

**The Evolution of Museums as Centres for Learning:
Chapters in Canadian Museology**

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ABSTRACT

John C. Carter - The Evolution of Museums as Centres for Learning:
Chapters in Canadian Museology

An important part of change in the role of museums in society, is related to the educational mandate and public learning function of these institutions. Existing scholarship has identified education as a central museum activity, and has substantiated the importance of the educational function and the learning potential of museums. What were the factors and the history behind the changes which contributed to, and influenced the evolution of Canadian museums as centres for learning? The intent of this thesis is to address this question, to add to the body of knowledge on Canadian museology in general, and specifically to provide information on Canadian museums, education and learning. Change, as well as a connection to the past, have been constant influences in the evolution of Canadian museums as centres for learning. These and other salient issues have influenced events of the past. They will continue to make an impact into the future and will remain important in the ongoing evolution of Canadian museums as centres for learning as they enter the 21st century.

Abbreviations

A-AM	<u>The Anglo-American Magazine</u>
AAR	<u>Annual Archaeological Report, Part of Appendix to the Report of the Minister of Education, Ontario</u>
AJE	<u>American Journal of Education</u>
AMMCR	<u>The American Monthly Magazine and Critical Review</u>
ARBSI	<u>Annual Report of the Board of Regents of the Smithsonian Institution</u>
ARCAPO	<u>Annual Report of the Commissioner of Agriculture and Arts for the Province of Ontario</u>
AROHS	<u>Annual Report of the Ontario Historical Society</u>
A-U	<u>The Art-Union</u>
BAC	<u>British American Cultivator</u>
BAAS	<u>British Association for the Advancement of Science</u>
CEM	<u>The Canada Educational Monthly</u>
CJ	<u>The Canadian Journal</u>
CMNR	<u>The Canadian Monthly and National Review</u>
DCB	<u>Dictionary of Canadian Biography</u>
DHEUC	<u>Documentary History of Education in Upper Canada</u>
GNHSC	<u>Geological and Natural History Survey of Canada Report of Progress</u>
GSCAR	<u>Geological Survey of Canada Annual Report</u>
GSCRES	<u>Geological Survey of Canada Reports of Exploration and Surveys</u>
GSCR	<u>Geological Survey of Canada Report of Progress</u>
HOPD	<u>Historical and Other Papers and Documents Illustrative of the Educational System of Ontario</u>
HSC	<u>Harlan I. Smith Collection</u>

JBAMUC	<u>Journal of the Board of Arts and Manufactures for Upper Canada</u>
JEUC	<u>The Journal of Education for Upper Canada</u>
JTBAUC	<u>Journal and Transactions of the Board of Agriculture of Upper Canada</u>
MARP	<u>Museum Association Report of Proceedings</u>
MJ	<u>Museums Journal</u>
OH	<u>Ontario History</u>
OFNCT	<u>Ottawa Field-Naturalists' Club Transactions</u>
ON	<u>Ottawa Naturalist</u>
SA	<u>The Scientific American</u>
TBAAAUC	<u>Transactions of the Board of Agriculture and the Agricultural Association of Upper Canada</u>
TWCHST	<u>Transactions of the Women's Canadian Historical Society of Toronto</u>
UTM	<u>The University of Toronto Monthly</u>

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Introduction

In a recent assessment of museums and the future, Canadian museologist Duncan Cameron suggested that:

The museum is, after all, a persistent and pervasive idea that has been manifesting itself in different cultures at different times and in different guise for thousands of years.¹

Cameron's position on change in museums is not new. In 1945, American museum director Francis Henry Taylor wrote that museums were the result of a long organic growth. Taylor postulated that each generation interpreted the meaning of museums in a different way, according to the social need of the time.² These sentiments have been echoed by others who have investigated the constant of change in the evolution of museums, and viewed museum growth in the context of a product of social need.³

An important change in the role of museums in society is related to the educational mandate and the learning function of these institutions. Current scholarship has identified education as a central museum activity. A recent study of museums and learning in the United Kingdom emphasized this point:

Museums are educational institutions in their own right and not because of any services they may provide to other educational institutions. Education is intrinsic to the nature of museums. Their educational mission drives every activity; it is an integral part of the work of all staff and an element in the experience of every museum user. Unless museums make provision for education purposefully and with commitment, they are not truly museums.⁴

American authors have also identified museums as being significant learning environments. It has been suggested that;

...museums are inherently educative and the concern of those who would like to advance this purpose has been centred chiefly around making this latent possibility dynamic and effective. Almost all such efforts are aimed at learners of all ages of life.⁵

Canadian museum educators have noted that learning is a high priority within the museum community. A Quebec museologist concludes that:

To be a genuine place for learning, museums need to define themselves as visitor-orientated and as cultural centres where many activities can be experienced.⁶

Much additional research and resultant publications have substantiated the importance of the educational function and the learning potential of museums.⁷ What were the factors and the history behind the change that contributed to, and influenced the evolution of Canadian museums as centres for learning? This is the pivotal question that this thesis will address and focus upon.

In considering the concept of learning from a current perspective, I will utilize a broad definition of the term which refers to a range of experiences and describes many different ways museum visitors interact with museum collections. These include "information transfer and cognitive engagement" as well as emotional, social, contemplative, recreational and attitudinal aspects of the visitor's experience.⁸ At a fundamental level, learning in museums is categorized by communication⁹ and through the active

are uniquely qualified to provide a variety of learning experiences for people of all ages, interests, and backgrounds. As places of informal, self-directed learning, museums stimulate visitors to create their own encounters with objects and ideas."¹¹

As our understanding of learning in museums remains incomplete, it is helpful to incorporate various models of learning goals and outcomes into a working definition. These could include the taxonomy recently outlined by American museum educator Lisa Roberts, the "Interactive Experience Model" proposed by the American museological duo of John Falk and Lynn Dierking, the "constructivist approach" taken by American academic George Hein, the "multiple intelligences" ideas of American educator Howard Gardner, the theoretical stance advocated by English museologist Eilean Hooper-Greenhill, and the "Learning Consciousness" plan developed by American art educators Nello McDaniel and George Thorn.¹² These modern constructs are useful when applied to current museological settings. They are less valuable when applied to historical material, as period examples of museums, education and learning must be interpreted and translated if they are to be applied to learning models of today.

Learning in museums occurred in different ways, in varied situations, and over time. Through several centuries museums have evidenced a steady development of education practice, resulting in learning becoming a museum-wide endeavor.¹³ This evolution had humble beginnings. In the 16th century private cabinets were seen as repositories of facts. The arrangement of collections was by aesthetic consideration, meant to appeal to the senses of private owners. By the end of the 16th century these "cabinets of the world" brought together a number of material things in an arrangement to represent or recall either an entire or partial world picture.¹⁴ Passive learning occurred.

During the 17th century there was a proliferation of museum collections, often used for the purposes of teaching. Their use was restricted to the same social network, and these museums became centres of learning for the upper classes.¹⁵ Open access was limited, along with opportunities for wide educational use and public learning. The concept of the public museum was first introduced in the 18th century. In response to systematic collecting, changes in scientific method and the democratization of society, museums began to contribute to the notion of an educated people as a national resource. With the development of ideas about inductive science, popular education, and the nation-state, knowledge became an important commodity for the needs of an educated citizenry.¹⁶ Museums were used for the first time as "an instrument for the democratic education" of the masses.¹⁷

During the 19th century, the learning function of museums in the United Kingdom expanded. By the 1830's the public began to express an interest in the relics of ancient civilizations. With no universal system of public education, institutions such as libraries, mechanics' institutes, literary associations and museums assumed responsibilities for educating and enlightening the public. Central government put its faith in education through museums. Museums became "an essential means to achieve social and commercial improvement,"¹⁸ and "were perceived as rational solutions to the need to provide opportunities for educational self-help" to the middle and working classes.¹⁹ By mid-century, the age of public museums was in full bloom, and these institutions were regarded as "places where learning opportunities could be offered that would improve the individual learner and contribute to the social good."²⁰ In the 1880's, large museums like the Victoria and Albert developed to become "a place for ordinary people that was also a truly national centre for learning."²¹ Parallel growth in local and provincial museums resulted in "a new and dynamic relationship between learning and culture."²²

Learning played a central role in the evolution of American museums. As early as 1800, museums in the

United States established collections which furthered the study of science, art and history. While chiefly devoted to collection, preservation and research initiatives, these institutions "slowly began to aim at democratic enlightenment, with exhibits and educational activities designed to appeal to the general public."²³ Moving from a focus upon entertainment to one of education, American museums would help to promote good taste and civic responsibility, become an aid to rational scientific instruction, evolve into centres for public enlightenment and community service, and advocate for social reform. Their aim was avowedly instructional. American museums through a recognized social responsibility, became public centres for learning.

Similar patterns experienced in museums in the United States and the United Kingdom would be replicated in Canadian museums between the 1830's-1900. The role of museums would shift from being a centre of "rational amusement" to become an institution of "serious educational activity." By the end of the 19th century "museums found a more realistic role as organs of higher education."²⁴ Many aspects of museums and learning would be adopted and adapted to meet the particular needs of a growing independent country and its people. The availability of a free public education system in Upper Canada by the 1850's would assist in the development of museums as centres for learning. Influential educators were convinced of the value of the museum as a teaching resource, and they made efforts to utilize schools and museums as avenues for both formal and informal learning.²⁵

Another factor which contributed to and influenced the use of Canadian museums for learning, came from activities linked to agriculture. Acceptance by the public of the benefits of scientific agricultural education, an obsession with fairs and expositions, and attempts to establish agricultural museums, were related to the concept of "instructiveness." These factors provided opportunities for the agricultural community to compare progress, learn lessons from the experiences of others, and to take a new departure for the future.²⁶ These avenues for learning had an impact on Canadian society and in the development of some of its museums.

The growth of the outdoor recreation movement, an era of parks and the open-space recreational system, coupled with an interest in the conservation of natural resources, were further factors which influenced learning in Canadian museums during the 20th century. In Ontario, initiatives were taken by conservation authorities at their historic sites and museums, to foster and promote the conservation ethic.²⁷ The use of innovative and new interpretive techniques and the establishment of museums to protect natural and heritage features within various watersheds, were important elements in the evolution of museums as centres for learning in Canada.

During the first half of the 20th century, Canadian museums progressed from being in a general state of isolation and disorder into "collections with public purposes."²⁸ Evolving into educational institutions, many of these museums began to augment, supplement and complement the formal education system, and communicate with and educate the public about their artifacts and collections. In communicating with the public, museums began to offer visitors a setting where learning was voluntary, exploratory and self-paced.²⁹

This phenomenon continued throughout the century. Other trends affected learning in Canadian museums during this period. Throughout the 1970's, museum education was closely connected with the public education system. During the 1980's, the responsibility of creating links between the public and museums was of emerging importance. The implementation of museum standards in Ontario were also instrumental in improving the interpretation and education functions of these institutions. These and

other elements resulted in a situation where the museum became "an environment in which holistic approaches to learning"³⁰ flourished.

