

marriages & burials of the military congregation of the Garrison of Quebec'' at the Archives nationales du Québec. They would have found that Cockburn also had a daughter Eliza, born circa 1804 and was married at Quebec in 1829 to captain Frederick Hope of the 15th Regiment. The short monograph on Quebec City reveals more serious errors or over-generalizations. For example, the authors seem unaware that their information on the composition of the French-Canadian population was much more varied than the artisan, farmer and church groups. The liberal professions and unskilled labourers were important components of the French-Canadian element of the city's population, while farmers were definitely a very small group in this urban population. The assertion that there was little industry in Lower Town with the exception of Cape Diamond Brewery does not take into consideration the importance of ship yards such as Bell's. Also, a greater concentration of shipyards was to be found at the mouth of and along the St. Charles River rather than along the coves near Cap Blanc. The authors would have benefited by studying more closely some of the plans of the city and in reading Fernand Ouellet's *Eléments d'histoire du Bas-Canada* (Montreal, 1972).

The chapters dealing with Cockburn's views are of much greater interest. The authors have clearly made a remarkable contribution in locating drawings hitherto unknown to most historians. Also, they must be commended for the identifications and descriptions of the views which inevitably increase the reader's appreciation of their contents. Cameron and Trudel indicate that they have not tried to make a complete catalogue of Cockburn's production but a selection of his works on Quebec City to serve as an historical guide in a walking tour. Yet an effort might have been made to at least catalogue Cockburn's complete Quebec City output and to eliminate reproduction of the same views in colour and in black and white, although the quality of reproduction is excellent, if marred in clarity through reduction.

If much of the information is of the guide book type, many descriptions also provide insights into the decor of streets, activities of the population, general urban ambience, city growth, physical and spatial appearance and main urban functions. The dating and architectural descriptions and the information on owners of some of Quebec's buildings is very valuable (see nos. 62, 64, 66, 78 and 100). Quotations from Fowler, Hawkins and Cockburn are often very well chosen (see nos. 94 and 97) and provide effective accompaniments to the reproductions. Nevertheless, sometimes the information is unnecessarily repetitive: for example, the house built for Vanfelson circa 1780 is mentioned twice (nos. 96 and 97); information on the "Royal William" designed by James Goudie and built in Campbell's shipyard by George Black is repeated on adjacent pages (nos. 18 and 19). As to sources, the authors seem to have made good use of city assessment rolls, Canadian Inventory of Historic Building files certain military records and Quebec City newspapers, although they also seem to rely heavily on a limited number of authorities of varying credibility.

In all, *The Drawings of James Cockburn* is a successful publication within the framework of the authors' intentions, a significant contribution to a better understanding of Canada's visual past, and a pleasure as an accompaniment on a walking tour of Quebec City today.

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National Research in Canada: The NRC, 1916-1966. WILFRID EGGLESTON.
Toronto, Clark, Irwin & Co., © 1978. vii, 470 p., 8 leaves of plates. ill., ports.
ISBN 0 7720 1181 8 \$22.50.

The National Research Council is perhaps best known for its long dash which occurs after ten glorious seconds of silence on CBC radio, indicating exactly one o'clock

Eastern Time. Of course, other time zones receive their daily beep at other times, and brave Newfoundland gets its one half hour earlier.

While catering to Canadians' obsession with time, the NRC is also the major agent and catalyst of scientific research in the country. Begun in 1916 as an advisory council on industrial research, it first concerned itself with conservation and technology in wartime. As Eggleston notes, Canadians undertook very little pure research at that time: "Canada was probably the only country in the world (with industrial pretensions) lacking a single university where a student might enroll in a full graduate course in any branch of science."

The NRC was able to initiate and stimulate some research, notably in the briquetting of Saskatchewan lignite coal, concrete deterioration and wheat rust, but it was always strapped for funds. The drive of its Director in the 20s and 30s, Dr. Henry Marshall Tory, improved the NRC's financial situation, and led to the building of a "temple of science" on Sussex Drive in Ottawa.

The Council came into its own in World War II (see also Eggleston's 1950 book, *Scientists at War.*) Banting's work on aviation medicine; developments in radar, aircraft de-icing, wind tunnels, snow physics, nuclear medicine and fission power, and the engineering of the magnificent and lamented Orenda engine, all combined to give the NRC a solid reputation for creative genius.

Eggleston is an Ottawa journalist and has been intimate with many of the leaders of the NRC, so that the book, while by no means an official history, is a little too laudatory. It is a good source book as far as it goes, but some quotations lack footnotes, and it is irritating when the author speaks of "the unexpected gift of a large sum of private money" in 1940, but doesn't go into details, let alone indicate whether the donor wished to remain anonymous.

A more critical approach to the whole problem of industrial Research and Development in this country would have been eminently suitable. Scientists cannot bite the hand that feeds them, but it is obvious that the disgraceful state of scientific research in the country can be blamed directly on the national and provincial governments, who have neither encouraged (nor initiated) a higher level of Research & Development. We cannot rely only on the NRC and the newer councils to do all our research. The NRC, while valuable, and staffed by some brilliant people, was and is simply not an adequate response to scientific and industrial growth and change.

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Le Canada et les Suisses, 1604-1974. EMIL HENRI BOVAY. Fribourg, Suisse: Éditions universitaires, © 1976. xii, 334 p. ill. ISBN 2 8271 0113 0 (Études et Recherches d'histoire contemporaine).

Emil Henri Bovay spent two years in Canada, 1967 to 1969, as Swiss vice-consul at Toronto. In this book, he attempts to fill a lacuna which he perceived during his stay: the lack of any study of Swiss-Canadian relations. Bovay's enthusiasm is laudable, as is his ground work in locating sources both in Canada and Switzerland. His volume certainly deserves attention as a guide to Swiss sources relevant to Canadian history. One must be impressed as well by the technical quality of the book's production and particularly by the high calibre of its reproductions, some of which, coming from Swiss sources, will be new to Canadian eyes.