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Pilgrimage route recovery in an industrial landscape

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Pilgrimage is an activity having a long tradition within the European historical context, and it has contributed to the overall spiritual aspect of European landscapes. Since the nineteenth century, however, the mining industry has strongly transformed many of those landscapes. The intangible cultural and spiritual values have been neglected in the process of mine rehabilitation. The aim of the present paper is to introduce a methodological approach to recovering the pilgrimage tradition in a post-mining landscape. The approach was developed in a case study regarding recovery of the Czech Republic's Osek–Mariánské Radšice pilgrimage route. Applying the principles of preservation, paraphrasing, evocation, and a new structure, the methodological framework for pilgrimage route recovery was designed and a variety of methodological issues regarding conflict between industrialism and the holy spirit of the original landscape were addressed.

Keywords: mine reclamation; pilgrimage; religious tourism; landscape planning

1. Introduction

1.1. Mining and its social impacts

Even as the materials extracted from mining are crucial for our modern life (Zhang and Moffat 2015), mining activities also have numerous adverse environmental, economic and social impacts (Measham *et al.* 2013). Surface mining, in particular, is the most environmentally destructive type of mining because it removes all vegetated areas and landscapes above the ore deposits (Ghosh and Prelas 2009). The Environmental Law Alliance Worldwide (2010) has shown that the most serious impacts of mining projects are upon water resources, air quality, wildlife, soil quality, and social values. The impacts on social values are particularly complex and poorly understood, and only limited research has been conducted to date investigating the range of mining's various social impacts. Examples among the few such studies include the work of Zhang and Moffat (2014), who investigated the factors leading to social licence to operate; Eklund (2015), who focused on the relationship between mining industry and communities and its historical background; and Andrew (2003), who examined land-use conflicts in mining operations.

Although cultural and spiritual values (defined by Fuller 2001) contribute importantly to social values (Schama 1995), they have been neglected due to their intangible nature and have rarely even been considered in connection with mining operations. There have

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been only a few studies of cultural values in relation to mining (e.g. Skaloš and Kašparová 2012; McKenna *et al.* 2011; Edwards 1996).

As explained by Verschuuren (2006), ecosystems do not consist merely of physical attributes but are also influenced by cultural and spiritual perceptions. An holistic view of landscape recognizes the landscape morphology as resulting from an interplay between cultural values, customs, and land-use practices (Wylie 2007). Each particular era leaves its imprints on individual landscapes and places (e.g. a manner of land-use management, natural resources exploitation, road network, buildings), and these imprints include the spiritual dimension. According to the theory of geomantic energy, there exist place-specific ground energies which influence people's feelings, thinking, and behaviour (Greer 2009). Geomantic energies generated from the cosmos and from inside the earth are concentrated into particular places within a landscape. In the past, these energetic points had been fixed by megalithic structures, trees, or temples as sacred sites possessing healing power. The points can be connected by energetic ley lines. These are conductors of the landscape energy and, together with the points they connect, they create energetic grids that constitute the basis for pilgrimage sites and routes (Trpák and Trpánková 2007). There always have been places venerated – or avoided – by people, thereby endowing them with particular meaning and identity (Taylor 2008). This spirit of place is termed as *genius loci* and is described by Sádlo (2009) as a conservative part of landscape dynamics that is resistant to changes. Even though surface mining operations can dramatically change the pre-mining landscape, it cannot destroy it completely. The pre-mining landscape remains in its essence and it starts to be overlain with new historical and cultural layers. Mining and post-mining activities can create a new appearance and identity of the landscape that is strengthened by its original spirit (Sádlo 2009). The question is how to renew or create the spiritual character of a landscape when the spiritually significant places have been physically changed while the energy of these places still remains (Trpák and Trpánková 2007).

1.2. Pilgrimage

The term pilgrimage is associated in its meaning with a cleansing and transformation of personality (Digance 2003; Gesler 1996). It is associated with fasting, penance, and confession. The word 'pilgrim' comes from the Latin word *peregrinus*, meaning an alien who lives outside the area within which he/she possesses civil rights (Ohler 2002). A pilgrimage is defined as a journey undertaken internally for spiritual purposes and internal understanding, but also externally to a holy site (Barber 1993). When making an external journey along a route, the surrounding landscapes are symbolically important (Gesler 1996). The pilgrimage aspires in its essence to reach a goal that for some reason appears to be profoundly sacred and/or special. Many of these special places have been marked by some religion or for other particular reasons. Most of them are already holy without being so designated by humankind. They are the sacred places of the Earth, the chakras and energy points of the planetary body. It is the spirit of such places that calls pilgrims to visit them (Dawkins 2004). The spirituality of a pilgrimage is expressed in a complex of structures that has been developed as the infrastructure of pilgrimage routes (Hájek and Bukačová 2001).

Pilgrimages comprise a long-standing activity within a European historical context (Digance 2003; Gesler 1996). Different parts of Europe have been connected for centuries by a network of roads and paths, and this has contributed to the long pilgrimage tradition (Ohler 2002). The earliest Christian pilgrimages of the fourth century were

based on a desire to see the places made famous by biblical stories. The greatest bourgeoning of pilgrimage was in the Middle Ages, from the twelfth to fifteenth centuries (Bradley 2010). Pilgrimages dramatically increased worldwide at the beginning of the twenty-first century (Királová 2010). Although the main motivation for setting out on a pilgrimage is a belief in salvation and faith in the possibility of miracles, journeying along a pilgrimage route can also represent sport and relaxation, a cultural and social experience, or a search for fulfilment (Zhang *et al.* 2007; Frey 2004; Percy 1998). Pilgrimage routes can attract the attention of pilgrims not only for religious reasons but also because of interest in history, architecture, or artistic value (Kavoura 2012). Pilgrimage is today becoming one of the most widespread forms of tourism, as well as an important international commercial service (Štefko, Királová, and Murdík 2015; Timothy and Boyd 2003; Cohen 1979). Pilgrimage tourism holds immense potential for promoting interfaith and intercultural communications as well as encouraging and preserving cultural diversity (Štefko, Királová, and Murdík 2015). As Owens (2002) points out, globalization, economic liberalization, a new ethnicity and religious policy, as well as commodification and commoditization of culture and values affect and shape many religious sites and spiritual places worldwide.

