wet year in convincing settlers of the Rainbelt reality: starving families on failed farms. Outlandish rainmaking schemes clouded this reality far more than the sky, and federal policies to aid farmers crushed with indebtedness were nearly nonexistent at the time. The perceptive epilogue, “After the Rainbelt,” discusses how much has changed in recent years on the High Plains in terms of federal payments, use of the Ogallala Aquifer for irrigated agriculture, and frequent corporate or absentee ownership of large-acreage wheat farms. Yet invasive species, weather extremes, and declining water tables continue to make occupancy of the High Plains a “tenuous endeavor” (p. 162).

The vintage photographs and the precipitation and population charts and maps add a great deal to chapters 2 through 4. Unfortunately, the small format of the book means the place names on these maps are minuscule. More photographs in the first forty pages would be welcome, but the primary omission early in the book is a comprehensive map to show major towns, waterways, counties, and railroads. Unfortunately, the precipitation maps cover a smaller cluster of counties than the text routinely addresses, but commendably, the book is almost error free, with only a few inconsistencies in the spelling of WaKeeney, Kansas.

Wishart’s command of the topic and crisp writing style offer great value to any reader interested in the plains frontier. The scholarly tone will likely challenge undergraduate students, but the book is well suited to the graduate level. The Last Days of the Rainbelt offers countless insights into frontier settlement. One example is that it was rarely the intent of those filing a Timber Culture Act claim to prove up; the goal was to get a loan on the claim and move on. Another example is that it was not only the scarcity of wood that made sod houses more common in western than eastern Kansas; different root structures of grasses and new plow technology were key reasons. Wishart has admirably succeeded in bringing to life a forgotten yet fascinating era.

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Gambling on Ore traces the technological, social, and environmental evolution of metal mining in the western United States in the latter
half of the nineteenth century that led to a world inexorably defined by high-tech products whose subterranean origins remain disconnected from its users. Kent Curtis explores this history and makes those connections. Although Curtis’s title suggests a broad American story, he is decidedly and admittedly focused on Montana. His four-chapter narrative traces socio- and enviro-technical evolutions through small-scale placer gold mining, increasingly complex silver lode mining, and finally heavily capitalized large-scale copper lode mining. Citing Richard White, Curtis positions the environment as a key actor in the development of mining and creation of risk, and throughout the book he explores the relationship between land and miner, and, with the later generation of vast quantities of waste, between land, miner, and neighboring landowners.

The narrative begins with placer gold mining that was driven by the metal’s implicit value. Its discovery was random and unscientific and once found in a creek bed gave no indication to its extent until it was mined out. The cost and gamble of opening a simple washing operation was relatively high for miners, but the potential of significant returns often justified the risk while fueling wild speculation, rapid overpopulation of mining districts, and the equally rapid depletion of the deposit. While placer mining was largely an aboveground individual pursuit, lode mining required a larger and more sophisticated approach. The lower values of first silver and then copper required a greater scale of production to maximize economies, and a scientific approach, refined technology, and the rewriting of mining laws to minimize the risk of developing lower quality ore lodes.

Curtis focuses heavily on the influence of a new wave of mining engineers on the haphazard development and exploitation of US mines through the 1860s. These American engineers studied at the Bergakademie in Freiberg, Germany, a mining school focusing on geosciences, and a heightened awareness of conservation developed from centuries of regional mining practice. The engineers came back to the United States with new standards for geology, mine development, and management, and they influenced the 1872 mining law that clarified claim rules to allow more systematic lode development and stronger land use rights, especially critical to companies working low-value ores.

Curtis next traces the development of Anaconda Copper into the largest copper producer in the world at the time. Anaconda, founded on a Butte (Montana) silver lode, required extensive investment and aboveground works to produce marketable copper from poor quality and increasingly complex ores. The mining company developed a massive smelting complex in Anaconda (Montana), an area with few residents and sufficient water supplies. While this work generated great returns, the toxic by-products—smoke, tailings, and slag—produced from up to 95 percent of the ore were equally staggering. Curtis ends by exploring the reaction of agricultural landowners to this waste and its effects on their lands. He traces two legal procedures used by landowners and large copper producers to argue their case.
The first, the doctrine of prior appropriation, supported the first-user rights of a resource, while the second, the balancing doctrine, weighed the value of community good over the rights of the individual. Ultimately, big copper and mining interests were deemed more critical to local and national economies during the period covered by the book.

Curtis makes a strong argument for the inherent risk bound in the unpredictable and unknown nature of deposit location, size, and complexity, and the efforts over a fifty-year period to curb risk through increasingly sophisticated investment, scientific approaches, and legal actions. *Gambling on Ore* is a well-written, sound, and interesting history, but it only gives us a slice of the full story of American metal mining and at times seems to imply that mining in Montana developed independently and then shaped the rest of the world, ignoring the broader context of earlier and contemporary American mining efforts.

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In the 1990s, Jared Diamond's *Gun, Germs, and Steel* brought the environment to center stage in the shaping of human history. Despite its international success, historians criticized the book for its air of inevitability and its glossing over of human agency in the pursuit of an all-encompassing narrative to explain where we are today. Daniel Headrick's *Power Over Peoples* fills many of the gaps in Diamond’s narrative, providing, in some cases literally, a nuts-and-bolts account of how European powers came to dominate the globe. This ambitious and successful book, described by the author as “a technological, environmental, and political history of western imperialism in the past six hundred years” (p. 6). It is an accessible and almost encyclopedic history of technological innovation in both the expansion of, and limits to, western imperialism, from the first crude improvements in European shipbuilding in the fifteenth century to the “Shock and Awe” campaign of the twenty-first. From the outset, the integration of imported technologies like the magnetic compass, the stern post rudder, sail types, and others had a snowball effect on the nations who adopted them. With each improvement came new opportunity. By the 1420s, the Portuguese discovered the Azores and within years