

## Modes and Agendas of Patronage

**The Politics of Philanthropy.** Abraham Flexner and Medical Education. STEVEN C. WHEATLEY. University of Wisconsin Press, Madison, 1989. xx, 249 pp. + plates. \$37.50; paper, \$14.95.

**The Circuit Riders.** Rockefeller Money and the Rise of Modern Science. GERALD JONAS. Norton, New York, 1989. 430 pp., illus. \$22.95.

Historical studies of the relations between foundations and the sciences have grown rapidly in both number and sophistication in the last decade. There has been particular interest in understanding why the Rockefeller Foundation, established in 1913 to "promote the well-being of mankind," became the leading patron of academic research during the first half of the century. The consensus is that the foundation's executives, or "philanthropoids" as some called themselves, had social purposes extending beyond the advancement of knowledge. However, scholars disagree over what those purposes were, how they were related to the class interests of the Rockefellers, whether scientists gave the philanthropoids their money's worth, and how science-foundation relationships changed over time. Specialized studies of the many different Rockefeller philanthropic programs have resulted in a variety of answers to these questions.

*The Politics of Philanthropy* offers a solid, though bounded, contribution to these debates. Steven Wheatley, himself a philanthropoid at the American Council of Learned Societies, emphasizes the roles of his bureaucratic forebears. He focuses on the contentious figure of Abraham Flexner, author of the famous 1910 report on medical education and head of medical programs at the Rockefellers' General Education Board from 1912 to 1928. Wheatley rejects the myth that Flexner was the dictator—for better or worse—of 20th-century medical policy, but considers him much more than a clear conduit for scientific or capitalistic purposes. He interprets both Flexner's success and his ultimate defeat as stages in the rapid evolution of the ecology of organizations.

Flexner's work is set against the background of the inability of the Rockefellers and their adviser, Frederick Gates, to apply the Standard Oil model of strategic vision, organizational loyalty, and managerial professionalism to medical philanthropy. They had been stymied by the tendency of academic agents such as the University of Chicago president William Rainey Harper to dissipate resources in small-scale responses to short-term local pressures. Flexner, on the other hand, possessed a persuasive program, undivided allegiance, and bureaucratic te-

nacity. He argued that education could form the strategic base for building a standardized national network of competent physicians. The General Education Board (GEB) could most effectively influence education by stimulating an elite core of schools committed to the meritocratic values of the academic scientific disciplines. The "full-time plan" was the linchpin of this program. Putting clinical teachers on academic salaries and barring outside income would shift their allegiances from the local elites who supported their consulting practices to a national network of colleagues in "clinical science." Through emulation this new identity would gradually permeate the medical profession, improving its technical and ethical standards.

Flexner was able to implement full-time, first at Johns Hopkins and then at a handful of other institutions, through hard-nosed negotiation, skillful manipulation, and rigid control of the GEB's purse strings. Paradoxically, he justified his heavy-handed control over medical educators by idealizing the genius and dedication of scientists; when medical men accepted the scientific identity imposed by the GEB, they would be mature enough to direct themselves.

Wheatley argues that Flexner's power was self-limiting. The few first-rate clinicians supporting full-time had a disturbing tendency to backslide after experiencing it. Medical schools that adopted the policy as a condition for GEB endowment risked losing access to clinical facilities, which remained under local control. Harvard's elite clinicians resolutely resisted direction from "the circumcized folk in NY." But the most important opposition came from a younger generation of Rockefeller Foundation philanthropoids, who saw no scope for continuing managerial creativity in implementing Flexner's rigid program. In 1928 they pushed through a reorganization that deposed Flexner and accepted the existence of a pluralistic organizational world; one outcome of this shift was Warren Weaver's program to manage biology by doling out "chicken feed" to individual researchers.

"The politics of philanthropy" has two largely distinct meanings. Wheatley details the jockeying among the philanthropoids and their university counterparts for power and position, showing how these groups rapidly became vested interests who controlled foundation strategy. In addition there is, as President Bush recently noted, "the vision thing": in this case Flexner's belief (described sympathetically by Wheatley) that private foundations should provide leadership and order for a society where individualism and decentralization too often

entailed mediocrity. Wheatley's story, however, remains too close to the ground of bureaucratic manoeuvring over full-time to demonstrate clearly the contours and importance of this vision. The focus on "medical education" leaves obscure the changing interests of philanthropoids in training, research, technologies, and physicians' social standing. It is still unclear how clinical science came to be so important to long-range thinking at the Rockefeller Foundation.

To answer such questions it seems necessary to examine not only medicine but the general development of the foundation's management of science. Such a synoptic view is the promise of *The Circuit Riders*. Yet in spite of its intriguing title, linking the philanthropoids through the Rockefellers' evangelical roots to the early Methodist missionaries, the book disappoints. It does more to promote Rockefeller Foundation public relations than to explain how philanthropoids, like missionaries, promoted their own particular vision of "the well-being of mankind."

