side-effects of the hazardous cure-intense salivation, foul breath, slurred speech and impaired vision etc.--without demonstrating an understanding of how nineteenth-century practitioners perceived that mercury actually acted upon the disease itself (pp. 57-60). However, the rest of Chapter 3 fares better in this respect, not only in enumerating the different herbal and chemical remedies that surgeons used aboard ship, but in generally explaining the nature of their action. 'Batting Scurvy', which remained a problem whenever fresh rations ran out, wins and deserves a chapter of its own. However, for the most part, this is not a book that contributes much that is new to our understanding of sea surgeons' medical practice; it is, rather, a fine testament to a historian who writes accessibly and clearly loves her subject.

Fiona A Macdonald,

The Wellcome Trust Centre for the History of Medicine at UCL

Jürgen Helm and Annette Winkelmann

(eds), Religious confessions and the sciences in the sixteenth century, Studies in European Judaism, Leiden and Boston, Brill, 2001, pp. xiv, 161, \in 46.00, US\$54.00 (hardback 90-04-12045-9).

This volume, containing the contributions to a 1998 conference, examines two broad questions in Renaissance science: the relation of confessional belief to scientific ideas, and the impact of new discoveries on religious (mainly Jewish) writers. Both questions are significant, but, as the editors admit, the answers here are little more than trial sondages. By including Judaism, the volume breaks away from a traditional Protestant/Catholic division, and many will find the essays on Jewish science the most valuable, simply because their largely descriptive style makes them accessible to non-specialists. Alongside some familiar faces, Melanchthon, the Jesuits (caught between science and theology), Paracelsus, and Renaissance anatomy, are others less wellknown-geography and Prussian Calvinism.

This is a potentially valuable collection, yet one whose individual parts never quite coalesce into a satisfactory whole.

In part this is the result of the sheer scale of the enterprise. The discussion of Jewish science in the Ottoman empire (defined as 1450 to 1600), although offering interesting insights, never develops them in detail, and leaves one asking for more—or for the sort of sociohistorical study carried out for the Moriscos by Luis García-Ballester. By contrast, the study of the writings of the Mantuan Jewish physician Abraham Portaleone (1542–1612) is extremely narrowly focused.

Of greater interest to medical historians will be the two essays on religion and anatomy by Helm and Cunningham. Helm compares the teaching of anatomy at two universities with widely differing confessional stances, Lutheran Wittenberg and Jesuit Ingolstadt, concluding that while there was no difference in substance or method, anatomy occupied a different place in each curriculum. At Ingolstadt it formed part of medical education only, at Wittenberg it was part of the basic education of all students, whether future pastors or physicians. This conclusion is also accepted by Cunningham, in what amounts to a considerable modification of his earlier views. Instead of seeking to make attitudes to anatomy dependent on prior religious views, and seeing a Protestant anatomy as somehow different from a Catholic one, he now uses "Protestant" more loosely. He proposes three theses: Melanchthon gave anatomy a new standing in Protestant universities; Vesalius' approach to anatomy was "Protestant in structure", like Luther's emphasis on the Bible alone; and Paracelsus' spiritualism led him to neglect physical anatomy. These propositions, which are hardly new, can be generally accepted, although Erasmian religious humanism may have had a greater influence on Vesalius than Luther. But they are still in need of considerable testing and refinement if they are to carry explanatory power. While it is clear that Lutheran universities heavily dependent on Wittenberg, like Greifswald and Jena, followed the model of Melanchthon, it is far less obvious how far it applied to Calvinist institutions, or to Protestant universities outside Germany like Montpellier, Basle, and Cambridge. The activities of Simone Simoni (1532–1602) at Geneva, Heidelberg and Leipzig are instructive in this respect, as was shown long ago by Frank Ludwig (*Neues Archiv für sächsische Geschichte und Altertumskunde*, 1909, **30**: 209–90). Equally, while Paracelsus' own view of the body militated against any commitment to anatomical study, it still needs to be demonstrated that those Paracelsians who obtained university positions were similarly disdainful, and that, if they did, they also shared Paracelsus' own theological position.

What this volume reveals is that the proper study of the interactions of religion and science in the Renaissance is only just beginning. Some themes are familiar, but need greater precision of thought as well as deeper delving in the archives, but others have scarcely been touched upon. Future work needs to combine the institutional with the intellectual, the social with the individual, in order to capture the subtleties of belief and the practicalities of daily life as a physician, professor or preacher. These essays are first steps, no more, but they at least point the way to potentially fruitful pastures.

Vivian Nutton.

The Wellcome Trust Centre for the History of Medicine at UCL

Karen Jolly, Catharina Raudvere, Edward Peters, Witchcraft and magic in Europe. Volume 3: The Middle Ages, London, Athlone Press, 2001, pp. xiv, 280, £60.00 (hardback 0-4858-9003-8), £19.99 (paperback 0-4858-103-4).

This book forms part of the six-volume Athlone History of Witchcraft and Magic in Europe, edited by Bengt Ankarloo and Stuart Clark, which began in 1999 and was completed in 2002. The series provides a broad survey of magic from biblical times to the twentieth century. Each volume is multi-authored, drawing upon the latest research of experts and providing a rich variety of perspectives.

Karen Jolly's essay on ways of thinking about medieval magic opens the volume. Jolly is keen to dispel the essentialist myth that there is something that can be identified as "magic". Defining magic is no easy matter, especially for the Middle Ages when magic was inextricably bound up with religion and what we today would call science. Jolly recognizes that the sources themselves often mislead us as to the nature of medieval magic. For the most part, they constitute either intellectual attempts to undermine the claims of magic or theological attempts to suppress its practice. Even sources that promote magic invariably idealize the topic, presenting an image far removed from the experience of ordinary people.

Jolly's solution is to contextualize the sources and read them as records of changing attitudes to magic. She outlines three main periods in the development of beliefs about magic. The first was the period of conversion, from the fifth to the eleventh century, when Christianity encountered the pagan practices of northern and western Europe. During this period the Church condemned pagan practices as either popular superstition or illusory demonic magic. The growth of towns, the rise of new religious movements and the rediscovery of Aristotelian logic in the twelfth century ushered in a new period when magic was re-categorized and reconceptualized. During this time, the Church condemned magic less for its demonic association with paganism and more for its demonic association with heresy. Another shift occurred in about 1350 when the Church started to regard magic not so much as a list of objectionable practices as an organized demonic cult that sought to undermine the integrity of the Christian community. Henceforth, witchcraft was regarded as both heretical and criminal. In periodizing magic thus, Jolly draws our attention to the fact that witchcraft was a uniquely European phenomenon shaped by the changing economic, political and theological conditions of western Europe.

Jolly is also aware of the methodological problems of describing the practice of medieval magic. Limiting herself to practices that contemporaries identified as magical, Jolly outlines the popular and courtly traditions of magic; protective formulas and rituals; amulets and talismans; popular divination; sorcery