The selected themes identified above provide the framework for this thesis and link its central hypothesis of museums as centres for learning to core chapters which follow. In order to identify the influences, illustrate change, and assess factors that have had an impact on the evolution of Canadian museums as centres for learning, this thesis will utilize historical analysis.³¹ This study will not attempt to be a definitive historical account of museums in Canada. Rather, it will focus on previous circumstances to draw distinctions between past and present. While no archetypal model will be advocated, the profound impact of museum development in the United Kingdom and the United States on the Canadian experience will be identified and considered.

A paucity of research exists on the history of museums in Canada and on the forces which shaped the development and evolution of these institutions.³² There has been even less information compiled on the topic of museums and education from a Canadian perspective.³³ However, relevant reference material does exist. My exhaustive search of contemporary travelogues, emigrant guides and diaries, 19th century popular literature, magazines and newspapers, educational, agricultural, scientific and art related journals, period government and institutional reports and records, conference proceedings and annual reports, and archival collections, has uncovered a wealth of primary resources. This information has been further supplemented by current research and a plethora of secondary source materials. This data has been located in a wide range of depositories on three continents (see Acknowledgements). The style of this thesis follows a format used in publications by Robert Hughes, David Lowenthal, Victoria Dickenson, Raphael Samuel, and John Ralston Saul.³⁴ Extensive descriptive end notes are included to amplify details in the text of the thesis, and to lead readers to additional primary and secondary reference sources.

The overall intent of this work is to contribute to the body of knowledge on Canadian museology in general, and specifically to provide information on Canadian museums and education. I have focussed upon Ontario museums, with an investigation of relevant factors related to museological development that have either never before been studied or have been overlooked as to their significance. These factors as well as influences from the United Kingdom and the United States, are considered in the ongoing development of Canadian museums as they became centres for learning.

In summation, this evolution has been described by a Canadian museum director as presenting opportunities that "are both challenging and formidable."³⁵ These changes relate to the description of museums preparing to enter the 21st century, provided to a Canadian audience by British museum consultant, Tony Herbert:

Museums do not exist in a social vacuum. They exist for the public benefit, in the service of society. This means being accountable, accessible and adapting to new circumstances in a changing world.³⁶

These changes are reflected in chapters of this thesis, and constitute an important part of the history of Canadian museology and museums and education. As will be shown, each contributed to the evolution of Canadian museums as centres for learning upon entering the 21st century.

End notes

1. Duncan F. Cameron, "Closing the Shutters on 'The Window on the World,'" in Michel Côté and Lisette Ferera (eds.), New Trends in Museum Practice (Ottawa, 1997), p. 161.
2. Francis Henry Taylor, Babel's Tower, The Dilemma of the Modern Museum (New York, 1945), p. 39.
3. For examples of writings on these topics, see A.F. Chadwick, The Role of the Museum and Art Gallery in Community Education (Nottingham, 1980), p. 1, Gaynor Kavanagh, History Curatorship (Washington, 1990), pp. 4-10, Eilean Hooper-Greenhill, Museums and the Shaping of Knowledge (London, 1992), pp. 1-2, and Mary Ellen Herbert et al, "Education at the Museum. Shared Knowledge," in Michel Côté and Annette Viel (eds.), Museums: Where Knowledge is Shared (Ottawa, 1995), pp. 120-21.
4. David Anderson, A Common Wealth (London, 1997), p.xiii. For an update on how British museums can contribute to learning, see David Anderson, A Common Wealth (London, 1999). For more information on this topic from a British perspective, see Eilean Hooper-Greenhill, Museums and their Visitors (London, 1994), pp. 169-70, David Anderson, "Gradgrind Driving Queen Mab's Chariot: What Museums Have (and Have Not) Learnt from Adult Education," in Alan Chadwick and Annette Stannett (eds.), Museums and the Education of Adults (Leicester, 1995), pp. 11-14, Sue Mitchell (ed.), Object Lessons: The Role of Museums in Education (Edinburgh, 1996), and Hazel Moffat and Vicky Woollard (eds.), Museum & Gallery Education (London, 1999).
5. Cyril O. Howie, The Literature of Adult Education (San Francisco, 1992), pp. 172-73. For earlier reflections on museums and learning in the United States, see "Museums for a New Century," A Report of the Commission on Museums for a New Century (Washington, 1984), pp. 55-71, John H. Falk, "Public Institutions For Personal Learning," The Museologist (Summer/Fall, 1984), v. 46, #168, pp. 24-27, Bonnie Pitman-Gelles, "Museums and Schools: A Meaningful Partnership," in Mario D. Fantini and Robert L. Sinclair (eds.), Education in School and Nonschool Settings (Chicago, 1985), pp. 117-135, Gordon M. Ambach, "Museums as Places of Learning," Museum News (December, 1986), v. 65, #2, pp. 35-41, and D.D. Hilke, "Museums as Resources for Family Learning," The Museologist (Winter, 1987), v. 50, #175, pp. 14-15.
6. Jean-Marc Blais, "Creating Exhibitions For Learning," in Moffat and Woollard (eds.), Education, p. 29. For other recent comments from a Canadian perspective, see Wendy A. Thomas, "Museums and Learning: Current Directions," in Côté and Viel (eds.), Knowledge, pp. 315-20, Brûlé-Currie, "When three-to-five-year olds and adults look at modern and abstract art together," in Bernard Lefebvre and Michel Allard (eds.), Le Musée Un Projet Éducatif (Montreal, 1996), p. 109, and Andrea Weltzl-Fairchild et al, "The Effects of Different Factors on Adults' Cognitive Dissonances in a Fine Art Museum," in Michel Allard and Bernard Lefebvre (eds.), The Museum As Service To People (Montreal, 1999), p. 149.
7. For examples, see Eilean Hooper-Greenhill, Museum and Gallery Education (Leicester, 1991), Hooper-Greenhill, Knowledge, John H. Falk and Lynn D. Dierking, The Museum Experience (Washington, 1992), Gail Durbin (ed.), Developing Museum Exhibitions for Lifelong Learning (London, 1996), Lisa C. Roberts, From Knowledge to Narrative (Washington, 1997), and George E. Hein, Learning in the Museum (London, 1998). Periodical literature on the topic includes David I. Greenglass, "Learning from Objects in a Museum," Curator (1986), v. 29, #1, pp. 53-66, Sue Rayner and Judithhe

Speidel, "Learning Theories and History Museums," History News (July-August, 1987), pp. 23-26, David Anderson, "Learning History in Museums," The International Journal of Museum Management and Curatorship (1989), v. 8, pp. 357-68, Janet Gail Donald, "The Measurement of Learning in the Museum," Canadian Journal of Education (1991), v. 16, #3, pp. 371-82, Elizabeth Esteve-Coll, "A Yearning For Learning," Museums Journal (May, 1993), v. 93, #5, pp. 23-26, Janette Griffin, "Museums are educational institutions but are they always places of learning?," Museums Australia Conference (November, 1994), pp. 1-7, Minda Borun et al, "Families Are Learning in Science Museums," Curator (June, 1996), v. 39, #2, pp. 123-38, Oliver Aston, Learning Beyond the Classroom (London, 1997), pp. 1-8, and Brett Dunlop, "Museum Education & Public Programs," Newsletter of the Education Group Museums Australia (1998), #1, pp. 106.

8. See Lisa Roberts, "Educators on Exhibit Teams: A New Role, a New Era," in Durbin et al (eds.), Learning, p. 12. For another useful definition, see Anderson, "Adult," p. 11.

9. See Roger Silverstone, "Museums and the Media," The International Journal of Museum Management and Curatorship (1988), v. 7, pp. 231-41.

10. For ideas on the "engagement" of adults in the museum setting, see Chadwick and Stannett (eds.), Adults, p. 6. For insight on museums and galleries as ideal environments for learning, see Hooper-Greenhill, Visitors, pp. 169-70.

11. Cited in "Excellence and Equity," A Report From the American Association of Museums (Washington, 1992), p. 16. For similar thoughts from a British perspective, see Anderson, Common (1999), pp. 8-9.

12. For details about these models and associated philosophies, see Roberts, Knowledge, pp. 137-39, Falk and Dierking, Experience, pp. 97-125, John H. Falk and Lynn D. Dierking, "School Trips: Assessing Their Long-Term Impact," Curator (September, 1997), v. 40, #3, pp. 211-18, John H. Falk et al, "The Effect of Visitors' Agendas on Museum Learning," Curator (June, 1998), v. 41, #2, pp. 107-20, Howard Gardner, Multiple Intelligences (New York, 1993), "Challenges for Museums: Howard Gardner's Theory of Multiple Intelligences," Hand to Hand Children's Museum Network (Fall, 1988), v. 2, #4, pp. 1, 4, 5 & 7, Hein, Learning, pp. 135-79, George E. Hein, "Museum Education: Part 1," Choice (July/August, 1993), v. 30, #11, pp. 1736-1741, Hooper-Greenhill, Knowledge, Hooper-Greenhill, Visitors, pp. 169-70, Eilean Hooper-Greenhill (ed.), Improving Museum Learning (Nottingham, 1996), and Nello McDaniel and George Thorn, Learning Audiences (Washington, 1997), pp. 24-79.

13. See Moffat and Woollard, Education, p. ix. For a discussion about learning and education in American museums, see "Century," pp. 58-59.

14. For a comprehensive explanation of 16th century museums and their functions, see Hooper-Greenhill, Knowledge, pp. 78-104.

15. Ibid., p. 137.

16. For information on these aspects of the 18th century and how the Enlightenment contributed to our development, see Neil Postman, Building a Bridge to the Eighteenth Century (New York, 1999).

17. Hooper-Greenhill, Knowledge, p. 190.
18. Anderson, "Adult," p. 20.
19. Hooper-Greenhill, Education, p. 15. For more information on museums and self-help in the United Kingdom, see Alan Chadwick, "Practical Aids to Nineteenth Century Self-Help-The Museums: Private Collections Into Public Institutions," in M.D. Stephens and G.W. Roderick (eds.), Samuel Smiles and Nineteenth Century Self-Help in Education (Nottingham, 1983), pp. 47-69, and Toshio Kusamitsu, "Mechanics' Institutes and Working Class Culture: Exhibition Movements, 1830-1840s," in Ian Inkster (ed.), The Steam Intellect Societies (Nottingham, 1985), pp. 33-43.
20. Hooper-Greenhill, Education, p. 16.
21. Esteve-Coll, "Learning," p. 23.
22. Anderson, Common (1997), p. xiii.
23. Edward P. Alexander, "The American Museum Chooses Education," Curator (March, 1988), v. 31, #1, p. 68.
24. Susan Sheets-Pyenson, Cathedrals of Science (Kingston, 1988), p. 100.
25. For additional details, see John C. Carter, "Ryerson, Hodgins, and Boyle: Early Innovators in Ontario School Museums," Ontario History (June, 1994), v. 86, #2, pp. 119-131, and John C. Carter, "Museums as a Delightful Instrument of Self-Instruction in 19th Century Ontario," in Allard and Lefebvre (eds.), People, pp. 321-33.
26. E.A. Heaman, The Inglorious Arts of Peace (Toronto, 1999), p. 13. See also John C. Carter, "The Evolution of Agriculture, Education and Museums in Ontario," in Proceedings of the 1998 ALHFAM Conference (Waterloo, 1999), v. 21, pp. 182-204.
27. See John Carter, "Historic Sites: Their Place in Conservation Authorities," Proceedings of the Ontario Conservation Authorities' Conservation Education and Community Relations Conference (Burlington, 1980), pp. 48-50.
28. Eileen D. Mak, "Ward of the Government, Child of the Institute: The Provincial Museums of Nova Scotia – 1868-1951," in Peter E. Rider (ed.), Studies in History & Museums (Ottawa, 1994), p. 8.
29. Joel Weiss, "The Muse as Educator," Annual Conference of the American Educational Research Association (1992), pp. 4 & 7.
30. Mary Herbert, A Report on Canadian School-Related Museum Education (Ottawa, 1981), p. 18.
31. This approach is like the one used by Lisa Roberts in her study of American museum education.

