
How and when did chemistry emerge as a distinct field, its practitioners clearly identifiable among the scores of alchemists, distillers, physicians, apothecaries, metalworkers and magicians also populating the marketplace for natural knowledge in early modern Europe? To answer this question, historians have long emphasized the emergence of early modern chemical textbooks, citing the German physician, alchemist, and schoolmaster Andreas Libavius's monumental *Alchemia* (1597; second, emended edition 1606) as the first in a genre that would flourish in the seventeenth century. Bruce T. Moran shares this conventional assessment of Libavius's importance in the history of chemistry, but not for the usual reasons. His real achievement, Moran argues, was not the *Alchemia*, but rather his leading role in “an intellectual dispute, more like a cultural punch-up” (1) that helped define the intellectual, social, and linguistic parameters of “proper” *chymia* in the late sixteenth and early seventeenth centuries. As important as new didactic texts like the *Alchemia* were, such textbooks could only have meaning and relevance in the wake of a dispute “involv[ing] acts of destruction in which tangled claims and competing views of nature were slashed back and new categories proclaimed” (3). “Separating chemical cultures with polemical fire” was not only Libavius’s specialty, as Moran amply demonstrates; it was also the key to chemistry’s rise as an independent subject in the seventeenth century.

Libavius’s propensity for polemic will already be well known to those familiar with Owen Hannaway’s *The Chemists and the Word: The Didactic Origins of Chemistry* (1975), which used Libavius’s quarrel with Oswald Croll to highlight how Libavius distanced chemistry from what Hannaway described as the mystical, religious outlook of Croll and his fellow Paracelsians. As Moran demonstrates, however, this well-known dispute was just the tip of the iceberg. Libavius was a prolific and polemical writer, repeatedly engaging other alchemists and chymists, theologians, physicians, and philosophers in debates about everything from Ramism to vipers, and yet scholars have left the majority of his writings unstudied. This book’s major contribution, therefore, is its meticulous exploration of Libavius’s vast corpus of polemical letters, treatises, and commentaries. The payoff of examining these overlooked sources is not only the first comprehensive study of Libavius’s scholarly output, but also a new assessment of his contribution to the history of chemistry. As Moran argues convincingly, Libavius’s importance rests not on the *Alchemia* but on his relentless rhetorical efforts to clearly differentiate *chymia* from the mixture of practical and theoretical alchemy, philosophy, and medicine whence it emerged.

In explicating Libavius’s positions on such a wide range of issues, Moran makes it clear that it would be far too simple to define the acerbic polemicist in simple terms as father of modern chemistry and foe of magic and Paracelsianism. Indeed, the example of Libavius repeatedly confounds and complicates a number of truisms in the history of science and medicine. He frequently combined categories that we imagine...
to be separate, if not in conflict, mixing, for example, the humanist erudition and Aristotelian philosophy of the schools with the alchemical practices and artisanal know-how of the workshop. Libavius also made surprising distinctions where we imagine coherence. For example, he argued against the weapon salve (a medicine famously applied to the weapon, rather than the wound), while accepting the probability that a corpse might bleed in the presence of its murderer. We might imagine that anyone acknowledging the latter would admit the former as well, since both purportedly involved a magical link between two objects at a distance; yet, for Libavius, the weapon salve operated with the help of demonic powers and was thus unacceptable, while the phenomenon of bleeding cadavers seemed likely to be the result of hidden, but still natural causes. This ability to simultaneously destroy old associations while forging new ones is what, in Moran’s view, allowed this prolific innovator to clear a space for what would become chemistry. Libavius championed alchemists’ artisanal practices and used his formidable knowledge of Latin, logic, and Aristotelian philosophy to submit alchemical theory to the rigors of academic argument and thereby establish its intellectual respectability. Equally importantly, he used his “polemical fire” to separate Paracelsian philosophy, which he saw as a dangerously promiscuous blend of secular, magical, and divine, from the Paracelsians’ use of chemical medicines, which he praised and wanted to claim for chymia. In forging these careful distinctions and insisting that “the ‘art’ of chymia was the child of alchemy and Aristotle, not of Paracelsus” (293), Moran’s Libavius set the stage for the emergence of chemistry.

There is another layer to this book, however. Moran wants to explain not just Libavius’s positions on a range of intellectual issues, but also what motivated him to take such positions in the first place. As he puts it, “Libavius’s relevance to the history of science and medicine is… not just a matter of what he thought. It is also a matter of how he lived, and of the places (social, moral, as well as intellectual) where he chose to take a stand” (5). Libavius did, of course, take on numerous opponents in defense of the “true” chymia, but Moran’s central point is that Libavius was just as likely to enter into debates about religion, language, morality, and logic as he was about alchemy and medicine, because, importantly, these issues were for him all connected intimately. Libavius’s community was “Lutheran, male, educated in the logic of Aristotle and Ramus, trained in disputation, and, above all, accomplished in the reading and comparison of the written word” (83), and he was willing to do verbal battle with anyone who threatened that world. Thus, as a schoolmaster, he could not tolerate the sloppy logic that, in his view, characterized so many alchemical texts. As a pious Lutheran, he believed that spiritual knowledge should only come from scripture, a position that led him to reject the Paracelsians’ valorization of revelation as path to knowledge. In Moran’s hands, therefore, Libavius’s many quarrels become a historical map not just of the contours of alchemy and chemistry, but also of the social and cultural terrain of the sixteenth and early seventeenth century much more broadly. As Moran puts it, “Reading outside the strictly chemical context reminds us that in the early modern world the study of nature was closely connected to cultural considerations, and that by studying one we are invariably studying the other” (5-6).