1.3. Spiritual dimension of mine rehabilitation

Mineral extraction is only a temporary use of the land. Areas used for mining must be restored to a land use that is socially and ecologically sustainable (Smyth and Dearden 1998). This process, known as rehabilitation, consists in returning the site to a stable condition while renewing aesthetic, environmental, economic, and social values (Minerals Council of Australia 2006). As described by Berger (2008), mine rehabilitation is a large-scale design issue that demands cross-disciplinary thinking and knowledge. In addition to the traditional productive design, issues of public preference, sense of place, and aesthetics need to be addressed (Arbogast 2008). Particularly in places with significant public access, there is a need to address the underlying cultural values (Comp 2008). Examples are rare of mine rehabilitation projects which have been implemented with a focus primarily on the cultural and spiritual aspects of landscape. The Roman Theatre in Austria emerged from a project to rehabilitate a sandstone quarry with a strictly cultural use as a theatre. It is today one of the most visited open air arenas in Europe (AllesWirdGut 2013). Dalhalla Amphitheatre is a similarly oriented rehabilitation project which began as a limestone quarry in central Sweden. The Eden Project in England consists in the rehabilitation of a kaolinite quarry to create a multiple greenhouse complex containing two biodomes with plants collected from all over the world and several stages used for concerts or movie screenings (Pearman 2009). Hoheward slagheap, one of the tallest such dumps in Europe, located in the Ruhr area in Germany, was reclaimed to create a horizon observatory and sundial. The Hoheward rehabilitation project contains many viewing points with vistas of a surrounding industrial landscape while emphasizing the contrasts created in the landscape. Similarly, the Haniel dump in the German Ruhr area was rehabilitated to a pilgrimage site with an educational trail, amphitheatre, and cross sculpture erected to commemorate the visit of Pope John Paul II. These two German projects successfully address the issue of spiritual values in post-mining landscapes, although only the Haniel dump rehabilitation was primarily focused on religious aspects. It established a new pilgrimage site in an industrial landscape of the Ruhr region with both religious and touristic purposes (Hellmann 2016).

While these rehabilitation projects are important examples of successfully implemented culturally and spiritually oriented mine site rehabilitations, no mine rehabilitation project has focused on the recovery of pre-mining spiritual values as a part of the post-mining landscape. Relevant to the presented study, there exists but limited understanding of how to recover intangible values related to particular places which were destroyed by mining operations. Although this issue seems rarely to be addressed, it is evident that spirituality contributes importantly to human health and well-being (Eckersley 2007).

2. Aims and goals

The aim of the present paper is to propose a methodological approach to recovering a pilgrimage route and pilgrimage tradition in a post-mining landscape. The methodological approach is developed in a case study of the Osek–Mariánské Radčice pilgrimage route recovery project, which is part of the Bilina surface coal mine rehabilitation located in the north of the Czech Republic.

Ultimately, this paper aims to point out the importance of cultural and spiritual values in post-mining landscapes for the development and strengthening of holistic strategies for mine rehabilitation planning.

3. Methods

To develop a methodological framework for pilgrimage route recovery in a post-mining landscape, a case study was undertaken examining the Mariánské Radčice–Osek pilgrimage route. The case study addresses and discusses all important aspects of this issue.

3.1. Study area

The case study area is located in the northwest of the Bilina open pit within the Czech Republic's North Bohemian brown-coal basin (Figure 1). This area is part of the so-called Black Triangle, one of the largest mining areas in Europe.

The study area is historically significant (Hájek, Langarová, and Matáková 2009). Religious pilgrimages from the Cistercian monastery in Osek to the pilgrimage church in Mariánské Radčice have been undertaken since the thirteenth century, and the existence of a Baroque pilgrimage route between the two sacred sites has been determined. The objective of pilgrimages was to reach the venerated wooden statue of Dolorous Mother of God, which is in the Mariánské Radčice church and is associated with miracles and healing power. The regular pilgrimage tradition was discontinued in 1945 but was re-established again in 1989. The tradition is presently connected only to the church buildings involved, however. Pilgrims have been bussed from the Osek monastery to the Mariánské Radčice pilgrimage site due to destruction of the pilgrimage route by mining operations.

Because its history has been dramatic and complex, the study area's significance goes beyond its spiritual and religious character. The area originally had been inhabited by Sudeten Germans and remained east of the so-called 'Iron Curtain' for decades. It was also endangered by planned demolition in the 1980s of the village of Mariánské Radčice for reasons of mining extraction.