Roberts suggests that; "By remembering the events and conditions that preceded today's, it is possible to illuminate not only how different but also how similar some circumstances may be." Roberts, Knowledge, p. 11. This notion is similar to the "historical imperative" argument used in Nancy Berry and Susan Mayer (eds.), Museum Education History, Theory, and Practice (Reston, Va., 1989), p. 6. See in particular Terry Zeller, "The Historical and Philosophical Foundations of Art Museums in America," ibid., pp. 10-89. I also borrow from the ideas of Canadian historian Michael Bliss, who argues that "it is worth the effort to probe the ways in which Canada's past can equip us for a Canadian future." See Michael Bliss, "Privatizing the Mind: The Sundering of Canadian History, the Sundering of Canada," Journal of Canadian Studies (Winter, 1991-92), pp. 5-17.

32. See Mak, "Ward," p. 9. For examples of the limited material available, see Archie F. Key, Beyond Four Walls (Toronto, 1973), J. Patrick Wohler, The History Museum as an Effective of the Educational Institution (Ottawa, 1976), Lee Jolliffe, A Study of the Operation and Management of Municipal Museums in Canada (Toronto, 1983), Susan Sheets-Pyenson, Cathedrals, J. Lynne Teather, "Museum-Making in Canada (to 1972)," Muse (Summer/Fall, 1992), pp. 21-29, and the museum theme issue of Ontario History (June, 1994), v. 86, #2.

33. For examples see Mary Herbert, A Report on Canadian School-Related Museum Education (Ottawa, 1981), the heritage education theme issue of The History and Social Science Teacher (March, 1988), v. 23, #3, and John C. Carter, "The Evolution of Museums and Education in Ontario," Ontario Museum Annual (1992), pp. 29-34. In Quebec, the Groupe de Recherche sur l'Education et les Musées (GREM) has taken the lead in chronicling museum education initiatives in Canada. For example see Lefebvre and Allard (eds.), Éducatif, and Allard and Lefebvre (eds.), People.

34. For models followed, see Robert Hughes, The Fatal Shore (New York, 1987), David Lowenthal, The Past is a Foreign Country (Cambridge, 1988), Victoria Dickenson, Drawn From Life (Toronto, 1998), Raphael Samuel, Island Stories: Unravelling Britain (London, 1998), and John Ralston Saul, The Unconscious Civilization (Concord, Ont., 1995).

35. Barbara Tyler, "The Future for Museum Education Programs," The History and Social Science Teacher (Winter, 1986), V. 21, #2, P. 88.

36. Tony Herbert, "Pride and Profit: The Contribution of Museums and Heritage Projects to Local Communities," Heritage Canada (November/December, 1995), p. 12.

Chapter 1

From the Beginning

Introduction

In a 1939 article in a popular magazine, American writer Francis Henry Taylor summed up the history of museums from the earliest times to the present:

Going back into the far reaches of time, the word "museum" has succeeded in meaning nothing vital to anyone in particular, yet at the same time it has strangely meant all things to all men. It has emerged through a metamorphic process lasting many centuries from the simple designation of a temple of the Muse to be the encompassing catch-basin for all those disparate elements of heredity culture which are not yet woven into the general educational fabric of modern society.¹

During this long evolution the word museum has had numerous meanings attached to it.² Originally the word museum was derived from the Greek term *mouseion*, meaning "place or home for the muses". This chapter will look at the emergence of public museums in the United Kingdom to 1800. An overview of this early history will assist in placing what we now regard as institutions as centres for learning, in context with the museological history of the past. The growth of these fledgling public museums provide examples for similar developments in North America. This evolution in the New World would be characterized by parallels to and contrasts with museological happenings in England.

Events of the 17th Century

The foundation for many public museum collections that exist today in England was laid in the 17th century. A great upsurge in collecting became evident and collections began to be used for study based on observation.³ Literature of the 1620's provided descriptions of what constituted a public museum. In 1623, Thomasso Campanella related characteristic features of an imaginary institution in his book The City of the Sun. The collection consisted of paintings and artifacts with written labels, and attention was given to the economic and geographical aspects of subjects illustrated. Magistrates provided the meaning of the collections and students learned of the sciences by observing what was on display.⁴

Another ideal museum was envisaged by Francis Bacon in his 1625 New Atlantis. This museum had a technological focus with exhibits of patterns and samples of inventions. While imaginary, Bacon's idea would become the precursor to the establishment of national museums of science and art.⁵ The institution would be developed as a repository of facts, rather than a disorderly collection of curios. Bacon and his contemporaries were attempting to change the direction of intellectual focus from criticism

and continuing dissection of the classical authors, to an exploration of the material world. The insistence on examination of the facts themselves, prompted scientists of the time to make collections for study.

Advances by educational reformers of the time also had an impact on learning, the acquisition of knowledge, and ultimately the development of public museums. The work of John Amos Comenius (1592-1671), helped to bring the idea that instruction in words and things should be brought to the forefront. Comenius believed that education should proceed following the order of nature; educate the senses, then the memory, then the intellect, and finally the critical faculty. Learning would not be purely literary, but instead fix the mind of learners on material objects, with knowledge being derived first-hand through the senses. Comenius summed up his philosophy by saying:

And now I beseech you let this be our business that the schools may cease to persuade and begin to demonstrate; cease to dispute and begin to look; cease lastly to believe and begin to know.⁶

Thomas Locke (1623-1704), had similar ideas on the utility of observation and knowledge. He suggested that;

Knowing is seeing; and if it be so, it is madness to persuade ourselves we do so by another man's eyes, let him use never so many words to tell us that what he asserts is visible.⁷

From a practical perspective, English educators John Brinsley, Richard Mulcaster and Charles Hoole applied this philosophy in their classrooms during the mid 1600's. Hoole's, A New Discovery of the Old Art of Teaching School (1660), detailed his experiments in education showing how children could grammatically attain a firm grounding in Latin, Greek and Hebrew at a young age and learn from observing artifacts in a museum collection. His description of a visit to the Tradescant Museum with students from his Lothbury Garden School, provides a very early example of an out-of-classroom museum experience where objects aided students in gaining knowledge.⁸

Another factor in the advancement of knowledge and the development of public museums was the formation of academies and societies. One such institution, the Academia Secretorum Naturae, was founded in Rome in 1560. A century later the Leopoldine Academy in Germany, The Academy of Sciences in Paris, and the Royal Society in London were established. Transactions were published by these institutions which assisted in bringing together facts which advanced science and helped collections seen as the tools of observation, to grow. For the Royal Society, the development of a museum became one of its priorities. An early history of the Society recorded this:

As soon as they were reduc'd into a Fix'd Assembly, one of the Principal Intentions they propos'd to accomplish was a General Collection of all the Effects of Arts, and the Common or Monstrous Works of Nature...they have already drawn together into one Room the greatest part of all the several kinds of things that are scattered throughout the Universe. The Keeping, and Ranging of these into order, is committed to Mr. Hook.⁹

While the success of this museum was short-lived, visitors did have opportunities to view and learn from the collection. Dr. Nehemiah Grew, one of the curators of this repository published a catalogue describing the natural and artificial rarities housed in the museum at Gresham College. This publication was dedicated to Daniel Colwall, founder of the museum and provided the order, names, descriptions, figures and uses of artifacts in the collection. Grew hoped that the publication would assist visitors "to use the redundant part of their Estates", or in other ways "to merit a lasting esteem amongst the wiser and better part of Mankind."¹⁰ The catalogue also brought forward issues of taxonomy and museum arrangement and the difficulty early curators had in deciding whether to arrange collections by type or by aesthetic value. Both considerations guided the method for display of these collections. Order was to be imposed upon the vast diversity of facts coming from collections, so that something of use or meaning might be deduced from them.¹¹

What was to be seen in these early museums? In a 1627 visit to Thomas Howard's (Earl of Arundel) garden and gallery, artist Joachim Sandrart noted:

Foremost amongst the objects worthy to be seen, stood the beautiful garden of the most famous lover of art, the Earl of Arundel; resplendent with the finest ancient statues in marble, of Greek and Roman workmanship...From the garden one passed into the long gallery of the house; where the superlative excellence of the works of Hans Holbein of Basel held the master's place.¹²

The collection also included works by Raphael, da Vinci, Titian and Tintoretto. During the 1630's the Earl of Arundel added more pieces of fine art, precious stones, medals, statues and curiosities. By 1654 an inventory listed nearly 800 objects in the collection.¹³

John Tradescant and his son John the Younger opened what is considered to be the first public museum in England in 1631.¹⁴ As gardeners, importers of exotic plants, travellers, and ambitious collectors of curiosities, this father and son team acquired an incredible variety of objects which they exhibited in their house "The Ark" in South Lambeth. Their amassed collection was the largest of its kind during this period in England. In 1634, traveller Peter Mundy visited the Tradescant Museum and spent an entire

day "in persueing, and that superficially, such as hee had gathered together, as beasts, fowls, fishes, serpents, wormes (reall, although dead and dried), pertious stones and other Armes, Coines, Shells, fethers, etts of sundrey Nations."¹⁵ In addition Mundy viewed carved curiosities, paintings, medals, religious icons, stuffed birds and ethnographic material. Mundy concluded his visit by stating, here "a Man might in one day beholde and collecte into one place more Curiosities than hee should see if hee spent all his life in Travell."¹⁶ In an attempt to provide for the public, the owners initiated several new strategies. In 1656, the younger Tradescant issued Musaeum Tradescantioum, a catalogue of the collection. To further assist visitors, a keeper was hired "who shows John Tradescants Rarities (which is extraordinary fine) for those who have never seen such a Sight."¹⁷ The Tradescants ended the common practice of admitting only a privileged few to their cabinet by charging 6 pence admission, and opening the doors of the Ark to all who could pay this fee. Some did not like this new stance. Poet Thomas Flatman wrote: "Thus John Tradeskin starves our greedy eyes, By boxing up his new found Rarities."¹⁸

On the death of John Tradescant the Younger in 1662, a protracted legal dispute pertaining to the transfer of ownership to solicitor Elias Ashmole began with Tradescant's widow Hester. On her death in 1678, negotiations began between Ashmole and the University of Oxford to have the collection moved to a permanent home. Work began on the new museum building in the spring of 1679, and the collection was moved to Oxford by the museum's first curator, Robert Plot, in the spring of 1683. Ashmole drew up rules for the operation of the museum, providing for it to be open regularly to the public, and to house both his and the University's collections. The official opening took place on May 21, 1683 and the museum was opened to the public on June 6. Diarist John Evelyn recorded the significance of opening day by commenting that the Ashmolean Museum was "the first public institution for the reception of rarities in art or nature established in England."¹⁹ The Tradescant collection had been transformed from a private collection into an "institutional museum" operated as part of a university.²⁰ There resources could be provided which would lead to its broader use by the public and faculty and students, both in formal and informal learning activities.

