Book Reviews

PROCEEDINGS, 6TH INDIAN GEOLOGICAL CONGRESS, Roorkee, Feb. 21-24, 1987. Department of Geology, University of Roorkee, Roorkee, (UP).

The Indian Geological Congress was the brain child of Prof. A. G. Jhingran and was conceived as a meeting ground for different practitioners of earth science in the country. The first meeting was held in 1976 at Delhi and has been followed up since then by biennial sessions at Udaipur, Pune, Varanasi, Bombay and Roorkee. The proceedings of the 6th Congress held at Roorkee during February 21–24, 1987, has now been brought out under the editorship of P. S. Moharir. The volume starts with a lengthy editorial under the catching title. 'Geology: A science in league with future'. It is a rambling account, a confused mass of quotations and commentaries difficult to follow. Apparently, the object of the editor was to project geology as a science of the future, as a science closely connected with the survival of man, but unfortunately the message lies hidden somewhere, and not easily decipherable.

Papers included in the volume are a mixed assortment. Some are review articles, some dealing with mineral occurrences, some petrological, some structural, and some geochemical. Most are routine type of investigations loosely strung together, with no order or arrangement.

In our opinion, it would be worthwhile if organisers of such biennial meetings were to select a theme beforehand for an indepth examination and present readable reviews in the selected fields of study. Such an attempt will serve a more useful purpose than the present one. The volume has been well got up, but the type face chosen and printing are not satisfactory causing too much of a strain on the eye.

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RECENT ADVANCES IN QUANTITATIVE STRATIGRAPHIC CORRELATION TECHNIQUES. 1988, (Eds.) F. P. Agterbarg and C. N. Rao, Hindustan Publ. Corporation, Delhi 110 007, India, 192 pp.

This is based on an International Symposium at IIT, Kharagpur during 1983 under the auspicies of IGCP Project 148 and is dedicated to Late Dr. B. K. Ghose who organised the Symposium. It covers many of the currently popular multivariate and frequency domain time series (spectral) methods applied to problems of litho-, bio- and chrono-stratigraphy such as empirical conclusions obtained from segmentation, patterns from geostatistics, R and Q mode clusterings, principal component clusterings, simple linear regression correlations, crossplots of petrophysical logs, and spectral analysis of scalar data assuming 'weak stationarity'. The assumptions and proper inferences of these standard statistical techniques are not clearly demonstrated, however. About 50% of the papers have little relevance to 'quantitative stratigraphy'. If modern techniques such as time-domain and state-space (Markovian) models were introduced without assumptions of stationarity and normality using vector stratigraphic data, the volume would have been more purposeful. It may be noted that many stratigraphic variables are

non-normal with non-linear relations with 'time' and possess non-stationarities as well as seasonalities with time-varying coefficients. For such data a vector-valued state-space approach is desirable for obtaining best inference regarding stratigraphic correlation.

This volume is not a textbook, but it is recommended for Libraries of Geoscience Departments and Government Research Organisations. The editors have done a good job by compiling this useful volume for the benefit of students, teachers and researchers. The quality of publication is good but several printing mistakes were located by this reviewer.

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Notes

GANGETIC PLAIN – TERRA INCOGNITA—A WORKSHOP

The Department of Geology, Lucknow University had organized a two day workshop on the geological aspects of Gangetic Plain on 7-8 October 1988. This is the first time a scientific meeting was organized exclusively for the study of the Gangetic Plain – a terrain geologically least understood, though an important area of the Indian subcontinent. The meeting was attended by over 100 participants. The participating agencies were the Geological Survey of India, the Central Groundwater Board, the Birbal Sahni Institute of Palaeobotany, the Remote Sensing Application Centre, U.P. and the Directorate of Geology and Mining, U.P.

The main aspects discussed were Gangetic Plain as a model of a foreland basin, recognition of changing climatic events of Late Pleistocene-Holocene, hydraulic characteristics of active and abandoned river channels, groundwater potential and problemation, neotectonics, environmental and landscape planning, carbonate sediments, and radiocarbon dating.

It was felt that study of the Gangetic Plain is much neglected. The ecosystem is highly stressed and environmental planning has totally ignored geological studies. There is need for collaborative work amongst various agencies to develop a better conceptual model for the Gangetic Plain. Signatures of various Quaternary climate events, have to be identified and dated in order to develop a better model for subsurface lithofacies distribution.

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A man wrapped up in himself makes a very poor bundle.

BENJAMIN FRANKLIN

* * * *

'Who is there to take up my duties?' asked the setting sun.

'I shall do what I can, my Master' said the earthen lamp.

—TAGORE