

Book Reviews

access to doctors, then the rising mortality rate of American youth might be reversed.

Prescott's strengths lie in her clarity, thoroughness and willingness to expand from her case study to cover the entire century. Throughout, she pays appropriate attention to the social context within which adolescent medicine developed, so readers are taken not only through the politics of the profession but into the culture of early-twentieth-century anti-modernism and the critiques of post-Second World War suburbia. She would perhaps have done well to offer her own take on the politics of adolescent medicine much earlier in the book. As it stands, she appears to be largely uncritical of her subject and she drifts into rather descriptive detail. Roswell is slapped on the wrists once in a while for sharing the same racial, sexual, class and gender-based prejudices of many of his contemporaries, but there is much that remains Whiggish in Prescott's analysis. A more sympathetic critique of those who remained sceptical of adolescent medicine would have been valuable, though *A doctor of their own* is clearly a solid and useful contribution to the field.

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David Arnold, *The new Cambridge history of India, part III, vol. 5: Science, technology and medicine in colonial India*, Cambridge University Press, 2000, pp. xii, 234, £35.00, \$59.95 (hardback 0-521-56319-4).

This valuable book analyses the importance of science, technology and medicine in the course of India's colonial encounter, from the days of the East India Company until India's independence. It traces the complex contours of the relationship between Indian and Western sciences, perceiving it in terms of interactions and not along the paradigm of

Western diffusion/Indian passivity. David Arnold delves into the questions of science and modernity and their location in the colonial power/knowledge system, which was subsequently contested by the Indian nationalists.

While analysing the scope of science under the East India Company, the author refers to the different ideological phases and the evolution of an exploitative relationship that determined the shifts and changes. Thus, he traces in the perceptions of the colonizers a drift away from an "Orientalist" approach to an attempt at organizing science for a more interventionist "future".

Arnold's examination of "Western" medicine similarly contextualizes the problem, tracing the interactions between environment, culture and history. Here the author discusses aspects like the Indian Medical Service and the Indian practitioners of Western medicine as well as the encounters with Indian medicine. He examines the indigenous method of variolation, the manner in which the colonial state sought to replace it with vaccination, as well as the diversities that marked the vaccination programme itself. While discussing malaria, he points out the racist explanations of the disease in the pre-Ross phase. He touches upon the army-centred strategies to counter cholera. Arnold also focuses on women medical missionaries, the "lock hospitals" designed to confine/treat Indian prostitutes close to the military cantonments and the replacement of "dais" with trained midwives.

In his discussion of technology, the author considers textiles, mines and metallurgy, shipbuilding, the system of communication and irrigation. These are seen as features associated with the very process of India's colonization. Thus, Gandhi's *Hind Swaraj* (written in 1909) articulated an anti-industrial critique of modernity that had deep roots.

While focusing on imperial science,

Arnold sees ideological and professional continuities between the East India Company and post-1858. Nevertheless, he emphasizes the steady move away from “exploratory and observational science” to a “confident alliance” between science and the state. He discusses the way the Indian Civil Service, the Medical Service, the departments of science, forestry and agriculture and the Indian scientific community negotiated with imperial science. He notes that from the 1890s through the First World War there was an increase in the interaction between the Indian scientific community and Western science. He traces the complexities involving the “revival” of indigenous, especially “Hindu” science in a context when Western science and medicine seemed to be firmly entrenched in India.

Arnold’s work highlights this in the Indian context and contests euro-centric positions which see science as a monopoly of the West. Moreover, by locating these issues as complexities rooted in South Asian historical/cultural specificities, he poses an interrogative paradigm that sees science/technology/medicine as inextricably linked to human society, culture and history. This method accommodates an “Indian” tradition and draws upon various internal diversities as well as external influences. His sound approach leaves no space for the method of “indigenism” that has gathered some intellectual momentum in India over the last decade or so.

This study cannot be ignored by anyone interested in the history of colonial India. Moreover, the detailed bibliographical notes should be very useful to the specialist reader. Although a bit uneven, especially when it comes to the Adivasis (i.e. indigenous people), one can in fact hope that this book generates the desired interest and inspires future researchers to study them, and their world of science, technology and medicine.

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Robert Boyd, *The coming of the spirit of pestilence: introduced infectious diseases and population decline among Northwest Coast Indians, 1774–1874*, Seattle, University of Washington Press; Vancouver, UBC Press, 1999, pp. xv, 403, illus., \$50.00 (hardback 0-295-97837-6).

The devastating impact of Old World diseases on Amerindian peoples was recorded by Europeans for several hundred years following Christopher Columbus’s first landing on the American continent, and continued to fascinate a variety of observers in the twentieth century. In recent times perhaps the most distinguished historical contribution to this literature has been A W Crosby’s *The Columbian exchange: biological and cultural consequences of 1492* (1972). For many, it has become axiomatic that the introduction of West European infections among the “virgin soil” populations of the Americas had terrible demographic consequences which eased the way for subsequent European domination of those continents. Yet the reality of what happened, the precise demographic mechanisms by which this disaster occurred, has been unclear. As Crosby noted in 1992, there is a large body of evidence in support of the theory, but much of it was collected in the pre-scientific and pre-statistical centuries, and almost always by soldiers, missionaries, trappers and traders rather than by physicians and demographers. It is, by definition, no better than impressionistic. Taking instead the similar, but much better documented, experience of Hawaii after 1778, Crosby linked repeated epidemic crises with “anomie”—enervating cultural disorientation—and plunging birth-rates: “the secret blights of abortion, infanticide and infanticidally negligent child care, venereal infections, sterility and despair”.¹

¹ A W Crosby, ‘Hawaiian depopulation as a model for the Amerindian experience?’, in Terence Ranger and Paul Slack (eds), *Epidemics and ideas: essays on the historical perception of pestilence*, Cambridge University Press, 1992, pp. 175–201.