the chapters on the Museum of Comparative Zoology and Canadian ornithology, the essays leave broader issues of social and cultural analysis to future researchers. Still, within some of the essays it is possible to discern broader subthemes, such as the continuing importance of amateur contributions to ornithology, class and gender issues, and scientific practice. Any or all of these themes could be greatly expanded upon.

Many of the major actors featured in Contributions will be familiar to students of the history of natural history and organismal biology in the United States: Alexander Wilson, C. Hart Merriam, Spencer Fullerton Baird, William Brewster, Ernst Mayr, and so on. Other lesser-known figures who made important contributions to American bird study include William Rowan, Arthur A. Allen, and Witmer Stone. The essays in Contributions are enhanced by many photographs of both early and recent ornithologists (many shown with notable bird species or with their shotguns for collecting). These images suggest considerable continuity between the distant and recent past in the practice of field biology.

One of the primary objectives in ornithology during the eighteenth and nineteenth centuries was the development of large research collections of the birds of North America and later of other continents, but as ornithology developed through the twentieth century (and many collections exceeded several hundred thousand study skins), interests broadened to bird sound recordings and the sequencing of mitochondrial DNA.

Contributions to the History of North American Ornithology demonstrates both that ornithology has a long tradition in North America and that birds continue to be an important focus of scientific research. Moreover, studies of knowledge-based disciplines like ornithology offer valuable insights into the cultures and practices of organismal biology and natural history from early America to the present. Although the first volume was limited to just sixteen chapters, authors have been commissioned for a second volume that will cover a dozen or so additional institutions, including, among others, Louisiana State University, Hawk Mountain Sanctuary, and Archbold Biological Station.

Frederick R. Davis


This ambitious book is the first of a two-part study of the cultural transformation science experienced during the sixteenth and seventeenth centuries.
In this first volume, James Bono explores changes in the hermeneutics of Western natural philosophy and medicine in the period between the mid-fifteenth century and 1700. The second part will focus more on the “local construction of intermeshing networks in their fashioning of culture and sociopolitical polity of science in mid-seventeenth-century England” (p. 16).

Bono rejects the notion of a sharp division between premodern European “bookish culture,” which endeavored to fathom divine truth by submitting nature and the Scriptures to complex exegetical practices, and modern “scientific culture,” which distanced itself from such practices. According to Bono, the new science retained the central metaphor of the West: the trope of the Book (the Bible and the Book of Nature) and the mythical notion of God’s authorizing Word, which gave the trope its meaning. The author coins the term “de-in-scriptive hermeneutics” to refer to the newly arising scientific practice, thereby highlighting “the narrative foundations and linguistic assumptions legitimating” the descriptive approach to nature (p. 273).

Scientific culture did gradually change as it adapted formative “master narratives” (p. 53), specifically biblical narratives that concerned themselves with the origins and nature of language. Bono shows that variations in the interpretations of the Book of Nature depended on the narrative interpretations of the relationship between the “Word of God” and the “languages of man” and the question of whether it was possible to penetrate God’s creative Word through defective human languages. Constructions of this relationship were closely tied up with the idea of Adamic language before the Fall and its role in what is “perhaps the ‘master narrative’ of Western culture: the biblical narrative of creation, innocence and temptation, the Fall, spiritual and social degeneration, and, finally, both the prospect and promise of salvation” (pp. 55–56). According to Bono, rereadings of these biblical narratives were “of crucial strategic importance in establishing the narrative authority of medical, occult, philosophical, and scientific discourses and texts in their claims to read the Book of Nature” (p. 72). Such rereadings altered the conception of prelapsarian language as well as the possibility of recovering this language and with it knowledge of God’s creation.

While Bono emphasizes the importance of contexts in science studies, he argues that rather than treating them as stable and universal, we should consider them as texts. Language provides a focus for his historical analysis of scientific practice that exposes “the ‘textual’ paths and processes linking the practices of science and scientific theory to sociocultural ‘contexts.’” It becomes “the agent” and simultaneously “the site of scientific change” in that the history of scientific practice is here coupled with the history of language theories developing in the same period (p. 9).