Book Reviews

Jole Shackelford, A philosophical path for Paracelsian medicine: the ideas, intellectual context, and influence of Petrus Severinus (1540–1602), Acta Historica Scientiarum Naturalium et Medicinalium, vol. 46, Copenhagen, Museum Tusculanum Press, 2004, pp. 519, DKK 500, £45.00, \$91.00, €71.00 (hardback 87-7289-817-8).

Despite the efforts of such redoubtable figures as Walter Pagel, Allen Debus and several other twentieth-century historians, the many varied works of Paracelsus, as Shackelford rightly points out, have regrettably often remained "peripheral to the grand narratives of early modern intellectual development". This is even truer of one of Paracelsus's leading sixteenthcentury defenders and promoters, the Danish physician Peder Sørensen (1540/2-1602), author of Idea medicinæ philosophicae (Ideal of Philosophical Medicine, 1571). Latinized and better known in western Europe as Petrus Severinus, he has been relatively overlooked in the history of early modern medicine. Shackelford attributes this marginalization, in part, to the fact that Severinus's language and medico-philosophical concepts have deterred past scholars from making a closer study of his writings. To redress the balance, Shackelford has spent over ten years exploring Severinus's life and works, and this admirable biography is the culmination of his extensive research.

As Shackelford explains in his introduction, an "underlying assumption" of this biography is "that once we better understand the work of Paracelsus' followers—those who brought his ideas to a wide intellectual audience—we will better understand the significance of Paracelsian ideas, both in relation to early modern science and medicine and also as forming an ideology" (p. 11). In pursuit of this cause, Shackelford attempted "to collate as many references to Severinus" as he could find, and here he presents "the full extent of the diffusion of Severinus' ideas in the intellectual world of early modern

Europe in a way that is factually sound" (p. 19). Severinus, he explains, was one of the first physicians who "actually took Paracelsus' ideas and elaborated them into a coherent and cogent body of doctrine. Consequently, he holds a prominent place among those who, in effect, created Paracelsianism and gave it force of persuasion at a time when European intellectuals were looking for alternatives to Aristotelian natural philosophy and Galenic medical theory" (p. 458).

Severinus, as Shackelford thus clearly shows, was no marginal figure. Throughout his career he maintained close links with the medical faculty at the University of Copenhagen, and was a royal physician to the king of Denmark. He knew the famous astronomer Tycho Brahe, also a chemist, who prepared chemical medicines in his laboratory, which was funded by the crown. Severinus himself travelled widely. He studied in Paris, and probably other places in France, as well as in Italy and possibly at German and Swiss universities. He would have been exposed to the latest debates and arguments in medicine, and Paracelsian remedies (often based on powerful metals and minerals) were proving very controversial in the decade before he published his Idea medicinæ. This, Shackelford observes, would become a key book used by many latesixteenth- and early-seventeenth-century physicians, chemists and philosophers as their introduction to Paracelsianism-what one anonymous English translator would call "A Mappe of Medecyne".

From a discussion of his education and his influence in Denmark, Shackelford goes on to detail in a series of chapters the reception and impact of Severinus's theories in France, central Europe, Scandinavia and England. To Sir Francis Bacon, who criticized the Paracelsians whilst at the same time being influenced by some of their ideas, Severinus was "a man too good" to have died "in the toils of such folly" (p. 259). Yet, as Shackelford explains, to see Severinus in a starkly different light from Bacon—as somehow looking backwards to a science still steeped in

astrology and Neoplatonism—is to misrepresent and misunderstand this whole transitional period. As he explains, "Despite pronouncements that historians must study the past in its own terms and avoid 'whiggish' judgement of early modern thinkers on the basis of how modern their science seems, the agenda of who and what to study in the scientific revolution remains anchored in a developmental sequence" (p. 457). Bacon felt that Severinus had wasted his clear intellect on Paracelsianism. But when in the *Idea medicinæ* Severinus advised his readers to sell their possessions and to investigate and learn from nature and the laboratory, Bacon approved. As he wrote, when Paracelsus and Severinus "lift up their voices and summon men to gather together in honour of Experience, then they are the right criers for me" (p. 264).

Having explored at length the contemporary influence of the Idea medicinæ, Shackelford uses the final part of his book to investigate in depth two of its most important early readers and interpreters. These were the Latin defence of the Idea medicinæ by Ambrosius Rhodius, published in Copenhagen in 1643, and the commentaries (1660 and 1663) written by the first professor of chemistry at the Jardin des Plantes in Paris, the Scotsman, William Davidson (c.1593–1669). Davidson is of particular interest to historians of English medicine and chemistry, as it was he who had taken Thomas Hobbes, and possibly William Petty, through "a course of chymistrie" in Paris (p. 232). Sir Isaac Newton also owned a copy of Davidson's earlier chemistry text, the Philosophia pyrotechnica (Paris, 1633-35)—though it does not appear in the list of books he annotated. Shackelford's examination of Davidson's application and development of Severinus's semina theory of disease, and its application to the cure of fevers through chemical medicines, is in itself an important and illuminating piece of work.

All told, this is an excellent piece of scholarship that brings to life the work and influence of a leading theorist in early modern medicine. Shackelford sheds clear light on how the Galenic tradition of medical practice was gradually overthrown in this period, and how

chemistry emerged—albeit slowly—as the foundation of a new medical tradition.

David Boyd Haycock, London School of Economics

Gianna Pomata and Nancy G Siraisi (eds), *Historia: empiricism and erudition in early modern Europe*, Cambridge, MA, and London, MIT Press, 2005, pp. viii, 490, £32.95, \$50.00 (hardback 0-262-16229-6).

This is an excellent collection of essays focused upon the relation between the textual and linguistic expertise of humanist scholars in the early modern period and the development of empirical proficiency in natural history and medicine. The missing link between the two is a genre of works related to both human and natural subjects collectively called historia. Focusing upon various forms of historia the collection forcefully makes the case that the observation and description of nature in the early modern era was interwoven with practices relevant also to displays of humanist erudition. In the Renaissance, the study of nature is, as the editors claim, inseparable from the study of culture. The fact that antiquarian studies, philological learning, as well as civic and religious histories should have something in common with observationally based natural philosophy and medicine may seem baffling. Yet, it is just such a relationship that each essay in this collection skilfully helps to bring to light.

The primary fault of many edited volumes is usually a lack of a clearly defined problem that holds focus throughout. This is manifestly *not* the case in this collection. Much of the reason why has to do with its origin—a workshop sponsored by the Max Planck Institut für Wissenschaftsgeschichte that kept a specific question consistently in view. Was there a link between the practices of early modern physicians and naturalists in their use of *historia* and the earlier Renaissance discussion of *historia* as antiquarian knowledge? This volume clearly demonstrates that such a connection existed in a rich variety of forms.