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or political persuasions, doctors, theologians, scientists, political activists and many others endorsed or attacked the *Essay*'s injunction to exercise "preventative" checks on population growth in order to avoid inevitable catastrophe in the form of war, famine or pestilence. In exploring these reactions, this volume brings a valuable historical perspective to current debates over Malthus's legacy.

Most of the essays examine either the historical conditions under which Malthus devised his theory or the impact of his ideas on British and Irish commentators. These include two studies of medical history, one by Roy Porter and another by Christopher Hamlin and Kathleen Gallagher-Kamper, that trace contemporary medical responses to the Essay. The latter, longer study shows the wide range of doctors' reactions in the nineteenth century to Malthus's claims and suggests a number of explanations for the disparate response. Other authors broach such topics as the influence of Malthus's ideas on the development of Darwin's theory of evolution, contemporary theological reactions to the Essay, and the changing moral meanings of "Malthusianism" in Britain until the 1970s.

Three of the essays look beyond Britain's borders as far as Europe and Scandinavia. Brian Dolan recounts Malthus's trip to Scandinavia in 1799 in search of "facts" to marshal in response to critics back home and shows how he wove them into later versions of his Essav. And two contributions explore the impact of his ideas on European political activists and intellectuals: Angus McLaren assesses the neo-Malthusian streak in the philosophy and politics of Frenchman Paul Robin (1837-1912), and Antonello La Vergata brings into relief the tensions between biological and sociological interpretations of fertility in European intellectual history from 1798 to 1930. Despite the book's title with its implication of a global perspective, none of the essays looks farther afield. Given the re-emergence of "Malthusianism"

in twentieth-century fears of "overpopulation" in the Third World (particularly India), this Eurocentricism is surprising. Indeed, the majority of the essays focus on the nineteenth century and only two foray into the twentieth when the term "population bomb" was coined.

Together the essays deepened my understanding of Malthus's legacy as a political economist, demographer, and moral philosopher. They help to demystify the man and contextualize his ideas. As a collection, however, the book struck me as odd in the sense that there does not appear to be a particular theme or purpose around which the individual studies are organized. In his introduction, Brian Dolan writes that he hopes the contributions will "provide new historical perspectives on ways of recontextualising, interlinking, and comparing themes central to Malthus, medicine, and morality over the last two hundred years". With such an ambitious yet nebulous goal it is inevitable that significant gaps will exist in a single volume. Still, it is unclear why these nine essays were selected to comprise a collection.

> Susanne Klausen, University of Victoria

Steven J Peitzman, A new and untried course: Woman's Medical College and Medical College of Pennsylvania, 1850–1998, New Brunswick and London, Rutgers University Press, 2000, pp. xiii, 322, illus., US\$60.00 (hardback 0-8135-2815-1), US\$22.00 (paperback 0-8135-2816-X).

In the long history of educating doctors, any mention of women until recently was rare indeed. Even twenty-five years ago, it was still something of an anomaly for a historian to be much concerned about the subject of women in medicine. Today, all this has changed and it often seems that

more is written about the female experience in medicine than about medical education as a whole.

Much of this writing is concerned with the psychosocial experience of women entering the medical profession, the neglected history of midwifery, the trials of individual women, the relations between male and female in medicine, and the unequal opportunities afforded women in entering medical school and gaining clinical experience. Only glancing notice, strangely, has been given to the single-sex medical schools for women that flourished in the half-century or so after 1850. No fewer than twenty-six such segregated schools opened their doors in the United States, Canada, Great Britain, and Russia. Until the end of the century, they were the favoured places for training women as physicians in North America and Russia, and their importance lingered even longer in Great Britain. As late as 1894, women's colleges in the United States enrolled more than 500 students of medicine each year, while in Great Britain perhaps as many as 90 per cent of women finishing medical training before 1914 did so in women's schools.

Here is a story that is begging to be told. Why has no enterprising historian sought to do for these schools what Todd Savitt has done for the segregated schools for persons of colour? With the possible exception of the London School of Medicine for Women, only Steven Peitzman's new book deals in any depth with the history of even one of these schools. How did they start? Who supported them? What were they like? How did they compare with contemporary men's schools? Who were the students? How did they fare after graduation? Who were the faculty? What happened to these schools?

