

among the elite were displaced and compartmentalized. Axel Fredrik Cronstedt, in a manuscript written while he was employed by the bureau in 1758, was highly critical of alchemy, which he viewed as an ignorant superstition. But he had to be cautious about offending patrons of the institution, including the mineralogist and visionary theologian Emanuel Swedenborg, who still clung to the hope of metallic transmutation. Criticism of alchemy gradually became more overt in the 1760s, but the topic was still politically sensitive. It is clear that what Fors calls “the limits of matter” remained subject to dispute, and the course of enlightenment did not always run smoothly toward the goal of a disenchanting mineral realm.

The slow and uneven decline of belief in metallic transmutation during the eighteenth century has been taken up by several historians recently. Fors has done a great service in directing their attention toward the Swedish context. *The Limits of Matter* is grounded in a thorough exploration of the archives of the bureau and such other institutions as the Royal Swedish Academy of Sciences and the University of Uppsala. His bibliography and endnotes also provide ample citations to the secondary literature on early modern chemistry in several languages. But his concentration on conceptual analysis left me wanting to know more about the practical side of the bureau’s work. Fors says little about the actual methods of assaying or the equipment of the laboratory, though he cites the work of such scholars as Pamela Smith and Ursula Klein on the methods used by German chemists of the period. Cronstedt became internationally famous for devising a portable laboratory that could be taken into the field, but Fors does not discuss it. It would be interesting to know more about the intersection of fieldwork and laboratory analysis. A more thorough account of the practical dimension of Swedish mineral chemistry would help substantiate Fors’s claim that it was in this setting that the modern understanding of matter was forged.

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Modern (Nineteenth Century to 1950)

Jeffrey P. Moran. *American Genesis: The Evolution Controversies from Scopes to Creation Science.* xi + 216 pp., illus., index. Oxford: Oxford University Press, 2012. \$34.95 (cloth).

The Scopes “monkey trial” of 1925 occupies an iconic place in American history. *Tennessee v. Scopes* saw a young substitute teacher prosecuted for teaching human evolution in opposition to the Butler Act, which had become law earlier that year. The first in a series of trials culminating in *Kitzmiller v. Dover* eighty years later, it has become enshrined in American popular culture through the 1955 play *Inherit the Wind* (and the later movie). Within the academy, the events in Dayton have provided rich pickings for historians in the years since. While the standard treatment remains Edward Larson’s Pulitzer Prize-winning *Summer for the Gods* (Basic, 1997), Jeffrey Moran’s *The Scopes Trial: A Brief History with Documents* (Bedford/St. Martin’s, 2002) presents primary documents that are particularly useful in the classroom. In the work under review, Moran builds on the introduction to that work and gives a thoughtful analysis of antievolutionism in the early twentieth century, along with a discussion of the subsequent diversification of young-earth creationism into intelligent design creationism.

Moran’s introduction offers a whistle-stop tour through the history of evolutionary thought and its interactions with religion. Starting with the ancient Greeks, all the familiar names appear before a brief discussion of the Scopes trial itself. Once done, Moran offers succinct summaries of the five chapters of

his work. In what follows, I will concentrate on the first three chapters. The remaining two discuss the diversification of antievolutionism since 1925 and reactions to the phenomenon among American academics. While interesting, these chapters offer little new to individuals familiar with Ronald Numbers's *The Creationists* (Harvard, 2006) and contemporary American cultural politics.

It has been noted that the contemporary antievolutionist movement is largely dominated by white males. In the 1920s that was also the case. That said, white middle-class women supported the Butler Act as an extension of their mission to preserve traditional morality and as part of a general crusade against social disruption caused by, for example, prostitution and alcoholism. Moran deftly weaves these female concerns with the concurrent fear of feminization within conservative Christianity. The aggressive form of fundamentalism that resulted took the battle into the schoolrooms and led to assaults on evolution, “sex education, teacher radicalism, and the patriotism of history textbooks” (p. 39). Little has changed in the intervening decades!

Following an examination of differences and similarities in how the North and South responded to evolution, Moran then turns to the issue of race and the response of African Americans to the theory. Noting that a general lack of education left many African Americans hostile to science, he identifies two general reactions: an individual either held that embracing evolution was good for the race or believed that the maintenance of conservative Christianity (and thus the rejection of evolution) was important for advancement. The first group claimed that white antievolutionism was, in part, motivated by the antiracist implications of the theory. Problematically, the theory was also being used at the time to support the inferiority of nonwhites. The second group was particularly bolstered by the fact that among African-American denominations a minister needed little education, high school attendance was lower than that of whites, and conservative leaders espoused rejection of Jazz Age modernism in general. As he does in earlier chapters—and the remainder of the work—Moran draws out continuities between the state of affairs in the 1920s and in the rest of the century.

Moran's book has much to offer historians of science who are interested in antievolutionism. Historians of American culture, race, gender, and religion will also profit from reading it.

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Colin B. Burke. *Information and Intrigue: From Index Cards to Dewey Decimals to Alger Hiss.* (History and Foundations of Information Science.) xii + 370 pp., illus., bibl., index. Cambridge, Mass./London: MIT Press, 2014. \$45 (cloth).

Information and Intrigue is the portrait of a Quaker family named Field. It explores two themes: first, the scientific business project set up by Herbert Field, the Concilium Bibliographicum (ca. 1890–1940), an international zoological record based on a numeric, subject-oriented classification system. Second, it covers the intriguing life of his Communist son Noel Field. Colin Burke deals with the Fields' “contributions [to] and mistakes [in]” information science, their business travels, and their extended stays in and secret missions to Europe (p. xii). He intertwines this narrative with that of the changing academic culture in the United States around the end of the nineteenth century. In doing so, Burke ends where many other studies begin, especially those that emphasize the impact of World War II and “Big Science” on the development of information science and information-handling machines in the first years of the Cold War.

Burke's account of the family's accomplishments, both in the collation of scientific information and in information science, begins in Brooklyn. He introduces Herbert Field (1868–1921), focusing first on his education and formative years and then on his later capabilities in terms of academic and diplomatic