

ety of topics that only the generalist with plenty of time will be able to read more than a minor fraction of the articles. One gets the feeling that unlike subjects like biochemistry, the topics that fall under the rubric of clinical medicine are not amenable to coverage in one volume without a persistent undercurrent of tension resulting from the need to provide both breadth and depth of coverage. Nevertheless, for the rare (at least in India) breed of laboratory clinicians there is enough in this volume to make it a delightful companion.

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Mineral Resources of Karnataka.
B. P. Radhakrishna, Geological Society of India, P. B. No. 1922, Bangalore 560 019. 471 pp. Price: Rs 200, \$ 25.

Mineral Resources of Karnataka by B. P. Radhakrishna (BPR, as he is fondly referred to within the earthscience fraternity) represents the handiwork of the right-man-on-the-right-job. None perhaps qualifies better for this specific job.

The 471-page volume, written with a view to 'disseminating available knowledge and educating the public on the mineral resource potential of the State', is divided into two major sections. The first part (though not explicitly labelled as such) comprising four chapters deals with history of two different kinds: the developmental *history of the mineral industry* in Karnataka since ancient times, set against the backdrop of the Indian mineral-industrial scenario; and the *tectonic-metallogenic evolutionary history* of the region in the context of global metallogenesis in space-time coordinates. BPR is eminently knowledgeable about and authoritatively competent in handling both kinds. The second part comprises 'commodity reports' on various types of mineral

resources of the State.

The entire text, especially the preface and the introductory section, reflects the author's economic philosophy that has a Gandhian aura about it: self-sufficiency, self-reliance, small-scale labour-intensive mineral enterprises in rural areas; emphasis on development of low unit-value commodities (like sand or building stones) that are useful to virtually everyone; repeated plea for indigenous technology and for export of 'processed' goods rather than 'raw' ore materials, etc. A conviction, that the small-is-beautiful concept is *appropriate* and *applicable* in our context, pervades throughout. One may disagree and consider all this too simplistic in an era when giant multinational mining corporations rule the roost the world over, but the conviction unmistakably stems from his personal, and successful, experience, with the Hutti-Tintini-Chitradurga tie-up in which he had been a major influence.

A few statements are slightly disconcerting though. Like 'Non-ferrous metals . . . although not abundant, can still meet the limited *requirements of the State*' or ' . . . mineral resources have not been exploited to the *best advantage of the State and its people*' (p. 2), or 'Mineral development and administration are *best left to the individual States* (p.v. – all italics mine). Surely no 'myopia' needs be casually diagnosed, no sub-nationalism needs be read here – not from BPR, a national figure in his profession. But such emphasis may send wrong signals that the interest of the country and that of its constituent states are not compatible.

Since the targetted readership is 'the public' (presumably including legislators, planners, administrators and other decision-makers) as also the earth scientists, the balancing job has proved to be rather daunting. The reviewer, for one, was excited at the prospect of sharing the rich experience and wisdom of BPR but had to be content with summarized treatments of geology of the ore deposits – a treatment dictated by the choice of 'the public' as the primary target for whom simplification is often inescapable. Nevertheless the contention, that 'ocean floor . . . volcanic rocks spread out and become continents through successive collision and separation' (p. 30), is *unacceptably oversimplified*. Similarly, placing the stratiform complexes (with

Cr, Ni, Ti, V mineralization) under 'Volcanogenic mineralization' (p. 44), or classifying arenite-hosted copper sulfide deposits as 'detrital or placer deposits' (p.161) would have few takers!

Some discrepancies in the hierarchy of sub-heading should better have been avoided; for instance, under the heading 'ARCHEAN' (p. 35–40), subheads like 'Gold in banded iron formation', 'Gold in Greywacke', 'Au–U bearing quartz pebble conglomerate', etc. enjoy the same hierarchical status – anomalously, to my mind – as those on the 'Eastern Schist Belt' and the 'Western Schist Belt' both of which deserve higher-order status in the scheme of organization.

The section on 'Commodity Reports' (p. 47–471), arguably the *raison d'etre* for the book, bears the unmistakable stamp of BPR's intimate knowledge of virtually every single deposit/occurrence in Karnataka. Geology of important deposits is discussed – briefly, simply and lucidly for the general readers, but alas somewhat inadequately for professional geologists. The section could perhaps have done with some standard formatization (like that in the Mineral Commodity Summaries published by the US Bureau of Mines). Was the inclusion of items like 'andalusite' warranted really?

The production is trim and attractive, virtually free from printing errors. Reproduction of geological maps and cross-sections is of high quality as also are the beautiful colour photographs of polished ornamental stones.

Overall, the book is a valuable addition to our rather meagre repository of texts on geology and economics of mineral deposits of the country or of a State. If the review sounds captious at any point, it is because expectation from BPR is always high. How much I wish the text were to discuss the geology of ore deposits in Karnataka in sufficient detail and present the compilation of mineral statistics and mine directory as an appendix!

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