

130 pages include general advice on travel, accommodation and weather in the Highlands, with available maps and other relevant guides. This is followed by a general comprehensive account of current knowledge and interpretation of the environments of sedimentation and the tectonic setting of the Dalradian, Moinian and Torridonian rocks of Scotland. In this account, and in the field guide which follows, emphasis is placed on the sedimentary features of the rocks, with accounts of the structure where this is necessary for an understanding of their distribution and structural relationships.

Completion of the 12 itineraries included in the guide would require 14 days of strenuous field-work, without allowing for travelling time. The itineraries cover: The Garvellach Islands, Port Askaig and Bonahaven, Islay, Loch Leven and Schiehallion—Dalradian; Pitlochry to Fort William and Fort William to Mallaig—Moinian; and Sleat of Skye, Loch Torridon, Gruinard Bay and Achiltibuie, and Stoer—Torridonian. A comprehensive reference list and an index are also included.

Each itinerary is introduced by an explanation of the context and significance of the localities to be visited. Available topographic and geological maps covering the area are listed and an estimate is given for the amount of time which should be allowed for each outcrop. Details of access are given (to hire a boat for the Garvellachs, ring Lachlan Maclachlan at Luig!) and whether permission is required for access to quarries, or to open moorland during the stalking season (August–February). Each itinerary is profusely illustrated by maps, cross sections, explanatory diagrams and half-tone photographs.

The guide is attractively presented in the traditional pale green GA cover, with a coloured photograph of Slioch and Loch Maree. The A5 size fits comfortably in an anorak pocket and the binding appears robust enough to survive a year or two's exposure to Scottish weather.

Very few enthusiasts could be expected to complete all these itineraries at one time, but the guide will provide a valuable resource for party leaders planning field excursions, for independent professional geologists, especially visitors from overseas, and the knowledgeable amateur, who requires guidance to the best of the classic geological localities in Scotland. Unfortunately the guide presupposes too broad a background in geology to be of use to the beginner.

Both the authors and the publishers may be congratulated on having set a new standard for the presentation of GA Guides. However, an overall excellent job is marred by slipshod

editing and proof reading and by a too indulgent attitude towards field photographs which do not illustrate clearly the features described in the captions.

Anyone who has used a field guide will have experienced the frustration of having inadequate information to locate a key outcrop or to recognise outcrop features from written descriptions. From personal experience I know how difficult it is to write unambiguous directions to enable other people to find your prize outcrops. How far the present authors have succeeded (variously?) in this difficult task will be for the users to judge. For my part I look forward to putting some of these itineraries to the test on my next visit to the Highlands.

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Hughes, F. E. (Ed.). *Geology of the Mineral Deposits of Australia and Papua New Guinea* (2 volumes). Parkville, Victoria, (Australasian Institute of Mining and Metallurgy: Monograph 14, 1990. xxiv + 1818 pp., 2 coloured geological maps (1:5 000 000). Price \$A 250.00.

This huge 1818 page, A4 size, two volume monograph on the geology of ore deposits in Australia and Papua New Guinea has no equal. It is the fourth publication in the Australasian Institute's 'Geology of Ore Deposits' series and supersedes and surpasses Monograph 5 (Economic Geology of Australia and New Zealand—1. Metals; 1975). It is dedicated to the memory of Haddon King of CRA who played such an important role in the discovery and exploitation of mineral deposits in Australia.

As in previous monographs, this compilation describes deposits in relation to the tectonostratigraphic terranes in which they occur, for example in the Yilgarn craton or the Mount Isa inlier, and in order of ascending stratigraphic age within that terrane. Geographically the monograph proceeds from west to east across Australia and from north to south. The mineral deposits of Papua New Guinea are described in a separate section at the end of the monograph. Unlike monograph 5 the deposits of New Zealand are not covered in this work. Volume one contains 135 papers mainly on gold deposits in Western Australia and deposits in northern Australia including the Mount Isa inlier. Volume two, with a similar emphasis on gold, contains 126 papers covering the Precambrian terranes of southern Australia, the eastern Australian orogenic province (Tasmania, the Lachlan and Tasman fold belts), and the deposits of Papua New Guinea. Most papers are short (around six to

eight pages) and cover the basic geology of the deposits concerned. Maps and cross-sections are usually presented and in some cases photographs of ore lithologies and textures are also given. The majority of papers focus on gold deposits discovered or re-discovered during the gold boom of the 80s. Well established base metal mining camps such as Kambalda, Mount Isa, and Broken Hill are only briefly summarised. However these contributions, as in most papers, contain up-to-date references on the deposit concerned and as such will be invaluable reference source lists.

It is not possible to review every paper in this monograph; space limitations prevent this (but see M.A. 91M/3941-4202). The monograph is notable in that several major world-class deposits discovered since the mid 70s are well documented—particularly the Olympic Dam deposit. Any reader will find this monograph is an invaluable, unique and timely documentation of ore deposits in Australia and Papua New Guinea. In places the reviewer would have appreciated

more detailed information particularly on lithologies and ore characteristics and textures but this is only a very minor quibble given the size and scope of the volumes.

In summary this is a unique compilation of the current state of knowledge on the known ore deposits of Australia and Papua New Guinea and is an invaluable reference source for these deposits. It is excellent produced, well illustrated and well indexed. Other national geological and mining bodies would do well to emulate this Australian example and document their countries' resources in similar way.

The editor, the authors and the Institute are to be congratulated on producing a unique volume that will, for many years to come, be a benchmark reference on Australian and Papua New Guinean ore deposits. It is a 'must' for all geology libraries, for all mining exploration companies and for all geologists concerned with metallic and non-metallic mineral exploration in Australia.

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