Other museums outside of the university environs would open in the last quarter of the 17th century. In 1664, Robert Hubert publicly exhibited a collection in London, that he had acquired during 30 years of travel in foreign lands. A catalogue of the collection listed a mummy, natural history specimens and relics. A later observer noted the entertainment value of Hubert's operation: "Indeed, every page of his

catalogue bears the impression of the puffing show man, without any pretensions to classification or science."²¹

John Evelyn described a visit in December of 1686 to William Courten's collection. He accompanied the Countess of Sunderland to view "a collection of Miniatures, drawings, shells, insects and natural things, and Animals, where divers were kept in glasses of spirits of wine...besides minerals, precious stones, vessels and curiosities in Amber."²² This collection was shown "very freely and with great civility, to the advancement of the glory of God, the honour and renown of the country, and the no small promotion of knowledge."²³ In 1695, James Salter (Don Saltero) established a "museum of curiosities" in his London coffee house. Several museums like Salter's were located in urban coffee houses, which were seen in the popular media as "the Schools of Politicks, of Wit, of polite Learning." It was said of the patrons; "Send them to the Coffee-House; the Concern they will learn from the Affairs of the Universe, will naturally lead them to a close Attention to their own Peculiar."²⁴ A contemporary writer, Richard Steele held a different opinion about Salter's collection. Steele declared; "I hereby certify all the worthy citizens who travel to see his rarities," but he expressed serious concerns about claims made by the owner of the collection. Steele concluded; "Therefore this is really nothing but, under the specious pretence of learning and antiquities, to impose upon the world."²⁵

Steele's observation about the educational utility of period museums probably accurately reflected the state of many of these institutions at the end of the 17th century. The creation of public museums on a broader scale with an expanded and defined educational mandate would have to wait for events of the 18th century.²⁶

Events of the 18th Century

The creation of the Public Museum was an expression of the eighteenth-century spirit of enlightenment which generated enthusiasm for equality of opportunity in learning. Collections which before had been sources of instruction and enjoyment for the few who owned the treasures and their personal friends, were to be made accessible to everybody.²⁷

In 1927, Frederic Kenyon, then director of the British Museum made this pronouncement about museums in the 18th century. Seventy years later American museum educator George Hein echoed similar sentiments:

Education as a crucial museum function has been recognized as long as there have been public museums. The public museum as we know it - the display of objects for edification and entertainment of the public - is a product of the eighteenth century.²⁸

What directions were observable during this century that differed from the roles museums played previously and contributed to the development of modern museums that we know today?

Travels abroad by scientists and explorers and "Grand Tours" conducted by connoisseurs and gentlemen, resulted in a considerable number of objects being added to collections in England. A tangible result of such practices was the development of increasingly cosmopolitan collections and the laying of foundations for some of the most important houses and museum collections in the country.²⁹ A prime example of such a collection was that assembled by physician Hans Sloane, which in 1733 included 69,352 specimens. Sloane was an inveterate collector of botanical and natural curiosities, books, prints, medals, minerals, manuscripts, scientific instruments and antiquities. As with many medical men and scientists of the day, Sloane gathered his collection for the purpose of imparting knowledge instead of merely collecting for the sake of collection. On one level there was a concern with the naming, classification and description of collections. From another perspective collections began to be viewed as vehicles for education.

The Prince of Wales visited the Sloane collection in 1748, and marvelled at how "the learned world was obliged to him for his having collected such a vast library of curious books, and such immense treasures of the valuable and instructive productions of nature and art." The Prince then;

...expressed the great pleasure it gave him to see so magnificent a collection in England, esteeming it an ornament to the nation; and expressed his sentiments how much it must conduce to the benefit of learning, and how great an honour will rebound to Britain, to have it established for public use to the latest posterity.³⁰

These comments reflected feelings on popular education which were spreading across Europe. The link between museums and education was made in France with the establishment of the Conservatoire des Arts et Métiers in Paris. In England the Society for Encouraging Arts was formed in 1754. It issued prizes to those who encouraged and improved useful arts,³¹ published Transactions and set up a museum of machines and models which was open for public viewing. These vehicles would become a "mode of communication to the publick," and through its publications the Society endeavoured to "furnish as useful

and entertaining work, serving to communicate the labours of the ingenious of one part of the British dominions, to the inhabitants of the other."³²

Advances in education philosophy and practice would also have an impact on events of the 18th century. In order to achieve the "diffusion of knowledge", the sciences had to be popularized and made accessible to the public. The Academies of the Rosicrucians made early attempts at adult education. Dr. John Theophilus Desaguliers was a pioneer in this field and began lecturing to the public on this topic in 1713.³³ Educational realists such as Jean-Jacques Rousseau (1712-1788) and Johan Henry Pestalozzi (1746-1827), built upon theories of Wolfgang Ratichius and John Amos Comenius. They established that learning behaviour was predicated on sensory and emotional reactions to stimuli, especially at a formative age. This early form of object-centred, inquiry learning would have great impact both in the fields of education and museums as the philosophy became known, accepted and utilized.³⁴

England in the 18th century prospered economically. Between 1740-60, a rapid growth in population was noted, the export trade and production of goods expanded, and a new type of society was being established with the beginning of the Industrial Revolution. Instead of armed revolutions which were occurring in France and Ireland, in contrast England was experiencing "a remarkable development of a spirit of enquiry in technology and numerous technical inventions."³⁵ As a social revolution, the Industrial Revolution established social equality, the equality of rights and intellectual equality. In practice it created freedom for those "who wanted to fulfil what they had in them - a concept inconceivable a hundred years earlier."³⁶ In addition the need to educate ordinary people resulted in cultural institutions such as libraries and museums providing such opportunities before universal state-supported education was made available.³⁷ These factors augured well for museum development in the British Isles as the following examples illustrate.

John Hunter (1763-1793) formed the nucleus of the Museum of the Royal College of Surgeons. Sir Andrew Balfour (1630-1694) and Robert Sibbald (1641-1722), assembled the collection of the Edinburgh Museum of Science and Art. Sir Ashton Lever's massive collection was moved from Lancashire to London in 1775 for the purpose of opening the collection to the public. Lever levied an admission charge with the hope of generating revenue that could be used to acquire more objects. Public reaction to the

Lever collection varied. Susan Burney described what she saw on a July 16, 1778 visit:

Saturday Morning we spent extremely well at Mr. L - Sir Ashton Lever's Museum I mean...I wish I was a good Natural Historian that I might give you some idea of our entertainment in seeing birds, beasts, shells, fossils etc - but I can scarce remember a dozen names of the thousand I heard that were new to me.³⁸

German traveller Sophie Von la Roche exhibited an early example of museum fatigue by noting her reaction to a 1786 visit:

All the wonders of nature, and all the incredible artistic conceptions of form and colour, pleasant and unpleasant, are so tightly packed that the mind and eye are quite dazzled by them, and in the end both are overwhelmed and retain nothing at all.³⁹

Visits to Cox's Museum in London evoked similar responses. A 1772 description presented the following appearance:

The decor of the Great Room for Cox's tenancy was worthy of its contents. The ceiling of the dome had chiaroscuro paintings representing the liberal arts; fair crystal lustres provided the lighting; Crimson curtains set off the jewelled objects enshrined behind railings.⁴⁰

Author Fanny Burney, writing in *Evelina* in 1778, voiced through the heroine of the piece, her opinion on visiting Cox's: "This Museum is very astonishing and very superb, yet it afforded me little pleasure, for it is a mere show, though a wonderful one."⁴¹

While these reactions do not reflect our current perspective of a valuable learning experience in a museum, one must remember that the "Learned Manner of Presentation" which was advocated in Casper Neickelius's 1727 *Museographia*,⁴² was in practice here and in many other museums of the day. Shelves with artifacts placed on them for study and exhibition were believed to be the means for an encyclopedic approach to learning and the advancement of knowledge. Educated visitors may have expected more from their museum experiences and perhaps were looking for a standard that did not yet exist. Arrangement of collections were often designed not for interpretation but to impress and for visual effect. Yet the development of public museums as institutions of learning would find its birth in the private and public museums of the mid 17th century, and the British Museum would play a central role in this evolution.

The British Museum to 1800

On the death of Hans Sloane in 1753, negotiations began with the British Government to meet the stipulations of his will, acquire the collection, and exhibit it in Montague House. Horace Walpole wrote to a friend that year describing his involvement with the decision. He sarcastically noted:

You will scarcely guess how I employ my time; chiefly at present in the guardianship of embryos and cockle shells. Sir Hans Sloane is dead, and had made me one of the trustees of his museum..., which is to be offered for twenty thousand pounds to the King, the Parliament, the royal academies of Petersburg, Berlin, Paris and Madrid. He valued it at four score thousand, and so would anybody who loves hippopotamuses, sharks with one ear, and spiders as big as geese! It is a rent charge to keep the footsies in spirits! You may believe that those who think money the most valuable of all curiosities, will not be purchasers...⁴³

Walpole's cynicism did not hold sway and an act of parliament was passed appointing a Board of Trustees to supervise the transfer of Sloane's collection and to establish a museum. Dr. Gowin Knight was hired as the principal keeper and was assisted by colleagues from the Royal Society in setting up displays. Curators placed "natural and artificial productions" in cases on opposite sides of the new facility in "a material separation which paralleled the disciplinary boundaries being drawn between the Sciences and the Arts."⁴⁴ Objects in the exhibits were classified using the taxonomy recently introduced by Swedish naturalist, Carl Linnaeus (1707-1778).⁴⁵ The museum officially opened to the public on January 15, 1759.

Access to the museum was controlled by a process established by the Board of Trustees. While in principle the museum was a public institution with no entry fees and it attracted varied audiences, statutes and rules relating to inspection and use of the collection were published⁴⁶ and used without any flexibility.

