A book of significance . . .

QUATERNARY LANDSCAPES IN IOWA

Robert V. Ruhe

Ruhe, a noted authority in the interdisciplinary study of geomorphology and soils, has produced an outstanding work which makes a major contribution to the understanding of soils. His presentation is oriented toward an explanation of the landscapes of Iowa as formed in the Pleistocene and Recent. Since integral parts of the landscapes are soils, Ruhe tackles the problems from the viewpoints of both geomorphology and pedology. Further, he tells the story within a chronological framework based in part on radiocarbon dating of the late Quaternary and postglacial time. While the examples in the book are drawn mainly from Iowa, its basic principles have application throughout the world.

CONTENTS: BACKGROUND: Landform, Landscape, and Geomorphic Surface; Soil, Soil Profile, and Weathering Profile; Dating Sediments, Land Surfaces, and Soils. BEHIND THE SURFACE: Generalized Stratigraphic Section of the Quaternary of Iowa; Wisconsin Loess in Iowa; Cary Glacial Drift in Iowa. BEHIND THE WISCONSIN LOESS: Paleogeomorphology and Paleopedology; Sangamon Surfaces and Underlying Deposits; Yarmouth-Sangamon Surface and Underlying Deposits; Iowan Erosion Surface; Tazewell Drift of Northwest Iowa. THE LAND SURFACE: Hill Summits; Hillslopes; Valleys; Soil Chronology and Landscape Age. ENVIRONMENT: Paleosols; Glaciation; Paleobotany. CATALOG OF RADIOCARBON DATES IN IOWA: University of Chicago; Humble Oil and Refining Company; Isotopes, Inc.; Lamont Geological Observatory, Columbia University; University of Chicago; U.S. Geological Survey, Washington, D.C. CONTAMINATION: Noble, Inc., 105 Fifth Ave., New York 10003. 1968. 296 p. $21.50.


This book deals with the general area of soils divided into seven chapters with a general description of: general mineralogy or crystal chemistry, petrology, mineral deposits and systems. Examples, definitions, illustrations of minerals as well as the general mineralogical compositions of rocks are included. The bulk of the book is devoted to mineralogy and presents general or fundamental information in the areas of ceramics (including refractory processing and metallurgical uses of minerals), weathering; and a host of other topics. Nuanced, average chemical analyses, uses of ingredi ents in various manufacturing processes are throughout this book and the author has included amounts of information from the various facets of mineralogy.

Because of the general but complete coverage of mineralogy this book should be useful to a large segment of the population. The book should serve as a concise source of information for persons who simply wish to broaden their knowledge in the field of mineralogy.—R. J. Barnes, of Agronomy, University of Kentucky, Lexington, Ky.

Clay in Engineering Geology


The stated scope of the book is to discuss the importance of clay in engineering geology and the objectives of the book are to present the generalization of clay to the often unfamiliar terminology and literature of some aspects of soil mechanics. The book is divided into seven chapters, each devoted to a particular aspect of clay engineering geology: Chapter 7—Strength and Rheology of Clays; Chapter 12—Engineering Analysis of Soils) specifically oriented to engineering topics. Elementary information is however included, to varying degree in other chapters.

The author attempts in several instances to illustrate the importance of clay technology in the solution of engineering problems. For example, the behavior of Norwegian "quick clay" is examined in relation to considerations of salt content of the pore water. Most of the discussion concerning the implications of clay in engineering geology is covered.