

THE IMPORTANCE AND POTENTIAL OF LOCAL GEOHERITAGE (CASE STUDY: LOMNICKO AND DEBLÍNSKO, SOUTH MORAVIAN REGION, CZECH REPUBLIC)

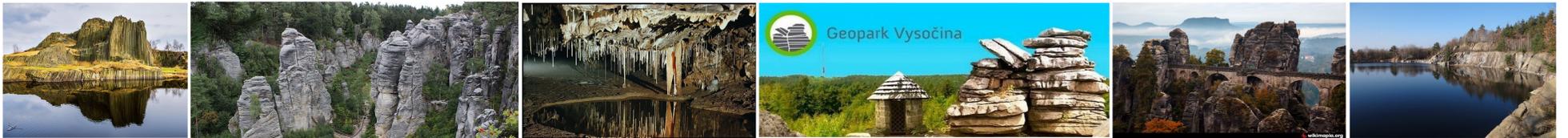
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Introduction: Local geoheritage?

- Geodiversity, respective its valuable part, geoheritage, is considered and recognized as **important resource for the geotourism, geoeducational and recreational purposes**.
- Traditional “geo-areas” in the Czech Republic: sandstone rock cities (e.g. Elbe Sandstones), karst areas (e.g. Moravian Karst), mountains (e.g. Krkonoše) are usually significant on the national level, their existence **enables geotourist and recreational activities and supports economical development on the regional and national level**
- However, **in the local scale, geodiversity (respectively local geoheritage, or particular geosites and geomorphosites) also serves the above mentioned purposes**. Maybe these landscapes or landforms are not so breathtaking, extensive or unique, but they also possess the potential for the tourist and recreational purposes and their possible further development.
- These areas offer an **alternative to the traditional tourist destinations that are often overcrowded and overloaded, especially during holidays and weekends**.



“Levels” of geoheritage (with examples from the Czech Republic)

- **Global geoheritage** – UNESCO WHS or Global geoparks (Bohemian Paradise)
- **National geoheritage** – National Parks, National Geoparks, PLAs, National Nature Monuments or National Nature Reserves (e.g. Elbe Sandstones National Park, Moravian Karst PLA, Vysocina National Geopark, Panská skála National Natural Monement)
- **Regional/local geoheritage** - locally important geosites and geomorphosites, usually with lowest category of legal protection (Nature Reserve or Nature Monument or Natural Park) or without protection.



The example of exposed geosite (Čertova stěna near Lidečko, Vizovická vrchovina, Zlín Region): sandstone cliffs attract climbers and tourists, during the weekends and holidays, the site is overcrowded. Near this site, there are other sandstone rocks (Dolní skály, Horní skály, Láz) which are also attractive and significant from the Earth-science point of view (e.g. presence of large tafonis or honeycombs) and which remain practically unknown.

Deblínsko and Lomnicko: “love at the second or third sight”

- Both study areas (Lomnicko and Deblínsko) are **situated in the outskirts of Brno** (second largest city in the Czech Republic (approximately 380 000 inhabitants, but real number of people living here is higher) and the capital of the South-Moravian region)
- They can be considered the **recreational and touristic background of the city, however, they are not used for these purposes** due to the existence of other **traditional and favourite tourist destination north of Brno - Moravian Karst PLA** situated north of Brno, which is more attractive from the Earth-science point of view and which has dense network of marked paths, developed tourist infrastructure and information facilities.
- **Both areas are well accessible and equipped** with several marked tourist paths, basic tourist facilities (shelters, information panels with maps) and tourist infrastructure in the villages and towns. The short distance from Brno city makes these areas **important for the short-term (one day) recreation and tourism development and it is a friendly alternative to the overcrowded Moravian Karst**.



Lomnicko: harmonic cultural landscape with high morphodiversity of cryogenic landforms

- Harmonic landscape with well conserved natural features (especially cryogenic landforms)
- **Geologically it is relatively monotone** (Proterozoic gneisses covered by Quaternary sediments), but thanks to the intensive periglacial and cryogenic processes in the Pleistocene, the **morphological diversity of the area is very high** (tors, ridges, castle-koppies, structural ridges, block accumulations and flows, nivation depressions, cryoplanation terraces, frost-riven cliffs, abri, rims) and it belongs to **best preserved areas with periglacial and cryogenic rock landforms in the Czech Republic**.
- Numerous **anthropogenic landforms**, especially of agricultural origin (heaps, terraces, ramparts).
- Cultural features: represented by **traditional agricultural and sacral objects with use of local material**. The Jewish cemetery in Lomnice is declared as Cultural Monument. In the open landscape, the small sacral objects are common (crosses, small chapels etc.).



Deblínsko: petrographic mosaic and mining geoheritage

- Diverse landscape characterised by **mosaic of fields, forests, meadows and ancient orchards**
- **Geology (respectively lithology) of the area is very varied** (Proterozoic gneisses and phylites, Devonian limestones, siliciclastics sediments of Carboniferous age, Miocene and Pliocene freshwater sediments, Badenian marine sediments, Quaternary fluvial and eolian sediments) which influence the morphodiversity: the most important landforms of the area are **deep incised valleys, fluvial landforms, karst forms, various rock formations of cryogenic origin and old abandoned quarries**
- Cultural features are represented especially by **long mining history** (ores at Bílý potok valley, limestone extraction, old lime kilns, kaolin extraction) and **use of water resources** (e.g. mills on the Svatka River and its tributaries).

Conclusions: Why should we care about the local geoheritage?

There are many reasons depending on the values of the local geoheritage (respectively geosites and geomorphosites) which are important for the development of geotourism and geoeducational activities:

- 1) **High scientific, conservation and educational values**: landforms and processes are illustrative, visible and simple to understand and can be used for environmental education by local schools; integrity or conditions of landforms are relatively good which can be affected by lower amount of visitors and less intensive use of them,
- 2) **Added values – close links to the landscape and culture**: ecological, historical or archaeological values, artistic and literature values, geomorphological aspect, relations to the historic landuse, the traces of the landscape memory, local materials used for local buildings and constructions,
- 3) **Economic and tourist value**: accessibility, presence of tourist infrastructure or background for short-term visits, financial availability (“local geoheritage – local prices”),
- 4) **Number of visitors and knowledge/popularity of the site/area**: local geoheritage is not so well-known and popular and the number of visitors is not so high as in the case of national and global geoheritage, so it offers a friendly and nice alternative for visitors that are looking for something new, original, calm and not so overcrowded at the same time,
- 5) **Stronger feel of local identity**: local products, “real” or authentic local people, folklore and services.

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