



**Stratigraphie von Deutschland IV — Keuper, by the German Stratigraphic Commission (eds.); Courier Forschungsinstitut Senckenberg, 253, Stuttgart; 296 pages; ISSN 0341-4116, ISBN 3-510-61376-7; E. Schweizerbart'sche Verlagsbuchhandlung.**

This book presents the outcome of a decade-long research effort by Keuper specialists within the German Stratigraphic Commission. It is a set of papers written in German by 19 authors and combined in a comprehensive volume summarizing the results of 200 years of Upper Triassic investigations in Germany.

The volume consists of six chapters. Four first chapters present the general aspects of the German Keuper (introduction, history of investigation, palaeogeography and stratigraphy). The last two include a detailed description of the regional development of the Keuper deposits in Germany (chapter 5) and their correlation with those of neighbouring countries (chapter 6). It is worth noticing that chapter 5 constitutes almost half of the book.

The most significant, among recent stratigraphic investigations presented in the book, is the unified lithostratigraphic scheme of the Keuper group for the entirety of Germany. Its new lithostratigraphic units (formations) are defined in chapters 4.2.3 and 4.2.4. Results derived from other stratigraphic methods (biostratigraphy, allostratigraphy and cyclostratigraphy) are presented, based on the new formations. This is very helpful, because the local stratigraphic schemes are rather confusing. The reader can also find a very clear characterization of the Upper Triassic deposits and their development, including the description of Keuper megacycles in chapter 4.5. The critical discussion of cyclostratigraphic time-interpretation is also noteworthy, especially because, recently, this matter has been frequently discussed by Triassic researchers (chapter 4.5.8). The concise summary of the sequence stratigraphic models for the Keuper deposits is of particular importance. The author does not avoid emphasizing some weaknesses of the classic sequence schemes and clearly describes the complexity of sequence analysis of epicontinental basins filled predominantly by terrestrial sediments. A description of local Keuper stratigraphy as well as the comparison between the classical

stratigraphic subdivisions and the new national scheme is presented in the regional part of the volume. The development of the Keuper in Baden-Württemberg is particularly well characterized and illustrated. It is worth noticing also that the book contains a very rich German Upper Triassic references list (over 900 publications).

The volume is not free of weaknesses, however. The list of contents is very unclear. The chapter subdivision is not altogether logical, e.g. chapter 4.1.9 is one and a half pages long but consists of six subchapters, all listed in the contents. Some map and figure descriptions are unclear or incomplete. For example, the gray tinge on maps, showing the distribution of marine sediments, lacks explanation (fig. 4.2–4 and 4.2–5). Almost all illustrations are in black and white, except the maps of facies distribution. Parts of figures in gray are not always clear, e.g. the arrow showing marine incursions during the Late Triassic on the palaeogeographic map is almost invisible. The only exposure pictured in the book is also in black and white, which is unfortunate because for the Keuper deposits colours are significant.

It is a pity that the chapter concerning Keuper discontinuities lacks a discussion of the erosion/non-deposition of sediments problem. And finally in such a stratigraphic work, the authors should be more careful and not place terms such as “Zechstein” and “Lias” between chronostratigraphic units as in table 4.1.1–2. There are also a few editorial flaws such as an English caption only for figure 4.5–1, as well as a few spelling mistakes.

The book is an important component of the European Triassic literature not only because of the central position of Germany in the Central European Basin, but also through its overall scientific importance. Thus, the publication is of broad international interest. If published in English, it would have greater scientific outreach. I look forward to seeing the volumes on the Lower and Middle Triassic, which are currently in preparation.

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