



Book Review

Geology of Peninsular Malaysia, C.S. Hutchison, D.N.K. Tan (Eds.). University of Malaya/Geological Society of Malaysia, Kuala Lumpur (2009). xvi+479 pp., Hardback, ISBN: 978-983-44296-9, 1 Geological Map of Peninsular Malaysia (available from: Geological Society of Malaysia, email: geologi@po.jaring.my, Malaysian RGT200+ postage).

The *Geology of Peninsular Malaysia* is designed to replace the 1973 Gobbett and Hutchison book *Geology of the Malay Peninsula* as a single source overview and introduction to the geology of the Malay Peninsula (although the title seems to politically preclude Singapore). In the three and a half decades that have elapsed, an immense body of new data has accumulated and new interpretations of the geology of the Peninsula have been made within the context of modern plate tectonics. This book presents an up-to-date review of the geology of Peninsular Malaysia that will be an invaluable introduction to both professional geologists and the more general reader interested in the region. I found hardly any textual errors and the editors are to be congratulated on an editorial job well done.

The book is organised into sixteen chapters. Chapter 1 is a brief introduction and information on the authors and contributors. Most contributors are graduates and current or former staff of the University of Malaya, making this volume very much a University of Malaya product. The senior editor, Professor Charles Hutchison has clearly had major input to this volume and is to be congratulated on seeing it through to publication. The main content of the book begins with chapter 2 by John Kuna Raj on Geomorphology. This chapter contains the expected discussions of topography, mountain ranges and drainage but also important sections on karst (including tower karst), granite landforms, and coastal plains peculiar to the Peninsular. I would have liked to see a little more on caves (being a cave and pothole enthusiast) which have considerable archaeological, religious and more recently ecotourism significance. The very short section on elliptical or circular structures seems however, hardly worthy of inclusion. I was rather disappointed with the short chapter 3 (Regional geological setting) which I feel could have included both regional geological and tectonic setting and which could have provided more of a background setting for the Peninsula within the regional tectonic framework. The short sections on tin mineralization and sea-level changes in this chapter seem a little out of place. Chapter 4 is dedicated to the Bentong-Raub Suture. I feel that the book would have benefited from combining this chapter as a section within chapter 14 (Tectonic Evolution) and that the suture zone could have been introduced in the regional geology chapter. Chapters 5–7 provide detailed descriptions of the Palaeozoic, Mesozoic and Cenozoic stratigraphy of the Peninsula and I was pleased to note the inclusion of a couple of plates of conodonts! The authors of these chapters (C. P. Lee, N.T. Abdullah,

J.K. Raj, D.N.K. Tan and W.H. Abdullah) are to be congratulated on providing excellent overviews. I was particularly impressed with Nuraiteng Tee Abdullah's chapter on the Mesozoic. I was however rather disappointed to see that numerical timescales when used (e.g. Fig. 5.2) are rather out of date and even pre 2004 Gradstein et al. vintage. I am also not sure that a book of this nature is the place to present new revised stratigraphies (column 5 in Fig. 5.3). In a multi-authored book there are bound to be some inconsistencies and inevitably minor errors and omissions do occur (for example the Kanthan Limestone extends beyond the stated Carboniferous up to the Lower Permian based on conodonts I reported in 1981, and although Carboniferous fossils were reported from Gua Sei (Sae) and Gua Bama (see reference on page 80), these limestone hills are now unequivocally dated as Triassic, possibly extending down into the Late Permian). I am not sure why the stratigraphy of the Malay and Penyu Basins was isolated from chapter 7 into a separate chapter 8. Chapters 9 and 10 provide overviews of volcanism and plutonism respectively and Azman Ghani provides new radio-isotopic age data that is yet to be formerly published. Chapter 11 on metamorphism describes the migmatites of the Stong Complex, amphibolite facies rocks of the Taku Schist and widespread low-grade greenschist facies metamorphism and their relationships. Details of the structural geology of the Peninsula are provided in chapters 12 (Major Faults) and 13 (Structures and Deformation). It is unclear why the major faults were treated separately. The chapters are mainly descriptive in nature but chapter 13 does give a valuable (but rather short) section on structural evolution that is a great help to those interested in or working on regional geology in SE Asia. Charles Hutchison provides a nice overview of the tectonic evolution of the Malay Peninsula in chapter 14 and includes useful discussions on palaeomagnetism and regional gravity profiles. For those interested in resources, the book offers up-to-date chapters on Mineral Deposits (chapter 15) and Oil and Gas (chapter 16). The book is extensively referenced pointing readers to further information and there is a very helpful index.

The map enclosed in the back flap of the book is an extremely useful companion to the text. The late Robert Tate did a wonderful job compiling this. The map is essentially an "age map" with some limited lithological/facies and structural information. There are a few errors, as one would expect with such a complex compilation, one example being the Triassic Koding Limestone (see chapter 6 for excellent description) being included as Permian in the Legend, but these do not detract from its overall usefulness.

In summary, this is a nice volume, long overdue and will be a useful addition to the bookshelves of both academic and industry professional geologists and a wider readership with interest in the geology and geological evolution of Malaysia and SE Asia.

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