The draft foresees a network of archives and defines their levels of responsibility, their coordination and their technical services. Professional institutes are included in the legislation, as required for the qualification of competent personnel and the promotion of their career.

The guiding principles behind this draft must be explained to prevent misunderstanding. Archives are seen as state institutions established for the protection and utilization of a national heritage which belongs to the community. The community has the eminent right and duty to ensure that the records of its history are preserved and professionally managed. The role of the state is seen as supplementary, however, and is not intended to supplant private initiative. In the light of this legislation, individuals could not conceivably own archival materials; ownership is rather a trust.

Interesting also is the understanding of the archivist's profession adopted by the draft. State archives are not to be confused with a department's files. Documents belong to state archives only after their usefulness to administration has ceased. At that point, the archivist is an historian, who endeavours to reconstruct the original framework within which the documents belonged. Archives are not simply deposits, but historical research centres, and archivists are involved in scientific research work in order to index, catalogue and disseminate information. This aspect of the archivist's role makes his profession similar to that of an academic. From this flows the autonomous administration of archives, under a council which has representatives from the universities and other cultural agencies, and whose decisions are collegial.

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Museum Cataloging in the Computer Age. ROBERT G. CHENHALL.

Technology has been the holy of holies in the temple of our age and the technocrats have been its high priests. This attitude is pervasive among archivists at a time when the temple is no longer as sturdy as it once was. Such an attitude is unacceptable when archivists find themselves in an environment where, to perform their functions, they cannot avoid the use of computer technology or its byproducts. What archivists need is basic training in computer technology to realize that there is no holy of holies, that the high priests are really jealous witch doctors—a role they maintain by their mumbo-jumbo incantations to a box with flashing lights. If such training is not immediately available one might think that a good introductory book would be able to answer most questions archivists have about computers.

It was with great interest that I read the flyleaf's claim that this book was "the definitive work on the subject" of computerized museum cataloguing. We can expect such extravagant claims from a sales promotion and absolve the author of any blame. I glanced quickly through the table of contents and decided that probably Sections 4 ("What to Record: The Content of Museum Catalogs") and 6 ("Computer Systems to do the Work") would be of minimal value to archivists since they seemed to relate only to the museum world. I had hopes that the balance of the book might tarnish, if not crack, and possibly destroy, the "graven images" that archivists have of computer technology. My hopes soared as I read in the preface that Chenhall had begun the book as "an archaeological data bank instruction manual," but had soon realized that "there was a need for some kind of
publiction to give the layman a better understanding of data banks—what they are, how they work, when they are and are not useful, and what it takes to create them” (vii). Then, he states that this objective changed when a Museum Data Bank Coordinating Committee (MDBCC) was created. The MDBCC was “a working committee for the collection and dissemination of technically competent advice on the use of computers in museums, and one of its major activities has been to oversee the writing of this book” (vii). Chenhall then fails to state precisely the new objective of the book. One can only presume his objective remained the one prior to the formation of the MDBCC to introduce the layman (those working in museums or museum-related disciplines) to computer technology and to explain its application to museums.

Chapter 3 should be ignored by anyone wishing to have a basic introduction to computer concepts. The presentation is confusing, terms are used without having been defined, and unnecessarily sophisticated concepts are presented. Why, for example, does the programming command of COMPARE have to be introduced to describe the functions of the computer’s arithmetic unit (page 21)? The terms logical record and physical record are used but not defined anywhere (page 37). The terms file and record are used on page 21 but only defined on page 37. Whether or not the section on flowcharting was essential or the detailed level of description necessary is a moot point. To my mind, however, the examples of the flowcharts given in Figures 3 and 4 are confusing. Much better examples of flowcharting can be produced without mathematical formulae, computer terminology or unexplained acronyms. In the interests of maintaining the attention of potential users of computer technology one can only recommend that Chapter 3 be avoided.