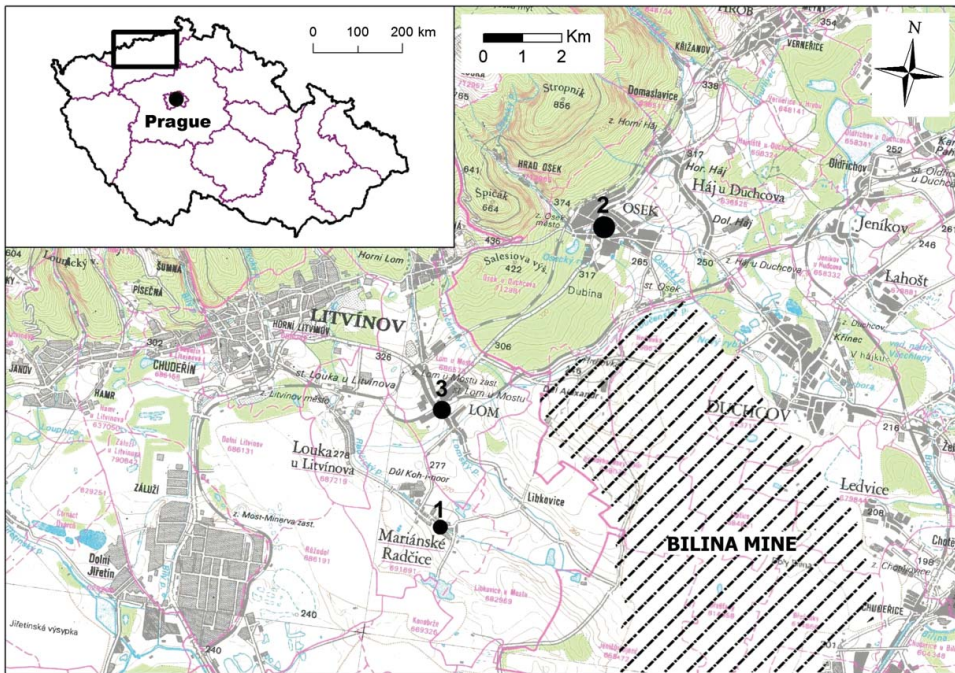


Figure 1. Study area (1: village of Mariánské Radčice; 2: town of Osek; 3: town of Lom).

3.2. Identification of the original pilgrimage route

Identification of the original pilgrimage route involved detailed analyses of archival maps and related documents, as well as a field survey to verify the findings of archival analyses.

3.2.1. Archival documents analyses

In identifying the original pilgrimage route between the holy sites of Osek and Mariánské Radčice, the following archival maps presenting the study area in various detail over the past two centuries were analyzed in detail: first Military Survey maps (1764–1768; scale of 1:28,800), second Military Survey maps (1836–1852; scale of 1:28,800), third Survey Military maps (1876–1878; scale of 1:25,000), Stable Cadastre maps (1826–1843; scale of 1:2,880), and other archival documents from the Czech National Archive and local archives.

Due to a significant lack of information about the original pilgrimage route, the archival analyses were based on two general characteristics of all pilgrimage routes: the shortest route connecting the start and end pilgrimage sites, and the pilgrimage route's religious supporting infrastructure.

The first and second Military Survey maps presented routes, rivers, types of land use, and buildings in the study area. The third Military Survey map additionally provided locations of small religious structures in the landscape and urban areas. Using the greatly detailed Stable Cadastre maps, we were able to confirm the whereabouts of the route identified in the Military Survey maps and locate it within the conditions actually

existing. The detailed analyses of the archival maps resulted in identifying the original pilgrimage route between the Osek and Mariánské Radčice pilgrimage sites. Additional archival documents were analyzed to discover more details about the pilgrimage route infrastructure, such as small religious structures and sacred places along the route.

Based on analyses of archival documents, two branches of the pilgrimage route were identified: an eastern route and a western route. The eastern branch had largely disappeared into the Bilina open pit mine as a consequence of mining activities. It had previously led from Osek through the since-destroyed villages of Hrdlovka and Libkovice to Mariánské Radčice (presumed length of 8 km). The western branch has been preserved and is contiguous with a regional road connecting the towns of Osek and Lom with the village of Mariánské Radčice (presumed length of 7 km) (see [Figure 2](#)).

3.2.2. *Field verification of the original pilgrimage route*

It was necessary to confirm in the field what had been found from archival documents. Verification of the original pilgrimage route was done in the form of a field survey focused on small religious structures and pilgrimage sites occurring along the original route. Based on the maps analyses, we verified the locations of all small religious monuments or their remnants identified along the presumed pilgrimage route. Three groups of small monuments or their remnants were described during the field works: those still present, those destroyed, and small monuments which had been transferred. The field verification findings are as follows.

Small monuments of the pilgrimage route still present were the following (see [Figure 3](#)):

- the western gate of the Osek monastery as the starting point of the western branch ([Figure 3\(a\)](#));
- a small chapel near the road from Osek to Lom on the western branch ([Figure 3\(b\)](#));
- the eastern gate of the Osek monastery as the starting point of the eastern branch ([Figure 3\(c\)](#));
- a niche of a defunct small chapel in the Osek monastery wall, eastern branch ([Figure 3\(d\)](#));
- the vacant pedestal of a small monument in Osek, eastern branch ([Figure 3\(e\)](#)); and
- a resting stone in Osek, eastern branch ([Figure 3\(f\)](#)).

Small monuments of the pilgrimage route which had been destroyed and which were identified in the archival analyses but not found in the field were the following:

- three Baroque niches from the original set of seven small pilgrimage chapels along the road from Mariánské Radčice to the destroyed village of Libkovice and which should have represented the seven sorrows of the Virgin Mary;
- three small monuments on the road from Libkovice to Osek;
- two small monuments on the road from Mariánské Radčice to Lom; and
- a statue of St. John Nepomuk from 1730 in Libkovice ([Figure 4\(a\)](#)).