Public reaction to the British Museum and its utility were mixed. Contemporary author Henry Chamberlain provided the following description of Montague House in 1770:

And every part now so excellently contrived for holding this noble collection, and the disposition of it in the several rooms is so orderly and well designed, that the British Museum may justly be esteemed and honour and ornament to the British nation.⁴⁷

Artists John and Andrew Van Rymdsdy who used the collection as subjects for their drawings, spoke highly of the "noble and magnificent cabinet." They explained that the staff on application were "always ready to gratify any Person's Curiosity, with satisfactory Information. What Improvements in Arts,

Sciences, Manufacturies, & etc. every Individual may reap from this Harvest of Learning, must strike every one at first view!"⁴⁸

Birmingham stationer William Hutton had an opposite reaction to his visit in December of 1784. He first explained the problems he encountered in obtaining a ticket of admission, and then described the discourteous service he received from the staff:

We began to move pretty fast, when I asked with some surprise, whether there were none to inform us what the curiosities were as we went on? A tall genteel young man in person, who seemed to be our conductor, replied with some warmth, 'What! would you have me tell you every thing in the Museum? How is it possible? Besides, are not the names written upon many of them?' I was too much humbled by this reply to utter another word. The company seemed influenced; they made haste, and were silent. No voice was heard but in whispers. If a man pass two minutes in a room, in which are a thousand things to demand his attention, he cannot find time to bestow on them a glance each. When our leader opens the door of another apartment, the silent language of that action is, come also...It grieved me to think how much I lost for want of a little information. In about thirty minutes we finished our silent journey through this princely mansion, which would well have taken thirty days! I went out much about as wise as I went in...I had laid more stress on the British Museum, than anything I should see in London. It was the only sight that disgusted me.⁴⁹

A French academic's 1799 experience at the British Museum was also not favourable. He lamented the fact that the original collection of Hans Sloane had been added to, and that the inclusion of "a crowd of heterogeneous objects, calculated rather to distract than to command the attention," lessened the importance of the museum. Professor Saint-Fond expounded further on the utility of the British Museum's collections:

It may be presumed that as long as this disgusting confusion is suffered to continue, no artist will ever be excited to go there, to acquire those branches of information which relate to the materials he uses, and the sources whence they are derived... Youths, so inquisitive, and so fond of novelty, will here find no excitement to study, from that attractive lure, which captivates by the elegance and correctness of arrangement, and which is so well calculated to create or unfold a taste for the history of nature.⁵⁰

Conclusion

Museums began to open to the public in the late seventeenth century. Into the eighteenth century this progress continued as the basic natural laws that formed the framework for the universe and humanity were developed, and intellectuals of the day began to preserve natural specimens and human artistic and scientific creations in museums. As the public were admitted to museums, the exhibition and education

functions prospered.⁵¹ The separation of collections to promote science from those collections designed to promote general knowledge, was considered a sign of progress.⁵² These and other advancements resulted in a pronounced change which has been identified by American historian Daniel J. Boorstin:

The eighteenth century in Europe saw a new kind of collection, a novel institution, the public museum...Across Europe a new museum public expected to learn, to be delighted, to be entertained.⁵³

This "metamorphosis" would continue into the 19th century and have an impact on museums in England⁵⁴ and in North America.⁵⁵

End notes

1. Francis Henry Taylor, "Museums in a Changing World," The Atlantic Monthly (December, 1939), p. 785. For information on museums shaping knowledge over the last 600 years, see Eilean Hooper-Greenhill, Museums and the Shaping of Knowledge (London, 1992).
2. For information on museum definitions, see Edward P. Alexander, Museums in Motion (Nashville, 1979), pp. 5-6, and G. Ellis Burcaw, Introduction to Museum Work (Nashville, 1975), pp. 3-13.
3. Alma S. Wittlin, The Museum: Its History and Its Tasks in Education (London, 1949), p. 59. For more on change in the 17th century see David Lowenthal, The Past is a Foreign Country (Cambridge, 1988), pp. 87-93, and Hooper-Greenhill, Knowledge, pp. 137-44.
4. F.J. North, "On Learning How to Run a Museum-Lesson From Some Early Collections," Museums Journal (April, 1951), v. 51, #1, pp. 5-6.
5. George Brown Goode, "Museums-History and Museums of History," Report of the US National Museum (Washington, 1901), pt. 2, p. 68 and North, "Lessons," p. 6. Another opinion suggested that Bacon strove to advance knowledge through research, but did not realize the value of his collections for this purpose. See George Kenyon, Museums and the National Life (Oxford, 1927), p. 8.
6. Quoted in Robert H. Quick, Essays on Educational Reformers (Toronto, 1890), p. 152. For more on Comenius, see ibid., pp. 119-71, Daniel Benham, School of Infancy (London, 1858), and Robert Ulich, History of Educational Thought (New York, 1950), pp. 188-99.
7. Quoted in Quick, Essays, pp. 222-23. For more on Locke, see ibid., pp. 219-38, and Ulich, History, pp. 200-10.
8. See Charles Hoole, A New Discovery of the Old Art of Teaching Schoole (London, 1660), pp. 284-85. The educational merit of Hoole's visit to the Tradescant Museum is discussed in Prudence Leith-Ross, The John Tradescants (London, 1984), p. 152, and Gene Adams, "Museums and School Links in London-Past and Future," MJ (1984), v. 84, #2, p. 57. For more on Hoole, see Quick, Essays, pp. 200-02, and Henry Barnard, "Early Promoters of Realism in England," American Journal of Education (December, 1862), v. 22, #29, pp. 647-49.

9. From Thomas Spratt, The History of the Royal Society of London (1710), 2nd ed., p. 251, cited in North, "Lessons," p. 8. See also Archie Key, Beyond Four Walls (Toronto, 1973), pp. 34-35, and Hooper-Greenhill, Knowledge, pp. 145-48.
10. Nehemiah Grew, Musaeum Regalis Societatis (London, 1681), p. A4. For descriptions of visits to the Royal Society Museum by authors Jonathan Swift and Ned Ward, see North, "Lessons," p. 8.
11. Victoria Dickenson, An Investigation into the Ordering of Collections (Ottawa, 1984), p. 17. For additional information on the analysis, classification and arrangement of early museum collections, see Margaret T. Hogden, Early Anthropology in the Sixteenth and Seventeenth Centuries (Philadelphia, 1964).
12. Cited in Mary F.S. Hervey, The Life Correspondence and Collections of Thomas Howard (Cambridge, 1921), pp. 255-56.
13. For more on the history of Thomas Howard and his collection, see a series of articles by Lionel Cust, "Notes on the Collections Formed by Thomas Howard, Earl of Arundel and Surrey," Burlington Magazine (April-September, 1911), v. 19, pp. 278-86, (October 1911-March 1912), v. 20, pp. 97-100, pp. 233-36, and pp. 341-43, and (April-September, 1912), v. 21, pp. 256-58.
14. Hendrik Willem Van Loon, The Arts (New York, 1937), p. 566, A.F. Chadwick, The Role of the Museum and Art Gallery in Community Education (Nottingham, 1980), p. 7, and Leith-Ross, Tradescants, p. 13.
15. Cited in Arthur MacGregor, Ark to Ashmolean (Oxford, 1988), 2nd. ed., p. 10.
16. Quoted in Leith-Ross, Tradescants, p. 15.
17. Richard Leigh, from The Transposer Rehears'd (1673), quoted in ibid., p. 90.
18. Thomas Flatman, Poems and Songs (London, 1674), p. 89.
19. Quoted in Alma S. Wittlin, Museums: In Search of a Useable Future (Cambridge, Mass, 1970), p. 76. For additional information on the Ashmolean Museum, see F.J. North, "On Learning How to Run a Museum: Some Early Museums: Candid Contemporary Comments," MJ (June, 1951), v. 51, #3, pp. 63-66, and Michael Hunter, Elias Ashmole and His World (Oxford, 1983).
20. Hooper-Greenhill, Knowledge, p. 165. For an early description of the Ashmolean museum, see Anthony A. Wood, Athenae Oxonienses (Oxford, 1920), new ed., p. 358.
21. Cited in "London Museums of the Seventeenth Century," Chambers' Edinburgh Journal (May 3, 1851), v. 15, #383, n.s., p. 308.
22. Cited in J.L. Nevinson, "Museums and the Eighteenth Century-Antiquarians," MJ (May, 1959), v. 59, #2, p. 33.

23. "London," Chambers' Edinburgh Journal (May 3, 1851), p. 310. On Courten's death in 1702, his collection was left to Hans Sloane.
24. Cited in "Of the Excellency and Usefulness of Coffee-Houses and News Letters," A Collection of Miscellany Letters Selected Out of Mist's Weekly (London, 1723), v. 2, pp. 254-56.
25. Cited in The Tatler (June 28, 1709), #34, pp. 80-81. Salter had worked for Hans Sloane and had received duplicates from Sloane's collection. See Richard D. Altick, The Shows of London (London, 1978), p. 17. For John Rae's period descriptions of European museums in 1663, see David Murray, Museums, Their History and Use (Glasgow, 1904), v. 1, pp. 81-85.
26. Chadwick, Role, p. 7.
27. Frederic Kenyon, quoted in Wittlin, History, p. 133. This stance about the importance of this period for the development of public museums is supported by other authors. See William Henry Flower, Essays on Museums (London, 1898), p. 6, J. Patrick Wohler, The History Museum as an Effective Educational Institution (Ottawa, 1976), p. 3, and Daniel J. Boorstin, The Discoverers (New York, 1983), p. 604. The 18th century was viewed as a "museumological watershed." See J. Mordaunt Crook, The British Museum (London, 1972), p. 32.
28. George Hein, Learning in the Museum (London, 1998), p. 3.
29. See Andrew W. Moore, Norfolk and the Grand Tour (Norfolk, 1985), p. 9., John Hayward, "Museums and the Eighteenth Century-Collectors," MJ (May, 1959), v. 59, #2, p. 30, and Walter Gilbey, "Educative Value of the Modern Museum," The Nineteenth Century and After (July, 1909), v. 66, #389, p. 664. For more on change in the 18th century, see Lowenthal, Past, pp. 93-96.
30. Cited in "An Account of the Prince and Princess of Wales Visiting Sir Hans Sloane," The Gentleman's Magazine (July, 1748), v. 18, pp. 301-02. A twentieth century writer noted that "Sir Hans Sloane recognised the educative possibilities of a museum, and endeavoured to make his collection instructive." See Gilbey, "Educative," p. 665.
31. See "Prizes Offered by the Society for Encouraging Arts," Gentleman's Magazine (July, 1755), v. 25, pp. 321-22.
32. Transactions of the Society for the Encouragement of the Arts, Manufactures and Commerce (1783), v. 1, pp. iv, vi & 309-22. This institution would eventually become the Royal Society of Arts.
33. Nicholas Hans, "Therosicrucians of the Seventeenth Century and John Theophilus Desaguliers, the Pioneer of Adult Education," Adult Education (April, 1935), v. 7, #3, pp. 231-32.
34. See Peter Sheridan, Towards a Humanistic Discovery Paideia in Museums and Cultural Institutions Using Programmed Learning Techniques (Montreal, 1987), p. 39. For more information on Rousseau, see Quick, Essays, pp. 238-72. For information on Pestalozzi, see Charles Mayo, Memoir of Pestalozzi (London, 1826), Herman Krusi, The Life and Work of Pestalozzi (Oswego, N.Y., 1875), Ellwood P.

Cubberley, Public Education in the United States (Boston, 1934), pp. 344-54, Stephen Duggan, History of Education (New York, 1948), pp. 225-43, Frederick Eby, The Development of Modern Education (Englewood Cliffs, N.J., 1952), pp. 463-70, and Anthony O'Hear, Education, Society and Human Nature, (London, 1981), pp. 6-10.

35. D.C. Coleman, "Museums and the Eighteenth Century - The Economic Background," MJ (May, 1959), v. 59, #2, p. 38.

36. Jacob Bronowski, The Ascent of Man (London, 1974), pp. 286 & 291.

37. See Barbara J. Soren and Robert J. Williams, "The Role of Cultural Institutions as Educators," International Conference on Arts Management (Montreal, 1991), p. 3.

