
Andreas Libavius and the Transformation of Alchemy: Separating Chemical Cultures with Polemical Fire by Bruce T. Moran

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Andreas Libavius (or Liebau, *ca* 1550–1616) was an enormously learned, prolific and, in his day, respected writer whose supposedly pivotal role in the history of chymistry has been asserted a good deal more often than it has been analyzed.¹ Having studied philosophy, history, and medicine at Wittenberg and Jena, Libavius became a city physician and school inspector at Rotenburg ob der Tauber for a time, and gained something of a reputation for his Latin poetry. Most of his career, however, was spent as teacher or headmaster at assorted secondary schools, inculcating logic and rhetoric into teenage boys. The interests that he pursued in his spare time were encyclopedic, encompassing theology, philosophy, literature, logic, and medicine; but his primary concern and the subject of by far the greatest number of his published works—works dryly described by Hugh Trevor-Roper as being ‘of Teutonic length, depth and weight’ [2006, 86]—was the tantalizingly ill-defined topic that Libavius himself generally referred to as ‘alchemy’.

Progressivist historians of the last century routinely cited Libavius as one of the first to distinguish, or at least to begin to distinguish, between superstitious, fanciful ‘alchemy’ and rational, experimental ‘chemistry’.² It is now, however, becoming increasingly accepted that

¹ Newman and Principe [2001] argue persuasively for the resurrection of the early modern term ‘chymistry’ to refer to any study of the nature of matter in that the period, without distinguishing anachronistically between ‘chemistry’ and ‘alchemy’.

² See for instance the key role ascribed to Libavius in chapter 13, ‘From Alchemy to Chemistry’, of Taylor 1949, and the remarks of Buntz 1970, 194. I do not mean to denigrate either author, merely to illustrate the intellectual climate of the time.

if at least some writers of the period did draw semantic distinctions between the terms ‘*chymia*’ and ‘*alchymia*’ and their respective cognates, those distinctions have little if any relation to the modern one between chemistry and alchemy. Bruce Moran [5] is not (and does not pretend to be) the first to point out the irony that the works in which Libavius supposedly helped to differentiate these terms typically bore titles such as *Alchemia* [1597] and *Alchymia triumphans* [1607].

In fact, as Moran makes plain in this study, Libavius was a stout defender of many of the supposedly ‘superstitious’ beliefs of the ‘alchemists’, including that in the transmutation of metals (which he like many others, including Isaac Newton a century later, saw as a natural process analogous to the transmutation of a caterpillar into a butterfly [61]), the efficacy of viper wine (in which the venom of poisonous snakes was purportedly transformed into a medicine or cordial) [263], and the propensity of murdered bodies to bleed spontaneously in the presence of the murderer due to the action of rather speculatively defined ‘occult forces’ [272]. Libavius became a darling of progressivist historians not so much for what he believed as for what he rejected, and in particular for his vituperative denunciations of Paracelsus and his disciples.

Already by the 18th century, Paracelsus (1493–1541) had come to be seen by many Enlightenment thinkers as the archetypal alchemical charlatan, with his advocacy of folk medicine, his pretentious neologisms, his contempt for traditional learning, and his guilt by association with radical mystic Protestantism. If Libavius hated Paracelsus, the reasoning seems to have been, he must have been on the side of reason, truth, and light. The reclamation of Paracelsus towards the end of the 19th century as a ‘symbol of the German *Urgeist*’ [298] served if anything to endorse the view of Libavius as (for better or worse) a proto-rationalist.³

But as a number of recent studies have argued, an over-emphasis on the individual role and influence of Paracelsus has long had an invidious effect on the history of chymistry. As Moran pertinently asks, ‘if we were not looking for signs of Paracelsian life in texts deemed to have been written by “Paracelsians”, what might we otherwise see?’ [293]. While it would be absurd to deny that Paracelsus (or

³ See pages 296–298 for a very interesting account of the sea change in Paracelsus’ reputation between the late 19th and mid-20th century.

the works published in his name, a great number of which were spurious) had an enormous impact on 16th- and 17th-century chymistry, it is important to bear in mind that many other traditions co-existed with the Paracelsian, and that there was no simplistic dichotomy between pro- and anti-Paracelsian camps in the minds of most early modern practitioners. That perceived dichotomy is very much a product of 19th- and 20th-century historiography; and, as the work of William Newman and Lawrence Principe in particular has shown, it has had the particularly unfortunate side-effect of encouraging scholars to view even pre-Paracelsian chymistry through Paracelsus-tinted glasses, looking in medieval Arabic and European chymistry for supposed foreshadowings of Paracelsian mysticism and religious radicalism.⁴

