

sion of how contemporary biology invalidates even the most thorough efforts to link social inequalities to racial differences.

Given the prevalence of genetic determinism in contemporary American culture, a more detailed discussion of the inability of genes alone to determine complex phenotypic traits such as intelligence could have made the book more balanced and useful.

Jeffrey Lewis

Low, Morris F., ed. *Beyond Joseph Needham: Science, technology, and medicine in East and Southeast Asia*. Chicago: University of Chicago Press, 1998 (*Osiris*, 13). 443 pp.

This thematic issue of *Osiris* on science and technology in Asia aims to go beyond the traditional focus on ancient China in the field as pioneered by Joseph Needham. China and Japan still dominate the topics of the sixteen essays in the volume, but they also cover Indonesia, Korea, and Thailand. Most of the studies explore developments in the 19th and 20th centuries. Some of the most innovative essays employ cultural and social approaches: the anthropologist Francesca Bray, based on her study of imperial Chinese domestic architecture, advocates a cultural history that sees technology as “key elements in the creation and transmission of ideology.” M. Susan Lindee examines the status of the body parts of atomic bomb victims as both natural objects to reveal scientific truth and as diplomatic objects of international politics during the negotiations over their repatriation from the U.S. to Japan in the late 1960s and early 1970s.

Graeme Gooday and Low argue that when Western scientists and engineers went to teach in Japan in the late 19th century, they initiated not a one-way technology transfer but complex cultural interactions with impact on Western engineering education. Likewise, Peter Neushul and Lawrence Badash demonstrate that technology transfer can flow from developing to developed countries, as in the case of seaweed cultivation in China, the Philippines, and the United States. Other interesting studies include Chin Hsien-Yu’s on public health in Taiwan from 1895 to the 1950s, Tessa Morris-Suzuki’s on the debate over racial science in World War II Japan, and James Bartholomew’s on Japanese Nobel candidates in the first half of the 20th century.

Zuoyue Wang

Palevsky, Mary. *Atomic fragments: A daughter’s questions*. Berkeley: University of California Press, 2000. xiv, 289.: illus.

Nearly sixty years have passed since the first detonation of an atomic bomb in July 1945. Most of the people involved in the project to build the bomb are gone. As they aged, many of them sought to share their experiences and opinions, via memoirs, autobiographies, and personal histories. In *Atomic fragments*, Mary

Palevsky strives to understand how various members of the Manhattan Project viewed themselves during World War II, and how they came to understand their place in the nuclear world. Palevsky interviewed atomic scientists who had worked on the bomb. Their feelings and opinions helped the author to explore her personal connection to the project: her parents were both scientists working at Los Alamos during the war.

*Atomic fragments* provides insight into the often-mysterious inner thoughts of famous scientists such as Hans Bethe, Edward Teller, Robert Wilson, and Joseph Rotblat. The author ponders, reminisces, and digresses throughout. Palevsky describes her grief, sadness, shame, guilt, and pride all seemingly held simultaneously when she thinks of her father and his work on atomic energy during and after the war. The questions asked in *Atomic fragments* certainly have no easy answers. Why did such venerated scientists agree to build a bomb? Was the decision to use it the correct one? Why did many of the same scientists continue to work on weapons after witnessing the destructive forces they had unleashed? What is the appropriate role of scientists in policy-making?

Kalil Oldham

Rauch, Alan, *Useful knowledge: The Victorians, morality, and the march of intellect*. Durham and London: Duke University Press, 2001. 262 pp.: illus.

Alan Rauch's lively and illuminating study deals with Britain's obsession with knowledge as a facilitator of social mobility, guide to moral development, and compass through the mazes of invention and discovery sweeping the post-Napoleonic world. He sees science, literature, and culture as inextricably linked. A literary scholar, Rauch is particularly good at showing how the structures of encyclopedias, compendiums, instruction manuals, and children's science literature affected the perception of "truth" for non-specialist readers. He analyzes novels by Jane Webb Loudon, Mary Shelley, Charlotte Bronte, Charles Kingsley, and George Eliot for their renditions and impressions of the exploding world of science.

According to Rauch, the early 19th century still prized the polymath and cheerful collector of curios. By the time of Darwin, the great systematizers had aroused fears that knowledge in the wrong minds, misunderstood, would undermine religious and moral order. Casualties along the way included the Society for the Diffusion of Useful Knowledge and encyclopedias as vehicles for advancing all aspects of understanding together, in a mutually reinforcing circle of comment, critique, and comprehension.

Nancy W. Ellenberger