitating the integration of these outputs.

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