"in the world of science, the history of research and progress during the present century is largely a history of the accomplishments of the winners of the Nobel Prize": von Behring, Pavlov, Koch, Golgi and Cajal, Metchnikoff and Ehrlich, Kossel, and Krogh, to name some of them.

The articles make good reading; some are fascinating—Ronald Ross's "Researches on malaria," for example. The book deserves a large circle of readers. However, since the aim of the series was to supplement *Les Prix Nobel* and to spread the knowledge of these landmarks to a wider audience, it is regrettable that they could not have been published in a less expensive format.

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Geomorphology Down Under

Landform Studies from Australia and New Guinea. J. N. JENNINGS and J. A. MABBUTT, Eds. Cambridge University Press, New York, 1967. xxiv + 434 pp., illus. $19.50.

This volume aims to provide a geographical and topical sampling of recent landform investigations in the greater Australian area. It is not an "all about" book and makes no claim to complete coverage. In the light of what it attempts to accomplish it must be judged a success. As with so many things from down under, there is an air of robustness and vitality in this work.

Australia has enjoyed a tradition of great interest and high performance in things having to do with the natural landscape. This tradition has been characterized more by the application of old ideas to new areas and problems than by the production of new concepts. This arises in part from the abundant richness and variety of landforms clamoring for attention and in part from importation of scholars trained abroad who, like missionaries, bring a gospel to be imposed in this unspoiled region. Hints of departure from this tradition are evident in this volume as the flavor of Australian geomorphology becomes more distinctive.

The use of soils in understanding the formation and evolution of landscapes, long fruitfully practiced by Australians, runs as a unifying theme through many of the articles. The factor of climatic differences, both spatial and temporal, and its role in the production of landscape features is becoming an Australian trademark. Good use is made of the superb natural laboratory available for such investigations. Attention to processes shaping the landscape is increasing, and this is all to the good; but one must commend and envy the continuing interest in the landforms, their history and evolution, for their own sake. The rush in other countries to quantify geomorphology has sometimes obscured the ultimate aim of understanding the landscape and the processes which formed it.

The 17 articles by 17 authors cover areas from Tasmania to New Guinea and topics from corals to karsts. Modifications of slopes by slides, slopewash, periglacial processes, and more ordinary forms of erosion are considered. Features of coastal and interior areas are described. Besides learning what goes on, the reader gains more than a bird's-eye view of Australian landscapes.

For non-Australian readers, a simple geographic map of the greater Australian area early in the book would have been welcome. The best possible review of this volume is the excellent preface prepared by the editors, J. N. Jennings and J. A. Mabbutt.

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Geochemical Advances

Researches in Geochemistry. Vol. 2. PHILIP H. ABELSON, Ed. Wiley, New York, 1967. xiv + 663 pp., illus. $22.50.

The well-received first volume with this title, containing up-to-the-minute summaries of current progress in various branches of geochemistry, appeared eight years ago. Constantly expanding activity and startling improvements in technique have now provided the occasion for a second volume, again devoted to the increasingly difficult task of giving readers a broad and balanced view of what is going on at the frontiers of geochemical research. As before, the editor has called on workers active in the various fields of research to write critical summaries of recent papers, to describe their own current activity, and to prepare selected bibliographies.

So kaleidoscopic a volume defies a reviewer's efforts to summarize briefly. Particularly impressive are Wetherill and Tilton's thoughtful presentation of current progress and difficulties in geochronology; Epstein and Taylor's critical review of the possible uses of oxygen isotope ratios in attacking geologic problems; Abelson's and Hoering's papers on the astonishing recent breakthrough in organic geochemistry made possible by new techniques of separation and analysis; a paper by Burns and Fyfe showing the power of crystal-field theory to explain much of the geologic behavior of the transition metals; Helgeson's demonstration by an ingenious use of thermodynamics that the composition of the heavy-metal-bearing Salton Sea brines can be explained by alteration of sea water accompanying metamorphism of clastic sediments; Eugster and Skippen's description of laboratory techniques and theory involved in the use of solid-phase buffers to study gas equilibria in igneous and metamorphic reactions; and Boyd's selective review of recent work on dry silicate equilibria at high pressures. But this rapid sampling covers a bare third of the 23 papers in the volume.

Inevitably the contributions differ somewhat in their approach and in their adequacy as critical summaries. A few are little more than collections of brief paragraphs about work in different laboratories, with scant effort devoted to synthesis or evaluation. A few others are in large part original research papers—excellent papers, all of them, but perhaps better suited for a scientific journal than a review volume. By and large, however, the editor has managed to achieve a uniformity of style and treatment that is rare in volumes to which so many writers have contributed. He has also accomplished the remarkable feat of getting all his 30 authors to complete their papers at the same time; practically every chapter has references as recent as 1966, and most of the papers have the stimulating effect of work fresh out of the laboratory.

The book should be of immediate interest not only to geochemists but to all geologists who try to keep up with the highlights of this rapidly expanding part of earth science.

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