Chymists *and* Chymistry

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Studies in the History of Alchemy and Early Modern Chemistry

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Contents

Introduction

Lawrence M. Principe

Alchemy is now a hot topic. Scholarly discussions have passed beyond whether or not alchemy was a serious part of early modern science, and now deal increasingly deeply with the specifics of alchemy's content, contributions, practice, and meaning. This development comes as quite a surprise to some more senior historians of the subject who in the past may often have felt like *voces clamantes in deserto*. Confessing a primary interest in alchemy was not so long ago normally done rather tentatively, and was not infrequently met with slightly furrowed brows or confident counter-declarations about the presumed (lack of) content and (ill) character of alchemy. Yet today alchemy (or better, chymistry) has become a topic of intense interest and activity by a host of scholars hailing from a variety of disciplines: history of science and medicine of course, but also history of art, archeology, cultural studies, material culture studies, literature, gender studies, and so on. While thirty or forty years ago the study of our subject might have been seen as indicating a potentially questionable individual—or at least one saddled with a certain lack of judgment—today a dismissive attitude towards the importance and significant historical impact of chymistry brands the speaker as either outdated or simply outside the ambit of current scholarship.

In 1989, as the study of alchemy was heating up, an international conference on alchemy was organized and hosted by the University of Groningen to celebrate the 375th anniversary of its founding.[1] The three-day conference was attended by approximately sixty participants, and allowed otherwise widely geographically-separated scholars to meet one another and to discuss their work. The collegiality and collaborations that were begun during those days developed and bore fruit over the next decade, and continue to do so down to this day. Now, although the following seventeen years witnessed several

[1]Proceedings of the Groningen Conference were published as *Alchemy Revisited*, ed. Z. R. W. M. van Martels (Leiden: Brill, 1990).

smaller-scale conferences on the subject, I felt that it was time to convene another major international conference to take stock of recent developments and trends, to look towards the future of our subdiscipline, and to welcome a new rising and promising generation of scholars to the chymical ranks. The realization of this dream was made possible by the Chemical Heritage Foundation. The CHF provided not only funding, but also a venue in its outstanding facility in central Philadelphia and its enormously effective and experienced staff to manage the logistical, administrative, and technical support required for so substantial an undertaking. The Richard Lounsbery Foundation and the National Science Foundation joined the project with their own generous contributions, allowing for an even richer program.

The Chemical Heritage Foundation was the perfect site and sponsor for the conference since that institution (now past its 25th year of operations) has recently become a leading locus for the study of early modern chymistry. In early 2004, CHF purchased the Roy G. Neville Historical Chemical Library—an extraordinary collection of over five thousand titles dealing with all aspects of chemistry and closely related fields, with particular richness in works dating from the seventeenth and eighteenth centuries. The conference therefore provided an effective way of celebrating the accession of this treasure and introducing it as a resource for scholars.[2] The Neville Collection joined other important holdings already at CHF: approximately one thousand rare volumes from the former Chemists' Club library and a further 90,000 printed items (books, scarce periodicals and trade publications, etc.) and thousands of artifacts and instruments. Additionally, since 2000, the CHF has also housed the Eddleman and Fisher collections of alchemical art, together comprising nearly one hundred paintings of chymists, physicians, and related workers busy in their laboratories or studies, and over two hundred prints.[3]

On 19 July 2006, a veritable *turba philosophorum* gathered at CHF's door in Philadelphia—over one hundred participants from seventeen countries. Some had been together in Groningen years earlier, some were attending an international conference for the first time. The conference began harmoniously with a concert of alchemically-themed music performed by the early music ensemble Arcanum. Among works by Henry Purcell, Jacques Hotteterre, and other masters of the Baroque, the program included three of the obligatory canons from Michael Maier's *Atalanta fugiens*, Georg Friedrich Handel's incidental music to a revival of Ben Jonson's *The Alchemist*, and what was surely the first performance in over three hundred years of outstanding music composed for the 1694 Théâtre italien play *Les Souffleurs, ou La pierre*

[2]For more information, see Lawrence M. Principe, "A New History of Chemistry Library at the Chemical Heritage Foundation," *Ambix* 53, (2006):77–82 or visit the library catalogue at the CHF website: www.chemheritage.org

[3]For an introduction to the collections, see Lawrence M. Principe and Lloyd DeWitt, *Transmutations: Alchemy in Art* (Philadelphia: Chemical Heritage Foundation, 2002).

philosophale d'Arlequin. The conference also provided a fitting opportunity to honor Allen G. Debus, pioneer in the field; Allen and Bruni Debus were the conference's guests of honor.

Over the next three days, thirty-four papers were presented in plenary, parallel, and poster sessions. Twenty-two of the presented papers appear in this volume. The range of specific topics, theses, and approaches they embrace powerfully attests to the current vitality of the field. To attempt to summarize or even to categorize them here would prove both superfluous and impossible—if not actually insulting—for one could not do justice in a few words to their complexity, diversity, and sophistication. *Lege et invenies*.

