

Journal of Sedimentary Research

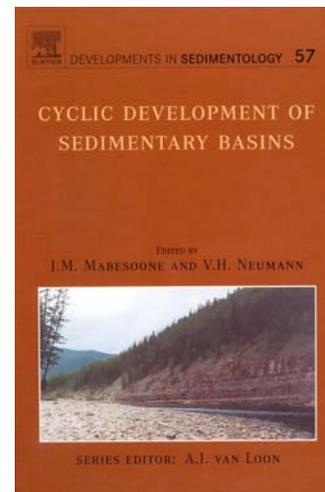
An International Journal of SEPM

Colin P. North and Kitty L. Milliken, Editors

A.J. (Tom) van Loon, Associate Editor for Book Reviews

Review accepted 1 January 2006

Cyclic Development of Sedimentary Basins, edited by J.M. Mabesoone & V.H. Neumann, 2005. Developments in Sedimentology 57. Elsevier B.V., Elsevier, Customer Service Department, Linacre House, Jordan Hill, Oxford OX2 8DP, UK (Europe, Middle East and Africa). Elsevier, Customer Service Department, 11830 Westline Industrial Drive, St. Louis, MO 63146, U.S.A. (U.S.A. and Canada). Hardbound, 517 pages. Price Euro 130.00; US\$ 145.00; GBP 90.00. ISBN: 0-444-52070-8.



The geologic record is characterised by various cycles with different periodicities. Some of the cycles are manifestations of processes that are internal to the geological system, but many others are due to external processes. In the basinal context, these external cycles, conventionally designated as ‘alloycyclic’, are consequences of conditions or processes outside the sedimentary basin. Researchers have recognised a number of long-term alloycyclic controls on basin development as well as nature and patterns of basin-fillings (i.e. the volcano-sedimentary record) in the last decades. Although certain aspects of these longer-term cyclicities have been addressed by several investigators, available data are scattered. A concise account on the nature of those cycles, their causative mechanisms and influence on basin development and nature of basin filling was thus highly demanding. The book on *Cyclic Development of Sedimentary Basins* edited by J.M. Mabesoone and V.H. Neumann is therefore, a welcome addition.

The book has been subdivided into fifteen chapters encompassing both basic theories of cyclicities and several case studies. The first three chapters deal with various fundamental aspects of cyclicities including types of cyclicities, their causes and time scales, and relationships with sea-level fluctuations and tectonics. The fourth chapter presents some examples of sedimentary basins based on compilations of available information from various field guide books, published accounts and abstracts of papers presented during various international sedimentological congresses and Latin American sedimentological congresses. Subsequent chapters deal with various case studies of basinal cyclicities, mostly from South America, Russia, Arabia–Nubia, Siberia, India and China.

The book provides valuable information that will be useful for students and researchers interested in basinal cyclicities. Some of the chapters (for example chapters 10 and 11) nicely present cyclicities in basin fillings with photographic illustration; these will motivate researchers to search for the same in the volcano-sedimentary successions. The majority of the case studies, however, lack illustrative field photographs! The organisation of the book is at times difficult to follow, as is the presentation. For example, the fourth chapter contains important data otherwise difficult to access but it is somewhat a misfit within the basic framework of the book. Quality and clarity of some of the figures (for example Fig. 2.2, p. 21) are not up to the mark.

In summary, the book contains a wealth of information but the presentation and organisation do not seem really in balance. For a possible next edition, I recommend inclusion of (1) illustrative field photographs of cyclicities in basin fillings at different scales and (2) more

case histories from the Precambrian (85% of the Earth history is represented by the Precambrian!).

Rajat Mazumder
Department of Earth and Environmental Sciences, R-304
Munich University
Luisenstrasse 37
80333 Munich
Germany
E-mail: mrajat2003@yahoo.com



SEPM - The Society for Sedimentary Geology