

Book Reviews

The author's style is both pleasantly idiosyncratic and numbingly methodological. He first looks for instances before 1768 in which clinicians described diseases that resemble angina pectoris, and finds only ten clinical reports that could possibly represent angina. This paucity of cases is contrasted with the rapid proliferation of clinical reports after 1768. It is also striking that for the first few decades after Heberden's presentation reports of angina pectoris came almost exclusively from England. To explain these findings, the author carefully examines changes in food intake resulting from the agricultural revolution of eighteenth-century England, including changes in the ingestion of fats, fish, fibre, sugar, and coffee. He concludes that the most important result of the agricultural revolution was an increase in the year-round consumption of animal fats from meat, poultry, eggs, and dairy products. In addition, a decrease in strict observance of religious constraints on diet may have led to a decrease in the intake of fish and an increase in the intake of fatty animal foods. These nutritional changes were, the author argues, the main reasons that angina started to become a common disease. Michaels also considers the effects of tobacco, hypertension, stress, and exercise on the incidence of angina. He examines an extraordinarily wide range of sources for his arguments, including many contemporary clinical studies, the detailed analysis of which may be tough sledding for non-clinically trained historians (but which may not be essential for the book in any event). Many of these clinical studies take the reader on dizzying leaps from past to present and back into the past again.

Much of the reader's reaction to the book will rest, first, on whether one is willing to take absence of evidence (for angina pectoris before 1768) as evidence of absence (of the disease). Next, the reader will have to decide whether she or he is willing to accept clinical and scientific data from the present applied to the past. The author

assumes multiple continuities between past and present, but there is little evidence to support (or to refute) almost all of these assumptions. Whether or not one winds up agreeing with the author's primary hypothesis, anyone who wonders about the question of whether angina pectoris existed before 1768 is likely to learn something interesting from this book.

Joel Howell,
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Mel Greaves, *Cancer: the evolutionary legacy*, Oxford University Press, 2000, pp. xi, 276, illus., £19.99 (hardback 0-19-262835).

Contrary to the view held by some that cancer is a product of industrialized societies, no more than around 5 per cent of cancers can be ascribed to exposure to noxious modern products. Moreover, cancer has been with us from the earliest of times and cancer-like lesions have been found in a female skull from the Bronze Age and possibly in a fossil human some two million years old. Breast cancers were removed surgically in Greek times and Galen ascribed cancer to black bile. And even in the eighteenth and nineteenth centuries it was regarded as a female illness related to stress, a view promoted, for example, by the surgeon Herbert Snow at the Cancer Hospital in London at the end of the nineteenth century.

Cancer is a particularly complex disease that arises from disorder in the chromosomes and the genes in the cells, and Greaves wishes to explain it within a Darwinian evolutionary framework. It is a penalty clause in our evolutionary history—we are made of cells whose genes code for proteins that determine their behaviour. Genes can become disorganized through faulty copying and rearrangement, and, since many of our cells need to

Book Reviews

multiply, there is a possibility that things can go wrong, they can multiply excessively and migrate to improper sites. The first recognition that cancer spreads by the lymphatics was that of Henri François Le Dran in 1757 and it was only in 1829 that J C A Récamier described the invasion of breast cancer cells into the veins—the microscope was essential for progress, as was cell theory, which is at the core of Rudolf Virchow's studies on cell pathology. Cancer is now recognized as a clone that comes from a single cell whose offspring vary and are selected, unfortunately, for their own survival and not that of the host organism. It is a true Darwinian evolutionary process. The initial step is often a mutation and the first to be identified was that in the RAS gene. Survival into old age greatly increases the risk of cancer as there is more time for errors to accumulate. As A R Rich showed over sixty years ago, 25 per cent of men over seventy have invasive cancer of the prostate.

While as many as 20 per cent of Americans believe that cancer is infectious, the contrary is true. However, viruses can cause cancer. Nicolaes Tulp, the doctor in Rembrandt's *Anatomy Lesson*, did believe it was infectious. Even when cancer cells are injected into another human—it was actually done on prisoners in the USA—it has no serious effect. However, Greaves himself has a case of a mutant cell clone being spread from one identical twin to the other in the womb. Thus, contrary to Susan Sontag's metaphor for cancer, it is quite unlike infectious diseases such as TB. The environment also plays a role, particularly life style. Percivall Pott in the eighteenth century recognized that cancer of the scrotum was linked to the job of being a chimney sweep. Smoking is a major cause of lung cancer as shown by Richard Doll, and cancer of several organs like the liver and stomach are biased to the poor end of the socio-economic scale. Ironically, tobacco was originally thought to be a panacea for

a variety of afflictions from toothache to deafness. And in 1761 John Hill published a pamphlet cautioning against immoderate use of tobacco snuff. Yet the great geneticist Sir Ronald Fisher argued against a causal link.

Cure is a problem. "Cancer cannot be cured and never will be cured; but the world wants to be fooled", wrote Gui Patin in Paris in 1665. Greaves, too, is slightly pessimistic since as the cancer clone expands it evolves and so escapes negative selection by most therapies. There is unlikely to be, though we cannot be sure, any magic bullet to provide a universal cure.

This is a very useful and informative book.

Lewis Wolpert,
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Christian Warren, *Brush with death: a social history of lead poisoning*, Baltimore, Johns Hopkins University Press, 2000, pp. xiv, 362, illus., £35.00 (hardback 0-8018-6289-2).

Christian Warren presents the social history of lead poisoning in twentieth-century America as a complex and compelling lesson in the shifting ways of perceiving and managing health risk. Warren unfolds this history as a set of dialectic interactions between individuals and groups (environmental activists, public health officers, victims and their advocates), medical and scientific techniques, and the cognitive frameworks that organize and legitimate intervention in the lead debate. It is a story not of heroes and villains, nor of battles definitively won or lost, but of mutating thresholds of sensitivity (social, technical) through which the dangers of lead to individual and collective bodies have been (and are being) continually reassessed.

Warren's account focuses on three categories of exposure: occupational,