Two other features of the conference deserve mention. For the duration of the conference, participants could explore a display of greatly enlarged images of some of the most beautiful and intriguing engravings from rare volumes in the Neville collection, thanks to an installation by CHF's curator Marjorie Gapp.[4] Participants marvelled at how this presentation of works by Heinrich Khunrath, Basil Valentine, Robert Fludd, and others provoked new understandings of the images and their composition, as well as increased appreciation for their iconography and artistic execution. Scholarly points could often be heard being learnedly debated in front of the images. A free afternoon also allowed participants to explore and make use of the Neville Collection.

At the mid-point of the conference, a round table discussion was held to assess the state of the field and to explore topics, lines of inquiry, and strategies for future work. After my brief introduction and words of orientation, Pamela Smith presented an insightful opening statement that touched upon several themes that were subsequently underscored throughout the discussion by other participants. A common theme was the desire to move towards a greater integration of the content of the history of chymistry with other disciplines. On the most local scale, the new findings within the history of chymistry ought to be fed into more traditional areas of the history of science—for example, into the wider narratives of the Scientific Revolution, or of the history of experiment—which still give rather short shrift to the crucial and unique role played by chymistry. There was also a call to use the history of chymistry as a common ground upon which hitherto-divided disciplines could meet. For example, chymistry transcends the borders that commonly divide the history of science from the histories of technology and of medicine. In the early modern period, chymical practices were common to investigations of the natural world, to technical, artisanal, and productive operations, and to medical and pharmacological applications. How might we use the vantage point of our subdiscipline to generate a broader, more coherent historical

[4]This exhibit is captured in the publication *The Whole of Nature and the Mirror of Art: Images of Alchemy from the Roy G. Neville Historical Chemical Library* (Philadelphia: Chemical Heritage Foundation, 2006).

understanding across these areas and thus provide a more inclusive and unified view of early modern culture and the place of chymistry within it?

In a wider view, the broad dispersion of chymical thought into extremely diverse areas of human activity necessitates both a high degree of interdisciplinary and a willingness to expand the scope of our analyses and studies. Conference participants cited several avenues for further work. For example, approaches to the intricate issues of chymistry and theology could be furthered by investigations of the confessional commitments of various chymists. Links between chymistry and commerce, chymistry and literature, chymistry and the fine arts could all be further investigated. Indeed the study of chymistry provides a key locus for revealing what the investigation of nature could actually mean and promise to a variety of thinkers and workers in the early modern period, as well as for displaying the history of attitudes towards nature and natural knowledge.

While advocating these expansive strategies for future work, participants also stressed the continuing need for close textual studies of the chymical corpus. There was consensus on the urgency of sending forth fresh explorers and chroniclers into the many areas that remain incompletely charted. Arabic alchemy in particular was high on everyone's list of important topics about which we need to know a great deal more. The Latin Middle Ages as well would benefit from further exploration, and solid textual, biographic, bibliographic, and attribution studies—extending into the Renaissance and even after—remain desiderata for laying solid foundations for the further understanding of the scope of alchemical thought. In this regard, I note with particular personal satisfaction that while is it common enough (and too often warranted enough) to bemoan the erosion of classical textual and linguistic abilities within the history of science community in recent years, such weaknesses were scarcely to be seen at the conference, where presenters displayed their virtuosity with Latin, Greek, Arabic, and Hebrew as well with a host of modern languages, and discussed such things as *stemma*, technical content, and philosophical and exegetical intricacies with the care and seriousness they deserve.

Finally, the issue of audience for our writings was raised. The substantial press coverage garnered by the conference suggests that there are willing ears beyond the hedges of the Academy's garden. We have much to say to them in regard to the development and nature of science and scientific practice generally and the heritage and contributions of chymistry in particular. If the results of our studies are to be adequately transmitted to the wider public, then it is incumbent upon us to do our part, rather than leaving it to hands that are likely to drop or garble a great deal in the transfer. Professional chemists in attendance expressed the hope that historians might speak more directly to their community; perhaps here is one way in which the history of science can begin to fulfill its promise of acting as a link between the sciences and the

humanities. The Chemical Heritage Foundation can certainly play a facilitating role in this endeavor.

Thus, all in all, the round table discussion, as well as private conversations and the conference as a whole, revealed a rosy state of health for the history of chymistry and a bright and engaging future. (Indeed, it was only a few days after the conclusion of the CHF conference that a formal announcement was made of the *next* international conference on alchemy and chymistry, scheduled to take place in Spain in 2008.) Many paths are currently being followed, and many more remain to be explored. We can all look forward expectantly to new and valuable results from the work now in the hands of this conference's participants and those of others.