

Triassic Time Scale of 1895 and 1984 are most important. The photographs of famous localities of Triassic and some important fossils are of much value to workers. One also gets fascinated to see photographs of pioneers of Triassic whom we only know by name and are included in the publication (Mojsisovics, Griesbach, Diener, Bittner, Frech, Arthaber, Spath, Kummel and others).

The author has not touched history of some of the areas, may be not fitting with the overall theme eg. latest contributions in Kashmir have been highlighted at a number of places but there is no reference to pioneers who made it possible to think of this region of Himalaya namely, Lydekker, Bion, Middlemiss, Hayden, Diener, Wadia etc. Bion first discovered *Otoceras*, Noetling first recognised Lower Triassic in Kashmir, Hayden's interpretation of the boundary between Permian and Triassic in 1907 is close to the latest analysis. Similarly additions of Tables showing Time Scales of Spath and Russians would have been useful to geologists. These however have been mentioned in the text. While discussing the problems of the boundary some more information (like that of Waterhouse on *Durvelloceras* from New Zealand or youngest Permian fauna of Nepal) would have provided more information and helped in understanding the difficulties in formulating a uniform time scale.

The attempts by Dr. Tozer to bring out such an important and useful publication is highly appreciated. Dr. R. A. Price, Director General of the Geological Survey of Canada is also to be praised for making this book as an official publication and allowing its release without editorial formalities, a necessity for Government reports. This book will serve as a guide to geologists for years to come.

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SHALLOW TETHYS: International Symposium, Padova 7-8th June 1982, in *Bollettino della Società Paleontologica Italiana*, vol. 21 (2, 3), pp. 144-339; vol. 22 (1, 2) pp. 1-188.

These two volumes publish the papers presented at the first symposium on the concept of a Shallow Tethys, attended by some 75 registrants from a number of countries. The papers are admirably presented, with the large page format and high quality plates of the *Bollettino* of the Società Paleontologica Italiana, and are mostly in English, or have English summaries and captions as a rule to papers in European languages such as French or Italian. Several papers addressed the theme of the conference, with Professor F. Ahmed, for example, in a rather well titled paper called the Myth of the Oceanic Tethys, summarizing the Tethys as an epicontinental sea, whereas N. Pantic, A. Grubic and M. Sladic-Trifunovic concluded that the Mesozoic Tethys was a very complex basin with carbonate platforms, islands and archipelagos, separated sometimes by very deep troughs. We must remember that the Tethys girdled a huge part of the world, and that the Tethyan rocks of the Himalayas are simpler, and not the same as those of the Mediterranean and central Asia. No one seems to have had a good word to say about the old model of a huge wedge-shaped ocean, and I daresay that the day will come when eventually even the North American and English geologists will be shamed into abandoning the scheme. There are a few studies on segments of the Tethys, including a very nice summary

of the marine Triassic in Thailand by Ch. Chonglakmani, as a reminder of the fine geology being done there by Thai workers. Amongst palaeontological theses on the problem, Ken McKenzie has evaluated the depth implications for the Tethys from Palaeozoic to Cenozoic ostracods, and J. L. Hartenberger considered the vertebrate faunal exchanges between the Indian subcontinent and central Asia in early Tertiary times. I particularly liked the approach to the problem by G. Piccoli and E. Savazzi. They sampled and assessed five shallow benthic mollusc faunas of upper Eocene Tethys, from France, Italy, Somalia, Java and Japan, and went beyond so many of the dreary and subjective pronouncements that infest our literature on environment, palaeoecology, palaeogeography and palaeoclimate to provide some simple quantitative comparisons, with value assessments. And the basic data was also provided. It is difficult to see how, in palaeontological assessments of the nature of the Tethys, that so many palaeontologists still manage to evade either quasi-statistical summaries of pervasive data, or deliberately selected and defensibly programmed sampling.

In addition, there are a number of papers with a strong palaeontological emphasis, particularly on environment, and a few on development, including a study on depth fluctuations and responses by ammonite and brachiopod populations in the lower Jurassic of the east Mediterranean by Y. Almeras and S. Elmi, a very useful summary of Triassic Bryozoa from the western Tethys by G. F. Bizzarini and B. P. Braga, Jurassic in Lebanon, Pliocene in Spain, Foraminiferal facies in Taiwan by T. Huang, and articles on Nummulitines by R. Pavlovec and H. Scahub. All in all, a worthy couple of volumes of wide palaeontological interest. That the conference was successful is shown by the decision to hold a second meeting on the same theme, this time at the Riverina CAE in Wagga Wagga, for 1986 with Dr. K. McKenzie acting as organiser and convenor.

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