One enormous merit of Moran's book is that rather than focus (as almost all previous commentators have) on Libavius' best-known work, *Alchemia*, Moran has rather heroically taken it upon himself to read and summarize the rest of his subject's dauntingly copious output too—together with the even more profuse jungle of contemporary chymical literature that spurred Libavius into print, responded against him, or (not infrequently) did both those things at once. This enables Moran to show that Libavius was by no means as consistently or unequivocally anti-Paracelsian as he is usually painted. When he was at full anti-Paracelsian throttle, Libavius spared no jibes or insults to drive his point home. But like most pugnacious polemicists of his or any other time, he was apt to shift his ideological ground in the course of squaring up to a given opponent. Defending the Paracelsian-inclined French chymist Joseph Dusesne (Quercetanus) against the censures of the Paris Medical Faculty—who had rashly, and without consulting him, cited Libavius as a champion of their (Galenic, Aristotelian, anti-Paracelsian) camp—Libavius affirmed that 'one had to recognize that Paracelsus sometimes spoke the truth and that Hippocrates had propounded not a few things that were false' [192].⁵

Later in the 20th century, as the pioneering studies of F. S. Taylor [1949], Walter Pagel [1958], and Charles Webster [1982] began

⁴ See especially pages 293, 296; and Newman and Principe 2001.

⁵ Paraphrasing Libavius 1607, 12–13.

to rehabilitate Paracelsus and the ‘spagyrist’⁶ once again, this time as genuine if sometimes misguided precursors of modern chemistry, a new false dichotomy arose, this time between ‘traditional’ Aristotelians and Galenists and ‘modern’ spagyrist and chymists, the latter becoming the vanguard of the ‘scientific revolution’. A figure such as Francis Bacon, who was as dismissive of Aristotle (or at least of the stranglehold of self-styled Aristotelians on the academic life of his day) as he was of Paracelsus, could be deemed ‘progressive’ by either analysis. But a figure such as Libavius, who revered Aristotle even more than he disliked Paracelsus, yet also vigorously upheld the validity of many ‘spagyric’ doctrines, illustrates how misguided it is to attempt to reduce the thought of any period into self-contained and mutually exclusive camps.

What really worried Libavius about the rise of the Paracelsians was, arguably, not so much their theories as their promotion of practical expertise above book-learning, the suggestion that someone with little or no training in language or logic could become, merely by dint of a certain practical or technical proficiency, a better chymist than the likes of Libavius himself. That said, it would be misleading to portray him as an intellectual snob: he had a real appreciation of the contributions made to chymistry and medicine by apothecaries, surgeons, and other practitioners from the lower echelons of society. When repudiating the claims of Georg am Wald to personal, quasi-religious chymical revelation, for instance, he stressed the importance of practical laboratory experience and empirical testing of such claims [129]. The question of Libavius’ own practical laboratory skill and experience is, as Moran frankly admits, vexed and probably unanswerable. Though some of his writings seem to imply that his chymical cogitations were based on personal empirical practice [129, 237–238], it would be rash to take them at face value. As Moran puts it, ‘Libavius himself may have proclaimed these duties more than he may have performed them’ [301].

⁶ ‘Spagyria’ is a term, possibly coined by Paracelsus himself, meaning (debatably) ‘the art of separating the pure from the impure’. Moran [201, 204 and 295] offers a lively account of contemporary debate about the precise meaning (and spelling) of the word. Various chymical practitioners—not all of them Paracelsians—described themselves as spagyrist.

The ‘transformation of alchemy’ with which Moran associates Libavius was perhaps less a transformation of the subject itself than a transformation of its perceived status. Libavius sought to give chymistry credibility as an academic discipline. By this means he hoped to rid it of the taint of anti-Aristotelian subversiveness, while at the same time excluding the genuinely anti-Aristotelian subversives and rude mechanicals who had hijacked it in an attempt to disguise their ignorance of ancient learning as revolutionary championship of the new.

