preservation—perhaps even the reinforcement of "pre-modern" hierarchies and labour relations.

Rich in specific observations, Civilising natures is not, however, a coherent book. This is readily admitted by the author, who states that "Each chapter ... takes on a different slice of colonial histories of nineteenth and earlytwentieth-century science in India" (p. 7) and presents her aim as "to unravel many little stories that are often lost in the more well known big histories of nationalism" (p.13). Consequently, the introduction and the second chapter appear a bit flimsy. Four core chapters follow, each addressing one of the scientific fields mentioned above. Of these four chapters the first two—on forestry and plantations—are highly interesting. The third—on ethnography—is both much longer and less interesting. I have two objections to this chapter. First, the question raised ("how was the native constructed as an object of scientific knowledge?", p. 141) has already been addressed in so many studies of colonial ethnography. Second, the chapter has a tendency to loose focus by including general discussions of, for instance, James Mill and Karl Marx, which tell us nothing new. Fortunately, the author is back on the right track in the chapter dealing with missionary activities among tribals in South India. It is convincingly argued that religion and science were only superficially opposed in their attitude towards the native, as they both sought to sedentarise people in order to control them and valued "the upstanding, hardworking citizen of an industrial nation as opposed to the uncivilised, lazy non-western native" (p. 215). The final chapter brings in a global perspective through an interesting reading of the transplantation of the cinchona tree, used in the production of antimalarial drugs, from the Andes to the Nilgiri Hills. In this way, something resembling "real" medical history appears towards the end of the book. Still, Civilising natures is primarily relevant to historians of medicine because it offers an inspiring approach to the relation between science and empire.

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Diana Wyndham, *Eugenics in Australia: striving for national fitness*, London, The Galton Institute, 2003, pp. xv, 406, £5.00 (paperback 0-9504066-7-8).

The importance of eugenics in immigration, Aboriginal and public health policies is a subject of recurring interest in Australian history. Joy Damousi devoted her first issue as editor of Australian Historical Studies in October 2002 to the themes of race, migration, eugenics, purity and progressivism. Its contributors, and chroniclers of the history of public health in Australia, notably Michael Roe and Milton Lewis, have suggested factors which gave eugenics in Australia its particular shape. Federation of the separate colonial states facilitated a national approach to public health, especially for infectious diseases, and this included an emphasis on the health of visitors and immigrants. The constant perceived threat of invasion meant there was a need to settle tropical Australia. In addition there was the belief that Australians, particularly children, were and should be stronger and healthier than populations in the Northern Hemisphere. Whether early-twentieth-century Aboriginal policy was eugenic or not is currently being debated. It has been argued that policies of the absorption of Aborigines are counter to eugenics.

In Eugenics in Australia, adapted from her PhD thesis, Diana Wyndham states that her aims were to show that fears about the declining birth rate early in the twentieth century led to the acceptance of eugenics; that the movement, although derivative, had distinctive qualities; and that eugenics had a strong influence on the development of health services, especially family planning and public health.

Opening with the most important issue of all, she discusses the impact on the gene pool of colonists and Aborigines and the dilemma of whether the tropical north should be settled by Aborigines, immigrants from neighbouring countries or white Australians; this includes a discussion of the White Australia policy. This rather oddly structured book then continues with biographies of four eugenicists, selected to fit a classification developed by historian Geoffrey

Searle. Marion Louisa Piddington was a "strong" eugenicist and a pioneer in sex education. John Charles Eldridge was a "weak" eugenicist with radical political views who promoted positive and environmental eugenics. Lillian Elizabeth Goodisson, a "medical" eugenicist (with a syphilitic husband), was the stalwart secretary of the Racial Hygiene Association of New South Wales, which became the modern Family Planning Association. Henry Twitchen was a wealthy landowner in Western Australia, whom she classifies as a "career" eugenicist. Wyndham reveals, citing the Aboriginal author Sally Morgan's best selling book, My place (1987), that Twitchen had a close relationship with Morgan's destitute grandmother, Alison Drake-Brockman, who petitioned unsuccessfully to the executor of his will for an allowance. His fortune went to the Eugenics Education Society in London.

The discussion of organized eugenics which follows is comprehensive and based on extensive research using primary sources. Wyndham is prepared to be more interpretative here than elsewhere in the book. She shows how Australian eugenicists were few in number, isolated from each other, the international movement and to some extent other scientists. This led to at best a lack of co-operation, and at worst destructive in-fighting, as occurred between the Racial Hygiene Association of New South Wales and the Eugenics Society of Victoria.

This fact-packed book then returns to describing how themes common to eugenics around the world played out in Australia. A chapter on boosting the population shows there was concern about relying on immigration for population growth. In Australia, as in the home country, there was concern about degeneracy; however, Wyndham suggests that in Australia fear of an underclass was much less a factor than in Britain. She also makes the point that in Australia negative eugenics was much less developed than internationally. Although there were some practices in some government services aimed at eliminating the unfit, no laws were passed.

In terms of her stated aims this book provides a convincing account of how the desire to populate

the new country was influential in the acceptance of eugenics. Wyndham shows that eugenics in Australia was derivative, but distinctive. However, this idea could have been developed more conclusively. With regard to her important proposition that eugenics was influential in the development of the Australian health services, Wyndham relies heavily on the field of family planning, the subject of her previous book, and neglects the history of eugenics in public health.

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Elof Axel Carlson, Mendel's legacy: the origin of classical genetics, Cold Spring Harbor, Cold Spring Harbor Laboratory Press, 2004, pp. xix, 332, illus., US\$45.00 (hardback 0-87969-675-3).

According to many commentators the twenty-first century will be the age of genetic medicine. This is often regarded as the spill-over of genetics to the life sciences and into medical and public domains. It is therefore of special interest that the American geneticist and historian of science Elof Axel Carlson presents us with a detailed history of classical genetics from the rediscovery of Mendelism in 1900 to the genesis of molecular biology and the DNA-model in the 1950s.

In this study, the author brings along his own background as a former pupil and biographer of one of the protagonists of the story, Nobel prize winner Hermann J Muller. Carlson starts out with the development of evolution theories, cytology, embryology, chromosome theories, plant and animal breeding, and Mendelism in the nineteenth century. He resolutely opposes any attempt to explain science in sociological, political, or historical contexts. In his presentation, the history of classical genetics is a history of "winning the facts" by the use of scientific experiments. This perspective enables him to give us a straightforward story, beginning with Thomas Hunt Morgan's classical fruit fly experiments at Columbia University. Carlson spices his story with biographical detail and