

## Book Reviews

helped to qualify this, because in order to win Moritz's favour it was not enough to claim special revelation; as other plausible obfuscation failed, one had to achieve some practical credibility. The quarrel between Andreas Libavius and Johannes Hartmann, the subject of a separate monograph by Moran, also assisted in the process. As Moritz's appointee to the first chair of Paracelsian chemistry, Hartmann was expected to be an expositor and apologist of the Cassel court philosophy. His inaugural address as *professor publicus chymiatricae* at Marburg, published in 1613, responded to an unnamed assailant identified by Moran as Libavius. In turn Libavius branded Hartmann as a dreamer who ought never to have forsaken mathematics for chemistry; hence the hidden agenda of Hartmann's laboratory practice, as Moran explains it, to discredit Libavius' pronouncements by exposing his inexperience.

Hartmann's laboratory notebooks, preserved at Erlangen, enable Moran to reconstruct in some detail the two courses offered at Marburg in 1615–16. Although the students were treated as initiates, the "secrets" that were passed on to them were not mystical but entirely empirical. The chemical college is thus interpreted as a significant development in the stabilizing of Paracelsian doctrine by subjecting the astral explanations of disease to the discipline of pedagogy. Precisely because *chymiatría* functioned as a polemical and political strategy, it sought a middle way between institutional *auctoritas* and hermetic subjectivity. In glossing one dimension of the Libavius controversy, therefore, Moran's monograph on Hartmann forms a substantial footnote to Owen Hannaway's *The chemists and the word*.

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LUIS GARCIA BALLESTER, MICHAEL R. McVAUGH, and AGUSTIN RUBIO VELA, *Medical licensing and learning in fourteenth-century Valencia*, Transactions of the American Philosophical Society 79, pt. 6, Philadelphia, American Philosophical Society, 1989, 8vo, pp. vii, 128, \$15.00 (paperback).

In this study historians of medieval medicine begin to reap the benefits of McVaugh's, Garcia Ballester's and Rubio Vela's exhaustive investigations into the extensive municipal and royal archives of the Kingdom of Valencia. And what a mine of new information these archives are proving to be! In essence, this slim volume confines itself to a study of the Valencian medical licences that the authors have identified in the archives. Thirty-one documents relating to the examination and supervision of medical practitioners have been edited, and are presented here with accompanying translations in a substantial second appendix. On the basis of this evidence, the authors seek to chart the development of medical regulations in Valencia from the late thirteenth to the early fifteenth century.

In a thorough study of the documents, the authors examine the relationship between the mechanisms of medical regulation, the institutionalization of medical teaching, and the new requirement for practitioners to be qualified in "the principles of medical science" and to be possessed of "verified experience". In exploring this relationship the authors reveal how medical regulations became more detailed and more comprehensive with the addition of examinations, specified levels of training, and municipal tribunals of professional examiners. Their account of the procedure followed in Valencia for granting licences to practise reveals how, in both form and content, these examinations derived from university classroom exercises. It also highlights the importance that was placed upon the requirement for verified practical experience on the part of the candidate.

But this study is much more than an internal analysis of a few medical licences. Throughout, the authors have sought to place municipal and royal legislation in the matter of medical regulation within the broad social and economic context of fourteenth-century Valencia. They explore the conflict of interests between the municipal authorities and the crown; they examine the tensions created by the need to regulate medical practice and the need to ensure a sufficient supply of medical practitioners; and they point to divisions that arose between lay physicians and tonsured practitioners who claimed clerical privilege that exempted them from municipal regulation. The authors are especially sensitive to the relationship between medical regulation

and the special positions of Jews, Muslims and women in the field of medical care. From their special knowledge of the archives, they are able to present new details on the demographic distribution of medical practitioners throughout the Kingdom of Valencia during the fourteenth century.

McVaugh, Garcia Ballester and Rubio Vela are at their most speculative when attempting to explain the increasing pressure for medical supervision. They see it, first, as a “Christianization” of Valencian society and medicine: they interpret it, broadly speaking, as part of a process in which the Church tried to define the system of education most appropriate for medical practitioners. They also stress the royal interest in medical regulation. They point to Jaume II’s personal preoccupation with matters medical, and to the political interests of the crown in asserting the royal prerogative. They also point to Valencia’s particular reputation for excellence in medical learning and practice.

While this study deals primarily with medical licensing in Valencia, the authors make frequent illuminating comparisons with Sicily, Montpellier, Barcelona and the Kingdom of Aragon. Indeed, as they are aware, their findings may be more generally true for much of Western Europe at this time. However, a good deal of research in the northern archives would be required to substantiate this fascinating suggestion.

On closing this book the reader is left with a series of tantalizing questions to ponder. For instance, what was the precise nature of a medical examination? Did anybody ever fail? What did it mean to “pass” such a test? Also, if—as the authors claim (p. 34)—licensing was not a necessary prerequisite to practise medicine, then what were the specific circumstances within which licences were granted? But no matter: the excellence and interest of the scholarship presented here is such as we have come to expect from its authors. Nobody will be disappointed with this suggestive and provoking piece of research.

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MARINA BENJAMIN (ed.), *Science and sensibility: gender and scientific enquiry, 1780–1945*, Oxford, Basil Blackwell, 1991, pp. x, 295, £35.00 (0–631–16649–1).

The current application of humanist methodologies to the histories of science and medicine has re-situated science as a cultural activity; “science as both practice and body of knowledge”, argues Lynda Birke in *Science and sensibility*, “incorporates and epitomizes the values of the larger society” (p. 257). Feminism, though already strong in its criticism of the larger society, has turned more belatedly to science, precisely because science has seemed so predominantly a male preserve. This valuable collection of essays on such topics as women sanitary reformers, sexuality in the plant kingdom, hermaphroditism, biological determinism and military science demonstrates that there are numerous junctions between gender and scientific enquiry.

In her broad-ranging introduction, Marina Benjamin surveys the state of the art in feminist studies, distinguishing two focal points: first, the more obvious subject of “science’s role in the licensing of gender stereotyping”, and second, a more challenging problem not fully tackled by this book, that of the relationship between science and patriarchy at the fundamental level of epistemology (p. 14). While divided into three sections—women practitioners of science, gender representation in science, and science and feminism—what these essays share is a theory that professional, positivistic science provided an “objective” foundation for the doctrine of “separate spheres” of activity for men and women. Some of the contributors, such as Birke and A. D. Morrison-Low, aim to provide a conspectus and aspire to full knowledge of their subject, however, most of these essays are very detailed case studies.

The historically specific and inter-disciplinary method of the case study is representative of the current state of feminist thinking which resists all tendencies to universalize. However, though claiming to avoid universals, much feminist theory is as attached to monumental dichotomies (like male/female, or nature/nurture) as was the doctrine of separate spheres. In his excellent essay on Jean-Martin Charcot’s work on the seemingly oxymoronic “virile hysteria”, Mark Micale argues that “we should guard against a tendency to fetishize the concept of difference/*différence* at the expense of other analytic categories” (p. 214).