opticians, even though the placement and care of artificial eyes had health implications for the recipients.

In his trenchant essay on the post-Second World War career of a drug for the treatment of hypertension, Carsten Timmerman looks at how technologies shaped the diagnosis of high blood pressure and its treatment with a new class of drugs in post-war Britain. Timmerman emphasizes how the Medical Research Council successfully recruited pharmaceutical companies to a more active role in drug development for the management of hypertension, and how the careers of these drugs continued to coexist with extra-drug management, including the hospital beds used to compensate for the sudden lowering of the blood pressure produced by the drug. Julie Anderson offers a superb essay on hip replacement, drawing on her research with John Pickstone on the history of disability and its treatment. (Pickstone also has a provocative essay here on the long history of a medical technology.) Anderson explores some of the challenges in the larger environment in which a medical technology must adapt in order to succeed as a viable treatment option for patients and practitioners. In the case of hip replacement, one of the challenges to the efficacy of the device was the condition of the operating theatre and the quality of air flow, which had major implications for the rates of post-operative infection after the replacement surgery. Adaptations, as Anderson illustrates, can take many different forms – further evidence of the role of historical contingency in the success and failure of medical technologies.

In all, this volume is an excellent introduction to current historical approaches and subjects in the continuing interaction of medicine and technology.

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Michael Adas, **Dominance by Design: Technological Imperatives and America's Civilizing Mission.** Cambridge, MA and London: The Belknap Press of Harvard University Press, 2006. Pp. 542. ISBN 0-674-01876-2. £18.95, $29.95, €25.50 (hardback).
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Among historians of science and technology Michael Adas is known for his 1989 book *Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance* (Ithaca, NY, 1990). In that book, which was focused on the long nineteenth century, he argued that scientific and technical superiority was critical to ideologies of imperialism, at least to 1914. This book is not really a sequel or elaboration, or an extension of the argument into the twentieth century, but something different in register and ambition. It deals specifically with the United States, from the colonial era to the present, with chapters on the nineteenth century, the case of the Philippines in the very early US colonial era, the inter-war years, the period from 1941, the Vietnam War, the first Gulf War and, in the conclusion, the attacks on the World Trade Center. The theme of the book is that the US has been particularly enthusiastic about technology, and that this enthusiasm has made for a serious problem of technological hubris, best illustrated by the Vietnam experience.

This theme is not of course a novel one among historians of the US and technology, and the book does not claim it is. Indeed it hardly deals at all with existing literature. Rather more troublesome is that it is not really clear what the underlying argument of the book is. Adas talks of technological imperatives, but these are never explained or conceptualized. The link of technological enthusiasm to US self-identity is not fully explored either. Particular technologies, and engineers, are surprisingly absent from the text. It is mostly a reflection on elements of US elite thinking about technology and imperial power.

There are some problems, well exemplified in the book, with this genre of technology-in-America writing. One is that the arguments are so insular. The rest of the world hardly exists,

and technological innovation and enthusiasm is made to seem a particularly North American phenomenon. The problem is illustrated by the cover, which shows a ball bearing. It says 'Made in USA' on it, but the 'SKF' marking tells us it was made by the Swedish SKF company, and was probably merely manufactured in the USA. It was a Swedish 1907 design, and the photographed example was donated to New York's Museum of Modern Art in 1934, as one of the first objects to enter its design collection. For much of the period covered by this book, US technological imperialism was a poor cousin to British, French, German and Dutch technological imperialism. The US, in technology as in industry, was a uniquely successful follower, not the originator. But in Adas's book the comparisons with other imperialisms appear only so briefly as to be unconvincing.

A second problem is that enthusiasm for technology is made the central defining feature of the US, for good or ill. But this is clearly a highly ideological construction which needs unpacking. For many foreign analysts the most obvious differentiating feature is not attitudes to technology but rampant, and immensely productive, capitalism. This economic setting is essentially missing from this book, which focuses on the imperial state and the military. Yet to most non-Americans the US civilizing mission, positive and negative, was experienced first and foremost by engagement with Ford cars, United Fruit and General Electric, rather than as colonial subjects or with bearers of US arms. Arms and the formal empire are only part of the story. It is worth comparing *Dominance by Design* with a book from nearly three decades ago, whose title it echoes, David Noble's *America by Design: Science, Technology and the Rise of Corporate Capitalism* (Oxford, 1977).

A third general problem exemplified by the book, and especially surprising in this case, is that the story of US imperialism is told almost entirely from the perspective of US actors. Even here, the Filipinos or the Vietnamese do not really count, just as they did not in the eyes of the imperial state. It is a profoundly US view of its own predicament, or rather, more specifically, the view of a particular fraction of the US liberal academic elite.

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Mark Wheelis, Lajos Rózsa and Malcolm Dando (eds.), **Deadly Cultures: Biological Weapons since 1945.** Cambridge, MA and London: Harvard University Press, 2006. Pp. xi + 479. ISBN 0-0674-01699-8. £37.95, €51.00, $59.95 (hardback).
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November 2006 saw a three-week conference in Geneva to review the operation of the Biological Weapons Convention (BWC) of 1972. The BWC undertook to prohibit the development, production and stockpiling of microbial or other biological agents that have no justification for peaceful purposes, and similarly to prohibit the development of biological weapons (BW) and means for their delivery. Delegates from 155 states-parties meet every five years to discuss progress, to strengthen the treaty and to bring remaining countries into the convention. This, the Sixth Review Conference, was expected to be an uphill struggle. What was a beacon of hope in 1972 – almost a generation ahead of its counterpart, the Chemical Weapons Convention of 1997 – has now dimmed to the point of darkness. Confronted by disagreements, fears of violation and threats of non-compliance, delegates are turning back to first principles; to legal frameworks; and to new proposals for materials safeguards, national enforcement and international oversight. As they do, it is fortunate that they have at their disposal this timely reference – the first, as its editors say, to survey comprehensively the history of BW since the end of the Second World War. Indeed, this is the best account currently available in a single volume.