
Sedimentary and Evolutionary cycles is the outcome of a Symposium held at Tubingen (Germany) in 1983 with the objective of studying the inter-relationships between organisms and environments in the ancient record. It consists of five parts.

Part I—Sea Level Changes: General consequences (56 pages) consists of five papers. Four of these by A. Hallam, G. E. G. Westermann and A. C. Riccardi, J. Kullman, and D. T. Donovan deal with the migration patterns and evolution of molluscan and ammonite faunas in relation to sea-level changes. The last paper in this section by Tintant and Kahambe dwells on the role of the environment in Nautilacea.

Part 2—Sedimentary trends in marginal epicontinental basins (96 pages). It consists of four papers dealing with the response of sediments to sea-level changes in marginal and epeiric basins. All these studies demonstrate that the environment is continuously altered during sea-level changes in terms of extent and 'quality' of local bottom conditions. In an interesting study, Brandt has shown that 'marker beds' of known position within a sea level cycle can be traced throughout the basin with the purpose of recording their sedimentological composition in terms of proximity gradients. 'Marker beds' such as black shales and oolitic horizons provide a generic division of sedimentary sequences. Rieken has shown that diagenesis and even the effect of weathering may overprint and bias cyclic patterns. One important point emerging from these studies is that pre-Pleistocene eustatic cycles are rather slow (1 Ma) and of minor magnitude (50 m). Analysis of data from the extensive pericratonic shallow marine basins in India is an exciting prospect. The Mesozoic-Cenozoic sequences of Kutch and Saurashtra should provide good data for the history of eustatic changes.

Part 3—Evolutionary and ecological replacements in marginal epicontinental seas (92 pages) consists of three papers. Marginal basins are considered to be potential evolutionary centers because of the rapid shifts in environmental conditions. The first two papers (Bayer and McGhee and Urlichs and Mundlos) show that iterated morphological trends of ammonites result from endemic evolution and from immigration. In the third paper, Hagdorn has shown that Echinoderms lack endemic evolution in the German Muschelkalk basin. It is also emphasised that causal analysis of evolutionary patterns requires the integrated study of sedimentary and faunal evolution under well defined boundary conditions such as basin configuration and sea-level changes.

Part 4—Gastropod evolution in lakes: a program (90 pages) consists of three papers which examine the phylogenetic lineages of gastropods. Together, these studies provide a multitude of convergent evolutionary trends. Reif concludes that the evolutionary interpretation of the gastropods of the Steinheim lake is incomplete because of inadequate knowledge of the ecological evolution of the lake, the unknown taphonomy of the snails and various other factors.

Willan, in a study of freshwater gastropods of Kos favors a gradualistic evolution driven by environmental changes. He also points out that population size is a primary factor controlling evolutionary rates. Gorthner and Meier-Brook have recognised convergent morphological trends and relate them to sympatric speciation by niche partitioning.

Part 5—The Lower Hierarchy of cycles: spatial and temporal substrate gradients (61 pages) consists of four papers which examine the distribution and evolution of
substrate conditions. The sedimentological content of basins is viewed herein as an expression of temporally and spatially changing substrate conditions.

Part 6—Ecological and Morphological Gradients (68 pages) consists of three papers which provide evidence that the 'punctuation' of the palaeontological record can be related to faunal substitutions triggered by external physical changes. Ward deals with the upper Cretaceous molluscan faunal associations of British Columbia. Seilacher, Matyska and Wierzbowski have studied the morphological response to changing substrate conditions in Oyster beds. Bayer, Johnson and Arannan have examined the relationship between form and environment of Middle Jurassic Gryphaeidae.

Palaeontologists are concerned with tracing the actual course of evolutionary change over time spans that are adequate for such a slow process. Few stratigraphic sequences can be temporally constrained with a resolution that is adequate for analyzing the causal relationships of evolutionary change. This volume addresses itself to environmental changes at time scales large enough to produce more than a local ecological response and short enough for evolutionary and/or migratory changes at the species and genus levels.

Sedimentary and Evolutionary cycles provides worthwhile reading material for palaeontologists, sedimentologists and stratigraphers who are concerned with deciphering trends and understanding their causal relationships.

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REVIEW OF MARINE AND PETROLEUM GEOLOGY JOURNAL.
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This Journal has eminent Marine and Petroleum Geologists in their international editorial board. The Journal is now on its second year of publication and has already become popular among geoscientists working in the fields of Marine Geology, Oceanography and Petroleum geology. The Journal includes three main features namely, Research Papers, Citations on Current Earth Science Literatures, Book Review, Calendar/Conference Announcement. The research papers include articles on recent topics of petroleum and marine geology which are of interest to the researchers in these fields. The papers published give information on the latest developments in such important areas like petroleum-geochemistry, recent sea bottom sedimentation and new data generated on plate margins, sea-floor spreading and continental rifting. The Journal also publishes the latest geophysical data of Antarctic region. This is yet another useful publication on similar lines as those of the bulletin of American Association of Petroleum Geologists, Journal of Petroleum Geology and Tectonophysics. I am sure that the researchers in marine and petroleum geology and also on geotectonic evolution of continents and oceans would find this Journal worth consulting and contributing.

The Journal maintains good quality in printing and reproduction of diagrams.

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