

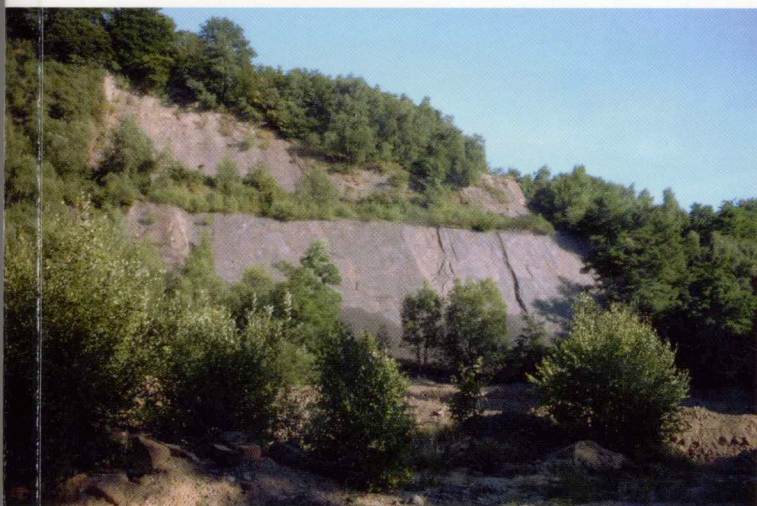
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Schriftenreihe der Deutschen Gesellschaft für Geowissenschaften

2010 . Heft 66

GeoTop 2010 – Geotope: Bodenschätze für die Öffentlichkeit. Paläontologie und Geotopschutz

14. Internationale Jahrestagung der Fachsektion GeoTop der Deutschen Gesellschaft für Geowissenschaften und 6th International Symposium on Conservation of Geological Heritage (ProGEO), 29.05.2010 – 02.06.2010 in Hagen (Westf.)



ISBN 978-3-510-49214-5



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Deutschen Gesellschaft für Geowissenschaften
Heft 66

Vera Mügge-Bartolović, Heinz-Gerd Röhling & Volker Wrede (eds.)

Geotop 2010
Geosites for the Public
Paleontology and Conservation of Geosites

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and

**6th International Symposium on Conservation
of Geological Heritage**

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Subjectivity and uncertainty in geological heritage quantitative assessment: results from fieldwork using a predefined numerical methodology

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The workshop “Geosites Assessment in Peneda-Gerês National Park” occurred integrated in the Intensive Course on Geodiversity and Geological Heritage Assessment held at Braga, in September 2009. During the workshop a workgroup was developed, with selected sites being assessed using a predefined form (Brilha et al. 2009). The main goal was to test and discuss the application of a certain geosite assessment method and its viability when performed by non-local experts. For this experiment, four geosites were selected in the Peneda-Gerês National Park (Portugal), well known by its granite setting: (1) quartz vein of Calcedónia; (2) granite tors of Calcedónia; (3) subglacial till of Homem river; (4) glaciofluvial deposits of Homem river.

Five groups were created integrating all thirty-three participants of the Intensive Course, with experience or high interest in this subject. The four sites were visited by all groups and assessed during a limited period of time. Each group member used a form sheet

for an individual assessment but the group presented a final score for each geosite after achieving an internal consensus between their members. Information on the geology, geomorphology, and other relevant issues for the assessment was given to all participants. The form was based in the numerical method proposed by Pereira et al. (2007) containing criteria divided by main and secondary indicators: rareness at local and national levels, integrity, representativity, diversity, other natural features, and scientific knowledge, all referring to «scientific value»; cultural, aesthetical, and ecological values as «additional values»; accessibility, visibility, current use, legal protection, and support services included in «use value»; and finally, integrity and vulnerability to assess «protection value». The final scores of the assessed criteria were presented during a forum debate.

This assessment methodology was discussed and some reflections were pointed out, such as: i) some criteria

as diversity and accessibility should be more accurate; ii) "additional value" indicator is overrated enhancing the total value of geosites; iii) risk for visitors should be taken into account; iv) some criteria should have multiplying factors; v) diversity criterion does not reflect the real scientific value; vi) integrity criterion is assessed twice; vii) legal protection criterion should be added also in «protection value». It was stressed that being a numerical method it contains also a large amount of difficulties and subjective issues. Despite the subjectivity and uncertainty, the final numeric scores were rather the same in the different groups. The results of this experience show that it is essen-

tial that the assessor have a good knowledge of the studied area to support an accurate assessment. The participants concluded that more research is needed in this subject once it is a very important issue for any geoconservation strategy.

References

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- Pereira, P., Pereira, D. & Alves, M.I. (2007): Geomorphosite assessment in Montesinho Natural Park (Portugal). – *Geographica Helvetica*. 159-168; Basel.