And it was, in fact, during Libavius’ lifetime that the world’s first university chair of chymistry (or, more precisely, *chymiatría*, that is, chymical medicine) was established—at Marburg in 1609, by appointment of Landgrave Moritz of Hesse-Kassel. The first incumbent, however, was not Libavius (who would surely have relished the post) but Johann Hartman, a promoter of Paracelsus and of Paracelsus’ Danish disciple Petrus Severinus. Moran suggests that the date of Hartman’s inauguration may have been ‘one of the worst days on Libavius’s intellectual calendar’ [225]. Though the two had earlier been on friendly terms, Libavius would subsequently inform Hartman (in print) that ‘yours is a mental darkness stitched together from falsehoods . . . new and old wisdom alike are a disgrace to you because they will not be gulped down with your Paracelsian muck’ [233].⁷

Stepped as he was in the tradition of academic disputation, Libavius seems to have relished debate for its own sake more than he cared which side of any argument was objectively right. As Moran remarks in one of the engagingly colloquial asides that periodically lighten the tone of his dense study, Libavius’ uncompromising and often *ad hominem* polemical style is now apt to make him seem ‘more like an off-putting sour-puss than a compelling or attractive historical figure’ [292–293]. This ability to argue either side of a case was precisely what gained Libavius such credit as an academic virtuoso in his own day. In ours, it is what makes him so hard to pin down.

He was, it seems to me, a figure who did not so much effect change as reflect it. I remain unconvinced that Libavius himself actually had much to do with a transformation of alchemy, however one defines ‘alchemy’ and whether one sees that transformation as

⁷ Translating Libavius 1613–1615b, 93–95.

being from a purely speculative subject into a scientific one, from an artisanal discipline into an academic one, or from a practical study into a primarily textual one. William Newman has affirmed that ‘in regard to the art-nature debate... most of [Libavius’] points had already been made by the alchemists of the thirteenth and fourteenth century’ [2004, 112]. That does not in itself make Libavius any less interesting a character, but it does rather undermine the apparent premise of this study.

What Moran does demonstrate, repeatedly and persuasively, is that for Libavius himself the issue in question was first and foremost a textual one: ‘what was relevant for Libavius were texts’—texts read by a

Lutheran, male [community] 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]

This is not, of course, to suggest that texts were not important to hard-line Paracelsians and dyed-in-the-wool Galenists too. But for devotees of both those camps, texts were a means to an end: for Libavius, they were ends in themselves. It becomes abundantly clear that for Libavius, whatever he may sometimes have claimed to the contrary, a clever pun, a well-turned rhetorical figure or a learned Classical allusion counted for more than any amount of experimental data when it came to lending credibility to a discourse. And if he spotted a flaw in someone’s Latin grammar, their testimony could immediately be ruled out of court, irrespective of any mere vulgar facts that might be adduced in their favour [18].

Indeed, this seems to me the point most usefully illustrated by this study. As Moran himself observes, Libavius was in many respects a traditionalist, a humanist polymath of the old school who ‘might well have been represented in the notebooks of his students as a *Schulfuchs*’ (literally ‘school-fox’, i.e., an old-fashioned scholastic stick-in-the-mud) [13]. Yet the chief objects of his traditional scholarly analyses were the most up-to-date and controversial texts on the rapidly evolving discipline of *chymia*. Surely, what this demonstrates is not that Libavius himself was a paradoxical or transitional figure, but rather that modern historiography is still overly inclined to cram early modern thinkers into rough-hewn pigeonholes labelled

‘traditional’ and ‘progressive’, ‘Aristotelian’, ‘Paracelsian’, and the like—pigeonholes that reveal more about the 21st-century analysis of early modern thought than about early modern thought itself.

Moran’s commendable stress on language, semantics, and textuality, however, makes it seem particularly perverse that he has—or his editors have—chosen to present the copious source quotes only in English translation, except in a few cases where Moran evidently feels that his source is so punning or allusive that he needs to justify his translation with a bracketed (and usually partial) source quote. It would presumably be argued that to include the full original versions (generally Latin, sometimes German) of all the source quotes given would at least double the length of the already extensive endnotes. Yet when language itself is so central to the theme and argument of an academic study, the extra cost and labour would surely have been worthwhile.