Small monuments from the pilgrimage route which were identified in archival maps, not found in the field, but identified from archival documents as having been transferred

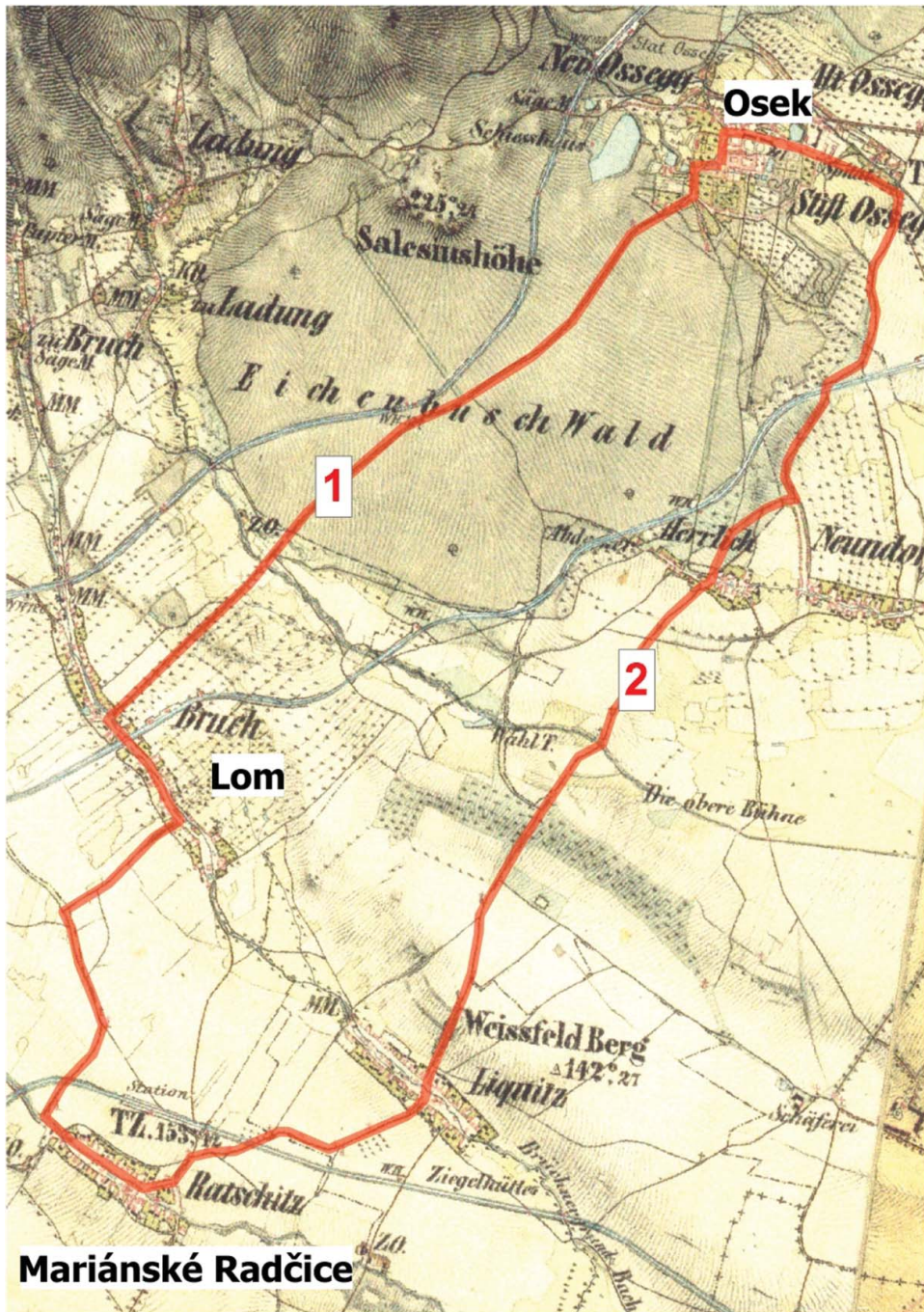


Figure 2. Original historical pilgrimage route from Osek monastery to Mariánské Radčice pilgrimage site (1: western branch; 2: eastern branch) on the basis of the second Military Survey map.

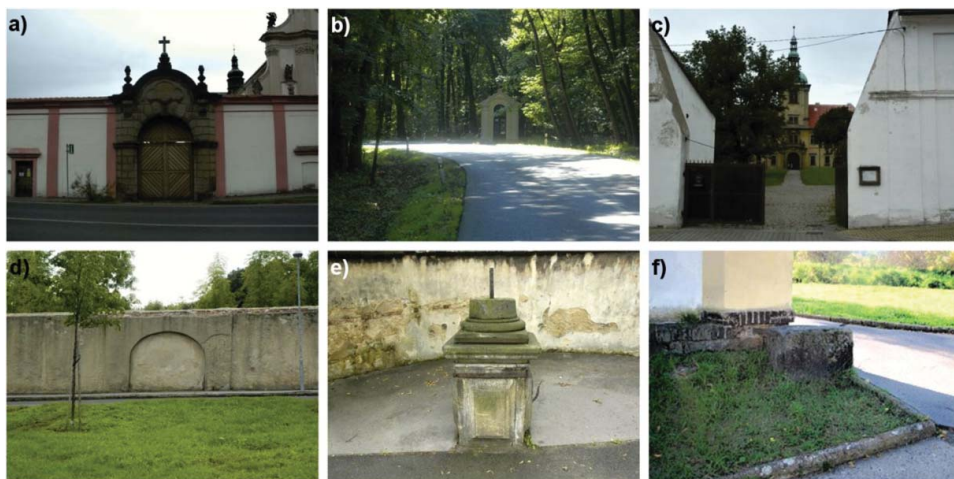


Figure 3. Preserved monuments forming infrastructure of the original Osek—Mariánské Radčice pilgrimage route: (a) western gate of the Osek monastery, (b) small chapel on regional road, (c) eastern gate of the Osek monastery, (d) niche in the Osek monastery wall, (e) pedestal of a monument in Osek, and (f) resting stone. (See colour version online.)



Figure 4. Destroyed or transferred small monuments forming the infrastructure of the original Osek—Mariánské Radčice pilgrimage route: (a) demolished statue of St. John Nepomuk from Libkovice, (b)–(f) set of Baroque small pilgrimage chapels with biblical scenes transferred from Libkovice to Vteln. (See colour version online.)

from their original location because of mining operations to localities outside the mining area were the following:

- a Baroque small pilgrimage chapel with a relief of the circumcision of Christ (Figure 4(c));
- a Baroque small pilgrimage chapel, the so-called Abbeys, with a relief of Christ carrying the cross (Figure 4(d));
- a Baroque small pilgrimage chapel with a relief of 12-year-old Jesus in the temple among the scholars (Figure 4(e)); and
- a Baroque small pilgrimage chapel with a relief of the flight into Egypt (Figure 4(f)).