38. Quoted in Annie R. Ellis (ed.), The Early Diary of Frances Burney 1768-1778 (London, 1889), v. 2, p. 249. A novel way of financing museums through a government tax on cards and notes was proposed in 1746. See "A Scheme for Raising a Large Sum of Money for the Use of the Government," The Museum or the Literary and Historical Register, (April 12, 1746), v. 1, pp. 46-47.

39. Quoted in Altick, Shows, p. 33.

40. Cited in ibid., p. 69.

41. Quoted in ibid. p. 70.

42. See Wittlin, History, p. 6. Neickelius's work was viewed as the first comprehensive bibliography of museums and their practices ever published.

43. Quoted in Altick, Shows, p. 25.

44. For a recent account of the founding of the British Museum, see Patricia Fava, "The Appliance of Science: The Georgian British Museum," History Today (August 1997), v. 47, #8, pp. 39-45. See also W.H. Boulton, The Romance of the British Museum (London, 1931), pp. 3-6, "The British Museum," Picture Post (January 28, 1939), pp. 59-60, Crook, British, pp. 39-71, and David M. Wilson, The British Museum Purpose and Politics (London, 1989), pp. 13-15.

45. The printed instructions for the arrangement of a museum published by Linnaeus in 1753, were one of the first scientific essays to be followed by naturalists when setting up museum collections. See Hagen, "History," pp. 139-41. The work of Linnaeus was considered as a progression of the ideas and methods originating in the 17th century and being perfected and made more efficient in the 18th century. See W.T. Stearn, "Museums and the Eighteenth Century; Natural History," MJ (May, 1959), v. 59, #2, pp. 44-48. For more on Linnaeus, see Boorstin, Discoverers, pp. 436-46, and Stephen Jay Gould, Dinosaur in a Haystack (New York, 1995), pp. 431-35.

46. For specifics about this process, see "Abstract of the Rules Relating to the British Museum," Gentleman's Magazine (1758), v. 28, pp. 629-31. See also Noel Desenfans, Plan for Establishing Public

Galleries of Portraits (1799), cited in John Pye, Patronage of British Art (London, 1845), p. 239.

47. Henry Chamberlain, A New and Compleat History and Survey of the Cities of London (London, 1770), p. 340. Chamberlain provides a description of the method of entry and attendance and a concise listing of the rooms used for display and the objects on exhibit. See pp. 341-48.

48. John and Andrew Van Rymsdy, Museum Britannicum (London, 1778), p. ii.

49. William Hutton, The Life of William Hutton (London, 1841), pp. 41-42.

50. B. Faujas Saint-Ford, Travels in England, Scotland and the Hebrides (London, 1799), v. 1, pp. 86 & 89-90. Saint-Ford was a member of the National Institute and professor of geology at the Museum of Natural History in Paris. Saint-Ford suggested that the arrangement of the collection at the British Museum should be changed to "contribute to the enlargement of human knowledge, and thereby the happiness of the whole human race."

51. Alexander, Motion, pp. 9-10. A Swiss observer saw the City of Basel Gallery as a centre of learning. In 1784, Chrétien de Mechal wrote; "It must interest artists and amateurs the world over to know there actually exists a Repository where the history of art is made visible...A great public collection of this type [is] more for one's instruction than delight." Quoted in Victoria Dickenson, "Museums and Education: A Quotable History," CMA Annual Conference (Vancouver, 1979), p. 2.

52. H.A. Hagen, "The History of the Origin and Development of Museums," American Naturalist (February, 1876), v. 10, p. 147.

53. Boorstin, Discoverers, p. 604. For more on how the Enlightenment had an impact on the modern world, see Neil Postman, Building a Bridge to the Eighteenth Century (New York, 1999).

54. At the beginning of the 19th century, museums and galleries were seen to be educational institutions. See Eilean Hooper-Greenhill, Museum and Gallery Education (Leicester, 1991), p. 1. For comment on museums, learning and education in England during the late 19th century, see Gaynor Kavanagh, History Curatorship (Washington, 1990), pp. 153-54.

55. Hein, Learning, pp. 5-6.

Chapter 2

Influences From the United Kingdom

Introduction

At the beginning of the nineteenth century, museums and galleries were, in themselves, understood as educational establishments. They were set up to enable people to educate themselves...Museums were one opportunity among many of acquiring knowledge.¹

British museologist Eileen Hooper-Greenhill's description of the state of museums and their role in education and the transfer of knowledge at the start of the 19th century, is most applicable to institutions in Europe and the United Kingdom. However, the impact of such events would be influential in the development of museums in Canada and North America as well.

Change was the common denominator in moving forward the position of museums as public institutions on both continents. Varied factors which first surfaced in the United Kingdom would tangentially influence the evolution of museums as centres for learning in the "New World".

In contrast to the 17th and 18th century, museum collections became more accessible to more people.² For the first time artifacts in museum collections began to be seen as "national heritage" which could be shared by all classes. Patrimony ceased to be exclusive to elites and in principle was open to everyone for their enjoyment, edification and education.³ Museums were to become the vehicles to expand the mind, increase knowledge and virtue, and induce and promote a taste for study. Museum collections would become centres of inquisitive observation, and stimulate visitors to make use of their senses. Even prior to the Victorian period (1837-1901), such goals were espoused. A contemporary account explained the utility of establishing museums:

In an age like the present, when a taste for the pursuits of Science so generally prevails, and when education is so universally diffused, that all above the lowest classes of society are capable at least to a certain degree of appreciating the advantages of knowledge, it cannot be necessary to offer any excuses to the public for bringing forward a plan which can scarcely fail to excite a taste for scientific attainments, where it does not already exist, and to promote it where it does.⁴

The exhibition function also began to change. New displays portrayed functional relationships and objects in these exhibits were accorded meaning. Many collections graduated from being merely a source of pleasure, to become a source of instruction and to promote the moral conduct of life.⁵

This chapter will investigate influences from the United Kingdom which shaped not only the development of public museums there, but contributed to the evolution of similar institutions in Canada and North America.⁶

Museums in the United Kingdom, 1800-1837

The 1816 edition of the Encyclopaedia Perthensis, identified a change in the definition of what constituted a museum. Originally it was viewed as "a repository of learned curiosities", but by the start of the 19th century the term "now applied to any place set apart as a repository for things that have an immediate relation to the Sciences".⁷ An appendix provided a discourse on natural history and the arrangement of a museum. It was recommended that collections were to be divided into classes from the mineral, vegetable and animal kingdoms. The author noted that:

The advantage of such an arrangement, where every thing is distinct, and distributed in the most advantageous for the inspection of the student, is obvious.⁸

To further benefit museum visitors, a systematic arrangement of the collection which followed the principles advocated by Carl Linnaeus was promoted. Seen as the "most complete system, however, of natural history which has been yet given to the public", such an arrangement would assist in the study of natural history and be an aid "to acquire a perfect knowledge of it".⁹ The ordering of collections during this period, both in public and private institutions, would help museums to become centres for learning by providing visitors with "useful knowledge".

What did the public see and experience in these early 19th century museums? Contemporary observer Rudolph Ackerman provides an account of visits to various exhibitions of paintings in London in the summer of 1809, describing them as "caterers of public amusement and information".¹⁰ By 1810, William Bullock had amassed a collection of upwards of 7,000 natural and foreign curiosities, antiquities and pieces of fine art in his London museum. This collection of rare and uncommon quadrupeds, birds, fishes, reptiles, shells, old paintings, carvings, stained glass and ancient and foreign arms and armour was "open for public inspection".¹¹

By 1813, Bullock's collection contained 15,000 specimens. He solicited "the attention and patronage of the Nobility, Gentry and the Public, to an Establishment for the advancement of the Science of Natural

History". It was noted that renovations had been carried out to better present the collection "by displaying it advantageously for the study of the Naturalist, the Instruction of the Curious, and the Amusement of those who are delighted in viewing the Beauties of Nature, or the Curiosities of Art". Bullock suggested that on a visit to his museum, "the rising generation" would derive information and delight from the exhibition.¹² In 1817 naturalist John Ripplingham supported this notion when identifying the usefulness of museum visits for children:

The menageries and museums of London afford opportunities for showing them Nature's varieties in this kind, both living and stuffed; at the London Museum there is a very extensive collection of the latter kind, which, with the aid of the little volumes now before us, may afford the means of studying natural history with certain advantage and superior delight.¹³

An 1815 description of a visit to the British Museum by French expatriate Louis Simond, provides some insight into what was described in other quarters as "the noblest cabinet of curiosities in the world".¹⁴

Simond detailed the cumbersome process involved in gaining admission and described what he saw during his tour:

The building is disposed round a vast court, and in a very good taste. You are to wait in the hall of entrance till fourteen other visitors are assembled, for the rule is, that fifteen persons are to be admitted at one time, neither more nor less. This number completed, a German cicerone took charge of us, and led us au pas de charge through a number of rooms full of stuffed birds and animals; - many of them seemingly in a state of decay.

Simond also viewed arms, ethnographic items, minerals, antiquities, statues, marbles, manuscripts, deeds, and the Rosetta Stone. He came away with a very negative portrayal of his experience:

We had no time allowed to examine any thing; our conductor pushed on without minding questions, or unable to answer them, but treating the company with double entendres and witticisms on various subjects of natural history, in a style of vulgarity and impudence which I should not have expected to have met in this place, and in this country.¹⁵

Italian visitor Count Leopold Ciocognara's 1819 description of what he saw in other collecting institutions was more positive: "The galleries of London are very numerous, always open to the public, and furnished with old and modern works of every school."¹⁶

The development of public museums and their use by a broad sector of society was not restricted to London. The early nineteenth century was also a period of expansion for provincial museums. Philosophical societies became pioneers in the construction of purpose-built facilities. From Newcastle in the north, to Truro in the south, Norwich in the east, to Bristol in the west, societies formed museums

of natural history and the arts to assist with the promotion of literary and intellectual improvement.¹⁷ These new museums catered to the desire for self-improvement of the middle and artisan classes, serving the needs of both urban and county constituencies.¹⁸ Provincial academies and art societies also played a role in founding institutions "to disseminate taste for the Fine Arts". Such initiatives were noted in Norwich, Leeds, Birmingham and Manchester.¹⁹

In Shrewsbury, the Shropshire and North Wales Natural History and Antiquarian Society was formed in 1835. Its aim was to establish a natural history society for the region and to found a central museum and scientific library "for the permanent use and benefit of the district at large". The museum was designed to illustrate the geology, mineralogy, zoology and botany of the area through a complete and systematic arrangement of natural history specimens. The collection would also have other objects of scientific interest and remains of antiquity to interpret local history, as well as specimens from distant places donated "through the liberality of the friends of science in various quarters."²⁰ This arrangement was similar to a scheme proposed in 1839 by William Sharp and adopted in Bradford. The prime object was to collect items of natural history within a radius of 15 miles which would illustrate geological specimens in reference to quarries, show manufacturers, agricultural and vegetable products to improve cultivation, and present facts on meteorology, population and general statistics of the locality.²¹ In their own way these local museums would provide visitors with an introduction to knowledge and help in the advancement of learning through observation of collections.

