

both books are devoid of crucial personal testimony on the impact of sexually-transmitted disease on an individual, or on the effects on women of the availability or lack of availability of birth control devices and procedures. Cassel has been forced to rely on medical texts, Canadian medical journals, newspaper advertisements for VD cures, records of social reform groups, and records of various government departments. McLaren and McLaren have used the literature of the birth control movements, newspaper accounts, medical journals, the Marie Stopes Papers in the British Museum, and the American Birth Control League Papers in Harvard University's Houghton Library. The books, therefore, are largely medical, bureaucratic, and organizational histories when they should ideally be explorations of personal experiences. This is not the fault of the authors, but the inevitable result of our unwillingness as a society to make public through archives our feelings on matters of our sexuality.

Archivists must make it their business to be aware of the paucity of archival material documenting human sexuality in our repositories. We must be aware of the power of our acquisition and accession policies over the sort of material accessible on sexuality to the researching public. It may be that the subject of human sexuality is one that archivists should help document through the use of documentation strategy. Such projects are already underway. Archivists should participate in the collection and even the creation of documentation on sensitive but crucial areas of current experience, such as the AIDS epidemic. Whatever route is taken, we as a profession must continually reexamine our own prejudices and the ways in which they reflect how we go about acquiring and giving access to archival materials of all media. It is to be hoped that in the future the efforts of archivists, starting now, will help writers such as Cassel and the McLarens turn good, readable histories into excellent and compelling ones.

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Nucleus: The History of Atomic Energy of Canada Limited. ROBERT BOTHWELL. Toronto: University of Toronto Press, 1988. xx, 524 p. ISBN 0-8020-2670-2 \$34.95.

With the publication of *Nucleus: A History of Atomic Energy of Canada Limited*, Robert Bothwell has shifted his attention from uranium production, described in his previous work *Eldorado: Canada's National Uranium Company* (1985), to the scientific and commercial applications of this powerful energy source. Although Eldorado Nuclear Limited occupies an important role as sole Canadian supplier of the vital ingredient required for the production of nuclear energy, AECL remains the central agency for research and development of nuclear power stations and their commercial by-products. *Nucleus* traces the origins of AECL and assesses the relative success of the Crown corporation in achieving its mandate to develop economic nuclear power for use in Canada. This authorized corporate history of AECL has many similarities to the Eldorado book; the publisher, the structure, even the look and the weight of the two volumes are remarkably alike. One important difference is the inclusion in *Nucleus* of more recent historical events. Furthermore, there is no attempt to hide or disguise the corporate "warts;" the accidents, miscalculated reactor

design features, and marketing strategies and the several embarrassing forays into the world of international trade. At the end of 451 pages of narrative and historical analysis, sufficient information has been transmitted to allow the reader a personal judgement about the relative success of AECL.

There have been several favourable parallels drawn between this book and Bothwell's previous work. Unfortunately, *Nucleus* differs from *Eldorado* in one area which reduces the readability of the text. The latter work supplied a large measure of social history and colourful anecdotes about the working men and women of the various mining and refining communities. Admittedly AECL is research-oriented, and not the product of exploration and a frontier-based company. Cerebral activity does not lend itself to the same type of human drama that spiced the earlier work. In *Nucleus*, the players consist mainly of senior government officials, ministers, and AECL executives. There are few glimpses of the thousands of employees who have served the corporation since 1952, or of the events that helped shape the character of the corporation. There is a description of the unusual problems encountered in the early years at Deep River, the residence for most of the Chalk River laboratory staff. This small, remote, one-company town had a highly-educated population, including 106 holders of doctoral degrees in 1958. As Bothwell demonstrates, the social life of Deep River was quite different from that of neighbouring settlements in the upper Ottawa Valley. Beyond this chapter, however, little attention is paid to the human side of the company.

From an archival perspective, Bothwell has succeeded in producing an administrative history that will be invaluable to archivists and researchers alike. As with the history of *Eldorado*, he has supplied an excellent chronology of notable achievements, staff appointments, and organizational developments. This work is of particular value to the National Archives of Canada since, as Bothwell's Note on Sources states, the historical records of the AECL Research Company will soon be acquired by that institution. At the moment these records are housed in the remote and security-conscious Chalk River Nuclear Laboratories.

The book itself describes the serendipitous events that combined to bring Canada into the nuclear age. As Bothwell notes, the Canadian nuclear programme, "became a Cinderella enterprise dependant on the kindness of strangers." (p. 444) With war raging in Europe, Canada was seen as a safe haven for a combined team of British, French, Italian and, by default, the host Canadian scientists, who pooled their skills and knowledge in order to unlock the secrets of the atom. The Montreal Laboratory was assigned the task of discovering a method of producing plutonium, the crucial ingredient of the atomic bomb.

Chalk River was an outgrowth of that programme. The first reactor built in Canada, ZEEP (Zero Energy Experimental Pile), was constructed in 1945 to produce plutonium. From this modest beginning, the federal government, under the guidance of C.D. Howe and his appointees, went on to build a research complex which in 1952 had become so large that it became a Crown corporation, Atomic Energy of Canada Limited. The agency improved the original NRX experimental reactor and introduced NRU, the first effort at creating a commercial power reactor. In order to develop the full potential of this new energy source, AECL in conjunction with private industry and Ontario Hydro designed two types of large reactors,

OCDRE and CANDU. The latter Canadian deuterium-uranium reactor has served as the mainstay of this country's nuclear technology. AECL is best known for the CANDU design but the company has evolved into a diverse research and commercial enterprise. All of the stages of growth are recorded in this well-researched volume.

No author could hope to approach such a technically-complex subject as nuclear power without undertaking extensive preparations. Bothwell has obviously spent considerable time coming to grips with the theory of nuclear fission and reactor technology. Thankfully, for the reader's sake, he has taken that hard-earned understanding and translated it into terms the layman can comprehend. The same is true with respect to the history of events surrounding the Canadian entry into the nuclear club. Bothwell succeeds in developing our understanding of the wartime origins of the corporation and the political climate under which it matured during the immediate postwar years. His skills as an author are most evident in the blending of a summary of events and descriptions of individuals with the technical issues. The book's greatest strength is the shaping of all these distinct elements into a cohesive and interesting narrative. Nevertheless, there are points in the narrative where the reader is left numb by the sheer amount of detail concerning reactor technology, heavy water plant design, and political machinations. Despite these drawbacks, the book provides knowledge about a controversial energy source that is now used in twenty-six nations, and supplies nearly one-half of the electrical power in such provinces as Ontario and New Brunswick. As the author states, nuclear energy is a technology that — for better or worse — is here to stay.

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