Identification of the original Osek–Mariánské Radčice pilgrimage route showed that it cannot be wholly recovered due to two main reasons: (1) most of the eastern branch was destroyed by mining operations; and (2) part of the western branch should be situated on a highly frequented public road. Therefore, it was necessary to develop a methodological approach to recovering the pilgrimage route in a new environment different in meanings from the original Baroque landscape where the pilgrimage route had been established.

3.3. Pilgrimage route recovery approach

Based on the findings presented above, we addressed the following three methodological questions for the case of the Osek–Mariánské Radčice pilgrimage route recovery:

- (1) How to approach recovery of a pilgrimage route in a landscape completely changed by mining activities?
- (2) How to define a pilgrimage route when most of such pilgrimage supporting infrastructure as holy places and monuments had been destroyed?
- (3) How to reach a compromise between the spiritual landscape established in the Baroque era and the industrial landscape created by the mining industry of the twenty-first century?

The area of Osek–Mariánské Radčice is a landscape where the Cistercian tradition is confronted with a modern industrial tradition. The structure of the Cistercian landscape had been defined by a detailed set of rules established and implemented by the Cistercians (see Rožmberský 1999; Tobin 1996). On the contrary, the modern industrial tradition was based on the human power to destroy and create. Both the Cistercian and industrial traditions have involved active anthropocentric efforts to change the environment. This is where they apparently have something in common and where it is possible to find a compromise for planning in this historically changeable environment.

Due to the extinction of the original pilgrimage route caused by wholesale destruction of the landscape, *the principles of reconstruction, evocation, and a new structure* must be applied. The principle of reconstruction consists of rebuilding an historically valuable structure in new conditions, when there exists an abundance of information about the original structure. The principle of evocation calls for imitation of an original structure based on limited information that creates a clear image of the original element. Evocation as a planning approach finds support in no relevant literature offering clear recommendations. It only can look to indirect methodological sources such as, for example, the Florence Charter (ICOMOS 1981) or Kuča, Kučová, and Kibic (2004). The

principle of a new structure is guided by the following categorization (Kuča, Kučová, and Kibic 2004):

- A new structure can be a copy of an extinct structure. The new structure pretends to be an original structure even though it is a new element;
- A new structure can be a paraphrase of an extinct structure. The structure admits to its new character while retaining some characteristics of the extinct structure;
- A new structure can be a new creative element using one of the following concepts: an historic concept (imitating the surrounding of an element); a contextual concept (respecting the surrounding even as it creates minor but obvious differences); a contrasting concept (asserting intentional differences between the new structure and its surroundings).

Recognizing that the purpose of pilgrimage is evolving and that the modern pilgrimage is not necessarily motivated solely by religion but is also undertaken for historical, cultural, aesthetic, athletic, or other personal reasons (Frey 2004; Osterrieth 1997), we realized that it is possible to consider vistas – places with high aesthetic values and spiritual contrast (historical versus industrial landscape) and places demonstrating continual change of the landscape – as one of the aims of pilgrimages along with the supporting infrastructure of pilgrimage routes. These vistas comprise not only traditional views of agricultural landscapes but also impressive views of industrial landscapes in new forms. Vistas of changing landscape represent both conflict and harmony between the Cistercian tradition and modern industrialization. In this context, a set of vistas of the Bilina open pit mine and of rehabilitated landscapes in its surrounding may represent an innovative type of the renewed Osek–Mariánské Radčice pilgrimage route's infrastructure. In this way, the spiritual dimension of the landscape encompassing the pilgrimage tradition will be still present, but it will be formed by different consequences and a different environment.

Considering the lack of information about the original pilgrimage route and the factual need to evoke and create the majority of the Osek–Mariánské Radčice pilgrimage route, the methodological approach to the pilgrimage route recovery was defined as follows:

- Respect the historical path network. Where possible, the renewed pilgrimage route was kept on its original route following the reconstruction principle;
- Where the original route was enclosed by existing constructions, take the approach of using a new structure as a paraphrase of the original;
- Where the original route was completely destroyed together with the surrounding landscape, take the approach of evocation;
- Use the approach of new structure and the contrasting concept to emphasize the spiritual dimension of the contrasting change from the original Cistercian landscape to the post-mining industrial landscape;
- Plan the pilgrimage route within the real environmental, social and political conditions, while respecting the spatial planning documents and strategies in the area, and also considering biophysical conditions and the possibility of using various forms of transport.

3.4. Analytical survey

An analytical survey was conducted with the aim of setting the plan of the pilgrimage route recovery into the real, actually existing conditions. Respecting the results of previous studies of the area (Hájek, Langarová, and Matáková 2009), the spatial analyses were focused on the following aspects:

- visual, aesthetic, and compositional values;
- land use and land cover;
- routes network (current and planned); and
- limits based on master plans, rehabilitation plans, and other planning documents in the study area.

The results of this survey are shown in [Figure 5](#). Significant visual, aesthetic, and compositional values were mapped in the field and presented as supporting infrastructure for the proposed pilgrimage route. These places served as locations where the contrast between original and industrial landscape was apparent, locations with wide vistas or compositional values, and resting places for pilgrims.

The current master plans very strictly defined the possibilities for laying out the western branch of the pilgrimage route. The eastern branch was limited mainly by the presence of natural protected areas near the town of Osek and by protected zones for power lines in the area outside the Bilina mine. The proposed route of the new branch led along planned routes according to the rehabilitation plan for the Bilina mine.

