Mercury and the Making of California: Mining, Landscape, and Race, 1840–1890.


Mining history, once a somewhat staid subject, has been revitalized in recent years by insights from interdisciplinary fields such as envirotechnical history and geography. Architectural historian Andrew Scott Johnston contributes to this interdisciplinary turn in *Mercury and the Making of California* by carefully analyzing the landscape of California’s nineteenth-century mercury mines. Most historians imagine gold and silver, but Johnston argues that they should add mercury to the list of the state’s important early mining industries. “Mercury mining has fallen prey to selective memory,” he argues, due to “the all-encompassing fog of the western romance with gold and silver mining” (p. 6).

The mercury mines were controlled by a few wealthy elites who operated outside the public eye. While gold mining typically involved small claim-holders working surface mines, mercury mining was hard-rock mining done underground. Mercury was a “rich man’s metal” (p. 12), requiring a tightly controlled industrial labor force and large amounts of capital. Gold miners were often white Americans, while mercury miners were typically Mexican, Chilean, or Chinese. In sum, California’s mining history looks far more complicated when we add mercury to the story.

Chapters 1 and 2 document the business of mercury mining in California from the earliest years of the Spanish empire until the 1880s. Mercury was important to the Spanish—and later Mexican—mining economy and crown powers carefully governed the mercury trade as part of an overall imperial strategy. When the United States took control of California in the 1840s, its mercury mines were integrated into a capitalist system that made wealth from the products of western land, especially gold and silver, which required mercury for amalgamation. Chapter 3 analyzes what Johnston calls the “California mercury landscape.” He closely examines cinnabar geology, the state of mineral knowledge in the mid-nineteenth century, and the technological landscapes—including complex underground tunnels and shafts and aboveground furnaces and campsites—created to exploit mercury for profit. In the final three chapters, Johnston gives an even more in-depth analysis of how social factors such as race intersected with technology and geology in California’s mercury mines. The industry in California declined precipitously in the 1880s when the introduction of cyanidation—which allowed gold to be extracted without mercury—eliminated mercury’s primary market. Johnston concludes by emphasizing how mercury mining was forgotten in the twentieth century despite its important role in California’s development.
Johnston offers convincing, fine-grained detail to support his central claim that mercury mining was an important complement to nineteenth-century California’s mining economy. Additionally, the book is exceptionally well illustrated with maps, photographs, and diagrams of California’s mercury mining landscape. These illustrations are likely to make the book attractive to non-specialist readers curious about a forgotten chapter of California history. Historians of mining technology will likely agree with Johnston’s claim that “the quicksilver industry was not a leader in innovative technology in hardrock mining, nor did the industry as a whole achieve great efficiency in reduction technology” (p. 114). Due in part to tight control by a few firms, mercury mines were content to follow established practices. Johnston does offer useful analysis of how social factors, namely California’s racial hierarchy, intersected with technology in the mercury mines. Racial and ethnic groups at the bottom of this hierarchy, typically Mexican and Chinese laborers, were assigned the most physically demanding and dangerous jobs, such as cleaning and feeding reduction furnaces.

With the focus on race and landscape, other aspects of mercury mining receive less attention. For instance, there is little discussion of mercury’s negative consequences on human health and the environment. Photographs clearly document the metal’s destructive power by showing hillsides denuded of vegetation due to mercury-laced smoke from furnaces. Johnston notes the environmental harm in the photo captions, but the theme is not consistently addressed throughout the book. Finally, the volume’s thematic organization is somewhat difficult to follow. The chronology shifts back and forth from the 1850s through the 1880s. A long discussion of cinnabar geology—certainly the earliest chronological event in this story—does not come until chapter 3. A more straightforward chronological organization might have better served the reader.

Despite these reservations, Mercury and the Making of California offers a richly detailed portrait of a little-studied industry that will certainly be of interest to historians of nineteenth-century California. It adds a valuable new angle to better-known histories of gold and silver mining in the state, as well as to the broader commercial development of the western United States.

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