



Journal of Sedimentary Research

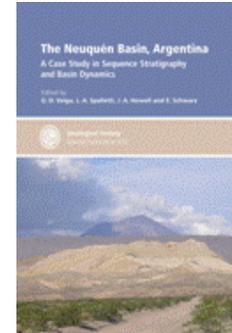
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Colin P. North and Kitty L. Milliken, Editors

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

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The Neuquén Basin, Argentina - A Case Study in Sequence Stratigraphy and Basin Dynamics, edited by G.D. Veiga, L.A. Spalletti, J.A. Howell & E. Schwarz, 2005. GSL Special Publication 252. The Geological Society of London, Brassmill Lane, Bath (Somerset), United Kingdom BA1 3JN. Hardbound, 336 pages. Price GBP 85.00. ISBN 1-86239-190-4.



The Neuquén Basin, at the foot of the Andes in Patagonia (Argentina), is one of the most complete and best studied sedimentary basins of South America. The basin shows a record of sediments deposited in a great variety of environments ranging from deep-marine turbidite, through almost all types of marine realms, to fluvial and eolian systems, accumulated between Late Triassic and middle Cretaceous. The basin is also well known for its spectacular association of Mesozoic fossils, among which the marine and terrestrial reptiles are unique. The present publication envisages an introduction to the basin and a record of the detailed studies developed in it, as an integrated study in sequence stratigraphy, paleontology and basin analysis of a basin not well known within the wider geological community. A series of excellent articles have been grouped into the following sections: Overview, Geodynamic and Tectonic Evolution, Biostratigraphy, Sedimentary Geology and Sequence Stratigraphy in Continental to Shallow-Marine Deposits, Sedimentary Geology and Cyclostratigraphy in Offshore Deposits, Palaeoecology and Palaeobiology.

After an introductory overview article, two articles deal with the tectonic evolution of the Andes in the Neuquén area. A biostratigraphy of the Lower Cretaceous is presented in one paper. Four contributions consider the sedimentary geology and sequence stratigraphy of the continental and shallow-marine deposits, and another four those of the offshore deposits. Finally, four more articles deal with the palaeoecology and palaeobiology of the basin. All contributions are multi-author ones and reflect excellent knowledge of the respective themes, which are explained clearly and with multiple examples.

However, in spite of the high quality of the individual contributions, the book is more a collection of individual papers than a truly integrated and complete study of the basin. Each chapter starts with the same type of introduction about the basin. And each chapter has its own complete list of references. This could have been avoided by a more extensive introductory overview and one only reference list of all cited papers at the end of the book. Furthermore, a contribution about the well-known fauna of dinosaurs in the basin, and a concluding chapter integrating the essence of all individual contributions would have been welcome.

With respect to the only paper about biostratigraphy of the Lower Cretaceous, a comparison with Tethyan and West-Mediterranean faunas is shown, that does not

correlate very well. (One might wonder why South American biological events should be correlated at all with the rather restricted Tethyan events; is the Tethyan fauna really so representative that it can serve as a reference for comparison with other parts of the world?)

Nevertheless, in spite of these - not so important - shortcomings, a very good impression of the important Neuquén Basin can be obtained from this book. I can highly recommend it, especially as an example of how to carry out detailed research in sedimentary basins elsewhere in the world.

J.M. Mabesoone, Emeritus
Federal University of Pernambuco
Recife
Brazil
jmmab@hotmail.com.br



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