Peitzman is the first historian to study in depth a single school, using critical historical methods, canvassing all sources, and raising important historical questions. He traces the development of the Woman's Medical School in Philadelphia from its Quaker origins through its "golden age"

(1880–1910) and the era of educational reforms (1900–1920) to the troubled half-century ending in its surrender to coeducation in 1969. No area of importance is left out of his study: curriculum, clinics, student life, faculty recruitment, trustee conflicts, and struggles over standards with the AMA.

But why did WMC survive at all? For more than a half-century it outlived all other women's schools, at home and abroad, fighting off the Flexnerian revolution with its demands for more research, a university affiliation, a subservient teaching hospital, higher premedical standards, and more laboratories. Scores of men's schools as well as irregular, black, and other women's schools, fell right and left before the onslaught. Alone and virtually ignored by medical educators, not bound to a sheltering university, unable to offer adequate clinical experience, never able to achieve a significant endowment, slow to build and expand laboratories, the tiny school in Philadelphia moved from crisis to crisis, borrowing, improvising, scrimping, holding on for dear life, and somehow survived. How? Peitzman finds the answer in determination, loyalty, and an almost fanatical "will to live". Possessing an almost mystical faith in itself, the school became a symbol everywhere for women's capacity to educate and be educated. Peitzman recaptures lovingly (and at times too protectively) the special personalities and circumstances that brought the school through decades of peril.

My hat is off to Peitzman for his achievement. The Women's Medical College was a sturdy anachronism for nearly sixty years. Now where are the studies of the other schools, in Europe and America, that likewise gave hope to women before being overwhelmed by the forces of reform? Or was Emily Blackwell right after all in closing her New York school in 1899, arguing that the women's schools were at best a sidetrack on the road to co-education "as the final stage of medical education of

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women"? There is material here for a dozen articles and dissertations.

Thomas N Bonner, Arizona State University

E M Tansey, D A Christie (eds), Looking at the unborn: historical aspects of obstetric ultrasound, Wellcome witnesses to twentieth century medicine, vol. 5, transcript of a Witness Seminar held at the Wellcome Institute for the History of Medicine, London, on 10 March 1998, London, The Wellcome Trust, 2000, pp. v, 80, £5.00, US\$8.00 (paperback 1-841290-11-4).

Thanks to its widespread use in prenatal care, ultrasound is perhaps the most familiar of medicine's diagnostic imaging technologies. Foetal ultrasound scans have found their way into many a family photograph album. The technology has its origins in sonar and radar developed just before and during the Second World War. In the late 1940s and 1950s, various investigators, many inspired by wartime experiences, began to investigate its possible applications in medical diagnosis. The possible applications which they envisaged differed greatly from one to the other. One important programme of work, and the one which was eventually to give rise to specifically obstetric applications of ultrasound, was based in Glasgow. Ian Donald (1910-87) was appointed to the Regius Chair of Midwifery at the University of Glasgow in 1954. Tom Brown (b. 1933) joined the instrument manufacturers Kelvin & Hughes Ltd as a trainee engineer in 1951. The collaboration between these two men, starting in 1956, was central to the development of obstetric ultrasound. Brown, and many others involved in this work from the 1950s onwards, participated in the Witness Seminar convened at the

instigation of the historian Malcolm Nicolson.

The history of diagnostic ultrasound can be told as a tale of simultaneous discovery; as a tale of the technical inspirations of war; as a tale of British scientific success and commercial failure. A Witness Seminar format, of necessity, does not make for a consistent tale. People participated in different ways and choose to emphasize certain of the things they recall. What they share, and perhaps want to share, is a sense of celebration. People assembled to celebrate progress in medical ultrasound; or at least one part of that progress. Two pages (67-8) make clear the underlying conventions at play here. Jean Robinson refers to a long tradition of consumer concern (especially from within the women's movement) regarding the safety and extent of use of ultrasound in ante-natal care. She is put firmly in her place by Stuart Campbell, an eminent obstetrician, and onetime collaborator of Ian Donald: "Professor Robinson's comment ... is of course nonsense. There is no technique ... so demanded". Both views are, "of course", correct. Their reconciliation here was not to have been expected.

> Stuart Blume, University of Amsterdam

Jon Turney, Frankenstein's footsteps: science, genetics and popular culture, New Haven and London, Yale University Press, 1998 (hardback), 2000 (paperback), pp. ix, 276, illus., £19.95 (hardback 0-300-07417-4), £11.95 (paperback 0-300-08826-4).

Jon Turney's book is about the triumphant parade of the biological sciences, and the nervously ambivalent reaction of the onlookers lining the streets. He traces the cultural history of images of the science, through the trope of Mary