thinking about sexuality. Yes, we must reject a naturalistic approach to sexuality; certainly, we need to challenge the worst excesses of those who see the nineteenth century as a period of sexual darkness: certainly we must explore the relationship between sexuality and power. Yet, there was, they suggest, a real darkening of the sexual climate in the Victorian period (thus challenging Foucault's rejection of the "repressive hypothesis"); the "confessional" urge to speak of sex incessantly that Foucault explores is not an appropriate trope for understanding Protestant Britain; and there have been real reforming breakthroughs in this century, not just a switch in the mode of controlling bodies and their pleasures through shifts in the modalities of discourse and power. Things do change, in fact sexual mores change all the time, and sometimes for the better, in the direction of greater freedom and individual choice.

But perhaps the most important contribution of this book is to remind us again that to understand sexuality at any particular period, we have to understand how it is thought. For, as the American historian Jonathan Katz suggested some years ago, when we explore the world of sexuality we have to remember that nature (or Nature) has very little to do with it. Which is why understanding how sexual knowledges are created is so important for understanding the murky history of sexuality.

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Joan Cadden, Meanings of sex difference in the Middle Ages: medicine, science, and culture, Cambridge History of Medicine series, Cambridge University Press, 1993, pp. xii, 310, illus., £35.00, \$54.95 (hardback 0-521-34363-1), £14.95, \$18.95 (paperback 0-521-48378-6).

In this carefully written book, Joan Cadden explores ideas about differences between males and females in medical and natural philosophical texts composed between the late eleventh and fourteenth centuries. It is a wellgrounded historical study with a feminist edge: the author is alert to asymmetries and inequalities in the discussion of sex difference and to misogynist exploitations of scientific material. Cadden acknowledges at the outset that sex difference was not a category per se in the many learned Latin texts she treats; pertinent observations, however, occur in many situations, and these suggest the co-existence of multiple models of masculinity and femininity in the Middle Ages. The author, admirably scrupulous about preserving ambiguities and complications, routinely seeks to situate articles of natural historical information and the texts in which they appear in the broadest possible intellectual and institutional contexts.

In Part I, treating 'Seeds and pleasures', Cadden adopts a chronological structure and surveys ideas about the contributions of male and female in conception and the relation of male and female sexual pleasure to reproduction; she discusses the adoption and adaptation of ancient Greek ideas in early, medieval medical compilations, in monastic writings of the eleventh/twelfth century (Constantine the African, Hildegard of Bingen, William of Conches), and in university texts of the thirteenth and fourteenth centuries. In Part II, concerning 'Sex difference and the construction of gender', Cadden organizes her heterogeneous material in categories, devoting chapters to feminine and masculine types, to sterility and to sexual abstinence. In the first, Cadden shows that complexion was fundamental in distinguishing female from male and pursues the ramifications of the idea that "the coldest man is warmer than the warmest woman"; she goes on to examine ideas about the generation of Adam and Eve ("creation") and the generation of a boy child and a girl child ("procreation"), to conclude with an interesting investigation of slippages in binary definitions: masculine women, feminine men and hermaphrodites.

As she explores connections between natural philosophical notions (sex) and understandings of sex difference in religious and lay culture (gender), Cadden finds it convenient to keep

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science and culture separate and then to show ways in which the two were "integrated", "linked", "fused", "blended", "synthesized", "amalgamated". A consequence is that naturalistic explanations are treated less as gendered products than as tappable sources serving medieval constructions of gender. For some readers, the primary material Cadden presents will have considerably greater interest than the syntheses of secondary literature used to define medieval culture at large. Yet the author has likely judged rightly the needs of her burgeoning field: she provides a wellinformed introduction to a little-known body of material, fully "contextualized" and integrated into existing scholarship.

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Hugo Kupferschmidt, Die Epidemiologie der Pest. Der Konzeptwandel in der Erforschung der Infektionsketten seit der Entdeckung des Pesterregers im Jahre 1894, Gesnerus Supplement No. 43, Aarau, Verlag Sauerländer, 1993, pp. xiv, 222, SwFr 36.00 (3-7941-3722-1).

Some of the most dramatic developments in the long history of the plague occurred at the turn of the century, as the outbreak of the third great plague pandemic witnessed the spread of the disease from the interior of China and Mongolia to Canton, Shanghai, and Hong Kong in 1894, and from there on to the other main ports of Asia, India, and the west coast of the United States. Intensive research by European and Chinese epidemiologists, provoked by the death of millions in south and east Asia over the next two decades, led in rapid succession to the discovery of the plague bacillus, the role of the rat in the transmission of the disease, and then the even more important role of fleas. These fundamental breakthroughs were elaborated and refined in the first thirty years of the century, and in the 1940s and 1950s progress was made in drug therapy and development of a vaccine.

The story has been told before, of course: most notably by L Fabian Hirst (1953) and

Robert Pollitzer (1954), and along more popular lines by Charles T Gregg (1978). Kupferschmidt, like his eminent predecessors of forty years ago, comes to his topic from a medical background; but whereas Hirst and Pollitzer wrote from a perspective of long-term professional involvement in the fight against plague, Kupferschmidt, based at the Medizinhistorisches Institut of the University of Zurich, has been perhaps better placed to offer a more objective view. Certainly the foundation of research upon which he could rely is much fuller; this includes such works as the autobiography of Wu Lien-Teh (1959), the varied contributions of Marcel Baltazard (1959-63), and the biography of Alexandre Yersin by Henri H Mollaret and Jacqueline Brossollet (1985), to name but a few.

Apart from offering a more current account, Kupferschmidt's book differs from its predecessors in several important ways. First, it presents the dramatic advance in knowledge of plague in terms more clearly revolving around the achievements of key individuals. The fundamental contributions of such researchers as Yersin and Paul Simond have not, of course, been neglected in previous studies, but Kupferschmidt specifically attributes to them an impact and significance greater than, for example, the various plague commissions, and assigns particular importance to key works. If this approach poses difficulties in some areas (e.g., is the final report of a plague commission a sufficient basis for assessment of the importance of that commission's historical role?), in others it is very useful. It is well worth asking, for example, whether certain works still merit the crucially influential status they have long been granted in historical research on the plague, especially in Anglo-American circles.

Second, and closely related to the above, Kupferschmidt challenges the doctrine that without rats and their fleas there can be no major outbreak of plague. This proposition was argued most vehemently by Hirst in the 1920s and achieved the status of epidemiological orthodoxy in his classic *The conquest of plague*. Many have followed Hirst in this view,