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Review of Roadside Geology of Texas

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The 74,000 miles of paved roads in Texas cross landscapes and geologic structure of tremendous variety. With its abundant photographs and interpretive sketches, this book gives the traveler an excellent opportunity to understand and appreciate both the grand and the more subtle features visible along the Texas highways. Texas is considerably more geologically diverse than the other plains states, and this is not just a simple function of its greater size. Many of North American’s greatest geologic sites are there: Llano (granite), Terlingua (volcanics), Marathon (fold and thrust belt), Glass Mountains (invertebrate fossils), and Paluxy River (dinosaur tracks). Why so much oil in Texas? Spearing points out that a buried Paleozoic mountain range (and its attendant down-warped sedimentary basins) accounts for much of the production. A late period of hydrocarbon generation ensued when tectonic forces opened the Gulf of Mexico and allowed deposition of a thick sequence of organic-rich sediments. After reading about all these Texas riches, as a resident of oil-poor Nebraska (where, however, 65% of the water in the High Plains aquifer is stored), I was disappointed with the brevity of the discussion of the water problems in west Texas (where this same aquifer is being drastically depleted by irrigation projects).

Having used six other books in this series, I find this one to be the best written and most informative. With a pervasive emphasis on geologic processes, Spearing, a well-known sedimentologist and petroleum geologist, conveys the significance of small-scale phenomena (crab burrows and cross-strata) as well as the “big picture” stuff (plate tectonics and geologic time). Geologic nomenclature is kept to a minimum; even so, many readers will find use for the glossary at the end of the book. Geology is best learned in the field, not in the lecture hall or arm chair. I recommend you take this book with you on your next trip to Texas.

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