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In *Mining Language: Racial Thinking, Indigenous Knowledge, and Colonial Metallurgy in the Early Modern Iberian World*, Allison Margaret Bigelow persuasively demonstrates a methodology for excavating evidence of Indigenous and African lives in the early Americas within deeply unrepresentative archives. Analyzing a handful of specialist texts on metals and mining, *Mining Language* argues that the phrasing used in various schemes for colonial mining projects reveals the hidden influence of Indigenous and African peoples on Iberian imperial thinking. Metals of all types loomed large in the Spanish motivations for conquest and colonization of the Americas. Christopher Columbus demanded tributes of gold from Caribbean peoples; the mines of Potosí flooded silver into Europe and Asia. The colonial desire to extract American wealth by finding and refining metals led to a corpus of literature—manuals, petitions, histories—written by Spanish authors to describe the latest scientific and technological understandings of mining enterprises. By systematically studying prefixes, grammatical gender, and word choice in these texts, *Mining Language* locates heretofore unattributed sources of non-European knowledge production within Spanish science.

*Mining Language* focuses primarily on Spanish America in the sixteenth and seventeenth centuries, although it also touches on Portuguese Goa and the Enlightenment. Structurally, the book centers the metals themselves: the four sections are titled “Gold,” “Iron,” “Copper,” and “Silver.” The organization itself is an elegant rejoinder to the nineteenth-century periodization of human civilization progressing inexorably through “ages” of stone, bronze, and iron. The book’s organizing principle is also intended to complicate how scholars use metallurgical metaphors to gesture perfunctorily to Spain’s “golden” sixteenth century or its imperial dependence on American silver. The four metallic sections are further mapped onto distinct temporal and geographic regions, which creates a welcome sense of forward narrative momentum in the book.

The section “Gold” contains three chapters covering early Spanish gold mining in the Caribbean. To identify the subtle ways Indigenous peoples influenced how the Spanish invaders imagined and gathered American gold, Bigelow carefully hunts through early colonial maps, wood-
cuts, petitions, and chronicles. “Iron” moves away from the Americas to analyze how sixteenth-century Iberian authors wrestled with describing the qualities of metallurgical and racial categories in Spain and Goa. These texts were translated into other European languages, which allows Mining Language to discuss how Iberian ideas about science circulated outside of the Iberian world. The section titled “Copper” studies the role of African metal working and mining in Spanish schemes for Cuba and Venezuela alongside the Spanish pursuit of Indigenous copper objects in North America. The final section, “Silver,” moves to the Andes and Mexico during the seventeenth and eighteenth centuries. One chapter identifies how Andean mining expertise appeared in seventeenth-century Spanish mining texts and how Indigenous knowledge was “written out” of translations into English, German, and French. Another chapter looks at how silver ore classifications were entangled with racial casta categories and Andean khipu colors in complicated ways. The final chapter analyzes early modern terminology for scientific understandings of “similarity” and “difference” to argue that seventeenth-century Spanish American scientific authors absorbed, without attribution, the mining knowledge of Indigenous peoples, only to produce a Spanish American science that was similarly assimilated and erased in the canon of eighteenth-century European science.

Mining Language joins a recent wave of scholarship by such historians as Marcy Norton, Daniela Bleichmar, and Pablo F. Gómez, who have sought new ways of identifying Indigenous and African influences on colonial Latin American science and technology. The majority of Bigelow’s evidence comes from printed books from the sixteenth and seventeenth centuries, but she includes a laudable diversity of other types of archival sources. In particular, she offers a close and truly innovative analysis of a 1525 handwritten petition from Hispaniola to reconstruct unrecorded Spanish-Taíno beliefs about gold mining’s connection to a local golden plant. Bigelow’s painstaking focus on individual words in mining texts and their change over time reveals new insights into how the Castilian language itself was changed by its overseas empire from the earliest decades of conquest. For example, she makes a carefully argued case for how a Castilian word used for a mine (minero) expanded suddenly in 1510s Puerto Rico to encompass not just places of mining but also the men themselves who mined, and how that new meaning gradually took precedence. That minute attention to language also allows Bigelow to identify the echo of Indigenous women miners through the development of new—and newly gendered—mining words in colonial Spanish America. Bigelow’s methods here will be familiar to scholars of Spanish languages or literatures, but they will come as a welcome guide to historians who are seeking new strategies for reading familiar texts.

Methodologically, Bigelow’s project would have been impossible a few decades ago; it is dependent on recent text-searching technologies and large-scale archival digitization projects. The use of digital technologies is acknowledged within the title of the book itself: Mining Language refers simultaneously to colonial texts about mining and to the computational method of “text mining” digitized versions of texts and electronic databases. For example, Mining Language relies on the Real Academia Española’s Corpus Diacrónico del Español (CORDE), a vast online database of historical Spanish word usage. Bigelow is clear and transparent about the search terms she employed and the results she received, even to the point of explaining the variant spellings she used to circumvent the problems of haphazard early modern orthography. She also notes the errors and omissions she discovered in CORDE, which is an archive as fallible and human-made as any other. While Bigelow uses several handwritten manuscripts in her analysis, the majority of her sources are typeset documents. These are, after all, the kinds of archival documents most amenable to scanning,
online access, optical-character recognition, electronic searching, and “mining.”

In addition to the obvious interest it will hold for historians of colonial science, empire, race, and gender, *Mining Language* is particularly well suited for graduate (or upper-level undergraduate) seminars on the history of the colonial Americas. First, the book’s breadth—covering a vast time period from the fifteenth through eighteenth centuries, a wide range of places from Venezuela to Goa, and themes of colonial identity, archives, and erasure—means that it contributes to many of the most important discussions currently ongoing in modern scholarship. Secondly, the book’s methodological blueprint will prove inspirational to many young scholars designing their own research projects, as it can be repurposed to analyze other sets of colonial texts and answer different research questions. Bigelow explicitly identifies one avenue for future research, as some of her sources contain more accessible information about Indigenous miners than they do about African and African-descended men and women. Bigelow writes that she hopes her methods of close lexical analysis of unlikely texts will be a guide that future scholars can use to “shed light on African diasporic knowledges in diverse colonial contexts” (p. 230).

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