

***Subsurface Geology of a Prograding Carbonate Platform Margin, Great Bahama Bank: Results of the Bahamas Drilling Project*, edited by Robert N. Ginsburg, SEPM Special Publication 70. SEPM, 1741 E 71st Street, Tulsa OK 74136-5108, USA; 207 pp. US\$ 40.00 (SEPM members), US\$ 30.00 (SEPM student-members), US\$ 65.00 (non-members). ISBN 1-56576-077-8.**

This book is the long-expected SEPM Special Volume 70 summarizing the outcome of the drilling project along the leeward margin of the Great Bahama Bank. The authors list reads like a relatively complete *who's who* of the experts in this field of research and many of them need no introduction to the potential readership. This book demonstrates in a very clear manner how important (and pleasing) it is to integrate as many lines of evidence and as many techniques as possible (and reasonable).

Special Volume 70 is subdivided into 12 chapters, the first of which, by editor Robert Ginsburg, provides mainly background information and summarizes the technical acquisition of cores and seismic logs. The other 11 chapters are generally well written and well illustrated and cover a wide range of different aspects of the Bahamian leeward margin geology.

Chapters 2 through 5 document results of the litho- and chronostratigraphic investigations. Manfrino and Ginsburg review previous work on the Plio-Pleistocene depositional history of the platform margin as well as new data and provide the framework for the coming papers. Chapter 3 by Budd and Manfrino focuses on Bahamian reef environments using coral assemblages and the authors place their findings in a wider thematic and regional context. Kenter, Ginsburg, and Troelstra document key results concerning the relation between sea level oscillations and sediment transport/deposition. McNeill and colleagues provide an accurate chronostratigraphic framework combining graphic correlation with magnetostratigraphy and Sr isotope age dating.

Chapters 6 through 8 present diagenetic and geochemical results. The paper by Melim, Swart and Maliva is a detailed and careful documentation of the general diagenetic history of carbonate rocks (including porosity evolution) obtained in the Clino and Unda bore holes. Chapter 7 by Swart, Elderfield and Ostlund is a more specific study of pore fluid geochemistry as deduced by a variety of proxies. Swart, Elderfield and Beets, finally, deal with the Sr geochemistry of Bahamian carbonates, phosphorites and fluids.

The next section of this volume includes chapters 9 through 11 and deals with the petrophysical aspects. Chapter 9 by Warzeski, Melim, and Ginsburg is a short technical summary of the log responses to variations in lithology. Anselmetti and Eberli carefully document the analysis of petrophysical properties of carbonate samples from the two cores. Chapter 11 by Melim, Anselmetti and Eberli discusses the outcome of porosity-permeability measurements and places these data in their diagenetic context.

The last (but not least) section contains one paper by Eberli and colleagues and calibrates the seismic sequence stratigraphy across the margin with the new findings from Clino and Unda.

In summary, the strength of this volume is the broad, comprehensive and multidisciplinary science focussing on one very specific topic: the Bahamian leeward margin. Therefore, one can without equivocation recommend this volume to students and professionals (both in industry and academia) working with carbonate rocks. Having said that, I might add that the greatest strength of this book is possibly also its greatest weakness. What is it we don't get from this book? This study clearly provides unique and important criteria for the interpretation of Late Cenozoic (and older) carbonate platforms in general. Unfortunately, most authors have

written their papers in a truly Bahama-centered perspective. In other words, we don't get the wider topical context. One might argue that it never was the intention of Special Volume 70 to place these findings in a greater (topical, not regional) context. Still, a summary chapter at the end of this book guiding the interested reader in what is potentially new and relevant for carbonate sedimentology in general, and what is excellent but Bahama Banks specific geology, might have opened this book to a wider audience. Am I asking for too much?

Adrian Immenhauser
Faculty of Earth and Life Science
Vrije Universiteit Amsterdam
The Netherlands