thinkers, the "science of man" meant exactly that and did not include women; and that "nature" provided the foundation of difference, not its erasure.

Additional exploration of the meaning of "science" is provided by Phillip Sloan in his magisterial essay on the natural history of man. He concentrates on Linnaeus and Buffon, practising scientists with very different views of what constituted human science. The ultimate synthesis of Linnaean classification with Buffon's historical view of development underlay much nineteenth-century discourse on humans as animals.

Roy Porter's essay on 'Medical science and human science' underlines the uncertain relationship between these two topics. While medicine became more scientific-in theory if not in practice—over the course of the eighteenth century, the role of medicine in the larger Enlightenment project remained ambiguous. Despite Peter Gay's assertion that medicine was central to the Enlightenment "recovery of nerve", Porter sees not a causal arrow but a complex interplay of ideas among which medicine was one of many. Gloria Flaherty's account of the so-called "nonnormal sciences" such as mesmerism, Franz Joseph Gall's "organology" and Johann Caspar Lavater's notions of physiognomy serves to undermine yet more the claims to science of eighteenth-century medicine.

Essays on society, politics, and political economy further extend the range of human science. This volume provides a good introduction to some of the central questions of Enlightenment thought. A collection of essays, when it is as well-organized as this one, can be worth far more than the sum of its parts.

Anita Guerrini, University of California, Santa Barbara

Keith Moore, with additions by Mary Sampson, A guide to the archives and manuscripts of The Royal Society, London, The Royal Society, 1995, pp. ix, 72, illus., £15.00 (UK), £16.50 (overseas) (0-85403-500-1).

Shirley Dixon, Lesley Hall, Julia Sheppard, A guide to the Contemporary Medical Archives Centre, London, Wellcome Trust, 1995, pp. 101, illus., £5.00 (+50p p&p) (1-869835-66-2).

Writing a guide to the contents of a record repository is no mean task. I can vouch for this, since at Lambeth Palace Library the preparation of our guide was in progress as long ago as 1962; it has yet to appear. Readers' enquiries, acquisitions, the listing of new collections and a thousand other tasks intrude. with more pressing deadlines. Then there are voices in the profession which question whether it is worthwhile to publish a guide at all, when new acquisitions soon render it incomplete. Is it necessary when the on-line searching of databases increasingly offers more immediate access to information? The answer from the researcher's point of view is certainly yes. Every scholar who enters a record office for the first time needs the essential orientation, the first steps in formulating a search strategy, which the guide provides.

All the more credit goes to the authors of the two guides reviewed here. They present succinct, intelligible accounts of collections which are of fundamental importance to historians of science and medicine. Each of the two guides condenses within a short space a wealth of information, without becoming bogged down in detail. The presentation is clear and comprehensive, and pointers are given to finding aids and published sources where further information may be sought.

The Royal Society has been a careful custodian of its administrative records since its foundation in 1660, and it has also been active in collecting the personal papers of its Fellows. The resulting accumulation is inspiringly rich, from the papers of Robert Boyle in the seventeenth century to those of twentieth-century scientists, which are recorded here for the first time. Medical historians will be drawn to the papers of Sir Charles Blagden, Sir Henry Dale, Howard Florey and Otto Loewi amongst others. But the *Guide* is most valuable for its

informative account of the journal, register, letter and minute books, and of the many other series deriving from the Society's idiosyncratic structure and practice over more than three centuries. The private archival mysteries of the Society from "lapsed certificates" and "archived papers" to "Bulloch's Roll" are revealed briefly and clearly, rendering the archive intelligible for the researcher.

The Wellcome Institute's Contemporary Medical Archives Centre is not yet twenty years old, but it has already accumulated more records than the Royal Society in over three centuries. The achievement is remarkable both in the quality and range of the collections acquired. Amongst seventy-eight substantial collections of personal papers are those of Lord Moran, Sir Richard Doll, Sir Ernst Chain, Sir E A Sharpey-Schafer, Frederick Parkes-Weber, Sir Henry Head, Melanie Klein, Sir Thomas Lewis, Marie Stopes, Sir Edward Mellanby, Sir Peter Medawar, and Sir Leonard Rogers. Amongst fifty-seven societies and associations which have placed their records in the Centre's care (itself an indication of the reputation and trust which it now commands) are those of the **Eugenics Society, Family Planning** Association, Lister Institute, Physiological Society and the Research Defence Society. The pace of development is fast, and the Centre's archivists have kept scholars up to date through successive editions of the Guide. This is the fourth edition, recording nearly 100 new collections acquired since 1991, including the papers of John Bowlby, Cicely Williams, the Chartered Society of Physiotherapists and the Health Visitors' Association. Also included for the first time is a brief account of the Royal Army Medical Corps Muniment Collection.

These are model guides, which admirably fulfil their purpose. They are affordable too, and attractively illustrated. Historians of science and medicine will find them not only valuable but indispensable.

Richard Palmer, Lambeth Palace Library

Thomas L Hankins and Robert J Silverman, Instruments and the imagination, Princeton University Press, 1995, pp. xiv, 337, illus., \$39.50 (0-691-02997).

It is banal to point out that these days historians of science and medicine busy themselves with discarded knowledge. Natural magic, mesmerism, phrenology and spiritualism, for example, are all regarded as legitimate areas of contextual historical concern. They remain too themes of antiquarian interest. This historiographical state seems less true of the history of technology. In this discipline extinct objects such as orreries and astrolabes are sources of antiquarian concern but other machines, such as steam engines, which are studied contextually are obviously investigated as precursors of things modern. Watt's steam engine is to modern transport as the reflex theory (rather than the phrenology) is to modern neurology. Even Steven Shapin and Simon Schaffer's much applauded Leviathan and the air pump of 1985 is a study of a device which is symbolic of the origins of modern science (that of course was the point of their study). Instruments and the imagination is to be welcomed as a wonderful piece of historical indulgence and historiographical innovation, for it treats contextually of devices of little antiquarian interest, which are hard to represent as precursors of modern scientific symbols: the scanner or the cloud chamber, for instance. What was the historical significance of Athanasius Kirchner's sunflower clock, the ocular harpsichord of Louis-Bertrand Castel, the Aeolian harp and, slightly less beyond the fringe, magic lanterns and speaking machines? The authors treat all these objects with respect and in depth, and with impressive scholarship. Perhaps most successful, because it is the hardest case, is their attempt to explicate the contemporary significance of Kirchner's clock, driven by sunflower seeds, which was said to follow the sun even when the clock was indoors or when the sun was covered by clouds. The authors traverse a variety of witnesses and magnetic, atomic and magical