

## Identifying Landscape values in a changing countryside of the Bystřicko micro-region: A Case study of the Rožná Village

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*Abstract:* Czech cultural landscape was on the threshold of big changes in a beginning of the second half 20th century. These changes passed off predominantly without considering the consequences, therefore many of a landscape values have been hidden or even destroyed.

The contribution aims at the identification of landscape values in a post-mining [1] countryside of the Bystřice nad Pernštejnem micro-region. It is focused on the Rožná Village and its surrounding landscape, which was affected by many ways during last 70 years.

The methodology consists of following steps: to collect data about the Bystřice nad Pernštejnem micro-region in general, to focus on the Rožná Village in detail, to identify landscape values indoors and to compare them with a real situation verified in-situ.

The data used in our study were from these sources: ČUZK (The Czech Office for Surveying, Mapping and Cadastre), ČSÚ (The Czech Statistical Office), CENIA (Czech Environmental Information Agency) and department database.

To sum up, the post mining landscape in the Rožná Village has many varying values and most of them are connected with the primary landscape structure and its reflection to the both others. This impact together with the consequences of the mining leads to results in cultural, functional and natural values.

*Key-Words:* landscape changes, identifying values, post-mining countryside, Bystřice nad Pernštejnem micro-region, Rožná

### Introduction

Bytřice nad Pernštejnem micro-region is situated in Vysočina region, close to the midpoint of Czech Republic. On the contrary to the location the micro-region is characterized by bad conditions of public transport and road network. Whole territory consists of 37 municipalities with total area of about 326 km<sup>2</sup>. The Rožná Village is situated in a centre of this territory with an area of 12.87 km<sup>2</sup>.

However the contribution is aimed at identify, evaluate and record values disappearing in last seven decades it is necessary to mention the whole history. As well as the whole micro-region the Rožná Village has been influenced by three main factors. Firstly, geological processes formed the surface to highlands landscape. Secondly, the Svatka river created many meanders and finally a human being changed the countryside in many aspects. The most significant conditions are these:

- The Perštejn family. They took over an agricultural landscape in 13<sup>th</sup> century. Nowadays, there are many ruins, which used

to be as a summer residence by The Pernštejn Family.

- Mining. Consequence of an extensive medieval mining (silver, lead and copper) activities with impact of a recent history (uranium mining) are responsible for today's conditions.
- Religion and Vernacular architecture. Sacral buildings and architecture based on local needs and construction materials recorded the spirit of the time.
- Transition. The Socialistic era and the Velvet Revolution have caused the biggest changes in a rural space during last 70 years. [2]

In reference to these facts the identification of the landscape values is quite difficult. As a first step towards the aim we have to deal with an in-depth analyse including evaluation of primary, secondary and tertiary landscape structures. The final synthesis leads to definition of "objective" landscape values.

Secondly we try to capture vanishing testimony in the inhabitant's reflection. The results will be based on the comparison of "objective" landscape values using statistical data and "mental" landscape values hiding in the perception of the people.

The two-year project "*Landscape memory as a rural heritage – the changes of Czech cultural landscape in the mental reflection of its inhabitants*" started in January 2014. The aim of this paper is to present a partial research, which has been carried out till these days. The first step towards the final aim.

**Material and Methods**

The case study of the Rožná Village was considered in context of the Bystřice nad Pernštejnem micro-region in each of the partial analysis.

**Analysis of the primary landscape structure.**

This analysis was focused on natural conditions, which formed the local countryside to present form. Geology, morphology, pedology, hydrology and climatology characteristics were explored in this phase.

**Analysis of the secondary landscape structure.**

This phase was the main information source for the identification of cultural, social and functional values in evaluated landscape. History, settlement pattern and urbanization together with land use, population growth, socioeconomic and infrastructure conditions affect quality of life in many ways currently.

**Analysis of the tertiary landscape structure.**

Genius loci, landscape character, nature protection and traditions together with the primary structure were the basis for the determination of nature, recreational values, social and cultural values.

**The final synthesis. Identification of landscape values in the case study area.**

The results of the final synthesis concluded to following landscape value: cultural, social, recreational, functional and natural (Tab.1). Cultural values of the landscape were seen in spiritual and religious values, intangible values (like personalities, events, fairy tales), recognized cultural values (protected monuments of different ranks) and informal values like landscape composition, urban structure, etc. Social values were represented mostly by landscape suitable for meetings of people. Recreational values consisted in recreational zones, geo-parks, therapeutic values etc. Among functional values of the landscape anti-erosional, anti-flood measurements, landscaping could be named. Natural values were represented by landscape and nature protection of various scale. [3]

The data used in our study were from these sources: ČUZK (The Czech Office for Surveying, Mapping and Cadastre), ČSÚ (The Czech Statistical Office), CENIA (Czech Environmental Information Agency) and department database. [4]

Table 1 The partial analysis in relation to the "objective" landscape values, Helena Lincová, 2014 .

Type of analysis	The explored characteristic in the	Related landscape values
Primary landscape structure	Geology	Nature values Recreational values
	Morphology	
	Pedology	
	Hydrology	
	Climatology	
	Potential vegetation	
Secondary landscape structure	History	Cultural values, Social values Social values Social values Cultural values, Social values Functional values Social values Functional values
	Population growth	
	Urbanization	
	Settlement pattern	
	Infrastructure	
	Socioeconomic	
	Land use	
Tertiary landscape structure	Nature protection	Cultural values Nature values Recreational values Social values
	Genius loci	
	Landscape Character	
	Traditions	

## Results and Discussion

### The cultural values

A rural countryside of the Rožná Village contains three different types of cultural values. Firstly, there is St. Havel Church with adjoining graveyard from 14<sup>th</sup> century. Secondly, the Hradisko Hill (Fig.1), a mysterious landmark situated on the right bank of the Nedvědička stream, which is closely attached to old building area. Hradisko is also a mineral deposit of lepidolit. Finally, there are two closed uranium mine.

