G. E. R. LLOYD, *Demystifying mentalities*, Themes in the Social Sciences, Cambridge University Press, 1990, 8vo, pp. viii, 174, £27.50/\$49.50, £10.95/\$14.95 (paperback).

This latest book by Geoffrey Lloyd continues his exploration into the origins of Greek scientific thought. In it he examines the concept of "mentalities" as an explanation for the peculiar development of medicine, mathematics, and science in early Greece, as well as a description of the thought-processes of primitive and less primitive societies. In both respects he finds it seriously flawed. In its place he suggests a greater attention to the social contexts of communication as the main determinants of new forms of thought.

Such a banal summary does not do justice to the complexity of the argument or the wide range of Lloyd's examples. As a check on Greek science, mathematics, and logic, he introduces his readers to Indian and Chinese texts, carefully pointing out their similarities and, still more, their differences, even when, at first sight, these might appear insignificant. His differentiation between logic and rationality, and between Greek logic before and after Aristotle, is illuminating. Rather more opaque is his chapter on magic and science, where the argument would have been helped by more examples, and perhaps carried more deeply into the medical texts. Lloyd's social explanation for the differences between medicine and magic in early Greece can be usefully compared with that of Peter Brown for late Antiquity. But, as the Preface makes clear, these are preliminary suggestions, challenges to our thinking rather than fully established positions.

What is clear is the variety of approaches to healing even within the Hippocratic Corpus (and, in passing, the odd way in which medical historians have failed to focus on more than a handful of "mainstream" and "scientific" texts). This complexity Lloyd links to political changes, even to democracy, which encouraged speculative innovation. Not all have been convinced by his earlier attempts, in *Magic, reason, and experience* (1979), to tie in democracy so closely, and his position seems to have shifted slightly, away from a focus on Athens. One can agree with his suggestions about proof and confrontational style developing out of public debate in assemblies and law courts, but, as can be seen from the *Iliad*, such arguments were not confined to democratic states. For all his subsequent maltreatment, Thersites was permitted to speak in opposition to Agamemnon, and even legal argument can take place under a tyranny.

This is not an easy book. Its subject is complex, and its exposition demands a close attention to every detail of its propositions to appreciate the nuances Lloyd gives to some of the major suppositions of anthropologists and sociologists. But the reader who responds to Lloyd's promptings will have learnt a great deal about the Greeks and their peculiarities, and will have been incited to further thought about the whole western tradition of medicine and science.

Vivian Nutton, Wellcome Institute

FRANZ ROSENTHAL, Science and medicine in Islam: a collection of essays, Aldershot, Hants, Variorum, 1990, pp. xxviii, 219, £39.50 (0-86078-282-4).

For more than fifty years, Franz Rosenthal has been investigating the intellectual relationships between Islam and the classical world. This selection of papers devoted to medicine and science displays the whole range of his remarkable scholarship. He is as much at home in editing and translating a text as in setting it in context, and his synopses of the role of the physician and of the place of medicine within Muslim society are justly famous. No medico-historical library should be without this volume, for merely to read Rosenthal on the Arabic interpretations of the first Aphorism of Hippocrates or on Ishaq ibn Hunain's *History of the physicians* is to gain a lesson in historical methodology. His cautious formulations of his hypotheses always demand respect, even when, as in his reluctance to accept a Galenic origin for the *Commentary on the Hippocratic Oath*, some might think him over-scrupulous. This academic

Book Reviews

reserve is no sign of other-wordliness, for Rosenthal has never been one to shrink from difficult topics or from illuminating present concerns with light from the past. His book on hashish (1971), and his study here of passive male homosexuality, treat with tact and erudition topics that might, in others' hands, have degenerated into sensationalism or propaganda.

As well as an index and a selection of additional notes, this collection contains a full bibliography of Rosenthal's papers, books, and reviews, which will serve to direct the interested reader to other relevant, if less familiar, publications of the author.

Vivian Nutton, Wellcome Institute

FRANCISCO GUERRA, *La medicina precolombina*, Madrid, Instituto de Cooperacion Iberoamericana, 1990, pp. 340, illus. (84–7232–567–9).

BERNARD R. ORTIZ DE MONTELLANO, Aztec medicine, health, and nutrition, New Brunswick and London, Rutgers University Press, 1990, pp. xvi, 308, illus., \$40.00 (0-8135-1562-9), \$15.00 (paperback, 0-8135-1563-7).

These two volumes contribute to the growing literature on the health of native Americans and the nature of their medical systems before the arrival of Europeans. In the introduction to *Aztec medicine, health, and nutrition*, Bernard Ortiz de Montellano raises the often-asked question, "Can Aztec vulnerability to European disease and abuse be explained by general weakness before the Conquest?" He responds by arguing that "in the main, the Aztecs were a healthy people [thus] Aztec medicine becomes an important part of the issue." The author begins his study with a systematic review of written sources compiled after the Spanish invasion and an explanation of the Aztec world-view and its relation to medical practices. Then he proceeds to tackle the controversy surrounding the size of the native population of Aztec Mexico in 1519. Using a model based on the carrying capacity of the land, he concludes that the oft-cited estimate of 25 million inhabitants should be halved.

According to Ortiz, the Aztec diet was excellent, better, in fact, than that consumed by modern-day residents of central Mexico. In addition, he offers an empirical evaluation of the Aztec diet and medicinal herbs, much of which is summarized in the Appendices where he includes data on the chemical analyses of commonly-used foods and herbs. In this way, he claims that one can determine the effectiveness of Aztec cures and the nutritional strengths and weaknesses of the Aztec diet.

Ortiz's discussion of epidemiology is rather brief and covers no new ground, but his chapters on aetiology, curing, and syncretism are important and innovative. He argues convincingly that modern Mexican folk medicine is the result of a syncretic process involving both Aztec and European medical traditions, thus challenging the studies of anthropologist George Foster and others who claim that modern Latin American folk medicine derives almost entirely from European medical traditions. The author also offers an innovative discussion of causation, concluding that Aztec aetiology-was so complex that it is better to think of causation as a continuum between natural and supernatural forces.

Ortiz overstates his case when he claims that Aztec medicine was unique; in fact, recent research in the Andean area suggests that Aztec and Inca medical traditions were remarkably similar. Nevertheless, this book makes several valuable contributions to our understanding of Aztec medicine and offers a model for researchers working in other areas of Latin America.

The Instituto de Cooperacion Iberoamericana issued Francisco Guerra's book, La medicina precolombina, in honour of the quincentennial. Intended for a general audience, the photographs and illustrations in this work are outstanding and comprise one of its most valuable contributions. Guerra divides his study into chapters covering sources, cultures, nutrition, nosology, and regional overviews of aetiology and medical practices. The scope of the book is ambitious, attempting to treat the health and medical practices of native societies throughout the hemisphere. While the book contains an extensive bibliography, it fails to incorporate information from much of the recent literature on indigenous health and medicine. In spite of this shortcoming, Guerra's study offers an adequate, if somewhat traditional, introduction to the subject.

Suzanne Austin Alchon, University of Delaware

454