

BOOK REVIEWS

TREAGUS, J. 2008. *Anglesey Geology – a field guide (Daeareg Ynys Môn – arweinlyfr maes)*. 168 pp. Price £11.00 inc. p+p. Published by Seabury Salmon & Associates; funded by GeoMôn Anglesey Geopark. Available from Dr M. Wood, College, Llansadwrn, Menai Bridge, Anglesey, LL59 5SN, UK. ISBN 0 9546966 2 X.
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The island of Anglesey, forming the northwest corner of Wales, hosts some of the most varied, complex and controversial geology in southern Britain. For all its apparently remote location, it is well connected by fast road links to northwest England and beyond. It is therefore a convenient and popular venue for geological field trips by professionals, students and amateurs alike. The field guide by Denis Bates and Jeremy Davies has served these visitors well for over a quarter of a century, but the island deserves the more modern and colourful guide now provided by Jack Treagus.

The format of this guide is notable in three ways. Most significantly, it has dual English and Welsh language text throughout, arranged in two parallel columns on each page, in a fashion that is practical for both groups of readers. Second, it features an attractive use of colour, both in the page layout and in the abundant and informative photographs. Third, it has a loop wire binding that allows the guide to open flat or be folded back at any page. The guide looks strong enough to survive being repeatedly read in a strong westerly wind and stuffed in a rain-jacket pocket.

As for content, the guide has descriptions of fourteen areas, preceded by an introductory geological history and supplemented by a glossary of terminology and a selective reference list. The excursions provide a representative view of Anglesey's geology, and therefore necessarily concentrate on the Mona Complex, of probable Neoproterozoic or Cambrian age. Eleven excursions visit these rocks. The overlying Ordovician rocks are seen in four areas, and the Silurian, Devonian, Carboniferous, Miocene and Quaternary in one area each. The navigational instructions in the guide are clear, but more so if used in conjunction with a 1:25 000 topographic map. Similarly, a copy of the 1:50 000 geological map will complement the necessarily generalized version in the guide. The geological descriptions have been aimed at the 'informed amateur', but there is a limit to how simplified the descriptions of the Mona Complex can be without losing the very essence of their attraction. Geologists come to Anglesey precisely to see the complex structure of these rocks, their folds and faults, their cleavages and crenulations. Jack Treagus provides an authoritative, accessible and balanced commentary on the field geology of these rocks, almost all aspects of which are still controversial: their age and depositional environment, the nature of their internal contacts, their deformation history and their tectonic

significance. The descriptions of the younger geology are also welcome, particularly of the strongly deformed Devonian rocks, critical in dating deformation events in this part of the Caledonides.

The field guide has been produced not by a major publisher but by GeoMôn, an organization seeking to establish Anglesey as a European geopark. The guide may not therefore be available in your local bookshop, but is well worth seeking out through www.geomon.org.uk. It is excellent value at the modest price.

Nigel Woodcock

Reference

BATES, D. E. B. & DAVIES, J. R. 1981. *Anglesey*. Geologists' Association Field Guide no. 40. London: The Geologists' Association, 31 pp.

CHEN, G.-N. & GRAPES, R. (eds) 2007. *Granite Genesis: In-Situ Melting and Crustal Evolution*. xi + 278 pp. Berlin, Heidelberg, Dordrecht: Springer-Verlag. Price Euros 99.95, SFr 174.00, US \$129.00, £69.00 (hard covers). ISBN 9781 4020 5890 5.
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Granite Genesis: In-Situ Melting and Crustal Evolution is a timely, well-structured, and enjoyable read. The authors provide a useful introduction to granite terminology and the 'granite debate' (Chapter 1), synthesize the vast experimental work on crustal melting and granitoid genesis (Chapter 2), and then move on to substantiate their main tenet: granitic layers, common in the crust, are an expected by-product of in-situ melting–intracrustal convection.

Chen & Grapes address in-situ melting and convection (Chapter 3), provide evidence for the in-situ melting origin for granitic layers (Chapter 4), and discuss the differentiation of such layers from geochemical (Chapter 5) and mineralogical (Chapter 6) perspectives. They include an assessment of various tectonic models as potential heat sources (Chapter 7), the geological effects of granitic layers in the crust (Chapter 8), and conclude with some considerations of material and element recycling (Chapter 9).

The book benefits in continuity and style from having only two authors and is easy to read. It integrates numerous field cases from the world's best studied locations. The synthesis of experimental work on granitoids (Chapter 2) alone represents a significant motivation to purchase this book. Whether or not one agrees with the main tenet of the authors, this book provides a valuable synthesis and is a great reference for all graduate students and professionals interested in granitic rocks, from their petrogenesis to emplacement mechanisms.

Victoria Pease