BOOK REVIEW

Sequence Stratigraphy and Characterization of Carbonate Reservoir

By charles Kerans and Scott W. Tinker (1977), 130p., Published by SEPM (Society for Sedimentary Geology) Short Course Note No. 40.; 1731 E. 71st Street, Tulsa, OK 74136-5108. Fax: (1-918)-493-2093; http:\\www.sepm.org ; ISBN 1-56576-040-9; Price US$34 (member) US$48 List

Reviewed by Herman Darman (SHELL Indonesia)

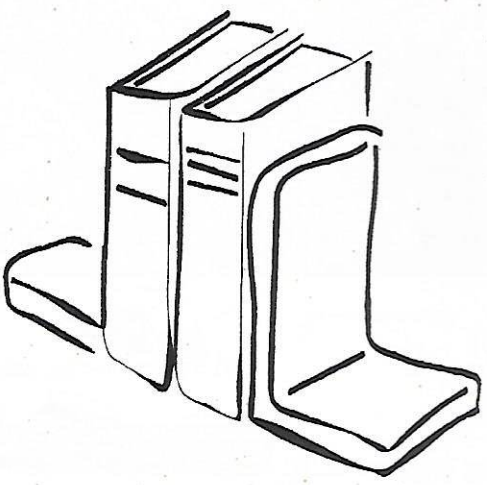
When I received this book , I was impressed by two things: the nice color of the cover and the figures. The figures on the front cover show a seismic section, log correlation, and 3D model of carbonate sequences. Many figures in the book are also colored and make the figures more interesting. The order of the chapters are very systematic, starting with sequence stratigraphy concept right after the introduction, followed by 1D stratigraphic analysis; 2D correlation and stratigraphic analysis; 3D analysis and model construction; and ended by a summary.

The second chapter, 1D Stratigraphy Analysis, discusses core and petrophysical analysis. It explains how to recognize reservoir properties, cycles, depositional sequences and sequence boundaries from borehole data. This chapter also covers a brief and clear explanation on digital database and predictive algorithms, which are hardly found in any other publications as far as I know. The chapter on 2D correlation and stratigraphic analysis begins with an explanation on cross section constructing, contined with correlation methods using cyclicity concept, Walther's law model and lithology correlation. The 3D analysis and model construction chapter give a "user friendly" introduction to computer modeling which can be applied in both carbonate and clastic reservoir model. It shows the use of 1D and 2D data in 3D model construction. The readers will find some terminations such as deterministic and stochastic explained clearly.

Although all methods are explained clearly step by step in the book, no flow diagram showing these steps, which is a shame. One other aspect I noticed with disappointment was the lack of figures showing the general response of shallow marine on sea level changes at the beginning of the book. Outcrop observation and core analysis are considerably limited.

Not too many books put sequence stratigraphy and reservoir characterization as integrated parts, like what we can find in this book. I enjoy the way this book put geology, petrophysics, geostatistics, geophysics and reservoir simulation together in an excellent way. In general I find this book is excellent.

I would recommend this book as a handbook for geologist and geophysicist who deal with carbonate reservoir. Although I am not a lecturer, I find this book as a good introduction for students to understand data integration and reservoir modelling.



NEW SEPM PUBLICATIONS

- Tidalities: Processes and Products by Clark Alexander, Richard A. Davis and Vernon J. Henry eds., 1998, Spec. Pub #61
- Mesozoic-Cenozoic Sequence of Erupoean Basins by Pierre-Charles de Graciansky, Jan Hardenbol, Thierry Jacquin, Martin Farley, and Peter vait eds., 1998, Spec. Pub. #60
- Relative Role of Eustacy, Climate, and Tectonism in Continental Rocks by Keith W. Shanley and Peter J. McCabe eds., 1998, Spec. Pub #59