Such pursuits were linked to efforts of social reformers of the period in attempting to provide education to all people. "Universal diffusion" of knowledge and the "cultivation of intellect" were regarded as positive influences on and advantages for "general society".²² These initiatives were to cross all boundaries and included work with children:

Almost every thing is new to children, and novelty will entice them on to new acquirements. Show them the birds, beasts, the fishes, the insects, trees, fruits, birds, and the several parts and properties of the vegetable world. Teach them to observe the various occurrences of Nature and Providence.²³

In the 1820's, Scottish philosopher Thomas Dick promoted learning through the establishment of infant schools. He firmly believed that for students aged 5-14, intellectual instruction could be enhanced by using a collection of natural history specimens. He encouraged field trips for students and teachers to

collect specimens which could serve as "subjects for instruction" in school museums. The end result would be that:

Many of the little urchins who attended the school would rejoice in being instrumental in adding whatever they could procure to augment the splendour and variety of the museum.²⁴

Science and general knowledge could be advanced through observation, and children could gain knowledge through the use of their senses.

No limits were to be assigned to the education of the poor nor were they to be excluded from the "fields of knowledge". In 1828, philosopher Jonathan Dymond wrote; "Educate all, and none will fancy that he is superior to his neighbours." He added; "The attention to public institutions and public measures which is inseparable from an educated population, is a great good."²⁵

Educational reformers extended this philosophy to work that they were doing with poor children. Using the Pestalozzian system, the Reverend Charles Mayo established a school of industry and instruction which would deal with "the quarrelsome little beings which throng the courts and allies of a densely peopled city."²⁶ Mayo and his sister Elizabeth believed the object of such an education was "to produce that general harmony of mind and character, which is most conducive to the happiness and usefulness of the individual."²⁷ Social reformers such as James P. Greaves and James Silk Buckingham embraced this theory and similar educational principles in their plans for utopian alternate communities. Buckingham believed that England should "encourage Education in all her borders, as to raise up an intelligent, virtuous, and independent race of subjects, among whom neither ecclesiastical nor political tyranny can ever be introduced, since by such a race they would never be endured."²⁸

Separate from such high ideals was the informal learning that took place by members of the public visiting museums. Canadian brewer William Helliwell toured the British Museum and the National Picture Gallery in June of 1832. A diary account of this event follows:

Wedensday morning I went inside the British Museum & I got to the Gate rather too soon as it is not open before ten I met a young man at the Gate who like myself wished to go Through we stept into the next publech house and took a pot of Porter togeather till the clock struck ten and then set out and went in We was met at the door by the porter and shown into a room where we enterd our names in a Book and then procceded to look

through the several rooms the first thing that attracted my attention was a large wild Goate brot by Captain Perrey from America & a large White Bear from the frozen Ocian and also a verey large camel lepard which stood 15 feet high Here is a greate collection of Indian curiositeys such as war clubs and paddles &c a verey extensive collection of insects reptiles and a fiew wild beasts A Good collection of Birds forighn & domestic This together with the Fosils & Shells occupeyed a room 120 yards long under which is the Library presented to the British Nation by George the Fourth...From ther we went into the depository of Anticuteys Statues Sculpture &c Here was a greate numbr of young artisans coppys from the Statues...And then set out for the Nationall Picture gallery in Pall Mall Here is 120 of the finest paintings on modern time this as well as the museum is gratis.²⁹

Canadian political firebrand and newspaper editor, William Lyon Mackenzie, visited various London museums in the summer and fall of 1832. Egyptian, Grecian and Roman antiquities at the British Museum excited his attention. After viewing these exhibits and the newly installed Elgin Marbles, Mackenzie suggested the following to his readers:

To those who have read the history of ancient times, a few days spent in the gallery of antiquities belonging to this museum must afford great satisfaction; and to those of our Canadian youths who have been careless in that respect, I would say, read sacred and profane history, and mark well wherein we the members have improved upon the manners and customs of the men of other years, and wherein we fell behind them...Let not the preceding sketch be credited as any thing more than a brief notice of a world of wonders. They are beyond my personal description.³⁰

These and other period museums combined "real instruction with amusement," and promoted opportunities for vicarious learning. A contemporary advertisement for the Gallery for the Illustration and Encouragement of Practical Science in London, spoke of the utility of this type of museum display:

The whole forming one grand, useful, and most highly interesting exhibition, which may truly be described as possessing universal interest, and suited to every age and taste.³¹

The Beginning of the Victorian Age

By the close of the Victorian era, the great national depositories of culture and natural knowledge...had been imitated throughout the industrial centres and county towns of Britain. The British and South Kensington Museums could be observed on a lesser scale in Liverpool and Glasgow, Salisbury and Cardiff, Leicester and Belfast. Just as the waves of educational reform had reshaped and invigorated institutions of primary, secondary, and university education, so had they helped inspire the establishment of the supplemental museum foundations which catered to the desire for self-improvement on the part of the artisan and middle classes.³²

What were the factors and variables that lead to this noteworthy development of museums during the

reign of Queen Victoria? By the 1830's, the reform movement in Britain began to delve into the role of public institutions such as museums, in overcoming ills associated with this social transformation. In 1834, the Select Committee on Drunkenness pitted the attributes of libraries, reading rooms and museums against the evils of the public house. In 1836, a Select Committee of the House of Commons heard evidence to suggest means of practical improvement at the British Museum. German connoisseur and art critic Dr. G.F. Wagon provided input and suggested that the establishment of accessible collections in museums was "the best means of forming the taste of the people." He continued by insisting that; "To arrange a public collection, it should be so formed as to combine taste with instruction; both are attained by an historical arrangement."³³

Librarian Edward Edwards who believed that such an inquiry into the condition, management and affairs of the British Museum was long overdue, gave the following testimony to the Commission:

Whereas all arts and sciences have a connection with each other, and discoveries in natural philosophy, and other branches of speculative knowledge, for the advancement and improvement of the said Museum or Collection was intended, do and may, in many instances, give help and success to the most useful experiments and inventions; therefore, to the end that the said Museum or Collection may be preserved and maintained, not only for the inspection and entertainment of the learned and the curious, but for the general use and benefit of the public.³⁴

The wide use of the British Museum alluded to by Edwards was confirmed by a statement given to the Committee by Mr. Samouelle, assistant in the Department of Natural History:

Yes; the ignorant are brought into awe by what they see about them, and the better-informed know, of course, how to conduct themselves. We have common policemen, soldiers, sailors, artillery men, livery servants, and, of course, occasionally mechanics; but their good conduct I am very much pleased to see; and I think that the exhibition at the Museum will have vast influence on the national character of Englishmen in general.³⁵

Other reports indicated broad support for and a growing interest in museums during this period. John Gray spoke of the success of the Natural History Society Museum in Newcastle-Upon-Tyne:

The museum of this society was formerly opened to all classes in the evening, when it was lighted up for the occasion; but the visitors who availed themselves of the privilege were so numerous, that it was impossible for them to inspect the collection with advantage.³⁶

Rapidly expanding Victorian towns and cities were eager to establish their identity and in 1845 the first

Museums Act was passed. This Act enabled municipal councils with a population of over 10,000 to construct and maintain museums of art and science, financed through local levy. This legislation was viewed by some as being pivotal to a great period of museum building activity,³⁷ and resulted in more facilities being available for use by the public at large.

Societal factors also played a role in museum development. In 1847, English editor and educational reformer William Martin noted that entertainment for the working classes had changed. He wrote; "Thus we see them visiting libraries, museums, exhibitions of an intellectual kind." While visiting the British Museum on Easter Monday, Martin was astonished at the number of visitors including "hundreds of well-dressed artizans."³⁸ Utopian reformer James Silk Buckingham incorporated places of worship, a museum, a botanical garden and a gallery of fine arts into plans for his proposed model town of Victoria. Buckingham advocated universal education for every child and supported a system of education which would cultivate the faculties and give instruction to all. The results of providing such amenities were articulated by Buckingham who felt that "an immense amount of latent but dormant talent for particular arts, pursuits, and studies, might be drawn forth, which now never sees the light."³⁹ Widely circulated magazines, scientific and arts publications, and academic journals through the 1840's featured articles about the increasing popularity of museums.⁴⁰ At the end of the decade, writer and architect James Ferguson identified libraries, museums and galleries as "implements useful towards bringing about a better state of things," which if properly used could advance the great aim of national education." To this end Ferguson outlined the threefold object of such institutions:

- 1) Assist the studious and scientific researchers "to enable them to react on the masses by improvements in knowledge and consequently a higher class of instruction;"
- 2) Enable those by casual inspection "a knowledge of what has been done in science and art, so as to obtain a certain amount of information and improvement of taste;"
- 3) Provide "the instruction of the higher classes of students, where education ought never considered complete till they know all the more important results of scientific research."⁴¹

A growing number of museums in the United Kingdom were positioned to enter the 1850's as institutions with more accessible public collections and were subsequently utilized as centres for popular education and learning.⁴²

The Mid-Victorian Period, 1851-1875

Remarkable economic development during this period conditioned the character of British society. Between 1851-1873, generally rising prices were characteristic. During the decade of the 1850's, demographics showed declines in county populations, and for the first time more people were living in urban than rural areas. An expanding international market became an important factor for the country's economy. An increase in civic pride and self-respect resulted in the marked advancement of parks, museums and public libraries. Growth of such public buildings related directly to the cultural and educational needs of this mid-Victorian Society.⁴³ The most important stimulus to the progress of museums and the intellectual development of the country was the opening of the Great Exhibition in London in 1851.⁴⁴ This project, officially known as "The Great Exhibition of the Works of Industry of All Nations," had been brought before an organizing committee by Prince Albert as early as the summer of 1849. Patterned after the Frankfort Industrial Fairs and other industrial exhibitions held previously in France, Belgium, Prussia, Russia and Sweden, the Great Exhibition was to accomplish many things.

