

amination of strong themes—the technology of power, technology and the environment, and bodies and technology, to name a few—which draw another landscape for the history of technology. To give just two examples: the place given to religion and rituals in the history of technology shows the sterility of a comparative reading based on the affirmation of secularization and modernity. The chapter on “Gender and Techniques” recalls that technology is the source of an evolution toward gendered cultural practices (p. 439), and it invalidates the stereotypes of female activity withdrawn into the private sphere and absent from the economic sphere (see the washerwomen in the fifteenth century: “women have always worked” [p. 450]).

The lesson, masterful, is methodological and it addresses a major problem: how to make a global history of technology that is not globalized. The book responds by crossing two approaches: a local and contextual history of technology that brings out logics of exchange, hybridization, and appropriation in place of a diffusionist model that would be content to measure the delays of other civilizations against the yardstick of a paradigm, an unambiguous rationalism, and European scientific progress, and comparative history that points out convergences and patiently deconstructs stereotypes to write a long history of time, attentive to the circulations of knowledge, the appropriation of techniques, the course of know-how.

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Sabrina Minuzzi. *Sul filo dei segreti: Farmacopea, libri e pratiche terapeutiche a Venezia in età moderna.* 349 pp., figs., index. Milan: Edizioni Unicopli, 2016. €25 (paper). ISBN 9788840018690.

This thorough and imaginatively researched study of medicinal secrets offers major insights into many other aspects of medical practice in early modern Italy as well. On the one hand, it provides an unusually dynamic picture of its pharmacopeia, commonly depicted as static, conservative, and hostile to chemical remedies. Drawing on sources that reflect practice rather than on official statements, Sabrina Minuzzi shows that the medicinal preparations on sale in Venice were subject to constant renovation. As documented by their shop equipment and the titles in their libraries, Venetian apothecaries regularly experimented with and commercialized chemical medicines. On the other hand, the book successfully redefines the image of the medical marketplace proposed by recent studies of Italian charlatanism. These are shown to have extended interpretive models based on the French and English cases to the Italian context, disregarding its distinctiveness. In particular, the tendency to consider all those who obtained the authorization to market medicinal remedies of their own invention (“*segreti*”) as charlatans (the common word for itinerant mountebanks) is subverted by the painstaking biographical research conducted by the author on a range of archival sources. The study of 375 individuals who had their *segreti* licensed by the Venetian Health Board between 1549 and 1798 reveals that “charlatans” were the beneficiaries of only 7 percent of such authorizations. Nearly 50 percent of the licenses were obtained by so-called *particolari* (private citizens), a term explicitly used by the authorities to distinguish them from charlatans. “*Particolari*” encompassed members of the medical professions (apothecaries, physicians, and surgeons) who were well rooted in the community, as well as equally well-established common people, employed in varied nonmedical occupations: scribes, notaries, soldiers, merchants, musicians, shoemakers, color sellers, distillers, “chemists,” druggists, and so forth.

Inventing medicinal remedies was therefore a very common practice in Venice; it regularly involved the lay population and—far from being discouraged, as we would expect—was supported by the health

authorities, who were keen to promote the public good by expanding the range of useful medicinal preparations available to the citizenry. Both inventors of secrets and medical authorities had faith in the possibility of discovering new cures through the study of nature. Hence both botanical and chemical interests were widely shared. Minuzzi unveils many examples of persons hitherto unknown to scholars who experimented with growing particularly sought-after plants on the roofs, balconies, or even windowsills of their houses. Likewise, she illustrates the widespread knowledge of chemical procedures that informed many Venetian artisanal practices.

In acknowledging the validity of lay-produced remedies (once they had been checked for efficacy and “originality”), the authorities also recognized the value of lay medical knowledge. We find no trace of accusations of incompetence directed against lay inventors of *segreti*. Indeed, another enduring view undermined by this study is the representation of officially qualified and lay practitioners as belonging to conflicting and alternative circuits of cure. In Venice these figures often cooperated professionally in marketing an authorized remedy; they were parts of the same kinship groups and bound by friendship and neighborly ties. Hence, lay-produced licensed *segreti* often ended up being owned and commercialized by professional apothecaries via inheritance, bequests, or sales.

The fracture was not between qualified and lay producers of secrets but between charlatans and noncharlatans (whether lay or professional practitioners). Charlatans were regarded with greater skepticism by the authorities, who subjected their secrets to a stricter licensing procedure. Moreover, real differences in composition and effects distanced their products from those of other lay manipulators of secrets; the latter also deliberately employed more respectable modes of marketing and promoting their remedies, including creative ways of using print. While selling medicines in public spaces and being itinerant were marks of infamy for the mountebank, the stability of *particolari*, who made and sold their medicines from home, was reassuring. Their professional history was known and their patients traceable. So, while accusations as a “mountebank” might ruin the reputation of an empiric, the label “empiric” was not stigmatized but was used with pride to stress the cognitive value that early modern medical culture attributed to experience.

The respectable status that lay *particolari* enjoyed in the city’s medical marketplace also demonstrates that there was no stigma attached to household medicine. Indeed, the household, more than single individuals, emerges from many vivid examples as an important agent of therapeutic and pharmaceutical innovation. Socially, these medicinal families tended to belong to the rank of notables—professionals and city nobility—rather than to the aristocracy or scholarly elite, another peculiarity that distances the Italian case from its English and German counterparts.

Particularly striking is the unreserved appreciation of women’s contributions to these home-based enterprises, publicly expressed by male householders and authorities alike. In everyday life, medicinal abilities seem to have been evaluated irrespective of gender, though gender conventions were preserved at the representational level: very few women obtained a license in their own names, but once a male licensee died his widow, daughters, or sisters were regularly authorized to continue producing and marketing the licensed remedy.

It is impossible in a short review to do justice to the wealth of original findings and arguments presented in this important work. Medical historians (and not just Italian experts) have much to learn from it, and it is hoped that it will soon appear in English. *Sul filo dei segreti* is also clearly structured and very well written; the only blemish is that the sheer number of case studies analyzed is not always justified and leads occasionally to repetition.

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