

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

examines the impact of an industry controlled for much of its early history by a coterie of capitalists. They made their money, he asserts, by manipulating the mercury market and by exploiting the labor of contract and tribute miners, mainly from Mexico, Ireland, Cornwall, and China. The big mines had no problem finding workers or keeping them at subsistence wages—or less.

In a pattern common to the industry elsewhere in California, the author shows how management played upon ethnic and racial differences to divide the workforce and keep down labor unrest. Yet labor costs, according to the author's data, rose in some mercury mines to 75 percent of total operating expenses—an astonishing figure compared to that of other hardrock mines in California, which averaged closer to 30 percent. The difference presumably is explained by the traditional labor-intensive methods, such as hand-sorting, that took a larger workforce and that lasted longer in these remote mercury mines than in smaller hardrock operations with more efficient technologies.

Relying on the tools and methods of the social sciences is a useful construct for analysis, but the result in this case is a highly structured, didactic, and sometimes soporific narrative. Describing a mine as a “negative space hollowed out from a solid,” or claiming that separating minorities from white managers at New Almaden contributed to the “landscapes of reproduction,” seems unduly burdened by academic jargon. Mature readers probably already know that “the quicksilver industry in California was a capitalist one: capitalists used mercury to make money, and this money gave them power” (52), or that “having mercury was of limited use if one had no power to trade or use it” (61).

Readers may also be distracted by the poor quality of graphics and the lengthy descriptive footnotes, some of which should have been incorporated into the text. The excellent summary of plate tectonic theory in footnote 18 (132), for example, is more informed than a statement in the text that “we cannot learn from geology why

some ore deposits were exploited while others were not,” and more useful than the observation that a quicksilver deposit was “the means people used to exploit the cinnabar and gain wealth from it” (96).

That mercury had a larger role to play in the “making of California” than commonly portrayed in popular culture is clear from this well-researched and documented account, but it stretches the point to say that the history of mercury mining tells “a different story of the development of California than does gold or silver mining.” Many of the features that the author claims were distinctive to the big quicksilver mines—industrialized mining, foreign capital investment, corporate consolidation and control, labor division and exploitation based on class, race, and ethnicity—were also developing in the gold mining industry by the mid-1850s.

The geographic isolation and market control of the big mercury producers lasted only a couple of decades. By the 1870s the most important California mines, regardless of product, operated under a corporate culture common to American industry in the Gilded Age. The author's story ends before the first serious attack on the social Darwinist mentality in the 1890s. His book is a look backward at a branch of the mining industry that declined before the nation entered a new era of modernization and reform.

Ron Limbaugh
Sacramento, California