

reference service in the Salvation Army archives in New York. Archivist Thomas Wilstead keeps the background to a minimum and discusses the setting of reference policies, the development of finding aids, the encouragement of the use of reference service, and the evaluation of the service provided.

In her introduction the editor decries the lack of attention paid to reference service in the *American Archivist*. The situation is not different in Canada with *Archivaria* being almost, if not totally, devoid of writing on the subject. If the volume under consideration is an example of the best writing available in this area, then editors on both sides of the border have used their discretion wisely.

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**Appraising the Records of Modern Science and Technology: A Guide.** JOAN K. HAAS, HELEN WILLA SAMUELS, and BARBARA TRIPPEL SIMMONS. Boston: Institute of Technology, 1985.

One of the most important consequences of the Second World War was the elevation of science and technology to the privileged and influential position which they enjoy today. It was during the war that scientists were enjoined by their respective governments to apply their powers to the solution of frequently critical national problems. In this most dramatic of circumstances, and to this most urgent of challenges, the scientific community responded with often spectacular success, and in the process, removed any doubt about the practical value of their knowledge. Since that time, some have said, scientists have been well rewarded for their performance. Although the setting of priorities may be a matter for debate, the basic principle of providing generous support for scientific research and technological development now seems well established in our society.

Meanwhile, the role of science and technology in society has become the object of extensive investigation. Tracing its roots to the 1920s, the Study of Science, Technology, and Society (known as SSTS) has since the war expanded into a far-flung network of disciplines which includes the philosophy, history, sociology, and ethics of science; the administration, organization, and management of research and development; technological forecasting and futurology; and the legislation of science and technology. Today SSTS centres may be found in universities, government agencies, business, industry, and myriad other privately and publicly funded institutions. Taken together, this rapidly burgeoning interest in scientific activity and the enormous volume and prodigious variety of scientific and technological records resulting from this activity certainly merit the serious attention of archivists. The appearance of a publication on the appraisal of the records of science and technology, therefore, has not come too soon.

That *Appraising the Records of Modern Science and Technology* is an intelligent and useful guide makes it all the more welcome. In seeking the advice of historians of science, scientists, and engineers, as well as archival colleagues, to prepare the guide, the authors have set an example of collaboration for other archivists working in the field to follow.

The authors have also shown ingenuity in their organization and presentation of the results of their work. The point of view chosen for the presentation of their subject is "the scientific and technological process." By this is meant an admittedly idealized conception of the sequence of activities or stages of progress in the individual scientist's work. This process is comprised of three stages: administration of research and development, research and development, and dissemination of research. During each stage, the scientist performs a series of tasks which require that he record information, communicate with a variety of people and institutions, and create correspondingly different kinds of records. The guide is organized in accordance with these stages, each chapter describing the cluster of activities, kinds of communication, and variety of records characteristic of each step in the scientific process. Finally, rounding out the above descriptions are discussions of the appraisal of each set of records, often accompanied by concrete examples.

Archivists charged with the acquisition and appraisal of the records of science and technology will probably find this guide to be worthwhile reading, if only because no comparable publication exists. For those who are unfamiliar with the world of science and technology, the bibliography of readings on the history and sociology of science provides a convenient *entrée* to the issues in the field. The appraisal discussions themselves are concisely presented, and remaining faithful to the title's announcement that it is a "guide," offer sensible advice without seeking to impose rigid rules. In fact, even archivists dealing with other records might find the guide useful since many of the appraisal principles discussed undoubtedly have a more general application.

In focusing on the "role" of the individual scientist, however, *Appraising the Records of Modern Science and Technology* fails as a completely satisfactory account of the scientific process. Clearly, tracing the steps of the individual has the virtue of simplifying the presentation of the scientific process for non-scientists. Unfortunately, this approach is conceptually inadequate, and the result has been the exclusion of several important bodies of records. Nowhere is any consideration given to the records of government scientific agencies, grant foundations, scientific societies, professional associations, or scientific publishing concerns. It is in government agencies, for example, that decisions are made which often influence the general direction, if not the rate and content, of scientific progress. Thus the guide makes little acknowledgement of the importance of documenting the nature of those institutions whose policies and behaviour often play a crucial part in establishing research and development priorities and determining the distribution of resources for society's scientific and technological effort. In effect, the guide disregards the records of the patrons of modern science.

