

Nonmetal Mine Safety and Health. Although the limited discussion of the latter program could be explained by Zegeer's pre-government career in coal mining, attention also ought to be called to the interests of the publisher. The Kentucky Foundation, as explained on its website but not in the book, is a think tank "promoting coal, energy, and environmental education." By no means does this foundation come off as a malicious organization, but the lack of focus on MSHA's metal and nonmetal work, along with the *non sequitur* discourse on the coal industry found in the epilogue, detract from the overall value of Zegeer's discussion.

These concerns notwithstanding, *Inside MSHA* should serve its purpose in giving readers valuable perspective on this federal agency. David Zegeer was clearly an administrator concerned with the health and safety of miners while simultaneously being a functionary in the politically conservative Reagan Revolution. Although these roles might be seen as mutually exclusive, Zegeer leaves us with extensive insight into how he managed to accomplish both.

Patrick Allan Pospisek

Grand Valley State University

Charles Caldwell Hawley. *A Kennecott Story: Three Mines, Four Men, and One Hundred Years, 1897-1997*. Salt Lake City: University of Utah Press, 2014; 389 pp., 54 b&w photos, 8 maps, 10 tabs., notes, 3 append., gloss., bib., ind., cloth, \$37. ISBN: 9781607813699

With *The Kennecott Story*, Charles Caldwell Hawley has produced an intriguing account of four men and three copper mines. A geologist by training, the author uses his own professional knowledge and experience, combined with additional research, to narrate the efforts of Stephen Birch, Daniel C. Jackling, William Braden, and E. Tappan Stannard to develop some of the richest copper deposits in the world. Birch played a

key role in starting the Bonanza Mine in Alaska, Jackling, the open pit at Bingham Canyon, and Braden El Teniente in Chile. Stannard made important contributions in Alaska, and later as Kennecott's president.

Focusing principally on the 1890s to the 1930s, Hawley successfully reveals the role of these men as well as many others, such as John Hay Hammond and Samuel Newhouse—with substantial script on their personal lives—in finding big financial backers, in understanding complex ore deposits, and in implementing innovative mining technologies. The result was the formation in 1915 of the Kennecott Copper Corporation and its ascent to preeminence in subsequent decades. He concludes the narrative with brief post-World War II examinations of Kennecott's presidents: Charles R. Cox in the 1950s, Frank Milliken in the 1960s and 70s, and Thomas Barrow and G. Frank Joklik in the 1980s and 90s.

The volume also illustrates the key role of the Guggenheims—Meyer and his sons, especially, Daniel—in the initial financing and management of Kennecott Copper Corporation. In examining these industry giants, along with Kennecott's engineers and executives, Hawley tells how corporate America and its trained experts led the way in making the United States the top copper producer in the world by 1910. Their timely introduction of pioneering techniques, such as mass mining and milling, fueled Kennecott's rise and laid the foundation for the corporation's seven-decade history.

In delineating Kennecott's mining story, the author also examines the development of the railroad infrastructures at the three works, highlighting the construction of the Copper River and Northwest in Alaska, the Bingham and Garfield in Utah, and an unnamed line in the tortuous Andes of central Chile. These examples illustrate the massive capital, technology, and labor required to make Kennecott the top copper mining corporation in the world.

The Kennecott Story takes a favorable view

of the company's top-down management style. Consequently, the book argues that the mining men implemented "corporate socialism"—usually called "welfare capitalism"—as a business "reform" that created "enlightened conditions" (5). The mine workers, however, are practically invisible in this account and are even referred to as "laborers [who] tended to have darker skin tones than Anglo-Saxons and were treated according to the fashion of the day" (6), without any critique of this unfair, ethnocentric system.

The volume also suggests that the economic and political power of American copper corporations has been exaggerated. Then, he persuasively shows how the Guggenheims, Morgans, MacNeills, and Penroses of the world dominated the financing, development, and management of Kennecott Copper's and other U.S. corporations' multinational properties. Furthermore, labor unions, environmental regulations, and Chilean nationalization are criticized as detrimental to the advance of these powerbrokers' endeavors during the twentieth century, rather than as features necessary for forging corporate responsibility.

This interpretive strategy leaves the reader wondering about some of the specifics on how Kennecott Copper Corporation achieved such greatness. What role, for example, did multi-ethnic mine workers play at El Teniente and Bingham Canyon, and in building the vast railroad, milling, smelting, and community infrastructures at all of Kennecott's properties? How, in the face of environmental and labor regulations in U.S. and expropriation in Chile, did Kennecott thrive? This work's greatest strength, in covering the four men and three mines, reveals its clearest weakness in that other important players (the workers themselves) as well as other Kennecott properties (such as Chino in New Mexico) receive little attention.

Despite these oversights, MHA members will find *The Kennecott Story* fascinating, and for many, similar to their own experiences. Readers will be impressed with the achievements of the Kennecott men and their role in making this American

copper corporation one of the most productive of the twentieth century.

Chris Huggard
Fayetteville, Arkansas

Andrew Scott Johnston. *Mercury and the Making of California: Mining, Landscape, and Race, 1840-1890*. Boulder: University Press of Colorado, 2013; 296 pp., 66 b&w photos, 23 draw., 12 maps, 3 tabs., notes, bib., ind., cloth, \$45. ISBN: 9781607322429

Since 1848 the glitter of gold has colored the lens through which the world sees California, but Andrew Johnston adds a darker hue. As he shows in this revisionist analysis, the somber corporate history of early mercury mining in the Golden State stands in stark contrast to California's egalitarian gold rush legacy and lore.

For forty years California mercury mines supplied half of the world's quicksilver for gold and silver amalgamation. Until 1861 the two largest California producers, New Almaden and New Idria, were owned by Barron-Forbes, a Mexican-based company under British management. The British lost control after a landmark court case ruled in favor of American claimants backed by the Ralston-Sharon interests on the Comstock, otherwise known as the "bank crowd."

This classic mercury cartel continued to control American quicksilver production, price, and distribution until the mid-1870s, when quicksilver from smaller, independent producers on California's north coast flooded the market. Mercury demand fell with the ban on hydraulic mining, the decline of the Comstock, and the coming of cyanidization, although the New Almaden and New Idria mines continued to process some low-grade quicksilver ore until after World War II.

In the best section of the book the author uses a variety of demographic data to analyze and evaluate the ethnic and racial "landscapes" at the big mines. With an unspoken nod to Karl Marx, he