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1986

Review of *Kansas Geology; An Introduction to Landscapes, Rocks, Minerals, and Fossils* Edited by Rex Buchanan

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Loope, David B., "Review of *Kansas Geology; An Introduction to Landscapes, Rocks, Minerals, and Fossils* Edited by Rex Buchanan" (1986). *Great Plains Quarterly*. 954.

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Kansas Geology: An Introduction to Landscapes, Rocks, Minerals, and Fossils. Edited by Rex Buchanan. Lawrence: University Press of Kansas for the Kansas Geological Survey, 1984. Photographs, illustrations, maps, index. xi + 208 pp. \$19.95.

This volume, intended for readers with little or no background in earth science, delivers not only an excellent summary of the geologic materials of Kansas, but provides many of the clues by which geologists have been able to unravel nearly a half-billion years of the state's prehistory. The first chapter, by Frank Wilson, explains the intimate relationship between bedrock and topography that is so beautifully displayed in Kansas landscapes. The ridges, hills, and cliffs of the southeast are developed on the oldest strata exposed in the state; the High Plains, occupying most of the western third of Kansas, are underlain by some of the youngest sediments—the icing on the “layer cake.” The next two chapters, “Rocks” and “Minerals and Sedimentary Structures,” both written by Laura Tolsted and Ada Swineford, describe and interpret the various earth materials that can

be found in quarries and natural outcrops. Much of the material in this section seems somewhat dry and is treated in more detail in introductory physical geology textbooks. Many Kansans, however, will find the site-specific descriptions and photographs here to be quite valuable.

Beginning with a vignette featuring the travails of early bone-hunters, Debra Bennett's chapter on fossils is a delightful introduction to the study of ancient life. Excellent line drawings depict the anatomical details of the vertebrate and invertebrate creatures that inhabited long-buried landscapes and vanished seaways. The final chapter, by Rex Buchanan and James McCauley, is a geologic road log of Interstate 70. Because it is oriented perpendicular to the geologic “grain” of the region, many of Kansas's geologic features are either visible from this highway or can be observed via short side-trips. For instance, at mile 178.5 (Russel County) a dip in the highway marks a sinkhole formed by dissolution of salt about 1500 feet below the surface.

Each chapter contains numerous high-quality black and white photographs; the thirty-two beautiful color plates in the middle of the book further its considerable value. This book gives an accurate account of the basics of Kansas geology. Although it is intended for non-geologists, I believe many earth scientists—especially those who are unaware of some of the subtleties of Kansas geology—will find it refreshing and informative.

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