3.5. Proposal for the Osek–Mariánské Radčice pilgrimage route recovery

Based upon the results from analyzing archival documents and the analytical survey, three branches of the Osek–Mariánské Radčice pilgrimage route were designed.

3.5.1. Western branch

According to the principle of reconstruction, the original western branch of the Osek–Mariánské Radčice pilgrimage route was followed. The paraphrasing approach was used for that part of the route from the town of Osek to the village of Lom, where it was not possible to apply the reconstruction method. Where the original route ran along the highly frequented regional road and it was therefore not possible to conduct the pilgrimage route there, an alternative route was designed through the northern part of the Osek forest. The paraphrased part of the route maintained the landscape composition and led across the Salesius Viewpoint, an historically important location and touristic point (see [Figure 6\(b\)](#)). The western branch started at the western gate of the Osek monastery and continued through a residential area in the town of Osek to the forest. It crossed the Salesius Viewpoint and continued to the village of Lom. Furthermore, the route followed a system of cycling and pedestrian routes to the village of Mariánské Radčice, where it ended at the Church of the Virgin Mary the Anguished (see [Figures 5 and 6\(a\)](#)). The total length of the western branch is 9.6 km.

3.5.2. Eastern branch

The eastern branch of the pilgrimage route could not completely follow the original eastern branch of the Osek–Mariánské Radčice pilgrimage route due to the existence of

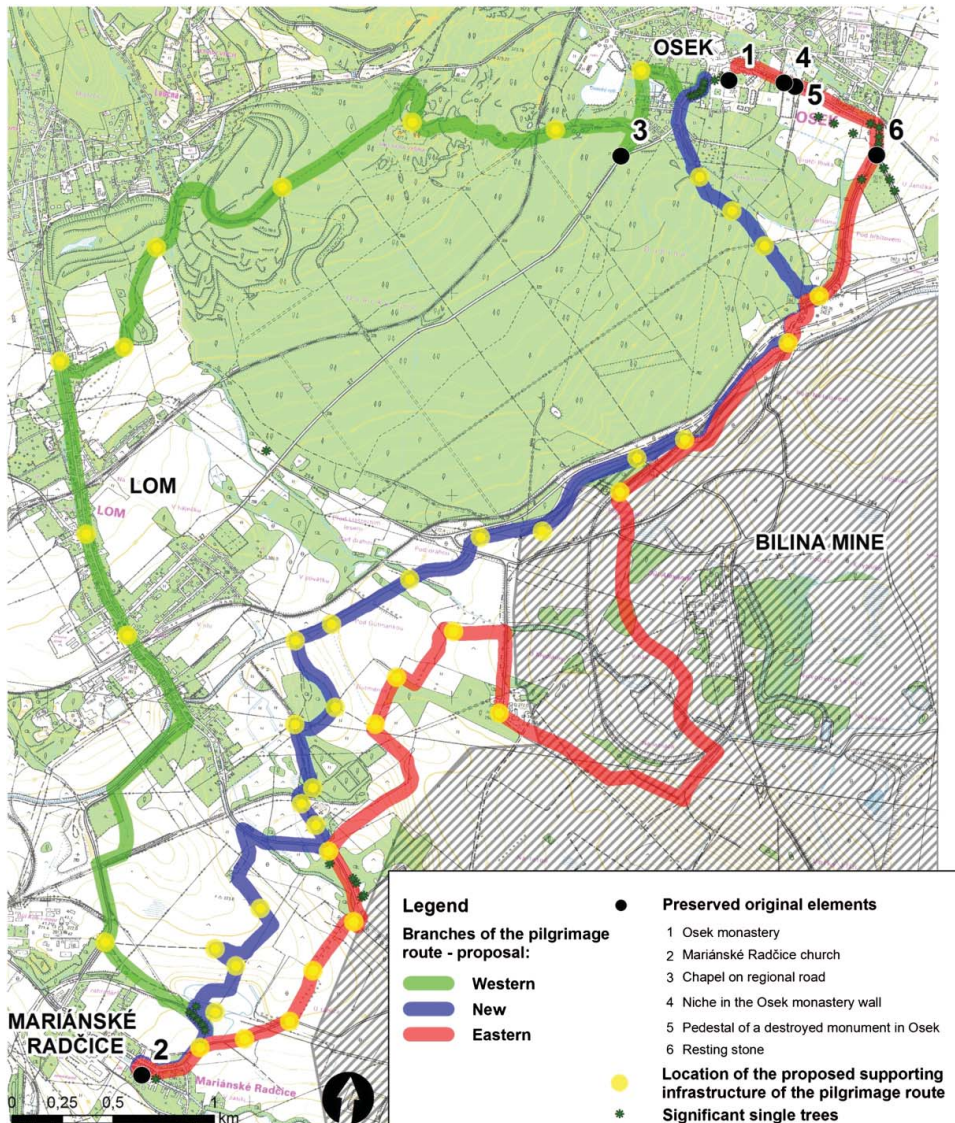


Figure 5. Proposal for the Osek–Mariánské Radčice pilgrimage route recovery. (See online colour version for full interpretation.)

mining activity at the Bilina open pit. The Bilina mine together with its inner dump known as Pokrok had displaced the greater part of the original pilgrimage route. The Eastern branch was proposed using the approaches of paraphrasing (for that part from the town of Osek to the Bilina mine) and evocation (for that part from the Bilina mine to the village of Mariánské Radčice) (see Figure 5). In designing this branch, respect was given to the planning documents for the Bilina open pit and the branch was planned as a part of the mine rehabilitation plan. The eastern branch of the pilgrimage route started at the eastern gate of the Osek monastery and led through a residential area of the town of Osek directly to the area of the open pit (Figure 6(e,f)). It continued along existing forest and

