

LIFE IN A MINED LAND

Socio-cultural rehabilitation of post-mining sites: the perception and use by local communities

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Introduction

The challenge for our society is to mitigate the negative impacts and to encourage socio-cultural rehabilitation of mining land, especially in densely-populated regions where open pit mines frequently overlap with sensitive ecosystems and with intangible cultural values. Post-closing and closing periods have been identified as critical phases of the mining life cycle in management of community and governmental support for maintenance of mining activities and their future development (Krzemień et al., 2016), however, previous research on perception of rehabilitated mining land have been published sporadically (e.g. Svobodova et al., 2012; Sklenicka and Molnarova, 2010). Our study has investigated how people living in close proximity of mining and reclamation sites perceive their surroundings and how they use it in their everyday lives.

Study area

The study was conducted in the Czech Republic, an important European lignite mining country. We recruited residents of two towns located in the lignite coal basin in the North of Czechia - Habartov and Lomnice. Both of the municipalities are closely surrounded by large rehabilitated sites and the town of Lomnice adjoins the open pit mine Jiri.

Method

The study was approached qualitatively, using methods of face-to-face interviews and mental maps. We conducted 40 interviews with locals from both municipalities focused on their relationship to the post-mining and mining sites, to the municipality and to the mining company operating in the area. Participants were further asked to identify places they use in their everyday activities, especially places with various cultural and recreational values in their surroundings and mark them on a paper map. The study was conducted from January to March 2017. Every interview took approximately 1 hour.

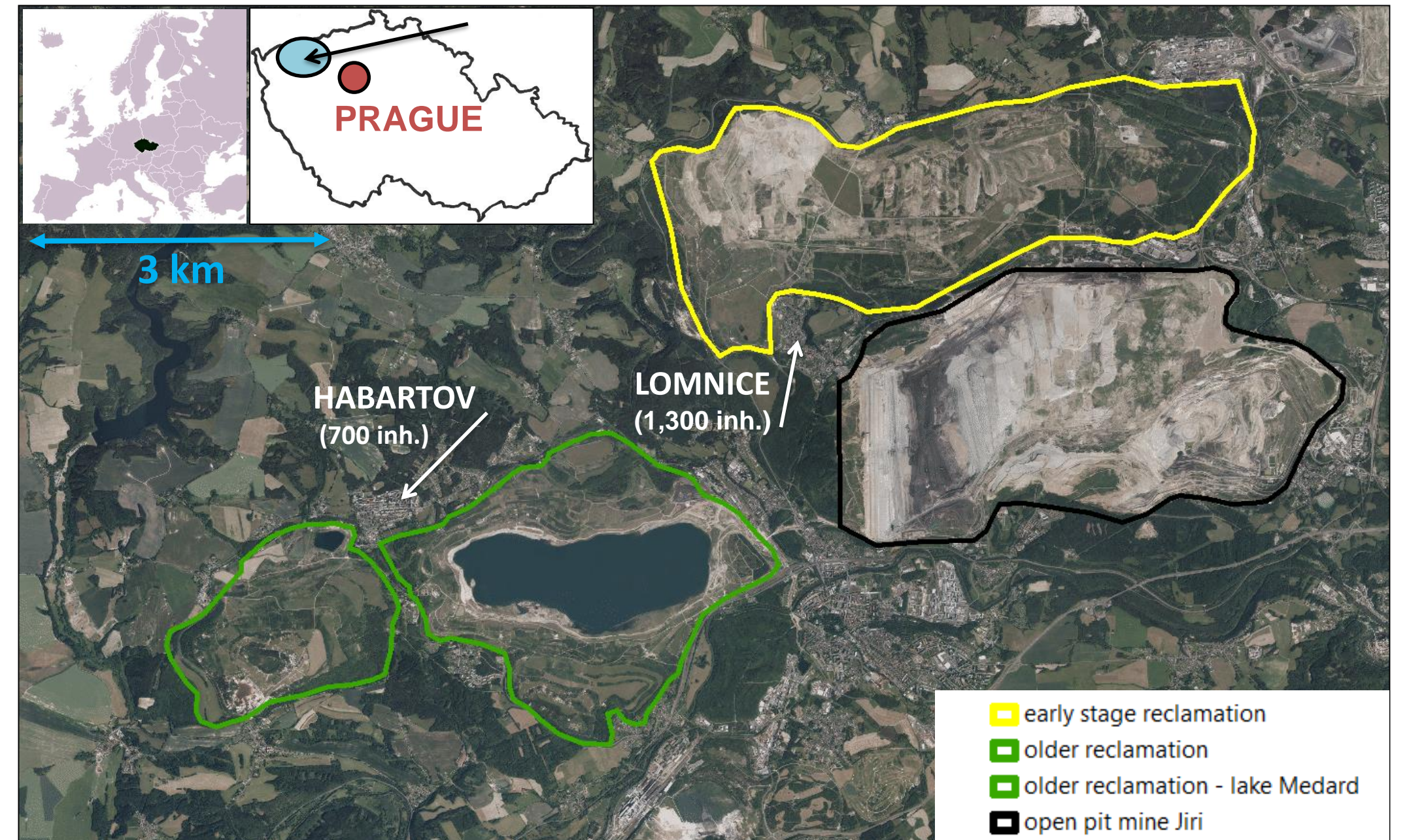


Figure 1. The study area: Municipalities of Habartov and Lomnice are in close proximity to reclamation sites and the open pit mine.

Table 1. Structure of participants in surveyed municipalities Habartov and Lomnice.

	HABARTOV	LOMNICE
Men/ Women	10/ 10	10/ 10
Average age	50 years/ 49 years	52 years/ 45 years
Education	University 6 High school 9 Lower 5	University 2 High school 13 Lower 5
Living in the town for	43 years	40 years
Men / Women working for the mining company	5/ 0 (25%)	6/ 3 (45%)

Table 2. Residents' activities conducted in reclamation sites.

