

lock masonry work commenced on the Ottawa military canals.

Although by no means "the full story" of the Ottawa canals, the author has produced

a worthwhile book contributing to our knowledge of the subject.

Suzanne Zellers, *Inventing Canada*

JAMES P. HULL

Suzanne Zellers. *Inventing Canada—Early Victorian Science and the Idea of a Transcontinental Nation*. University of Toronto Press: Toronto, 1987. vii + 356 pp., notes, ill., index. Cloth \$40.00, ISBN 0-8020-2644-3. Paper \$16.95, ISBN 0-8020-6606-2.

What do you do with your butterflies and minerals? What may displays of geological, floral and faunal specimens, and the instruments of their collection, be used to communicate? Often aesthetically pleasing, they may be shown almost for their own sake. They can illustrate some scientific or natural principle. A special local or biographical connection may be highlighted. But more than this is possible. These relics, using that term non-pejoratively, of nineteenth-century natural history and natural philosophy can allow us to transmit ideas about matters of fundamental importance to Canada's social, intellectual and cultural history.

Inventing Canada describes the scientific endeavours which, *inter alia*, gathered the specimens that became the nuclei of some of the earliest Canadian museum collections. The so-called inventory or survey sciences—geology, terrestrial magnetism and meteorology, and botany—were concerned first and foremost with data collection in the field. Utilitarian sciences, they surveyed, inventoried and charted the natural features, animate and inanimate, of British North America, with an eye to the economic development of these territories. For their success they depended on the cumulative observations of many field workers, which necessarily meant the reliance on the work of the amateur as well as the professional. To support these activities, some of Canada's earliest scientific institutions, both governmental and non-governmental, were founded.

Had Zeller done no more than give us summary accounts of these early Canadian scientific enterprises, which she has done and done well, her's would be a useful contribution. However, she has done much

more than this, for the importance of those enterprises was much greater. They played a significant part in the process of nation building and national development. Not only did they reveal and chart natural bounty, but in their geographical scope they embraced the whole of British North America. Science, with its transcontinental reach, was thus in advance of a national policy and, with the obvious exception of the fur trade, of a national economy. Zeller details how and why the interconnected business, political and intellectual elites of pre-Confederation Canada welcomed and supported these scientific efforts. Such a utilitarian science proved attractive to those practical-minded gentlemen, who saw in the creation of a new British nation in North America a solution to a host of immediate problems. Science played a valuable role in extending and replicating British society in North America quite apart from its economic ramifications.

Today we fancy that never before in history have people's lives been so affected by science and technology. We might equally say that never before has science and technology so little figured in the general culture of educated citizens. Victorian enthusiasm for, participation in and understanding of science and technology all far exceeded that of our own times. The vigorous voices of Victorian Canadians speak to these issues from the pages of *Inventing Canada*. A supporter of the Geological Survey of Canada, writing in the *Ottawa Citizen*, declares flatly, "without a Geological Survey, no Political Economist can direct the industry of Canada, or say what should or should not be done" (p. 93). A Toronto editor links science to one of the great social issues of his day, temperance, insisting "no temptation...could lure to the Tavern while the prize cauliflower, the giant asparagus, the huge gooseberry, the gay tulip, or fragrant carnation demanded attention" (p. 198). In what would become one

of the most enduring images used by Canadian science boosters, science and commerce are said by one agricultural journal to have "gone hand in hand" (p. 241).

Inventing Canada is a work of solid and thoughtful scholarship. It, along with Ian Radforth's study of the mechanization of pulpwood logging in Ontario, *Bushworkers and Bosses*, was identified as especially meritorious by the Canadian Historical Association's Macdonald Prize Committee in 1988. That event may be seen in part as a recognition by the history profession in this country of the growing importance of the history of Canadian science and technology as well as the increasing quality of works in that field.

My complaints about this work are few. Overwhelmingly the attitudes to science that Zeller describes, the spokespersons she quotes, are from the elite of Victorian Canadian society. True, elites are, by definition, of especial import. However, this slights the extent of popular enthusiasm for science, which was by no means confined to one social class. In spite of its subtitle, this is a study of only some aspects of Victorian science in Canada. Even a brief discussion of the emerging industrial chemistry of the nineteenth century would only have strengthened

Zeller's arguments. Finally, once again, the University of Toronto Press has failed to understand that a short "Note on Sources" is an entirely inadequate substitute for a proper bibliography in a major scholarly work.

This book will obviously be of interest to specialists of the history of science. Doubtless it will long remain a basic study of pre-Confederation science. Professor Zeller has a fine literary style; anyone who enjoys good writing will read this book with pleasure. But this work will also be of particular interest to professionals in the heritage community. It provides more than just a great deal of information and insight into mid-nineteenth-century Canadian science. It offers a framework for seeing this part of our heritage in its proper and wider context. Science is a social activity; the products of science as well as its tools can illustrate and illuminate the nature of the society in which it is conducted. The portrait that Zeller offers of Victorian Canada is a skilful one, from an original perspective. Her ideas, insights and information are important and the sort that can and should be further illustrated and disseminated by the use of specimens and artifacts in the collections of almost every Canadian museum.

Stephen Gillis and John Gillis, *No Faster Than a Walk* Lyn and Richard Harrington, *Covered Bridges*

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Stephen Gillis and John Gillis. *No Faster Than a Walk*. Fredericton: Goose Lane Editions, 1988. 101 pp., 137 ill. Cloth \$24.95, ISBN 0-86492-091-1.

Lyn and Richard Harrington. *Covered Bridges of Central and Eastern Canada*. Toronto: McGraw-Hill Ryerson Ltd., 1976. 88 pp., 64 ill. Paper? \$6.95, ISBN 0-07-082406-1.

A pervasive popular symbol for New Brunswick folk life, the covered bridge can still be found in abundance. From the material culture point of view, these humble structures are called "vernacular objects" because they are used by all people in a community as part of common, everyday country life. John and Stephen Gillis in *No Faster Than a Walk*, their book about the covered bridges of New

Brunswick, call them "kissing bridges." The title of this work is derived from the sign nailed over the portal of the Cain Bridge, Kings County (not standing), which reads "Cain Bridge—1913. \$20 fine for driving faster than a walk on this bridge." The stated purpose of *No Faster Than a Walk* is "not to offer the last word on the subject but to try to capture the sentiments aroused" by the bridges. The intention of this review is to measure the book as a study in material history and the extent to which the subject merits scholarly interest and further thought, research and publication. An earlier work, *Covered Bridges* by Lyn and Richard Harrington, provides a basis for comparison.

Covered bridges were almost always built and maintained by public taxes. As public