

Book Reviews

social and intellectual history of medicine and science, citing the work of J Gabbay, Gerald Geison, June Goodfield, Joel Howell, Christopher Lawrence, Stephen Toulmin, and George Weisz. The doubly successful result will help to orient the non-medical reader to the technical aspects of his subject, and it will invite clinicians to appreciate the merits of theoretical analysis and interpretation. I wish only that I had been able to read this book long ago.

Jacalyn Duffin,
Queen's University, Kingston, Canada

Raymond Hurt, *The history of cardiothoracic surgery from early times*, Carnforth, Parthenon Publishing, 1996, pp. xviii, 514, illus., £58.00 (1-85070-681-6).

Thoracic surgery is not now the most glamorous of specialties, eclipsed in the public eye at least by the dramas and triumphs of open-heart surgery. Earlier this century however, and in the second half of the previous one, it was indeed perceived as an heroic enterprise. Thoracic surgeons included the heart within their legitimate territory. The fortunes of their discipline, inevitably bound up to some extent with tuberculosis, rose and fell as that disease passed from challenging prominence to relative surgical obscurity. But it was the beginning of the open-heart era that marked a final parting of the ways between "cardiac" surgeons who chose to pursue heart surgery using cardiopulmonary bypass, and "thoracic" surgeons who did not.

Raymond Hurt records the changing nature of cardiothoracic surgical procedures up to this parting of the ways, that is from ancient times to the start of the open-heart era. He does so comprehensively and with clarity. The first third of the book provides an overview of the history of surgery and of some procedures now central to modern surgical theory and/or practice: the circulation of the blood, antisepsis, resuscitation, and blood transfusion. Specific coverage of thoracic surgery in early

periods usefully brings together much material scattered through primary sources. For insights into the context of surgical practice and theory more generally one might wish to consult other authors—Marie-Christine Pouchelle, for example, for the Middle Ages—but, Hurt, formerly a consultant cardiothoracic surgeon, provides glosses these authors cannot.

It is for the modern era in particular that the volume comes into its own, with a wealth of detail on the twentieth century covering not only the UK but Europe and North America as well. Three further authors provide two additional chapters, the former on electrocardiography, cardiac catheterization and angiocardiology, and the latter on the development of thoracic anaesthesia. Thereafter the book is organized under the various thoracic pathologies that have become amenable to surgical correction, in all some twenty-one chapters, which begin with empyema and end with acquired heart disease. For each thoracic pathology, the views of earlier authors as to diagnosis and treatment are presented in chronological sequence.

As might be expected from this type of organization, the book is strong on case descriptions and operative detail. We hear rather less of professional and institutional changes in the specialty as a whole, but there are compensations. A biographical section provides thumbnail sketches of the major figures in the field, some written with obvious affection. Many are enlivened by anecdotes drawn from the author's wide personal acquaintance with leading thoracic surgeons of his day. This entertaining section of the book conveys something of the atmosphere of post-war cardiothoracic surgery with immediacy and at times humour. It is here that we learn, for example, of the sometimes mystifying nicknames given to several thoracic surgeons. Understandably, Sir Thomas Holmes Sellors was "Uncle Tom", and Alphonsus d'Abreu "Pon", but why was Norman Barrett always known as "Pasty"? The only clue offered is that he "regularly travelled to Cornwall and Wales".

Such anecdotes add to rather than detract from the volume's more weighty attributes. It

Book Reviews

is indisputably an exhaustive work of reference, the detailed bibliographies are invaluable as a starting point for those researching in related fields. It is also eminently readable.

Ghislaine Lawrence,
The Science Museum, London

Christopher C Sellers, *Hazards of the job: from industrial disease to environmental health science*, Chapel Hill and London, University of North Carolina Press, 1997, pp. xv, 331, illus., \$45.00 (0-8078-2314-7).

Occupational health—or “industrial hygiene”, as it was known in the early twentieth century—has hardly figured in most accounts of the workplace. Business historians are mostly management oriented; medical and social historians have yet to give the subject the attention it deserves. Christopher Sellers’ book is therefore particularly welcome.

It traces the history of industrial hygiene in America from its beginnings in the late nineteenth century to the late 1940s, a period which also saw industrial hygiene switch its interests from industrial disease to wider environmental problems. To provide an insight into the status of occupational health in the late nineteenth century, Christopher Sellers begins by describing events at the Chicago Exhibition of 1893, where the ‘Hygiene of the Workshop and Factory Exhibit’ was virtually non-existent. It proved an appropriate symbol, as the organizers had decided to coat the buildings with tons of white lead paint—a long-recognized poison—which had predictable health effects on the painters. The example of lead is used throughout the book as a theme to highlight the development of industrial hygiene.

In the 1890s, American occupational medicine was backward, government regulation lacking, and industrialists avoided liability for any health problems. In the Progressive era before 1914, social scientists and labour organizations—notably the

American Association for Labor Legislation—targeted with some success known industrial diseases, such as the “phossy jaw” of the matchmakers. The investigatory strategy of social scientists and the networks they created paved the way for the first industrial hygienists. These included Alice Hamilton, a physician for the US Bureau of Labor, who was a key figure in establishing occupational disease research. Although industrialists were persuaded rather than compelled by Hamilton and others, by 1914 occupational health had become a marked function of the state. The baton of occupational health research was picked up during the war years by the Public Health Service (PHS), by which time state legislatures were drafting compensation laws, thus raising the spectre of liability for errant industrialists. This in turn stimulated the hiring of company physicians, a trend which continued after 1918.

In the inter-war period a reaction occurred. The studies of the PHS were attacked by industry, especially those that focused too narrowly on the workplace. Leading health researchers now put their faith in a more scientific approach, in which health hazards were examined primarily in the laboratory. By the 1920s, Harvard scientists had become the leaders in industrial hygiene research. The emphasis was on pure research, usually led by upper- and middle-class individuals who took no interest in politics and industry, yet had their work funded by businessmen. Not surprisingly, the era saw a marked convergence between scientists and industrialists, with industrial hygienists operating as a testing laboratory for toxic substances so that business could reassure the public of the safety of its products. In the depression and its aftermath, these scientists used the knowledge that they had acquired through occupational health to address wider environmental concerns such as air pollution. It signified a move in state resources and attention away from industrial health narrowly defined, a trend that was not halted until the 1970s.

Christopher Sellers’ text is densely argued (with the endnotes occupying nearly a quarter