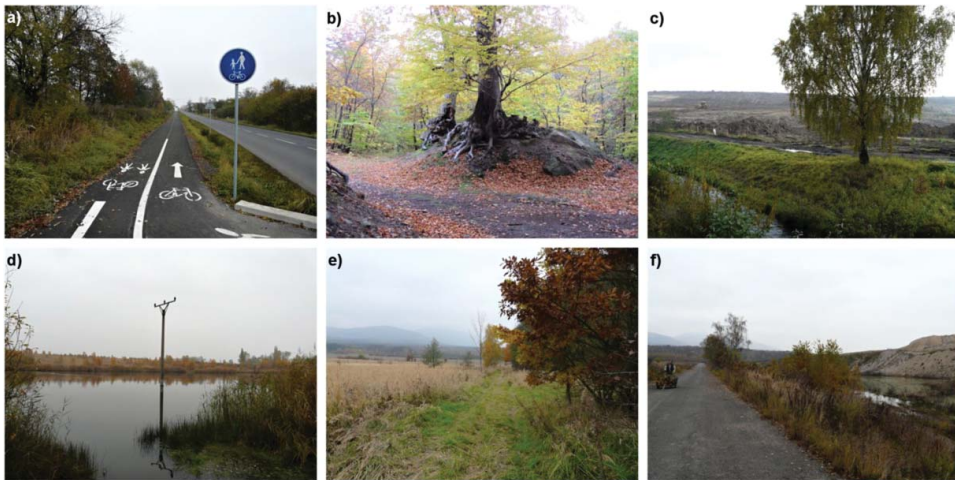


Figure 6. Photographs documenting branches of the proposed Osek–Mariánské Radčice pilgrimage route recovery: (a) western branch – cycling path between Mariánské Radčice and Lom; (b) western branch – the Salesius viewpoint; (c) new branch – a visually exposed edge of the Pokrok dump; (d) new branch – post-mining area of Mariánské Radčice, a flooded area with standing electricity poles as a consequence of mining; (e) eastern branch – neglected surroundings of the Bilina open pit mine; (f) eastern branch – location of a collision between an historically valuable landscape and an active industrial landscape at the edge of the Pokrok dump. (See colour version online.)

along proposed paths according to the rehabilitation plan and returned to the original route in the Mariánské Radčice village. The total length of the eastern branch is 10.2 km.

3.5.3. *New branch*

The new branch of the Osek–Mariánské Radčice pilgrimage route has been designed to extend between the original western and eastern branches (see Figures 5 and 6(c,d)). The new branch was proposed as a new structure based on the contrasting concept. This approach emphasized existing and intentionally created new differences among the new structure, history of the area, and the present industrial surroundings. Together with the western branch, the new branch led from the western gate of the Osek monastery through a residential area of the town of Osek towards the southern part of the Osek forest. It continued along a small stream to the village of Libkovice that had been demolished by mining operations and through perceptually valuable sites behind fields and meadows to the village of Mariánské Radčice. The new branch was designed as a completely new structure with the proposed route following existing or planned routes according to planning documents for the area. The total length of the new branch is 8.8 km.

4. Methodological framework

Based on outcomes from the Osek–Mariánské Radčice pilgrimage route study, we have developed a theoretical framework for recovery of a pilgrimage route as a type of social rehabilitation of post-mining landscape. The framework consists of four main phases: archival documents analyses, planning approaches, setting into the real environment, and formulating a proposal. The framework is schematically presented in Figure 7 and described in more detail below.

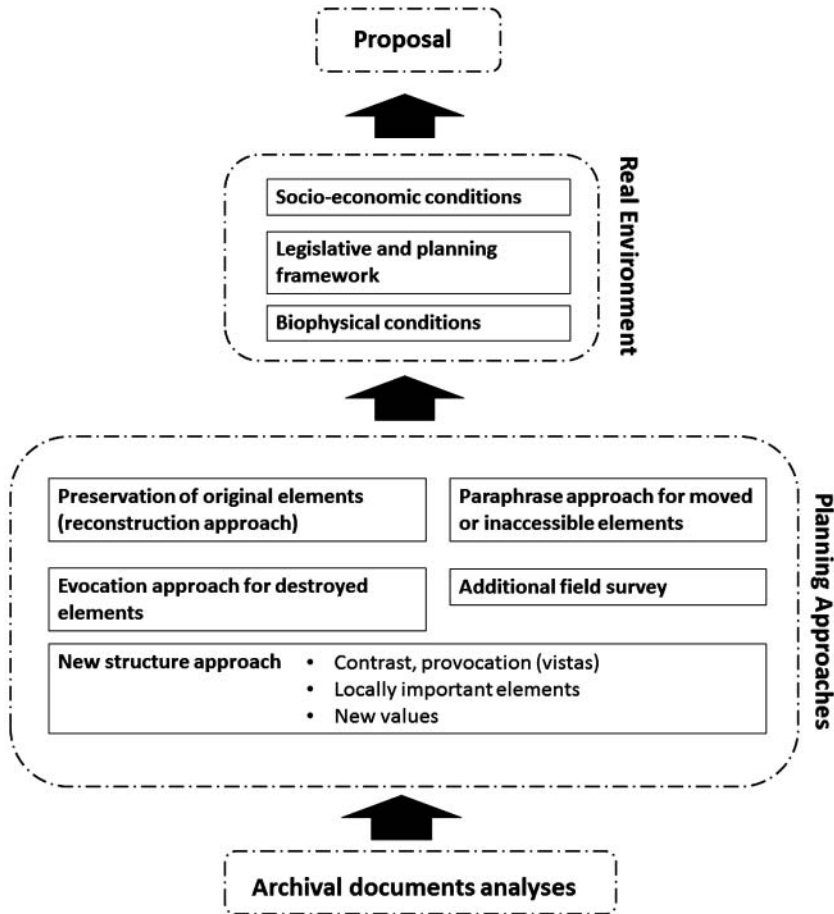


Figure 7. Proposed methodological framework for the pilgrimage route recovery.