The English translations and paraphrases seem in general to run smoothly and to convey the sense persuasively. Moran’s own command of Latin and German is not in question. But neutral and objectively ‘correct’ translation of any natural-language discourse is simply not possible, especially not in the case of puns, allusions, deliberate ambiguities, and passages where the whole point at issue is the precise meaning of a given word in a given language. There is, for instance, a very interesting account on p. 170 of Israel Harvet’s discussion of various definitions of ‘alchemy’—but since Harvet’s arguments are presented only as English paraphrases of a Latin original, it is impossible (without consulting the original) to be certain exactly which word Harvet was arguing about the definition of. I am not suggesting that such passages should not be translated at all, but there will be many points at which readers competent in Latin and/or German might wish to draw their own conclusions about the intended sense. There are also a few, admittedly rare, instances of translational infelicities where it really is almost impossible to discern the intended meaning without a source text for guidance: for instance (Moran is here paraphrasing Libavius),

Some use the word *tingere* . . . when a virtue is passed from one thing to another or where an effective medicine is pre-

pared in a way that the whole nature is changed and altered.
[264–265]⁸

My guess is that this should read ‘... in *such* a way that ...’, but it would be very reassuring to have the source to hand for confirmation.

The inquiry also suffers from a failure to define its own terms. It contains much interesting discussion of contemporary semantic distinctions, but nowhere does Moran fully explain how he himself distinguishes between the terms ‘chymistry’, ‘*alchymia*’, ‘chemistry’ and ‘alchemy’ (though he uses all four), let alone what exactly he means by statements such as ‘chymistry followed the procedures of traditional alchemy’ [43].

This is a valuable and well-written summary of Libavius’ life, work, and thought; but at several points it conveys a sense of dutiful plodding, rather reminiscent of the quasi-encyclopedic studies of Lynn Thorndike [1923–1958] and J. R. Partington [1961–1970]—works that demonstrated their authors’ ability to read huge numbers of arcane chymical texts in various languages and distill their content into English summaries, but offered little in the way of synthesis. The concluding chapter [291–301] makes a brave attempt at tying together the many loose ends of the preceding narrative, and argues cogently for the importance of figures such as Libavius to a contextualized understanding of early modern thought. It also features some wittily barbed summaries-cum-parodies of the sort of 20th-century historiography that sidelined such figures:

Alchemy was interesting when Isaac Newton did it [... but] by itself, alchemy still bore the reputation given it by the Enlightenment. It stank of superstition. [298]

However, while Moran is very good at pinpointing the things Libavius should not be dismissed as, he provides little clear formulation of what he was.

That said, this is a work of solid and useful scholarship that throws up many interesting and challenging ideas. It is also, by a considerable margin, the fullest account to date in any language of

⁸ Translating Libavius 1613–1615a, 10.

Libavius' personal history and broader influence. 'Off-putting sourpuss' or not, Libavius was undeniably a major player in the intellectual world of his day; and this study is an important step towards a more detailed and nuanced assessment of his significance.

BIBLIOGRAPHY

- Buntz, H. 1970. 'Die europäische Alchimie vom 13. bis zum 18. Jahrhundert'. Pp. 119–210 in E. Ploss *et alii* edd. *Alchimia. Ideologie und Technologie*. Munich.
- Libavius, A. 1597. *Alchemia*. Frankfurt am Main.
- 1607. *Alchymia triumphans*. Frankfurt am Main.
- 1613–1615a. 'De inventione magisterii qualitatis occultae seu formalis'. In *Syntagmatis selectorum undiquaque et perspicue traditorum alchymiae arcanorum*. 2 vols. Frankfurt am Main.
- 1613–1615b. 'De philosophia vivente'. In *Syntagmatis selectorum undiquaque et perspicue traditorum alchymiae arcanorum*. 2 vols. Frankfurt am Main.
- Newman, W. R. 2004. *Promethean Ambitions: Alchemy and the Quest to Perfect Nature*. Chicago/London.
- Newman, W. R. and Principe, L. F. 2001. 'Some Problems with the Historiography of Alchemy'. Pp. 385–434 in W. R. Newman and A. Grafton edd. *Secrets of Nature: Astrology and Alchemy in Early Modern Europe*. Cambridge.
- Pagel, W. 1958. *Paracelsus: An Introduction to Philosophical Medicine in the Era of the Renaissance*. Basel.
- Partington, J. R. 1961–1970. *A History of Chemistry*. 4 vols. London.
- Taylor, F. S. 1949. *The Alchemists*. New York.
- Thorndike, L. 1923–1958. *A History of Magic and Experimental Science*. 8 vols. New York.
- Trevor-Roper, H. 2006. *Europe's Physician: The Various Life of Sir Theodore de Mayerne*. New Haven/London.
- Webster, C. 1982. *From Paracelsus to Newton: Magic and the Making of Modern Science*. Cambridge.