

### **SEPM Special Publication No. 18**

## Reefs in Time and Space

Edited by: Léo F. Laporte

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# REEFS IN TIME AND SPACE SELECTED EXAMPLES FROM THE RECENT AND ANCIENT

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#### PREFACE

This collection of papers examines various aspects of reef form and development. Despite their variety of topic and treatment, they have two common unifying elements: a fresh look at old themes and historical evolution. Thus, although much has already been written about reefs, these papers provide interesting and important insights to our continuing understanding of them

The articles by Bloom, Purdy, and Goreau and Land emphasize the significance of Pleistocene events (glacial lowering of sea level, erosion, and karst solution) in determining present-day reef geometry. Although the processes discussed have venerable pedigrees going back to R. A. Daly and Charles Darwin, among others, the authors shed new light on these familiar concepts.

Heckel's contribution is a thoughtful summary of carbonate buildups throughout the Phanerozoic that notes important variations in form, composition, and ecological significance. The papers by Krebs and by Bosellini and Rossi make available to a larger North American audience the results of their studies of classic Paleozoic and Mesozoic reef complexes in central Europe, stressing the role of regional tectonics

in influencing reef history. Matthews examines the diagenetic environments that reefs are subject to, and explains how a sequence of such environments modifies the original sedimentary rock unit called "reef."

These papers were originally part of a symposium entitled "Reef Complexes in Time and Space" organized by the Research Committee of the Society of Economic Paleontologists and Mineralogists and held at the annual SEPM meeting in Calgary, 23 June, 1970. Funds for travel for contributors to the symposium were generously given by the Geological Society of Canada through the efforts of Dr. Andrew D. Baillie on behalf of the SEPM. I also gratefully appreciate the work of a number of reviewers whose help was so valuable that they must remain anonymous. Editorial assistance was graciously provided by Dr. Robert H. Shaver, Chairman of the SEPM Publications Committee.

The cover design is taken from Charles Darwin's Structure and Distribution of Coral Reefs, 1842, courtesy of Appleton-Century-Crofts.

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