Activities	Response %
- walks	30
- cycling	20
- in-line skating	18
- swimming	18
- being in nature / education	5
- jogging	5
- horse riding	3
- mushrooming	3

Table 3. Residents' relationship to the mining company Sokolov Mining (SUAS)

Response	HABARTOV %	LOMNICE %
Very positive	20	25
Positive	55	60
Neutral	25	15
Negative	0	0
Very negative	0	0

Table 4. Perception of the open pit mine Jiri. Only 2 participants perceived the pit positively. Their perception was related to economic benefits and only working activities related to the open pit were indicated. s' activities conducted in reclamation sites.

Perception	Residents %
positive	10
neutral	50
negative	40



Figure 2. The study area: a. Town of Habartov; b. Hydric reclamation to the post-mining lake Boden; c. Lignite mine Jiri; d. Central part of the Lomnice town.

Results

The results showed that locals have very strong relationship to their municipality. All participants want to stay to live there. Although they perceive mining as important part of local economy and have good relationship to the mining company, their perception of the open pit mine is mostly negative. They emphasized issues such as dust, noise, light from excavators and landscape destruction. On the other hand, all participants perceived all reclamation sites positively. They even actively use them for daily recreation and do not differ between old or new recovery (30 or 10 years old). Mine rehabilitation is perceived as valuable and promising in future development of the area, while mining as destructive and dangerous. However, economic and social benefits from mining contribute to the mitigation of its negative perception. Participant believe in "comeback of the former landscape" after mine closure.

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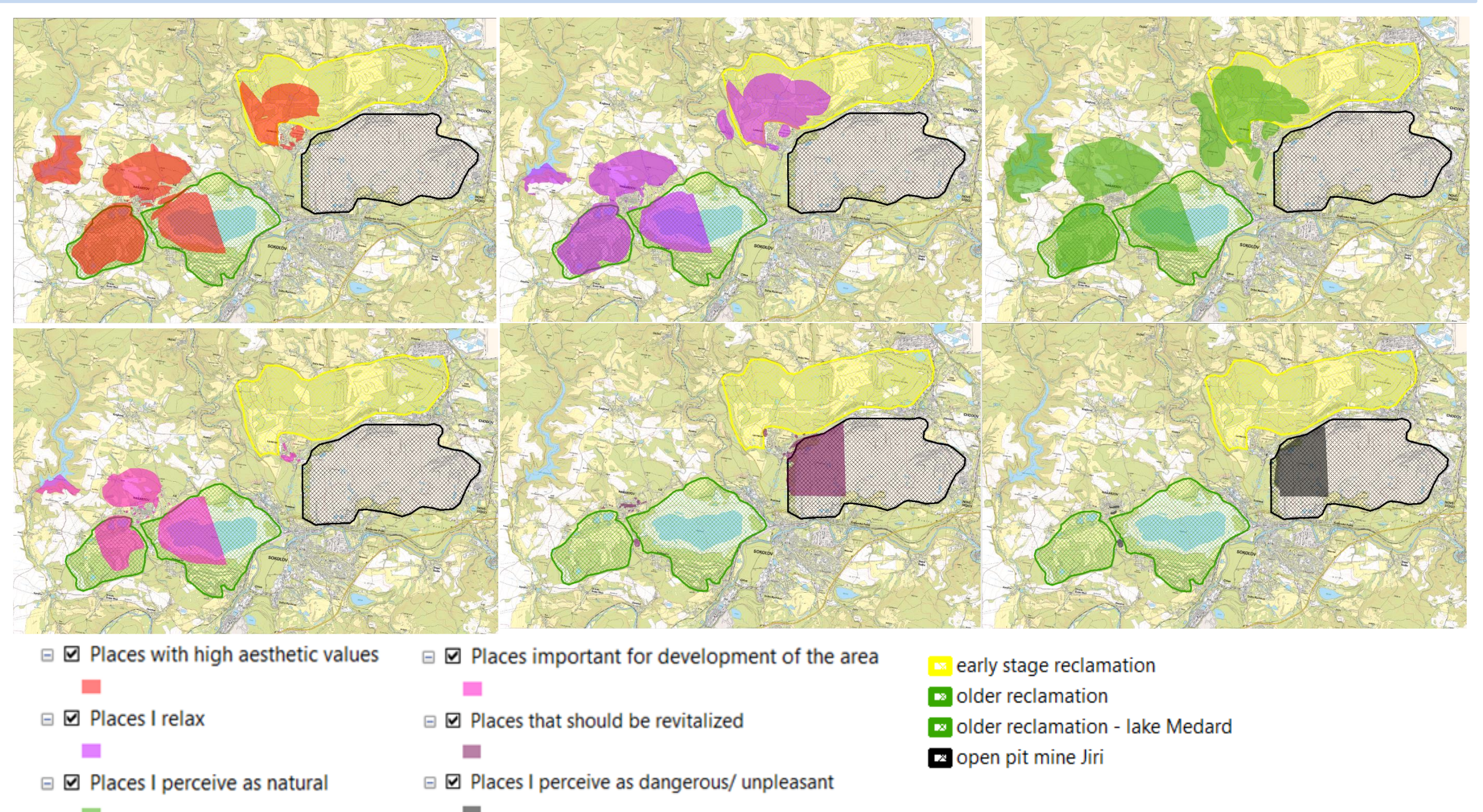


Figure 3. Participants' perception of reclamation sites and the open pit Jiri. All positive values were identified in reclamation sites or surrounding natural areas while negative values are exclusively connected to the open pit.