

## *Siliciclastic Sequence Stratigraphy - Concepts and Applications*

by H.W. Posamentier and G.P. Allen, 2000; SEPM Concepts in Sedimentology and Paleontology Series 7, Society for Sedimentary Geology, 1741 E. 71st Street, Tulsa, OK 74136-5108; hardbound, 204 pages; \$67, \$48 for SEPM members; ISBN 1-56576-070-0.

In this book, Posamentier and Allen have presented to the geoscience community a robust and in-depth analysis and discussion of sequence stratigraphy, particularly as it relates to siliciclastic deposition. Underlying their extended discussion of this topic is the view that sequence stratigraphy, at its root level, is an approach to understanding stratigraphic successions which involves the application of geological first principles. They emphasize that sequence stratigraphy is not a rote model, a “cookbook” approach, or a “blackbox” for generating output. The book is written in a style that offers a generous interplay between concepts, principles and case examples. It is richly illustrated.

The book is divided into 7 chapters. These include an overview, fundamental concepts, attributes of key stratigraphic surfaces, facies and log expressions of systems tracts, practical methods, misconceptions and pitfalls, and a concluding chapter. The overview chapter is relatively short and emphasizes the key geologic principles that underpin sequence stratigraphic inquiry. In the chapter on fundamental concepts, topics such as accommodation, sediment supply, relative sealevel, and the division of stratigraphic successions into sequences and system tracts are explored. The chapter on attributes of key stratigraphic surfaces carefully details the characteristics of surfaces that bound sequence-stratigraphic packages. The following two chapters on facies and log expression of systems tracts and practical methods embody a meaty discussion and wealth of case-study examples. The short chapter dealing with misconceptions, confusion, and pitfalls of sequence stratigraphy offers a number of interesting insights, in part from a historical perspective.

This hardcover volume has 210 printed pages, includes 240 figures, is supported by 374 references, and is indexed by subject as well as author. Seventeen reviews assisted the authors in the preparation of the text. Although the authors indicate that they think this work is a “snapshot” of sequence stratigraphy as it is today, this work will clearly be an important reference for years to come. In summary, the book contains a wealth of detailed information and can be mined over and over again for information or as reference needs come up.

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Sequence Stratigraphy. Definition: The analysis of stratigraphic successions in terms of genetically related packages of strata, bounded by discontinuities. Sequence Stratigraphy. Key concepts: Genetically related strata in different environments, deposited contemporaneously (systems tracts). Bounding discontinuities 3 principal types of surfaces (unconformities, flooding surfaces, maximum flooding surfaces). Relate sequence development to interplay of 3 first-order controls (global sea level, local tectonic movements, sediment supply). Carbonate Sequence Stratigraphy. Many similarities to siliciclastic sequences. BUT -> sediment typically produced locally. Therefore need to consider relative rates of sediment production (not supply) and relative sea level. Siliciclastic Sequence Stratigraphy Concepts and Applications. SEPM Concepts in Sedimentology and Paleontology Series no. 7. vii + 210 pp. Tulsa: SEPM (Society for Sedimentary Geology). Price US \$67.00 (member's price US \$48.00; student price US \$38.00), plus shipping and handling; hard covers. ISBN 1 56576 070 0. Howard D. Johnson. Quantum Mechanics. Concepts and Applications. Second Edition. Nouredine Zettili. Jacksonville Geographic Information Systems: Concepts, Methodologies, Tools, and Applications. 2,281 Pages 2012 51.02 MB 23,660 Downloads New! Siliciclastic Sequence Stratigraphy in Well Logs, Cores, and Outcrops: Concepts for High-Resolution Correlation of Time and Facies (AAPG Methods in Exploration 7). 78 Pages 1990 57.27 MB 296 Downloads New! Characterization Regional Petroleum Analysis Siliciclastic Sequence Stratigraphy in Well Logs, Core The Essentials of Supply Chain Management: New Business Concepts and Applications. 505 Pages 2015 8.61 MB 13,097 Downloads New! education in the field.