BOOK REVIEWS

Anthropologies of Technology

Paths of Fire. An Anthropologist's Inquiry into Western Technology. ROBERT McC. ADAMS. Princeton University Press, Princeton, NJ, 1996. xvi, 333 pp. $29.95 or £22.95. ISBN 0-691-02634-3.

The Spell of the Sensuous. Perception and Language in a More-than-Human World. DAVID ABRAM. Pantheon, New York, 1996. xvi, 327 pp. $25 or C$35. ISBN 0-679-43819-X.

Anthropology arose in the 19th century as the science to explain human variations, especially variations at odds with those dominant in Europe and North America, thus also and by reflection that variety of human beings now known as technoscientists. The typically 19th-century approach appealed to biological (that is, racial) differences, which were assumed to undergo evolutionary development, as the causes of human cultural differences. Crudely put, primitive peoples of color had smaller brains than white civilized peoples. Early-20th-century anthropology rejected this biological paradigm in favor of the primacy of culture itself, which nevertheless continued to be thought of as exhibiting historical progress. The savage mind, if not the brain, was less sophisticated than the technoscientific one. Late-20th-century anthropology has, however, tended to criticize the idea of cultural progress as a vestige of Western colonialism and to substitute for it a pluralist, egalitarian view—coordinate, one might note, with its own splintering into intersecting fields, from archaeology and ethnology to linguistics and philosophical anthropology. This current permutation has in turn allied anthropology more with the humanities than with the sciences. The two books under review, however, attempt to restate and reargue an evolutionary cultural anthropology, although with considerably different methods and yielding quite disparate results.

Robert Adams, a social archaeologist of the early Middle East, assumes and reinforces the idea of technological progress, although of a more contingent sort than would have been advanced 50 years ago. The six central chapters of his book survey with roughly equal attention technological change in Western antiquity, in early modern Europe, in industrializing England, in the 19th-century and in the 20th-century United States, and in the late-20th-century transnational economy. These chapters are preceded by an analysis of theories of technological change and followed by concluding reflections on factors affecting technoscientific advance in a borderless world. Eschewing any single-factor determinism, Adams views technology as "a multilevel phenomenon" reflected in "successive impulses or surges of technological innovation" that "form an accelerating, in some loose sense cumulative—but hardly inevitable or unidirectional—series" (p. 253). Although not triumphalist, technology is nonetheless triumphant. Technological change emerges as similar to those transformations that mainstream anthropologists find in the development of the species *Homo sapiens* and its cultures—not to say in the punctuated and cumulative but hardly inevitable or unidirectional movement of a forest fire.

The stated intention is to bring an anthropological perspective to bear on the history of technology, with the claim that in so doing the author promotes a broader and deeper appreciation than can be found elsewhere. Unfortunately this does not turn out to be the case. Most conspicuously absent is sufficient consideration of technology outside the European background or orbit of influence; also slighted are art, religion, and related aspects of culture. Moreover, the key inspiration of Adams's multilevel social-science approach is the great multilevel French historian Fernand Braudel, for whom technology becomes "everything." Adams's qualification of Braudel's hyperbole, which he still accepts once technoscience has come on the scene, turns an arresting idea into what may be described as the cliché of our age: technological change is very complex and multifactored. Equally remarkable by their absence are the number of anthropologists who have made distinctive contributions to the understanding of technology—from André Leroi-Gourhan and Arnold Gehlen to Claude Lévi-Strauss and Clifford Geertz. Despite dustjacket puffery, this is an unexceptional book written in an undistinguished style. (The footnoting system, which requires second-order reference to the bibliography, and sometimes even third-order reference within the bibliography, is an abomination as well.)

David Abram's book is, in contrast, a truly original work by a philosophical anthropologist and practitioner of a participatory ethnology. Having spent years in Asia studying traditional magic, Abram takes up the ways of phenomenological philosophy to rehabilitate the primordial experience of animism as deep sensory engagement with the transhuman world. The animist mind is as alive as that of the technoscientist, and more holistically engaged with reality. The central chapters of the book outline an experiential linguistics of the transition from oral to alphabetic cultures and interpret the emergence of writing as preparatory for scientific rationality. What happens with writing, on Abram's interpretation, is the withdrawal of animism from the external world and its reconstitution in the lettered page: no longer is it the trees and rivers that speak but the ABCs, and then ultimately through them the laws of science. Although Abram might be accused of putting forth an oversimplified single-factor determinism, he does "not, however, wish to imply that writing was the sole factor in this process" (p. 263). Instead, "by concentration upon the written word," he only seeks to demonstrate "a way of thinking that strives for rigor without forfeiting" recognition of the sensuous roots of thought (p. 264). Refusing any facile postmodern relativism, he argues instead for an existential recovery of lived temporality and grounded place compatible with a more expansive, less rigid modernity of quantified time in geometric space.

Abram may well be mistaken at certain points. He nevertheless puts forth his daring hypothesis with a poetic vigor and argumentive insight that stimulate reconsideration of the technological commonplace. Furthermore, the attention he focuses on writing as an overlooked contributor to the fiery path of technology—one Adams mentions, but only in passing and superficially—does not so much bring a new factor to the explanation of technological change as embed technoscience in a richer sociocultural (not just political-economic) context. To the tradition of generalist interpretations of technology that runs from Lewis Mumford's *Technics and Civilization* (1934) to Arnold Pacey's *Technology in World Civilization* (1990), Abram provides a worthy complement. By offering us new ways to understand that which is not ourselves, he ultimately enlarges our self-understanding. With Abram anthropology becomes a bridge between science and its others.

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