Part of the problem, surprising for the work of a *New Yorker* staff writer, is that *The Circuit Riders* is badly composed. Following a conventional introduction comparing the motives behind Rockefeller's and Andrew Carnegie's first ventures into philanthropy, Jonas detours through the prehistory of scientific patronage and professionalization, largely in England. He then oscillates between accounts of Rockefeller Foundation policy disputes and narratives of a number of foundation initiatives in the 1920s and 1930s. Topics include the history of foundation support for eugenics, with emphasis on the limited foundation involvement; the Rockefeller program to support anthropology in Australia, which culminated in an embezzlement scandal; the 1928 reorganization and the development of Warren Weaver's natural science program; the foundation's gradual retreat from support for German science after the Nazi takeover; and penicillin developer Howard Florey's research entrepreneurship. This last story occupies over 20 percent of the book, in spite of its routine nature from the foundation perspective. The search for human interest immerses Jonas in the trivia of the foundation's Paris staffers' efforts to relocate to Brittany in 1939, where they hoped to operate during the expected long period of trench warfare.

The fundamental block in the way of a coherent and compelling story, however, is Jonas's difficulty in comprehending the spectrum of Rockefeller organizations and their changing interests in different sciences and different aspects of scientific work. By sharply distinguishing both the search for

knowledge from "missionary work" and direct foundation funding from projects supported through intermediary committees, he arbitrarily circumscribes his perspective. As a result he has no place from which to describe such enduring Rockefeller interests as sex, which included support for anti-vice campaigns, sea urchin embryology, primate psychology, and the Kinsey surveys. Study

of such efforts is central to understanding the pattern of intersections between private money, ideology, new knowledge, and the changing conditions of human life in this century.

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## A Force Advancing Nationhood

**Inventing Canada.** Early Victorian Science and the Idea of a Transcontinental Nation. SUZANNE ZELLER. University of Toronto Press, Toronto, 1987. viii, 356 pp. + plates. \$35; paper, \$15.95.

Science may often be the disinterested pursuit of knowledge, but it is surely always an artifact of culture. For American historians who want to demonstrate that truth, however, it has proved difficult enough to integrate science into the country's intellectual life, and harder still to show that it has influenced the way Americans thought about themselves. One might imagine an even more problematic history for science in Canada, a country with substantially less wealth and population that did not achieve nationhood until 1867. But in Suzanne Zeller's powerful and subtle study we get a surprisingly different answer and a model of how to write the history of a country's science.

Zeller's central argument is that in the application of the "inventory" sciences of geology, terrestrial magnetism, meteorology, and botany Canadians discovered the idea of a transcontinental nation. Never was the agenda to develop a "Canadian" science—as development of a national science sometimes was for Americans bent also on creating a national literature and language. Rather, it happened that in the pursuit of British scientific programs Canadians came to believe in the possibilities of a country of their own, from sea to sea.

The general patterns of the process were similar across the front of these various disciplines. In its socially and politically most important forms, science came to Canada through the imperial connection. A series of colonial administrators remarkably well informed about science governed Canada during the first half of the 19th century, and besides urging its practical benefits they gave the subject social cachet. Military officers were the other principal agents for the transmission of science to Canada. They embodied the traditional interest of the British upper classes in natural history and played an important role in the formation of

local scientific societies. For some the practice of science was an explicit assignment. Lieutenant John Henry Lefroy of the Royal Engineers, for example, was posted to Canada to help set up a magnetic and meteorological observatory at Toronto as part of a worldwide program to map variations in terrestrial magnetism. In the United States West Point graduates made significant contributions to civil engineering; in Canada British officers gave status and substance to the study of science.

The more formal content of science came to Canada largely from the University of Edinburgh. It would be hard, in fact, to overestimate the impact of Scottish education on most aspects of the history of English-speaking Canada. Edinburgh was particularly important in geology, medicine, and botany. Sir William Logan, director of the Geological Survey of Canada, graduated in medicine, but like so many students trained in Scotland he was deeply influenced by instruction in Wernerian geology. Zeller points out that the Scots pursued science

not as a genteel avocation but to lever themselves out of economic backwardness, and that was a lesson the Canadians learned, too.

These substantial connections to the world of British science and to the culture that supported it account for many of the differences in the way the subject was perceived in Canada and the United States. But it was what Canadians did with science that helped lead them to their political conclusions.

Geology is a case in point. As a consequence of preliminary surveys by military officers and the avocational interests of members of the Natural History Society of Montreal, the professional and business classes of that community came to see the need for a systematic inventory of the colony's natural resources. Once established, Logan's Geological Survey saw as its central question whether Canada could reproduce Britain's industrial success, and that led naturally to a search for coal. In fact, Logan was confident that none would be found within the Province of Canada (Ontario and Quebec), and he turned the Survey toward its outer boundaries, looking for an understanding of the geology of all of Britain's North American colonies. That expansionist approach led him to incorporate into his geological research agenda the coalfields in the eastern provinces of New Brunswick and Nova Scotia and the northwest territories of the Hudson's Bay Company, where coal discoveries were expected. Simultaneously, he focused attention on the pre-Cambrian rocks on the north shore of the Great Lakes in expectation of other mineral resources



"Toronto Observatory, 1852, on the site of Convocation Hall, University of Toronto." [Metropolitan Toronto Library Board; from *Inventing Canada*]