Perhaps the approach taken reflects the authors' adherence to the "internalist" side in the continuing debate on the internal vs. external approach to the history and sociology of science. (Internalists claim that the direction, rate, and content of scientific discovery cannot be determined by anything but the methods of science; externalists counter that the scientific process, like any other human activity, is indeed vulnerable to broader political, economic, and intellectual currents.) If so, then this should have been made explicit from the outset. However, if the authors were unaware of the controversy when they chose to concentrate exclusively on the records of individual scientists, there is a lesson to be learned: knowledge, ignorance, or indifference to social and historiographical issues affects the judgments which archivists make about where to look for records and about what records should be preserved. The pretenses of archival "science" notwithstanding, the appraisal of records involves choices which are intrinsically subjective. This

is unavoidable. However, blindness or indifference to the sociological and historiographical implications of our choices is at best intellectually lax. At worst, it can result in the disregard of important bodies of records.

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**A Guide to the Holdings of Queen's University Archives.** ANNE MACDERMAID and GEORGE F. HENDERSON, co-editors. Second Edition. Kingston: Queen's University, 1986. ix, 351 p. ISBN 0-88911-466-8 \$15.00.

As the title indicates, this is a guide to the not inconsiderable holdings of the Queen's University Archives. Owing to the lack of standardization currently rampant in Canadian archives, however, the word "guide" can mean anything from a bare list of record groups to a compilation of archival resources, including full-blown biographical notes and administrative histories, explanations of record context, and possible research uses. The Queen's guide falls somewhat closer to the former description. It is comprised of entries for over two thousand collections of textual material, listed by creator or title. The entries are divided into two sections, one on university records, the other on outside records. The latter includes public affairs and business records, literary papers, and regional collections but is not subdivided as such. Visual and aural materials will be described in an upcoming publication. Each entry is brief and to the point; one might almost say spare. Included (sometimes but not in all cases) are the title, the type of record, inclusive dates, extent, a short description of content, accession number, donor name and date of receipt or designation of purchase and date, and ULM number. Entries are in accordance with the guidelines laid out in Chapter Four of the *Anglo-American Cataloguing Rules* (2) and Steven Hensen's manual, *Archives, Personal Papers and Manuscripts* (1983). Canadiana authorities were consulted in creating main author and title entries. This basis was also used in indexing, presumably where applicable. Finally, the entire guide was produced through the university's mainframe IBM computer.

In comparison to the first edition published in 1978, the second appears favourable. The university records are separated from the external collections. The operating mandate of the institution outlines its collection interests and the reasons for these interests in the introduction. The anomalies in subject entries in the edition, however, continue into the second despite the use of the Canadiana authorities. For example, although a typical entry might be exemplified by "Berry, Leonard Gascoigne," the use of types as the main entry is prevalent. Two such entries are "Account book, 1812-1814," and "Account book, 1926-1930." The first entry relates to the fur trade, while the second refers to records of maple syrup sales. The index overcomes, in part, some of these problems, but like most indexes it is not complete. A thesis on the Qu'Appelle Valley, Saskatchewan, is listed under the author, "Dolan, G.R." In the index one can find "Qu'Appelle River, Sask." (if one was expecting to find something on the Qu'Appelle in the Queen's Archives), but it is not listed under "Saskatchewan." This has occurred presumably because the name Saskatchewan does not appear in the text of the description of the contents from which the index was computer-generated. The astonishing entry of "Disraeli, Benjamin, 1st Earl of Beaconsfield, 1804-1881," is not indexed under "Prime Minister," "England," or