Well-chosen illustrations and excerpts from sources including Richard Lower, Thomas Willis, John Mayow, Giovanni Alfonso Borelli, Johannes Bernoulli, Hermann Boerhaave and Albrecht von Haller, aptly evidence the immediate impact of Stensen's theory and the variety of misinterpretations which beset it over the ensuing years. Kardel does not consider the possibility that Stensen may have contributed to these misconceptions by his use of plane rather than solid geometry, and by his failure to realize the difficulties inherent in linking his geometrical abstractions with specific muscles, in vivo, where the form and location of the muscle determined whether the swelling could be readily palpated.

Whilst the careful juxtaposition of Latin text and English translation facilitates textual comparisons, readers dependent on the translation will encounter some passages where complex sentence constructions and an inappropriate choice of words detract from the meaning. The reader would also have been better served by combining the endnotes to the English translation and the notes to the Latin text as page footnotes, or at least indicating the existence of a note in the Latin text where the lines are unnumbered. It is disappointing to find most of the Latin text notes untranslated, and few with any indication as to their possible significance.

The impetus for this publication came from the realization that certain elements of Stensen's muscle structure and function are pertinent to present day studies. Readers can now judge for themselves the extent to which Kardel's thoughtprovoking reappraisal can be justified in terms of Stensen's stated concepts, theory and vision.

Margaret Nayler, La Trobe University

Helen Jones, Health and society in twentieth-century Britain, Themes in British Social History series, Harlow, Longman Higher Education, 1994, pp. x, 204, £9.99 (paperback 0-582-00459-4).

For some time now there has been a generally recognized need for a short,

relatively cheap, well-written book setting out the major issues pertaining to health in Britain in the twentieth century. Helen Jones is to be thanked for having produced such a volume. Teachers and students alike will find this a most useful work. Quite properly this book is about the wider determinants of health and disease and anyone looking for a detailed history of medicine will not find it here. In that respect, however, the second half of the work perhaps devotes more attention to the National Health Service than is merited. By contrast, the first half of the work has very little to say about clinical medicine. Jones's work is constructed chronologically. She recognizes in her introduction that health can be addressed as a culturally constructed set of meanings as well as something that can be described in terms of the material conditions of life. She is much better at dealing with these material conditions than meaning and thankfully most of the book is devoted to material things. Poverty, diet, housing and labour are the substance of the work. Class inequalities in health, as measured by mortality and morbidity, are the dominant theme. There are significant modulations within this theme, notably the great attention given to the subtlety of the factors determining the health of women. This attention, although quite proper and corrective, seems to be at the expense of equal attention to the determinants of male health. The book, after all, seems to be intended as a general survey and not an argument about a particular group in the population. Thus it is surprising to find in a work on the health of the British people in the twentieth century no mention of, say, coalminers. Immigration, ethnic minorities and their special problems also receive detailed treatment. Certainly more than they would have done even ten years ago. Odd in this connection is the absence of any reference to the Irish.

Jones is extremely good at fair-minded historiographical presentation. Historical arguments are summarized, compared and contrasted. She is excellent in maintaining the balance between continuity and change (the health of women works well in this context). She is also good on changing attitudes (notably towards sexual intercourse) and their relation to a sense of what might be constitutive of a healthy life. Occasionally she lets orthodox medicine set the agenda and when she does so the meanings and measurement of health are perceived unilaterally. Smoking, for example, is described solely in terms of the virtues of preventing it, calculating politicians and the tobacco interest. By any clinical medical definition smoking is unhealthy. A casuistical examination of the proposition that smoking might be a relative good is not entertained. A discussion of boxing could have raised similar, equally interesting questions about what it means for a society or an individual to be healthy. These are scarcely major criticisms, though the question of the relation between individual health medically defined versus the issue of what health is for never gets straightforwardly asked. None the less, I enjoyed this work and recommend it. I enjoyed too the appearance of the sociologist/historian, Anthony Scull. Perhaps somewhere there is a psychiatrist called Andrew Clare.

Christopher Lawrence, Wellcome Institute

Kenneth J Carpenter, Protein and energy: a study of changing ideas in nutrition, Cambridge University Press, 1994, pp. xiii, 280, illus., £30.00, \$39.95 (0521-45209-0).

"Nutrition", observed François Magendie, "remains one of the most obscure questions in science". It remains so today, despite the efforts of thousands of laboratory researchers, and a vast output of scientific and popular literature over the past fifty years. A significant proportion of this modern literature has been devoted to the subject of protein, especially to the relationship between dietary protein and malnutrition. Ever since Cecily Williams published her account of kwashiorkor in 1933, this relationship has been a matter of research and controversy for both laboratory scientists and those working in applied nutrition. It was this episode of recent nutrition history, more

especially the United Nations' 1965 endorsement of belief in a world-wide protein shortage and its subsequent sudden abandonment of the idea, that drew Kenneth J Carpenter to write this lucid, scholarly and thoughtful book. The politics, personalities and research philosophies of the "great protein fiasco" offer a rich field of inquiry to historians; Carpenter, wisely, has chosen not to embroil himself too deeply in these details. His object is to trace the origins of, and changing ideas about, the role of protein in human diet, and the quantities needed for optimal health; he takes the long historical perspective, beginning with the work of Sanctorius in 1614, and ending with the current controversy over adult amino acid requirements.

Protein and energy is a welcome development in the neglected field of nutrition history. Traditional accounts have described accumulating scientific certainties, as in Elmer McCollum's classic History of nutrition, or the social history of food, as in the work of Jack Drummond and Anne Wilbraham, John Burnett, and Derek Oddy. Carpenter himself has contributed studies of the nutritional deficiency diseases of scurvy and pellagra. This volume takes a novel approach, focusing on ideas about just one dietary component. This perspective enables Carpenter to chart not just scientific progress, but the back-casts, red herrings and confusions which mark the course of scientific research. The word protein was first coined in 1838, and Justus Liebig's subsequent conclusion that protein was the only true nutrient entered deep into human consciousness, although the scientific basis for the idea was soon discredited. It remains an almost universal assumption today.

Protein is linked to two central nutritional concerns: the material used for growth and tissue replacement, and the provision of energy. The latter association, as Carpenter shows, has generated repeated disputes about whether human diets contain too much or too little protein. The first of these controversies was sparked by the conviction of Sylvester Graham (of Graham crackers) and John Harvey Kellogg (cornflakes) that disease and excessive