

archival education and the slow and unsure development of arrangement and description theory is itself an example of the way in which studies such as these can identify priorities on the profession's agenda.

Archival Theory and Practice in the United States is critical of the American archival profession. Many archivists will be annoyed by that and miss Berner's many excellent suggestions. The reason for his combative tone and occasional tendency to overstate his case is contained in his assessment of Schellenberg: "Fortunately for the field Schellenberg shared his views in abundant detail. He did not avoid controversy, he courted it — and imparted this attitude to some others. Without it there probably would have been even less progress than we have seen." (p. 53) Berner dedicates the book to Schellenberg and it is intended to stimulate the kind of discussion he encouraged. For the archival profession's sake, it must succeed in that way.

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Science, God and Nature in Victorian Canada. CARL BERGER. Toronto: University of Toronto Press, 1983. xiv, 92 p. ISBN 0-8020-6523 \$7.95 pa.

Carl Berger originally presented *Science, God and Nature in Victorian Canada* as the 1982 Joanne Goodman lectures. The first lecture on "Science" describes what may be viewed as the three phases in the development of natural history in nineteenth-century Canada. In the first phase, in the early part of the century, a few amateur pioneering enthusiasts wandered through fields and forests near their homes intent on building up personal collections of flora and fauna. In the second phase, in mid-century, local natural history societies sprang up in the urban centres of Canada. In true Baconian fashion, society members embarked on the observation and collection of fact, and, as Carolus Linnaeus had prescribed, attempted to impose some rational classification on the information they gathered. These societies were formed for a variety of reasons. Members gathered to divide the labour of observation and notation and to exchange information and views about the scientific features, practical applications, and economic value of what they had found. Social and religious considerations also came into play. Field trips, Sunday picnics, and other social events were supposed to discourage the sin of idleness and to promote social and moral improvement. In the final phase, attempts were made to organize local scientific effort on a national scale through the founding of the Royal Society of Canada in 1882 and increasing involvement of the federal government in coordinating scientific effort.

The second lecture, entitled "God," underlines the prominence of Paleyite natural theology in Canadian attitudes to nature. Natural history provided Canadians with spectacular evidence of the existence and awesome power of the Creator. When viewed in this manner, science was embraced as an ally of religion and became indispensable for proper interpretation of the Bible and achieving an understanding of man's place in God's Design. The last concern ultimately stimulated an interest in archaeology, anthropology, and phrenology which, it was hoped, would provide answers about the nature of man and the different races of men.

The third lecture, entitled "Nature," reviews the most daunting challenge to Canadians — Darwinian evolution and, particularly, the principle of natural selection. Drawing on the works of British and American authors James Moore and Neal Gillespie, Berger points out that most concerned Canadians, including theologians, eventually, though sometimes painfully, came to terms with Darwin's ideas. (Incidentally, the author ignores or finds irrelevant for Canada one of Moore's most intriguing suggestions — that orthodox theologians were better prepared to accommodate Darwinism than liberal theologians.) Because of the international renown which Canadian geologist and educator William Dawson achieved as a critic of Darwin, much of the third lecture is devoted to examining the battle he waged against Darwinism. *Science, God and Nature* illustrates the intimate relationship which exists between science and society. For example, Darwin's theory of evolution disturbed the comforting view that God's immutable Design of the natural world assured the permanence and propriety of the existing social order. At the same time, it should be recalled that Darwin, as a comfortable Victorian, emphasized the gradualness of change.

Berger's concise, delectable introduction to the social conditions and intellectual climate which shaped natural science in Canada is only a foretaste of a major work being prepared for publication in 1984. It would be inappropriate therefore to offer more than a couple of preliminary observations from an archival viewpoint on these lectures and the growth of popular and academic interest in science and society. The first point concerns Berger's use of certain terms. When he speaks of "science," he refers mainly to natural history and the Baconian inductive method by which it was guided. He does not trace the early development of scientific professions in biology, chemistry, physics, and psychology or other nineteenth-century forerunners of modern science like morphology, physiognomy, eugenics, or statistics. Also, the term "Victorian" is used by Berger to denote quaintness, ignorance, and naivete. Reference to the "touching innocence" (p. 13) of mid-nineteenth-century Canadian naturalists seems to imply that they generally failed to understand the physical world. This confirms a misleading and somewhat unfair assumption about Victorians. While it may be granted that some Victorians had fanciful notions about nature, it is also true that the Victorians produced scientific theories and discoveries and defined scientific issues under whose shadow we remain today.

The second point concerns the assertion that Victorians had a bygone sense of wonder about and yearning to understand nature. This was possible because science was then easily accessible to the layman; it had not yet developed a complex and abstruse body of knowledge impenetrable to all but the professional. Yet can it not be argued that in the last ten or fifteen years science has once again begun to excite the popular imagination? Science and nature programmes seem to be claiming an ever larger share of television time. Popular scientific periodicals have also become more numerous and many newspapers and newsmagazines now regularly feature science articles and news. Indeed, the appearance of Berger's book reflects a recent trend among non-science scholars to turn their talents to the important task of studying the social significance of science and technology.

If the archival profession has been entrusted with responsibility to identify, preserve, and understand the nature of those records which document the most important developments in society, it cannot ignore the records of scientific activity. In addition to acquiring the records of scientific societies and the papers of

prominent scientists like those Berger used to prepare his lectures, the nature of modern scientific effort points to the importance of archival work in both the public and private sectors. Given the sometimes substantial corporate resources devoted to "research and development," the records of industrial and other business concerns are sure to contain a wealth of scientific information. And a glance at recent federal government involvement in computer technology, biotechnology, and the space programme, for example, quickly reveals that the archival community cannot ignore the crucial role of the state in science.

Archivists have the opportunity to make a unique contribution to our understanding of the scientific process and its wider social significance because they are in a position to know how scientific information has been recorded and communicated. It will not be easy, however, to seize that opportunity. Our education as archivists has not prepared us to work comfortably with scientific information. This is not to say that archivists have in the past neglected science records for, perhaps haphazardly, they have managed to conserve and make available a great many of them. Nevertheless, these records have been more or less ignored as objects of archival scholarship. What science records tell us about the nature of communication within the scientific community and between the scientific community and the rest of society, for example, is central to any effort to understand scientific research and its social consequences. Yet even if archival awareness of the importance of scientific records grows, the fact that archivists are usually generalists burdened with responsibility for a wide variety of records may prevent those with a special interest in science records from developing the depth of knowledge needed to equip them to care properly for these records. This dilemma points to another question which must be faced: what relationship is possible between the archival and scientific community, two groups whose language and interests have sometimes seemed incompatible and even irrelevant to each other. Unwillingness or inability to bridge the gap which separates us will represent a failing not merely of our professions but of our culture. The widespread interest in science in nineteenth-century Canada so well described by Carl Berger is in some measure being revived today. Let us hope it will provide the means to enable archivists to meet the challenges it presents.

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James G. Endicott: Rebel Out of China. STEPHEN ENDICOTT. Toronto: University of Toronto Press, 1980. xii, 421 p. ISBN 0-8020-2377-0.

Public life in Canada in this century provides several examples of the relationship between religion and reform. Among the most notable are the Social Gospel movement and the strongly ethical nature of the reformism of the CCF/NDP. A less well-known case is the career of the China missionary and agitator for peace, James G. Endicott, whose life and times are the subject of this sympathetic but balanced study written by his son, Stephen, a professor of Far Eastern history at York University.

The author does not and need not conceal his admiration for his subject because James Endicott fully deserves recognition for his consistent devotion to the causes of peace and social justice. This well-written and well-illustrated account of his struggle