This advice is extended with greater emphasis for Chapter 6. This chapter was prepared by consultants and evaluates the available computer software that could be used by museums. This analysis is of little value to the museum professional, but invaluable to computer analysts in museums. For individuals in the latter category Chapter 6 is well worth the price of the book. This section consumes 144 pages or more than fifty per cent of the book. Thus, if you combine Chapters 3 and 6, about sixty-five per cent of the book has no value for the museum professional lacking data processing background or interest. To my mind, the attempt “to provide the background in computer technology that a museum administrator should have” (page 5) fails.

The significant part of the book for both museum professionals and archivists is Chapters 2 and 4. Chapter 2 is titled “Documenting the Collection,” what Chenhall rightly calls the “universal problem.” “It is a problem of first deciding what information needs your museum really has and then determining the documentation and the organization of that documentation that is necessary to meet those needs” (page 18). The resolution of this problem determines the success of any cataloguing/reference system, whether automated or manual. Chenhall criticizes strongly the museum community for not having defined clearly its information needs: Canadian archival administrators need only reflect briefly to realize that a comparable situation exists in their community.

Chenhall states that “most museums do not have any cataloging system at all” (page 8), an assertion which could also be made for most archives in Canada. Chapter 2 restricts itself to the development of a museum catalogue, the purpose of which “is to retrieve information” (page 8). Cataloguing involves the assigning to an object “one or more categories of an organized classification system so that it and its record may be associated with other objects similar or related to it” (page 8). (In the archival world a comparable level of control would be the inventory.) A cataloguing system is “a unified, museum-wide method for retrieving the information necessary to determine the quantity and variety of different classes of objects in the collections” (page 9). On page 51 he identifies six major divisions of museum objects: archaeological materials; art objects; biological specimens; ethnographic, historic, or modern man-made objects; physical science specimens; and library items. The library items, for example, are divided into books, manuscripts, maps,
photographs, motion pictures and ephemera. Finally, implicit in Chenhall’s concept is one cataloguing system that is applied by all museums to their holdings. This is one of the goals of the Museum Data Bank Coordinating Committee.

One of the main objectives of the MDBCC was "to coordinate the data categories and recording conventions used in computerized museum catalogs so that any museum, large or small, can catalog its collections for eventual computer entry and be confident that the work will not have to be redone at a later date" (page 47). Chapter 4 is the MDBCC’s proposed data standards for data category definitions, recording conventions and dictionary of terms. These standards are inadequate in the definition of recording conventions for the standardization of the entry of information into a museum cataloguing system that will eventually be automated will require more precise guidelines than the proposed standard presents. I can only forsee problems if the standards are not extended in defining recording conventions. One has only to consider the cataloguing conventions that have been prepared by the library community to implement the Machine Readable Cataloguing (MARC) format to gain an appreciation of how much work the MDBCC has yet to do.

For Canadian archivists Chapters 2 and 4 are provocative and issue a challenge. If the museum community in the United States can develop a cataloguing system for a wide variety of material why cannot a similar attempt be made by Canadian archivists to cover all media in their custody. The concrete efforts of the Union List of Manuscripts and the National Register of Maps indicate that such an approach is feasible for one medium. Why cannot all media be catalogued under one system of description on a national scale? Would it not be appropriate for the Association of Canadian Archivists and the Association des archivistes du Québec to strike a committee with this objective? Such a committee should not be oriented, however, to the development of "data categories and recording conventions . . . for eventual computer entry." There seems to be in such an approach a solution in search of a problem. The proposed terms of reference of such a committee should be the development of a national cataloguing system and consideration of how such a system could function. The emphasis, to reiterate, should be on the development of a cataloguing system that may or may not require automation rather than the development of an automated system that requires cataloguing standards.

On the whole, I feel that Chapter 4 of Chenhall’s book will be significant to the museum world if the Museum Data Bank project becomes a workable system. His attempt, however, to popularize the concept of museum cataloguing in the computer age will probably have just the opposite effect.

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Garth H. Drabinsky is a lawyer. While few would expect a lawyer to be as expert in historical as in legal matters, it is nonetheless disconcerting to find this author proclaiming on the first page of his preface that it "was barely a decade ago that this country [Canada] began to make feature length films." A statement of such stunning inaccuracy tends to throw into question immediately the quality and extent of research supporting this book. *Evangeline*, generally acknowledged to be Canada’s first feature film, was produced in