

Biostratigraphy

The World of Martin F. Glaessner, B. P. Radhakrishna, ed. Geological Society of India, P. B. No 1922, Gaviipuram, Bangalore 560 019, India. 1991. Rs 450.

**The World of
Martin F. Glaessner**



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The Geological Society of India has, by bringing out this publication, honoured (late) Prof. M. F. Glaessner, who was a beacon of light for Indian and South-East Asian stratigraphy and micropalaeontology.

The biographical sketches, anecdotes, career highlights and contributions of Prof. Glaessner are vividly brought out by Brian McGowran, N. H. Ludbrook, Tina Glaessner (wife), Preston Cloud, R. C. Sprigg and B. P. Radhakrishna.

Glaessner's articles on new trends, status of micropalaeontology and petroleum exploration are aptly reproduced in order to recapitulate his views.

Brian McGowran's authoritative article 'Evolution and environment in the Early Palaeogene times', should be of interest to Indian stratigraphers in particular. He sees a three-part crustal tectonic succession with natural turning points at the Palaeocene/Eocene boundary and at Late Middle Eocene. He cites geochronological correlation between tectonic succession, stratigraphic

pattern and a three-part biostratigraphic succession. The fossil record of early Palaeogene shows a link between global warming (greenhouse effect), increased evolutionary changes and biosphere fragility. The paper is profusely illustrated by graphs, charts, etc. showing global climatic changes vs terrestrial plants; sedimentary facies in Indian Ocean; crustal changes in early Palaeogene; palaeolatitude and foraminifera; Palaeogene bio-events and biospheric impacts; and many more aspects in the form of charts, graphs, etc.

An original research paper on late Neogene planktonic foraminiferal datum, from five DSDP sites from the southwest Pacific, by M. S. Srinivasan and D. K. Sinha, adds value to the book. The authors opine that planktonic foraminiferal datums are time transgressive and not always useful for precise correlation. Two categories of datums—first and second order datums—are proposed. The first order is reliable for cross latitudinal correlation, while the second order is not fit for wide latitudinal correlation. The paper deals with a number of foraminifera (some illustrated) and contains a large number of zonation, correlation and allied charts.

A paper on giant oil accumulations in deltas of the world by V. R. Rao gives an overview of some published geoscientific information on the subject. The reader is left to project the ideas on Indian scenario.

B. J. Cooper has given an account on Permo-Carboniferous spore-pollen stratigraphy and zonation in Australia, which is useful for comparing East Coast of India with Australia.

A new species of Late Cambrian trilobite from SW Australia is described by J. G. Jago.

The reprinting of an earlier paper (1982) by Preston Cloud and M. F. Glaessner on the Ediacaran Period, is indeed a thoughtful and welcome addition to the book.

M. Shukla, M. Sharma, R. Bansal and B. S. Venkatachala have brought out significant finds of pre-Ediacaran fossils from India.

A case is made out by J. G. Gehling to restudy the Ediacara fossils, reported so far, by specialists in palaeobiology and taphonomy and that such a review will throw light on the Precambrian boundary. Did the Ediacaran organisms

become extinct before the Cambrian? Were they benthic? Were there strong phylogenetic links between Ediacaran and Cambrian organisms? The paper is well illustrated.

An interesting and well-illustrated paper on Gondwana landscapes, definition, dating and implications, by C. R. Tinidale, is a fitting finale to the book. He traces back Glaessner's concepts on Gondwanaland and its break-up. He reconstructed the landscapes and topography of some areas of Gondwanaland before its break-up.

The 287 page book, superbly edited by B. P. Radhakrishna, deserves a prominent place in the bookshelves of all geoscientific libraries and of serious-minded geoscientists.

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Chromosomes

Chromosomes (3rd edn), Archana Sharma, Oxford and IBH Publishing Company Pvt Ltd., 66 Janpath, New Delhi 110 001. 1991. 416 pp. Rs 135.

An earlier edition of this book caused concern for its poor quality and inaccuracies. It was expected that the third edition would be better and useful. Unfortunately, the present edition, although it has more pages, has more factual and conceptual errors. It is full of inaccuracies and erroneous statements. To illustrate the point, I cite a few random examples.

1. Fig. I: I.1 would make us believe that genes/viruses are about 100 Å in dimension and that these can be resolved with a light microscope.

2. Discussion about polynemy vs unipnemy of mitotic chromosomes on p. 42 leaves the reader totally confused about the various historical concepts and the presently accepted model; e.g. the last sentence of para 5 on p. 42: 'The metaphase chromosome is seen to be multifibrillar with a structural unit of 125 Å thick filament, paired successively with units of equal thickness to