The analyses of archival documents constitute the initial phase towards preparing a pilgrimage route proposal. It consists of studying old maps and other archival documents of an area that are crucial for the concept of recovery. These documents show how the original landscape looked in the past and present the progress and changes in the study area. In the case of a pilgrimage route, the archival survey should be focused on a road network, small religious structures, religious architecture, and land use. If possible, archival maps and documents should cover the continuous time period. The output from this phase is knowledge of the original pilgrimage route's location, its supporting infrastructure, pilgrimage sites, and the historical consequences and original surroundings of the route. Once one knows the original routes and how the area looked prior to mining, the planning of approaches to the pilgrimage route's recovery can begin. This planning phase consists of four basic approaches: (1) Preservation of original elements situated in the original locations along the pilgrimage route using the principle of reconstruction. This approach is important for the historical dimension of the recovery. These elements are key for fundamentally connecting the changed landscape with the past. (2) Paraphrasing of existing original elements that were moved from their original location

and those that are inaccessible due to various reasons. Because it is not possible to move these elements back to their original place or to make them accessible, it is necessary to create a new element while maintaining the original meaning. The paraphrased elements represent the step between original element with its historical meaning and a new element representing the new, industrial period. (3) Evocation for elements that were destroyed together with their surroundings. The aim of evocation should be to create the possibility to form mental images of things or events that existed or occurred before the landscape's destruction. (4) Using a new structure for new contrasting elements or locally important elements. The contrasting elements would emphasize the contrast from dramatic landscape change in the area, while locally important elements and sites would be fixed into the route with their original meaning and significance. The pilgrimage route planning based on these approaches needs to be set into the real environment according to particular biophysical conditions, the legislative and planning framework, and socio-economic conditions. To analyze the real environmental conditions, it is necessary to conduct an analytical survey focused on current and planned land use, aesthetic and visual characteristics of the post-mining landscape (aesthetic axes, contrasting places, crossing of routes, etc.), and the difficulty of the terrain (e.g. slope, surface of routes). The survey of the legislative and planning framework of the area encompasses mainly the rehabilitation plan for the post-mining area, master plans of municipalities in the area, and other local or regional planning strategy documents. Knowing the future design of the post-mining area, planning approaches can be determined for particular places and meanings. In this phase, the participation of local stakeholders is important for incorporating the socio-economic conditions into the proposal. Additionally, the locals' knowledge of the environment is crucial for identifying those locally important places that could be part of supporting infrastructure for the pilgrimage route. Based on the real conditions, planning approaches, and survey of archival documents, the proposed pilgrimage route can be designed.

5. Discussion

Recognizing the change in pilgrimage aims from principally spiritual to more cultural experiences (Frey 2004), the pilgrimage route recovery includes not only religious aspects but also tourism potential as an industrial attraction within the broader framework of heritage tourism (Štefko, Kiráľová, and Murdík 2015). As described by Edwards (1996, 342), mining and post-mining sites should be included into industrial heritage because of "the awareness of the role of industrial heritage as a 'niche market' in diversifying the range of the tourism product on offer; its potential for generating economic activities and employment; its role in expanding tourism into regions and localities that might otherwise offer few attractions to tourists; and, finally, the possibility of offering visitors a different vision of what is generally understood as the aesthetics of scenery and landscape". The mining sites should be considered within the broader context of their surrounding scenery and also as part of a series of relics indicating a continuous process of their change (Edwards 1996). Recognizing that landscape is the mirror of society (Calticange 2012), post-mining landscapes express the physical and symbolic effects of successive human actions on nature. In accepting these arguments, it becomes possible to develop mining tourism as a type of heritage tourism. Moreover, the mining heritage attractions could play a complementary role in regional economic regeneration (Edwards 1996).

In our study, we have developed the methodological approach to pilgrimage recovery in a post-mining landscape as a type of social mine rehabilitation. Realizing that the sense of place and the character of pilgrimage sites play key roles in the concept of modern pilgrimage (Shinde 2012), we proposed a new approach to recovery of supporting pilgrimage route infrastructure. This involved paraphrasing and evoking the character of infrastructure as vistas and other visual contrasting places, as well as places of conflict between historical and industrial landscapes and historically important places (Kuča, Kučová, and Kibic 2004). The local significance of this study is high. Although the Osek and Mariánské Radčice pilgrimage sites have retained their purposes, we cannot report other significant development of these two sites. The study area is part of an active industrial landscape and therefore unpopular among tourists or other visitors (Vráblíková and Vráblík 2002). Its realization has a great regional economic potential, particularly in the tourism sector (Edwards 1996). Moreover, the pilgrimage route could increase the awareness of common history and culture among local people (Kirářlová and Straka 2013). Implementation of the renewal study provides an opportunity to restore life to the post-mining landscape through recovering or creating religious and cultural values. The Osek–Mariánské Radčice pilgrimage route could constitute a stable historical axial structure within a mining landscape of dynamic changes.

6. Concluding remarks and recommendations

The methodological framework introduced in this paper highlights the importance of pilgrimage recovery as a type of social rehabilitation and points to pilgrimage tourism as a means for economic regeneration of post-mining areas. When striving to recover a pilgrimage tradition in a post-mining landscape, the study area should be considered as a landscape in progress and one which is built on the original historical values and meanings. The locally important places should be involved into the project, as well as local touristic places and attractions.

Although the framework presents a comprehensive approach to pilgrimage route recovery, much research remains to be done on the topics of evocation, paraphrasing, and creating new structures for pilgrimage routes and their supporting infrastructure. Our study has introduced only a general approach, even though the specific methods have yet to be developed and implemented. Also needing to be addressed is how to involve local stakeholders into the planning of a pilgrimage route, as well as how to accommodate local conditions and the particular aims of the pilgrimage recovery.

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