

Interactive comment on “The abandoned surface mining sites in Czech Republic: Mapping and creating the database with GIS web application”

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Comment 1: Page 1 l. 16 - I would suggest to add few references to concepts of Geoheritage, Geomorphosites and the use of outcrops and quarries for geoscientific education as this is the major rationale for the research. Here are some of possible references:...

Answer: From the offered references we selected two and we added them to the text:

... They provide an overview of cultural, economic and industrial history, they enable to study architecture and arts and they reflect development and maturity of technologies, they can also serve for the geoscientific education as the important sites of national

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geoheritage (Petersen, 2002; López et al., 2011). ...

López-García, J. A., Oyarzun, R., López Andrés, S. and Manteca Martínez, J. I.: Scientific, Educational, and Environmental Considerations Regarding Mine Sites and Geoheritage: A Perspective from SE Spain. *Geoheritage*, 3, 4: 267–275, 2011.

Petersen, J. (2002): The role of roadcuts, quarries, and other artificial exposures in geomorphology education. *Geomorphology* 47, 2-4: 289-301.

Comment 2: Page 2 l. 7 an - I would suggest to put the list of individual volumes of Quarry inventories in a table showing region, year and reference to the publication. In references, list of inventories can be separated from other literature.

Answer: We considered this possibility during the manuscript preparing. However, we assume that the clearer is, to mention the Quarry Inventories in the text (because we describe the successive phases of QI creating, the Slovak QI etc.). The accumulation in one table would lose connection with the context and in the Reference list there is no possibility to separate any part of references, according to the rules of GI journal.

Comment 3: Page 3 l. 9-15 - simplify. Much of the process is standard when working in GIS (e.g., it is not necessary to mention that you used Update referencing or other tools; same holds for “punctual layer”, “table containing columns” etc.). Rather draw a clear sketch of the process in several steps and point out to the problems that you faced during the database creation.

Answer: The generalization of the vectorization as the drawn sketch would disable the possibility to explain selected steps. However, we agree with referee, that some processes are generally known and it is not necessary to mention them. Therefore we generalized and shorten the paragraph in the shape below:

... Map attachments of the published “Quarry Inventories” were digitized by a large format scanner into the form of a non-compressed raster in tiff format. In ArcGIS 10.2, control points, identical both in the referential background map and in the embedded

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raster, were identified and created. Georeferencing was made in the geographical grid system S-JTSK_Krovak_East_North was used (see Fig. 1). ...

Comment 4: Page 4 Section 5 included important remarks of a discussion style, thus try to rename the section to Discussion and conclusions.

Answer: Accepted, the chapter was renamed.

Comment 4a: Last but not least, English needs revision as there are typos and inappropriate words at several places: Page 1 l. 13 (and again in Conclusion) - "wining" should be "mining" l. 17 - "...refuges of biological diversity" - should be "refugia increasing the biological diversity" l. 19 - "ranging" - should be "dating back" l. 23 and here after - "Republic of Czechoslovakia" - The correct name is "Czechoslovak Republic" as far as I know. l. 27 - Delete "cumulative" l. 28 - "still going on" - Better use "running".

Comment 4b: Page 2 l. 1 - "approximated quality, presumption of the deposit thickness...". Should read "estimated quality and prediction of thickness..." l. 13 and here after - Did you mean "framework" instead of "frame"? l. 14 - Use "was performed" instead of happened l. 26 and here after - Better use "Lists" instead of "Listings" (same in singular) l. 30 - "annual cut". Perhaps it would be better "annual volume".

Comment 4c: Page 3 l. 2 - use "assume" instead of "presume" l. 3 - delete "the statism of" l. 19 – for localization and vectorization l. 19 - what are auctorial maps? l. 24 - "was generated" instead of "was being generated".

Comment 4d: Page 4 l. 5 - what is "stand of objects"? Did you mean "state" or "condition"? l. 16 - "Most frequent" instead of "most occurred"; perhaps use present tense instead of past tense (are/were) as you refer to analysis of the resulting database l. 27 - "focused on" instead of "focused at".

Answer: We accepted most of grammar and stylistic recommendation except the name of former Czechoslovakia. Our text mentioned the newly formed republic, directly after the collapse the A-H monarchy and its name in 1908-1920 was Republic of Czechoslovakia. The same name was used in the new geological institute, established in 1919.

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