

Graham addresses five questions of great relevance to the twentieth and twenty-first centuries: Is science a social construction? Are science and technology Westernizing influences? How robust is science under stress? How willing are scientists to reform their own institutions? Who should control technology? The Soviet Union and post-1991 Russia are the *terra cognita* for Graham's explorations of these issues. His answers are not reassuring.

Navigating between the Scylla of extreme social construction and the Charbydis of objective reality (indeed, Alan Sokol's 1996 spoof article in *Social Text* inspired this talk), Graham concludes that science is socially constructed—but that construction includes scientific as well as societal factors. One of his important subthemes is an application of David Bloor's symmetry principle: if certain aspects of Communist rule hurt science and technology, isn't it equally true that other aspects helped? Graham demonstrates both the negative and positive effects of Communism on Russian science, using (in an excellent summary) the Lysenko case to illustrate the former and dialectical materialism the latter.

Science and technology did erode the exceptionalism—and thus legitimacy—the Soviets claimed for their society. The fear of nuclear war, the diffusion of new communications technologies, environmental concerns, and the country's growing economic and technological gap with the West all served to undermine Soviet rule. Since the demise of the Soviet Union, however, the Westernization of Russian society has impoverished, not benefited, scientists and engineers, especially those connected with the military-industrial complex.

During both the Soviet and post-Soviet periods the scientific establishment has had to operate under stressful circumstances. Stalin had thousands of scientists and engineers arrested and killed. Yet the state provided enormous resources for those who were allowed to survive. The Soviets led the rest of the world in many fields of research and produced not a few technological accomplishments, the hydrogen bomb and Sputnik among them. Since 1991, although freedom has flourished, state support has withered. Graham's conclusion: support is more important than freedom for science, but society benefits most when scientists are able to work freely.

Graham's assessment of the Soviet, now Russian, Academy of Sciences is similarly gloomy. This bureaucratic leviathan, having failed to reform itself, remains essentially unchanged, the only academy to unify official honor, adminis-

trative authority, and control of the purse strings. This combination was counterproductive in Soviet times; now, when resources are far more limited, it is potentially lethal. Graham implies that the academy's failure to adapt to new conditions may open the door for needed changes imposed from outside the scientific community.

On a more optimistic note, Graham concludes with a look at megaprojects in Russia, China, and the United States. Believing technology is too important to be left to the engineers, Graham observes that increased citizen participation in technological discussions and decision-making processes leads to solutions most likely to benefit all society and not just narrow technocratic criteria.

Although the cases he presents are related to Russia, Graham correctly and convincingly draws larger conclusions that will interest not only specialists on the Soviet Union but anyone concerned with the history of modern science and science policy. He has written a small, affordable book that would be excellent for general history of science courses as well as more advanced courses. The themes are challenging, the footnotes rich, and the writing flows elegantly.

Poignantly and appropriately, the book's dedication reads: "To Russian scientists and engineers: They have created, they have suffered, and they have instructed."

JONATHAN COOPERSMITH

Lisa Yoneyama. *Hiroshima Traces: Time, Space, and the Dialectics of Memory.* (Twentieth-Century Japan: The Emergence of a World Power, 10.) xiv + 298 pp., bibl., index. Berkeley/Los Angeles/London: University of California Press, 1999. \$45 (cloth); \$17.95 (paper).

This is a sensitive study of the ways that the atomic bombing of Hiroshima has been remembered, by survivors, urban leaders, ethnic Koreans, women's groups, and others. It is a compelling resource for the growing number of historians of science interested in the politics of commemoration. It is also relevant to historians of technology or science who recognize that consumers or "end users" of technology are part of the history of any machine. For many military technologies, of course, the ultimate consumers are those who experience the bodily injury or physical disruption that the machine is intended to produce. The experience of the atomic bomb has not been limited to those who were present in Hiroshima on 6 August 1945, however, and

the atomic bomb has been historically constructed and reconstructed at many levels, by many actors.

