
The History of the Study of Landforms. *R. J. Chorley, A. J. Dunn, and R. P. Beckinsale.*
John Wiley and Sons, New York. 1964. xvi+678 p. \$13.50.

This is the first of a three-volume series, and covers the history of geomorphology to the time of Davis' early statements of his ideal cycle. It is an interesting and, in many ways, an exciting book. One can read it fairly quickly by skipping the "fine print"; herein lie the quotations and details admirably summarized in the text. One skips these passages at his peril—he will miss the flavor of the original presentations. Lyell, Playfair, and Powell are more than their summaries.

Most of us are reasonably well acquainted with Geikie's "Founders of Geology" and "Geology 1888-1938", the Fiftieth Anniversary Volume of the Geological Society of America. These books range over the whole field of geology and individual treatments are necessarily brief. The work here reviewed is far more detailed than either of these. It presents new light and a critical view on almost every phase of geomorphology in its early period.

The authors point out that Lyell was the great exponent of the Huttonian theory, and in his "Principles" (1830-1833) followed Hutton and Playfair in advocating the efficacy of stream erosion, only to abandon this idea by 1837 to argue for valley formation by marine currents at a time of higher sea level. Further, Lyell at first accepted Agassiz' ideas on glaciation (1840), but later reverted to his own "iceberg" theory for the origin of the drift. Final acceptance of the glacial theory in Britain is primarily due to A. C. Ramsay.

This history is divided into four parts: I "Worlds without End"—the history of the very early workers, then Werner, Hutton, and Playfair, and the counter attack by Wernerians. II The Age of Lyell: 1820-1845—the Diluvialists, Lyell's "Principles" and its wavering on Uniformitarianism in later editions, and the Glacial Theory. III Marine versus Subaerial Erosionists—marine dissection versus marine planation, and the revival of the Fluvialists. IV The Western Explorations—the work of Powell, Dutton, Gilbert, and others in the American West; and finally Davis' statement of the Cycle of Erosion.

Parts II and III have chapters on concurrent developments in the United States; all parts have chapters on quantitative geomorphology and extensive bibliographies. The index is informative, with names, dates, and positions of men cited.

There are noticeable differences between British and American English, and a few errors in the text and index. Sir William Logan, the first Director of the Geological Survey of Canada, is listed as Director of the Geological Survey of India and is further confused with United States Senator Logan!

The book is expensive, but it is worth the price. It should be in every geology library; it can be used with profit by many geologists. Each geomorphologist should possess his own copy.

G. H. CROWL