

virgin natural resources), rather than the modern creation and pursuit of profit. Modern economic concepts, such as productivity or efficiency, were in general out of the minds, or at least out of reach, of government officials, mine owners, and, particularly, merchants.

By the end of the century, however, things changed, as copper mining overtook silver mining. "Silver mining tended to foster domestic markets in nineteenth-century Peru, whereas copper encouraged more of an open export economy."

Deustua poses questions in his foreword, all of which he answers: What was the structure of the mining sector in nineteenth-century Peru? What was the contribution of mining to the national economy and society? What was its quantitative and qualitative importance? What were the real dimensions of this specific economic sector within the nineteenth-century Peruvian economy? He achieves his stated goal to demonstrate the consistency of the Peruvian mining industry throughout the nineteenth century. This book provides source material relevant not only for the history of silver mining in Peru, but also for most of Latin America and other parts of the world where mining is developing as a sector of the "social economy."

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Lee Scamehorn. *High Altitude Energy: A History of Fossil Fuels in Colorado*. Boulder: University Press of Colorado, 2002; 244 pp., 15 photos, 10 figures, 5 maps, 3 tables, ind., bib. essay, cloth, \$27.50.

In *High Altitude Energy*, Lee Scamehorn, professor emeritus of history at the University of Colorado, sets himself the formidable task of surveying fossil fuels' exploration, production and use in Colorado from its territorial days through the twentieth century. He succeeds impressively in this slim

volume of 210 pages of text and a 14-page bibliographic essay.

A title in the University Press of Colorado's Mining the American West series, *High Altitude Energy* covers the rise and fall of Colorado coal for smelting, steelmaking, and heating from 1860 to 1930, and its resurgence since the 1960s as the primary fuel for generating electricity. Colorado's oil business, which dates from 1860s discoveries near Cañon City and burgeoned in the 1920s, is examined to the present, as are manufactured and natural gas development, which also began in the territorial days. Colorado's three flirtations with synthetic fuels (chiefly oil shale) during the world wars and as a result of the energy crisis of the 1970s are also considered in some detail. In a work of such breadth, Scamehorn must deal with subjects concisely. He treats in five pages Colorado's coal mine labor unrest that began in the 1870s, reached its infamous apex in the coalfield wars of the 1910s, and ended with the Columbine mine killings of 1927.

High Altitude Energy is abundantly illustrated with photographs, maps, figures, and tables. For whatever reason, most of the photos appear in the first half of the text, the figures and tables in the second half, with the maps being more evenly distributed. The maps showing the distribution of Colorado's energy resources are particularly useful. Scamehorn eschews citations in favor of the aforementioned bibliographic essay. This reviewer is ambivalent about that choice. It certainly produces an unencumbered text more appealing to the casual reader, but it also makes it impossible for scholars to determine whence particular facts and conclusions derive.

And *High Altitude Energy* is packed with facts. The breadth of subjects Scamehorn covers is impressive. But in contrast to an abundance of facts, dates, places, and statistics, the text is largely devoid of personalities, making for somewhat detached reading. Scamehorn might also have covered the entire subject of energy production in Colorado by adding one chapter on the his-

tory of alternatives to the fossil fuels—chiefly hydroelectricity, nuclear power, and geothermal energy. The criticisms above are trivial, however, when compared to Scamehorn's successes. Within the limits of a survey history of a broad subject, *High Altitude Energy* could hardly be better.

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Duane A. Smith. *San Juan Gold: A Mining Engineer's Adventures, 1879-1881*. Montrose, CO: Western Reflections Publishing Co., 2003; 135 pp., maps, illus., photo essay, ind., paper, \$12.95.

Eben Erskine Olcott, a mining engineer graduated from Columbia University in 1874, had varied experiences in his chosen profession, a small facet of which is described by Duane Smith in *San Juan Gold*. Olcott's employment began immediately after his graduation, first with the Ore Knob Copper Co. in North Carolina, then with the Pennsylvania Lead Co., followed by a job as superintendent of a Venezuelan gold mine. With this experience behind him, he returned to the States to consult on western mines.

Fortunately for us, Olcott was a prolific letter writer and Smith has used these letters to follow the mining engineer in his travels around the mining West, with the book principally describing Olcott's experiences in the rugged San Juan Mountains of Colorado. Smith wisely chooses to quote directly from Olcott's letters, providing just enough background to clarify the quotations and place them in context. Too many authors today seem prone to present diaries and letters entirely as vehicles for presenting their own perceptions of what the written record has stated.

Following his return from Venezuela, Olcott met a representative of the Phelps Dodge Mining Co., who hired Olcott to inspect mines in Utah, Nevada, Colorado, and particularly the operations of the Crooke brothers, including their smelter. The

Crookes must have been quite impressed with Olcott, for they hired him to run their North Star Mine at 12,800 feet on King Solomon Mountain, not far from Silverton, Colorado.

Olcott's letters, written to his family on the East Coast, provide fascinating descriptions of the trials and tribulations he endured both at the North Star and in traveling to evaluate other mines in the West. The well-written letters give a vivid picture of stage travel in the early days of the West. Olcott's misadventures included missing an outgoing stage due to the delay of an incoming one, having to climb out of a stage coach after it turned over, and even walking in front of a slow-moving stage not only to lighten its load but to escape the tightly-packed, smoke-filled carriage. He had to have been in excellent physical condition! Olcott often wrote of his attendance at church services, when available, commenting most often on the sermon, either well rendered or quite poor. An acute observer of nature and his surroundings, Olcott also described to his family the wildlife, weather (delightful or frustrating), and the beauty of the San Juan Mountains (in glowing terms).

Olcott was very disappointed when the Crooke brothers promised to build a smelter in the valley below the North Star, but then constructed it twenty miles away over a high ridge in Lake City. This required additional, expensive transportation by horse and wagon to process the North Star's ore. At the end of his two-year contract, Olcott left the San Juans to work in Mexico. His departure appeared to be sudden, but Smith's extensive research failed to reveal the circumstances of his leaving. However, that research discovered that Olcott did continue his mine consulting work, even after taking over his family's business of managing the Hudson River Day Line, a fleet of ships serving the Hudson River in New York.

San Juan Gold is a fascinating book, revealing the thoughts of a mining engineer taking on a job in a rough, remote area, one to which the telegraph had come, but