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BOOK REVIEW

The Geology of Central Europe. McCann, T. (ed.), Vol. 1: Precambrian and Palaeozoic, Vol. 2: Mesozoic and Cenozoic, Geological Society, London, 2008, 1449 pp., ISBN 978-1-86239-264-9 and ISBN 978-1-86239-265-6.

The book is a comprehensive summary of the geology of Central Europe, supplied also with limited information from other areas, especially Britain and the Baltic region. It was written by over 200 scientists, coming predominantly from Europe but with 5 from North America and Australia. Two volumes are subdivided into 21 chapters (each of them supplemented with an extensive list of references) and an index. The *Volume 1: Precambrian and Palaeozoic* comprises 12 chapters: 7 on stratigraphic units from Precambrian to Permian, 3 on tectonics (Cadomian, Caledonian and Variscan) and 2 including introduction-overview and Palaeozoic magmatism. The *Volume 2: Mesozoic and Cenozoic* is composed of 9 chapters: 5 represent stratigraphic units (Triassic to Cretaceous, Palaeogene–Neogene and Quaternary), 3 tectonics (Permian to Cretaceous, Alpine of the Alps and Western Carpathians, and north of the Alps); the last chapter is dedicated to fossil fuels, ore and industrial minerals, supplemented with CD containing a map of mineral and energy resources of Central Europe in scale 1:2 500 000. Most "stratigraphic" chapters are 45–80 pages long, the one on Devonian is the shortest (28 pages) whereas the chapters on Carboniferous, Cretaceous and Palaeogene–Neogene are much longer (100–120 pages) what is hardly justifiable.

Generally speaking, a subdivision of the *Volume 1* is much more reasonable than of the *Volume 2*. The latter, focused on Mesozoic and Cenozoic, contains also a chapter on mineral deposits, many of them from Palaeozoic and Precambrian. There are two chapters on Alpine tectonics: a distinction to the Alps – Western Carpathians and to the area north of the Alps is misleading. There is no recapitulating chapter, presenting general geological evolution of Central Europe in the past and possibly, also in the future.

The book is based on a stratigraphic framework, although each chapter is split into regional and mostly traditional items. There are two approaches to the authors' teams of each chapter, either with a few and or with numerous authors (up to 46 in the chapter on Palaeogene and Neogene). Both these approaches are somewhat risky: the former can result in an incomplete and the latter in a non-homogenized description. A job of chapter coordinators was only occasionally successful: the book contents reflect commonly a political regionalisation, because geological units do not cross the state borders and description is limited to separate countries.

This short review cannot comment every chapter. Therefore, the chapter on the Quaternary, co-ordinated by Thomas Litt, is taken as an example. Text, figures and references of this chapter present mostly the German material, and interpretation and correlation with neighbouring countries is limited to the authors' opinions that cannot be accepted, at least for the Netherlands and Poland. The River Rhine region is the only fluvial and aeolian area presented in detail, in spite of the fact that Central Europe comprises even larger rivers and vast loess areas in Austria, Czech Republic and Poland. The description of the Alpine ice ages by Christian Schlüchter is fully comprehensive, but glaciers occurred also in several other Central European mountain regions.

Among the minor deficiencies of the book there is a varying design of the illustrations (e.g., figs. 2.4 and 2.27) and heterogeneous topography for maps, even in the same chapter. Several illustrations are of very poor quality and without any topographic key points (e.g., figs. 17.1, 19.30, 19.31), the others were considerably reduced in size if compared with original drawings what made them almost illegible (e.g., fig. 2.15). Some figures do not refer to the original material (e.g., figs. 13.31, 14.13, 14.16, 17.22) or need substantial correction as well as more profound and complete explanations (e.g., fig. 3.28).

Each chapter is a separate publication without any connections to the others and is devoid of cross-citations of the figures (it is also true for the same chapter). It makes some figures (eventually slightly modified only) be presented more than once (e.g., figs. 2.28 and 3.14) or with varying contents (e.g., figs. 17.16 and 17.20). Some illustrations are unclear, because they have been originally coloured and transformed into grey tones for print.

Terminology and nomenclature is not uniform. For example, a fundamental tectonic zone in Central Europe is named either the Tornquist Suture, Tornquist Zone, Tornquist-Teisseyre Fault Zone, Tornquist-Teisseyre Lineament or Teisseyre-Tornquist Line; sometimes a Thor Suture overlaps this feature (e.g., fig. 6.4). The same remark is also true for geographic names (e.g., fig. 18.27: Pieniny and fig. 18.26: Pennine).

In spite of the critical comments, the book is a valuable step into a mutual understanding the European geology. It is the first case when a huge international team prepared a broad geological overview of the European achievements. I hope that the next edition would avoid the deficiencies, what would certainly result in a more uniform and up-to-date compilation of the Central European geology.

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