

pact of lead on workers in the mine, mill, smelter, and refinery. Again, all parties involved were slow to understand and act on its ramifications for health. Bunker Hill attempted many solutions, but nothing really helped until the 1970s, when OSHA regulation led to rotating workers from high exposure to low exposure jobs to keep blood lead levels in line. The long-term impacts of lead exposure continue, with shortened life spans and chronic health issues among retired miners.

The closure of the Bunker Hill mine and smelter pulled the economic rug out from under the local communities. The last chapter, "Brave New World," describes how the town of Kellogg struggles with lost revenue and population and with the legacy of pollution. Efforts to rejuvenate the local economy include an attempted make-over as a Bavarian-themed ski village, the success of which remains to be seen.

This book is a very detailed exploration of the environmental history of a single mining district but deserves an audience well beyond Coeur d'Alene enthusiasts. The district was a big deal, with impacts well beyond its borders economically and environmentally. No other mining district has produced as much silver or likely discharged as much tailings into a river. It was a major producer of lead and smelter smoke. The district's life spans from the latter part of the industrial revolution through the environmental regulatory revolution of the 1970s and it still produces silver, lead, and zinc today. This was one of the first places where the EPA dealt with industrial-scale mining pollution. The complexity and magnitude of the problem has shaped environmental mitigation strategies ever since. No one interested in the environmental history of mining should miss this book.

One of the nice things about reviewing such a good book is that I only have to quibble with trivialities. The accidental discovery of the Bunker Hill lode by a jackass does not bear up to historical scrutiny. The lode had a very obvious outcrop that was discovered through normal prospecting

when the district was first opened up. There is something strange about the human psyche that makes stories of accidental discovery of the world's major mines so attractive—the same jackass story pops up in many other places. There is also something strange about how long it took to wake up to the lead problem in the Coeur d'Alenes, especially when contemporary mitigation would have been far cheaper than the current billion-dollar clean up. Highly recommended.

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David Eilers. *Slag and the Golden Age of Lead-Silver Ore: The Eilers Family from Immigrants to Smelting Magnates, Culminating in their 1920s Fight against the Guggenheims*. Charleston, SC: David Eilers, 2016; 551 pp., 48 b&w illus., 4 maps, 5 append., notes, ind., paper, \$25. ISBN: 9781536891812

As the subtitle of this book suggests, it is the history of four generations of a family, from first-generation immigrants to fourth-generation financial victims, written by the current incarnation of the family. The main title is a mystery until the reader finds, rather hidden away, that Karl Eilers regarded himself as "tossed like slag from American Smelting after Simon Guggenheim tired of him."

Although dealing with four generations, the first half of the book focuses entirely on Anton Eilers, who arrived in the U.S. as an immigrant in 1859, shortly after graduating from studies in mining, metallurgy, and geology in Claustal in his native Germany. Although initially finding employment in a clothing store in New York, he soon had the good fortune to meet Rossiter Raymond and find various positions assisting him in the early development of the American Institute of Mining Engineers and, particularly, Raymond's work as commissioner for the collection of mining statistics for the U.S. Treasury Department.

As Raymond's assistant commissioner, Anton Eilers travelled extensively in the West between 1869 and 1875, collecting and publishing data on Arizona, the Yellowstone region, and parts of Nevada, Idaho, and Montana Territories. Now one of the most widely informed and expert copper and lead metallurgists in the country, he left Raymond's employ and began to turn his mind to making money through practical employment and private enterprise. Eilers became involved in a succession of larger and more profitable businesses in Colorado, Utah, Nevada, and Montana, heavily focused on smelting rather than mining, and by the 1880s controlled one of the largest businesses in the country.

At this point the story becomes increasingly complex as first Anton, and then his son Karl, became enmeshed in the formation and development of the American Smelting and Refining trust. Through that relationship, they became involved as partners with the Guggenheims, a development which became increasingly problematic as time went on. By the early years of the twentieth century, the Eilers were being out manoeuvred by the Guggenheims and had begun to lose control of the business empire that they had created—an outcome which author David Eilers ascribes to his forbears being first and foremost engineers rather than financiers.

The ascendancy of the Guggenheims within American Smelting continued through the First World War, and the arrival of the abrasive Simon Guggenheim as the chairman saw the eventual removal of Karl Eilers from the board in 1920. By the end of the 1930s much of the Eilers family's once vast wealth had been dissipated and its members relegated to a much reduced status.

This is a very well researched book and the account Anton Eilers' career and inter-actions with associates such as Rossiter Raymond is clear and makes easy and interesting reading. David Eilers is at ease with family narrative history. However, the second section, which endeavours to interweave the family's story with the business machi-

nations of the American Smelting and Refining Company, breaks down. Constant switching between family and business history fogs the central story of the Eilers' passage of leadership from one generation to another and the gradual loss of control. It is, as it claims, good family history, not good business history.

As a postscript it might be worth mentioning that the term "slag" on this side of the Atlantic is applied to women of loose virtue. It would be a mistake to buy this volume in anticipation of salacious content.

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Robert D. McCracken and Jeanne Sharp Howerton. *Tybo, Nevada: Gem of the Sagebrush Frontier and Other Settlements in Hot Creek Valley*. Tonopah: Central Nevada Historical Society, 2016; 312 pp., 103 b&w illus., 9 maps, 4 append., ref., bib., ind., cloth, \$25, ISBN: 9780965290876

This book is a history of Tybo, a small mining district tucked in a canyon in Central Nevada, which produced a total of a bit less than \$10 million in gross production of silver, lead, and other minerals. Tybo's output shows a series of productive periods and lulls from 1867 to 1940, with the peak of both prosperity and population in the late 1870s, when perhaps as many as twelve hundred persons (likely less) called the canyon home. But this book is also an exemplary study of a small western mining district, and as such has much to offer the field of mining history.

Dr. James Gally, a dentist bitten by mining fever, arrived in 1864 in Austin, Nevada, ground zero for the Reese River rush, and struggled to make a living so he could strike it rich with mining. The struggles and make-do continued—as Gally's wife "Mat" documented in her diary—until 1870, when the doctor and his partner, Martin Gillett, located the 2G ledge in Jerusalem Canyon, about