
A new book on stratigraphical methods - Deciphering Earth's History: the Practice of Stratigraphy

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Abstract

Deciphering Earth's History: the Practice of Stratigraphy is a new book designed to guide users in how to use and apply the wide range of stratigraphical tools now available. The distinctiveness of this book lies in its emphasis on 'how to do' stratigraphy. Each of the key stratigraphical methods are presented in a step-by-step fashion and illustrated with flow charts. Worked examples are used throughout to show how the methods have been used in practice. Shortcuts, possible pitfalls to avoid, and enhancements based on professional experience are provided as top tips. The strengths and limitations of each of the methods are also considered. For the theory behind each of the techniques the reader is directed to established and pioneering references.

As well chapters on the 12 key stratigraphical techniques, there are chapters on non-stratiform units, climate stratigraphy, recognizing incompleteness, and using and archiving stratigraphical data. The techniques are all brought together in the chapters on chronostratigraphy, constructing geological timescales, and two chapters on integrating and applying techniques to a range of problems. Extensive cross referencing throughout shows how the different techniques can be used to complement and enhance each other.

Stratigraphy has always played a key role in geology, one could say that the need to understand the sequence, rates and duration of events makes it the very backbone of geology. Alongside attempts to understand Earth's history at an increased scale of resolution and complexity there has been an increase in the range and sophistication of stratigraphical techniques that have developed. This development makes it is even more important that practitioners and users are well versed in the spectrum of stratigraphical methods. We hope that this book goes some way to helping to address this challenge.

Forty stratigraphers from industry, academia and the public sector contributed to this book, the first in a new book series, Geoscience in Practice (see Coe and Astley 2022). This presentation will focus on the scope and key features of the book and the aims of the book series which is open for book proposals.

Coe, A.L. (ed). 2022. *Deciphering Earth's History: the Practice of Stratigraphy*. Geological Society, London, Geoscience in Practice, 349pp., <https://doi.org/10.1144/GIP1>.

Coe, A.L. and Astley, C. 2022. The launch of a new practical book series: Geoscience in Practice. *Geoscientist*, **32** (4), 6. Available at: <https://geoscientist.online/sections/news/the-launch-of-a-new-practical-book-series-geoscience-in-practice/> (Accessed 27 February 2023)

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Keywords: stratigraphical methods, new book, techniques, chronostratigraphy, teaching, geological timescale