Lisa Yoneyama shows that the dominant narrative of “nuclear universalism” in which the bombing is supposed to be remembered from the transcendent and anonymous position of shared humanity (“a single totality in the name of the world peace” [p. 15]) is concocted from a thick network of competing, sometimes contradictory, stories produced by many stakeholders. Her exploration of this patchwork is both disturbing and hopeful. She begins from irony: How has it been that the site of the world’s first nuclear detonation has become a universal symbol of peace? By exploring the public debates over the Peace Memorial City Construction Law in 1948, Yoneyama shows that lobbyists supporting the law saw it as a way of forgetting the bombing. The “spirit” of the law, as one participant put it, had no relationship to 6 August 1945. At the same time, General MacArthur and Occupation authorities favored plans that would reconstruct the city as a commemoration to world peace for somewhat different reasons—because it would confirm an explicit connection U.S. policy makers were using to defend the American decision to use the bomb. The commemorative city of Hiroshima was a demonstration of the interchangeability of “the atomic bomb” and “peace,” Yoneyama suggests.

Similarly, she considers the negotiations surrounding the 1970 Korean Atom Bomb Memorial. The memorial’s inscriptions and location, across the river from the Peace Park rather than within it, became part of the local and national exploration of both Japanese colonialism and Korean ethnicity. The Korean memorial was interpreted very differently by two leading Korean groups in Japan. It celebrated the death in Hiroshima of a single Korean victim, Prince Yi U, a member of the Korean royalty seen by some Koreans in Japan as a collaborator with the Japanese. At the same time, the text on the memorial explicitly referred to Japan’s colonial aggression and to the suffering of the Korean people. The memorial had multiple meanings, as Yoneyama makes clear, and proposals to change the wording and move the memorial provoked the articulation of these meanings in public and official debates.

The study is particularly effective in its treatment of hibakusha testimonial practices, which shifted over the decades in ways that reflected Cold War politics, the growing intensity of the antinuclear movement, and the aging of the hibakusha population. Many survivors reached

their sixties in the 1980s and began, some for the first time, to write and to speak publicly about what they had experienced, not just in August 1945 but throughout their lives both before and after the bombing. Yoneyama suggests that these new testimonial practices led to both an increase in the sheer number of survivor accounts and an epistemic or paradigmatic transformation in the kinds of stories survivors told. She also considers how some observers, including physicians, scientists, and psychologists, provided “verification” and “institutional authority” (p. 94) that in effect alienated hibakusha and provoked survivors to seek a “wholeness” that scientific fragmentation seemed to threaten.

Yoneyama is a scholar of Japanese studies and cultural studies, rather than a historian, but her book is about how we make history, how we define the meaning of technology and science, and how local and global forces—personal suffering, racism, war, colonialism—intersect to make some elements of a given experience visible and obvious and to make others obscure or unknowable or silent. She is always aware that stories silence as much as they reveal.

M. SUSAN LINDEE

Louise Lamphere; Helena Ragone; Patricia Zavella (Editors). *Situated Lives: Gender and Culture in Everyday Life*. 493 pp., illus., figs., bibls., index. New York/London: Routledge, 1997. \$75 (cloth); \$28.99 (paper).

The editors of this collection have brought together some fine essays on gender, race, and culture that seek to illuminate the lives of ordinary women and men in different contexts ranging across the globe. The book exemplifies the feminist modernist anthropology for which Louise Lamphere is particularly well known. Each essay is firmly fieldwork based and provides a case study of cultural transformation, gendered practice, and varied forms of resistance. The authors share a concern to write in a way that does not objectify their subjects and that does recognize the variety of women’s situations and experiences.

The book is divided into five sections. The first (and shortest) section, “The Power of Representation,” reflects on the relationship between the scholar and communities under observation, between insider and outsider, the self and the other. The section most directly engaged with science studies is “Reproducing the Body: Reshaping Conception and Birth.” It draws on one of the most exciting and expanding areas of