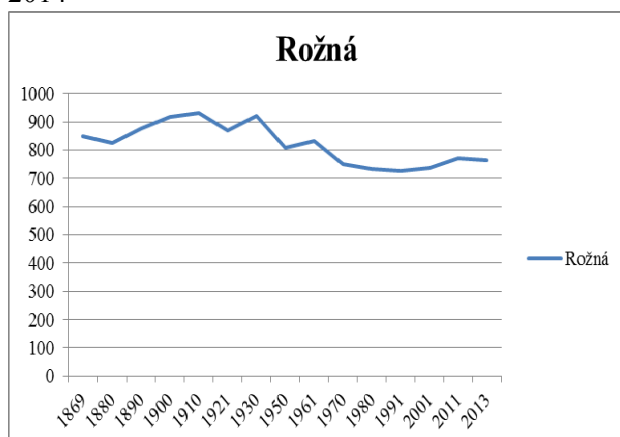
Fig. 1 The Hradisko Hill with a closed uranium mine on the horizon, Helena Lincová, 2014



### The social value

The quality of life in the Rožná Village is strictly connected with social infrastructure. The population growth (Fig.2) was predominantly influenced by new incomers in Josefov and Zlatkov cadastral areas. There are 765 inhabitants living in the whole municipality, which have a possibility to meet in a public library, a multifunctional playground and three restaurants.

Fig. 2 The population growth rate, Helena Lincová, 2014



### The recreational values

The landscape reclamation made a contribution to a new recreation area along the Zlatkovský stream. Two multifunctional ponds with an accompanying equipment provide a public space usable by both, residents and tourists.

### The functional values

The post-mining landscape of the Rožná Village plays a key role in determination of the functional values. Two sludge reservoirs gained a new function. The first one was reclaimed for the purpose of a solar power plan (Fig.3), which is situated on the top of slag heap. Nevertheless the second one has not been reclaimed yet, an ecological restoration has started to create a new informal recreation zone.

Fig. 3 The solar power plant, Helena Lincová, 2014



### The natural values

A similar situation is repeating in this case. In the field of the formal values The Svratecká Hornatina Natural Park covers the east part of The Rožná Village area. On the contrary, an ecological succession (Fig.4) is under way in many places in the post-mining landscape.

Fig. 4 The post-mining landscape under an ecological succession, Helena Lincová, 2014



## Conclusion

To sum up, the post mining landscape (Fig. 5) in The Rožná Village has many varying values. As we have seen, most of them are connected with the primary landscape structure and its reflection to the both others. This impact together with the

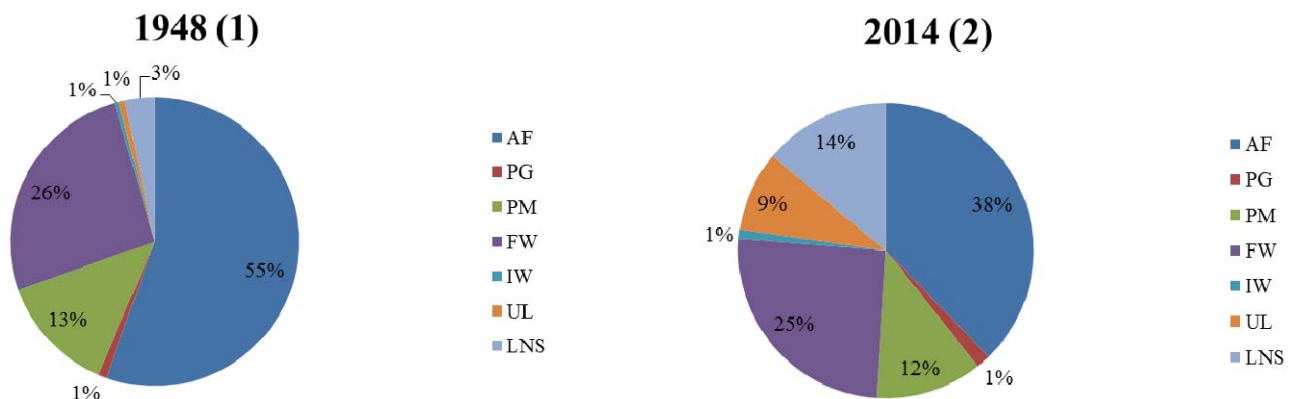
consequences of the mining leads to results in cultural, functional and natural values.

These results show how much an individual and a holistic approach is essential. Therefore it is necessary to involve not only experts but also any responsible person, seniors 65+ and young people, as well. Take the second step towards the final aim.

Fig. 5 The Land use changes during last 7 decades, Helena Lincová, 2014

1) Situation in 1948, source: lucc.ic.cz, 2012

2) Situation in 2014, source: ČSÚ, 2014



Legend: AF– arable land, PG – permanent grassland, PM – pastures and meadows, FW – forests and woodlands, IW – inland water, UL– urban land., LNS–land not otherwise specified

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