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Stratigraphic inference: a manual

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Jacques Rey 1991. *Geologische Altersbestimmung: Biostratigraphie, Lithostratigraphie, absolute Datierung*. 195 pp, 107 text-figs, 10 tables. Ferdinand Enke Verlag, Stuttgart. Translated from French into German and done over again by Wolfgang Riegraf and Cornelia Schmitt-Riegraf.

The book starts from a discussion of elementary definitions and theoretical basis of stratigraphy. The author mentions those geological and biological processes that leave their traces in rocks and thus record the course of the time. He treats there after briefly the theory, nomenclature and practice of lithostratigraphy against a background of sedimentology and facies analysis. Then, the biostratigraphical part of the book follows and presents an extensive and up-to-date treatise. The biostratigraphical concepts, definitions, nomenclature, methods and limitations are shown with respect to evolutionary biology, palaeoecology and palaeogeography. The book contains also an introduction to radiometric dating, geophysical prospecting, palaeomagnetism, tephrochronology (tephra = fragmental volcanic products) and also to lithostratigraphical precise correlation. Lastly, the author shows in Repetitorium what stratigraphical method one has to choose in a given geological situation and how to correlate events and different time scales. The handbook contains numerous concrete examples from geological practice, and also appropriate illustrations and readings to consult for additional information.

The arrangement of this very good introductory textbook of stratigraphy is so accurate that it resembles a manual of technical procedure. At the same time, however, it lacks a certain historical and philosophical scope which makes that such books like Don L. Eicher's *Geological Time* or Stephen Jay Gould's *Time arrow, time cycle* have been attractive and charming ones. Surely, Rey's work is a handbook while the books by Eicher and Gould are essays but, as an academic teacher, I dream to meet a textbook that would unite both these styles.

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