David Arnold, *Everyday Technology: Machines and the Making of India's Modernity.* Chicago: University of Chicago Press, 2013, 232 pp, 22 half-tones, 4 tables.

In *Everyday Technology*, David Arnold shows the importance of the history of technology for our understanding of politics, society, and culture. He begins by making a brave opening gambit. In 1989, Michael Adas made the argument that, after Columbus, European airs of superiority toward much of the rest of the world were increasingly warranted by the belief that people under colonial domination were technologically backward. Meanwhile, during the Industrial Revolution, the most powerful tools were made by Europeans. For this reason, Adas showed that Europeans came to believe that they deserved global hegemony. Arnold proceeds from Adas' premise to ask what it would be like to see this process of ideological and technological domination from the perspective of the Indians who consumed many of these technologies.

Arnold's question draws together a number of important strands in the history of technology. Historians of technology are starting to evaluate the ways in which users shape the production and understanding of technologies, while for some time now historians of technology have shown the ways in which technological and political visions go together. Typically, more attention has been paid to techno-political visions in Europe and North America. Arnold highlights the importance of technology's users for the formulation of modern Indian technology and politics.

While the products of Western industry spread through India and were increasingly produced in India, Indians contested different techno-political visions. These ranged from Nehru's vision of an independent, industrialized India, to Gandhi's desire to achieve independence by rejecting modern technologies, to the less famous vision, articulated in a science-fiction story by Begum Rokeya Sakhawat Hossain, for a feminist utopia in which women dominate society by developing machines that concentrate the sun's rays as well as by building flying machines that would eliminate the need for India's roads.

These and other techno-political visions are analyzed in Arnold's book, articulated with a fine-grained, social-historical study about ordinary people and ordinary technologies. Introductory and concluding chapters provide historical and historiographical context, but the main work is a comparative study of four important everyday technologies. These are very well chosen: the sewing machine, the typewriter, the bicycle, and the rice mill. All were imported widely, at relatively low cost and with little government support. The introduction, use, and modification of the machine influenced the ways in which ordinary people thought about cultural norms, particularly gender and race.

The sewing machine helped women to start home businesses that linked production in households to external markets. The mobility that came with

cycling enabled both men and women to sense greater personal freedom. Typing and female secretarial work gave women, and particularly Eurasian women, a "respectable" form of employment outside the household. By contrast, the proliferation of mechanized rice mills displaced labor and increased the incidence of beriberi and industrial accidents. Gandhi complained that rice mills took away the dignity of rural women by shifting labor toward the townsmen who owned the mills. Other advocates for independence applauded efforts to manufacture bicycles and typewriters in India. All these technologies and their associated social changes were debated extensively. Arnold presents evidence from newspapers and trade journals, as well as contemporary memoirs and historical accounts.

The clever use of extensive sources, together with brilliant scholarly engagement and clear writing, all mean that Arnold has produced a rare gem: a monograph that will interest advanced scholars as well as undergraduates. The author's technologies are humble, yet the book deserves to attract the attention of a wide audience.

———William Kelleher Storey, Millsaps College

Chris Pearson, *Mobilizing Nature: The Environmental History of War and Militarization in Modern France*. Manchester: Manchester University Press, 2012.

Until now, few military historians have placed the environmental consequences of mass violence in focus, and few environmental historians have had military operations and warfare in their sights. Although the discipline of environmental history has blossomed dramatically in Europe over the past decade, it has been slow to emerge in France. The birth of environmental studies of warfare in modern France has required the infusion of English-language perspectives. For broader consideration of wars' environmental impacts, historical geographers at Bristol University have provided an analytical structure that their core member, Chris Pearson, has applied in *Mobilizing Nature*, published in the Manchester University Press series on "Cultural History of Modern War."

Pearson's subject includes more than battlefields or wartime regions; he also surveys militarization and militarized landscapes, which "encompass military food supply chains, wartime manufacturing sites, military roads, military recruitment centres on town high streets, and checkpoints in areas such as the West Bank, as well as military bases, battlefields, air bases, navy bases, and fortifications" (p. 2). He mobilizes varied sources in French and English, from military geography and strategic planning to social conflicts, industrial technology, and plant ecology.

Pearson's account begins in the 1850s, when the French military was evolving into a modern professional establishment. This manifested in its first large,