Prince Albert identified some of the intended goals:

England's mission, duty, and interest is to put herself at the head of the diffusion of civilisation, and the attainment of liberty...The Exhibition of 1851 is to give us a true test and a living picture of the point of development at which the whole of mankind has arrived...and a new starting-point from which all nations will be able to direct their further exertions.⁴⁵

This most successful international extravaganza was viewed positively by contemporary observers. Editor and educational reformer Samuel Prout Newcombe suggested that; "The Exhibition was not only a place of instruction, but a place of amusement."⁴⁶ Professor Edward Forbes saw the exhibition as "a vast museum of natural objects," and concluded that the collection of vegetable products from Scotland was "a museum itself, and worthy of a place in a national institution...what has been done for Scotland might be done for the world, and most worthy would such a display be in the national museums of an empire like ours."⁴⁷ The exhibition was exceedingly popular and one commentator noted its impact and educational merits:

There is a magnetic power about masses gathered in one vast edifice, and swarming in happy excitement along spacious avenues, where their numbers tell upon the eye, which eclipses every other spectacle, however splendid or interesting...Books may supply us with the fullest information on the subject, but they can never touch the heart or stamp their lessons upon the memory like a personal inspection of this wonderful display.⁴⁸

The exhibition's educational application as a means of popular education was reiterated by editor Charles Tomlinson. He wrote:

In taking a leisurely survey of a well-stored and well-arranged museum, the thoughtful observer cannot fail to be struck with the endless variety of forms, and the wonderful adaptations of means to certain pre-appointed ends, which abound in the kingdoms of nature. Every single specimen, whether it be of an animal, a plant, or a mineral, has a history to tell, full of design, abounding instruction, and replete with beauty...It was a grand idea to provide for the industrial arts that which had been so long and so well done for natural history and the fine arts, namely, a museum; to collect into one vast enclosure and under one vast roof, the industrial products of all nations and of all climes; to group and arrange these, as far as possible, according to a systematic method calculated to arrest and inform the observer.⁴⁹

A direct outcome of the Great Exhibition was the stimulation of cultural activities, which included an awakening of interest in art and design, new initiatives in adult education, and the establishment of additional permanent galleries and museums. Culture diffused through the entire population was viewed as a social necessity, and the crystallizing of a cultural apparatus in towns and cities across the United Kingdom was evident during this period.⁵⁰

The broad interest in arts for the public as well as the artist, had begun a decade earlier with the publication of The Art-Union. In its first volume editors wrote that the journal would "supply to artists accurate and useful information upon all subjects in which they are interested, and to the public means of justly ascertaining and estimating the progress of Art, both at home and abroad." It was believed that "the possession of the best auxiliaries in the cultivation of taste, and with it the intellectual and moral improvement of the country, is no longer confined to a few wealthy individuals."⁵¹

Exhibitions, publications and widely circulated catalogues aided in "the rapid improvement of public taste." A Parliamentary Report on National Monuments and Works of Art acknowledged that:

Where the collections will allow it, cheap catalogues, divided into distinct portions for each class or department, should be provided at our national collections, as a valuable mode of disseminating knowledge, and rendering those collections more generally useful.⁵²

Free exhibitions to develop communication between artists and manufacturers, to facilitate the application of science, industrial and fine arts, and to promote the use of art institutions by the public, became popular.⁵³ These efforts to introduce science and art "as the conscious regulators of human industry" had

support at the highest levels. Prince Albert promoted the linkage between scientific knowledge, fine arts and common sense, suggesting that; "No pursuit is too insignificant not to be capable of becoming the subjects both of a science and an art."⁵⁴ Prime Minister Lord Palmerston's lecture at the Manchester Mechanics' Institute, noted that there were two remarkable circumstances distinctive of the times: "...the principle of co-operation for common objects, and the general diffusion of knowledge." These arrangements in Palmerston's estimation;

[T]end to diffuse among the great mass of the community, or, at all events, among all who are willing to receive instruction, the results of the labors of science and the fruits of the investigations of the learned. The intellectual qualities, as well as the moral feelings of our nature are scattered broadcast over the face of the earth. We find them everywhere, in the lowest classes as in the highest. Their development depends on the opportunities which are offered for their culture.⁵⁵

In England during the reign of Queen Victoria and Prince Albert, the utilization of artistic resources such as museums and art galleries for what was conceived to be the public good was supported.⁵⁶

The rise of Mechanics' Institutes also facilitated advances in education and the spread of knowledge among the artisan and labouring classes. Working in co-operation with art, natural history and literary and philosophical societies, these institutions were designed to:

[F]acilitate the discovery and propagation of useful knowledge, promote rapid advancement of general science, diffuse rational information among the general mass of society, induce a taste for intellectual pleasures and rational enjoyment, and influence the state of morals and of general society.⁵⁷

While there is some debate as to where and when this movement began, and who is recognized as its founder,⁵⁸ Mechanics' Institutes were developed as "people's seminaries" in the United Kingdom and throughout the world.⁵⁹ Supporters advocated the use of lectures, reading rooms, discussions and collections of natural, industrial and mechanical specimens to promote "knowledge and rational enjoyment." Exhibitions and museums were also seen as useful vehicles in the furtherance of industrial and technical instruction. The Council of Mechanics' Institutes petitioned the government resulting in the "foundation of the educational collection and library at the South Kensington as part of the Museum."⁶⁰ A National Union to work with the Society of Arts was demanded. This collaborative would receive artifacts to form the nucleus of displays and to provide advice for setting up exhibitions. According to James Hole;

The formation of local museums is an object of great importance, and one to which the Union in connection with the Society of Arts has already given prominence.⁶¹

Mr. Sully, Secretary for the Society of Arts, echoed similar sentiments, outlining the utility of this plan:

In every place, however, it would be far less trouble and expense to form twenty similar small local collections of the productions or manufactures of the neighbourhood, than it would be to collect as many separate collections from different places; and consequently, a systematic interchange of local collections would necessarily save time and trouble, and lend to the benefit of all parties.⁶²

While full of ambition, it is questionable whether such ventures were carried out successfully or had any long-term impact. Several societies assembled extensive collections, but failed in their attempts at using them profitably for educational purposes. Such was the case in London, Manchester, Newcastle, Glasgow and Leeds. A contemporary observer noted that a collection of natural history specimens was regarded with little interest, and concluded that; "The Liverpool Institute has only afforded an additional proof that local museums are not valued by the community."⁶³

Museums however did prosper for other reasons and through other initiatives. Philosophically, "museological arguments" were being proffered which would help to encourage museum development and their use in education. A museum adapted for the purposes of instruction was defined in the July 1852 edition of the Journal of the Society of Arts:

A museum, properly considered, is not a collection of curiosities, antiquities, and artistic works, grouped together in glass cases, in a species of native confusions; but if it deserves its name, is a place which instruction is to be gained, and consequently in which order, arrangement and method is evident. Arrangement in a museum is the very first consequence; without it the specimens, however good, are isolated, and tend only to confuse; whilst, when well arranged, and according to some kind of order, they at once become instructive and suggestive; so that even a careless observer cannot fail to learn something from their examination.⁶⁴

Professor Edward Forbes reiterated the importance of the arrangement and classification of a museum's contents for their instructional aspect. In a lecture given at the Museum of Practical Geology in 1853, Forbes detailed the tangible educational uses of museums, suggesting that; "Museums, of themselves alone, are powerless to educate. But they can instruct the educated, and excite a desire for knowledge in the ignorant."

Forbes called for museums to receive financial support from the state, and looked forward to the future where every British town of moderate size would have a museum for the instruction and education of children and adults alike:

[W]herin collections of natural bodies shall be displayed, not with regard to how or curiosity, but according to their illustration of the analogies and affinities of organized and unorganized objects, so that the visitor may at a glance learn something of the laws of nature.⁶⁵

Architects John and Wyatt Papworth furthered the argument for the establishment of museums in their 1853 primer entitled Museums, Libraries and Picture Galleries. The authors saw museums as institutions where collections could be arranged "in a manner sufficient for use and enjoyment." Public museums of art and science were to be established and constructed "for the instruction and recreation of the people."⁶⁶

Additional instances of progress made by museums in the fields of education, knowledge and learning were recorded during this era. Edward Forbes wrote that the galleries filled with cabinets and cases at the British Museum, were "essences of human learning" which displayed "the delights of the intellect." He submitted that;

A walk through the British Museum is an intellectual feat of which all the courses have been duly served. We come away with all the cravings of our mental appetite satisfied with digestible and wholesome food.⁶⁷

In Liverpool the Free Library and Museum provided assistance to the industrial classes, the results being that "the influences at work in moulding the habits, thoughts, and feelings of our countrymen, cannot be ignored or treated lightly."⁶⁸ The East India Museum in London lacked a systematic classification system for its collection, and had no annotated catalogue or descriptive labels. Still, it was viewed as rendering a valuable service in enlightening the public about the manners, customs, arts and industry of the people of India. It was noted that:

There is occupation here for weeks of profitable study, and the Directors of the East India Company have conferred a boon on the public by giving them access to such an exhibition.⁶⁹

The Economic Museum formed by Mr. Twining and under the direction of the Lords of the Committee of the Privy Council on Education, was seen in a similar vein by Egerton Ryerson:

Everything has been done to render the new Museum a source of instruction and

amusement to all classes alike, the exigencies of time being taken into consideration, as well as the exigencies of the pocket.⁷⁰

He concluded that government legislation, namely the Museums Act, was responsible for the growth of such museums:

In England an Act of Parliament was passed some years since, authorizing the Corporation of each City and Town in the United Kingdom to establish a Provincial Museum; and these local Museums are now multiplying on every side, being regarded as a powerful, through, indirect, means of popular education, as well as of popular entertainment.⁷¹

Growth was not restricted to small museums. The South Kensington Museum which was a result of the founding of the School of Design in 1838 and the Great Exhibition of 1851, is a case in point. By 1857 it was forecasted that "while it will be a source of rational recreation to the general public, will also, it is hoped, be an important agent in the instruction of students."⁷² Its director Henry Cole, further stated its intended purpose:

But it is not only as a metropolitan institution that this Museum is to be looked at. Its destiny is rather to become the central storehouse or treasury of science and art for the use of the whole kingdom...It may be hoped by this principle of circulation to stimulate localities to establish museums and libraries for themselves, or at least to provide proper accommodation to receive specimens lent for exhibitions.⁷³

Others identified the role of "great National Establishments in London" to display objects of natural history, but concluded that "it is within the power of every Museum, however humble its pretensions, to procure and display such instructive series of objects as may bring the entire range of natural history in a forcible manner before the attention of the public."⁷⁴

The opening of the new Oxford University Museum in 1860, signalled a change from a series of buildings formed to be "inferior" and with "confessed deficiency,"⁷⁵ to an "admirable, if not absolutely perfect, building."⁷⁶ Planned by Dr. Henry Acland and John Ruskin, the new facility was built as "an educational institution." There the study of language, history, thoughts and material through museum exhibits was seen to be necessary "for disciplining the heart, for elevating the soul, and for preparing the way for the growth in the young."⁷⁷ The building design was influenced by Ruskin's aesthetic ideals and gothic revival aims which promoted making art publicly beneficial and informative, and museum galleries a place "for diffusing practical knowledge."⁷⁸

Another formative influence on the evolution of museum development and the promotion of what would become known as the "new museum idea," was Dr. John Edward Gray's thoughts offered to delegates at the 34th annual meeting of the British Association for the Advancement of Science, held in Bath in September, 1864. Gray, who was Principal Keeper of the British Museum, believed it was time for change in the arrangement of collections in all natural history museums. He proposed that museums should be established for the purposes of informal and formal education, namely:

- 1) The diffusion of instruction and rational amusement among the mass of people and;
- 2) To afford the scientific student every possible means of examining and studying the specimens of which the museum consists.⁷⁹

Gray believed that the general public, which was the largest class of visitors to museums, wanted an interesting arrangement of objects to give the greatest amount of information in a moderate space. He advocated a plan which would be both "interesting and instructive" for the public, providing "general instruction," and allowing visitors to take away "valuable information." This plan could be applied to very large as well as small local collections, the end product being "conducive to the increase of knowledge, the happiness and the comforts of the people."⁸⁰

The British Museum followed Gray's advice and divided its collections into study and exhibition series. This two-fold division of museum purpose and collection was supported by colleagues such as Robert Owen, Thomas Huxley and Alfred Russell Wallace. Similar advances were noted at other museums. Progress was made incrementally to make popular presentation a central part of each museum's mandate.

At the Museum of Economic Fish Culture, founder Frank Buckland prepared specimens to "inform the public" and used the collection to perpetuate knowledge of pisciculture "through all classes of people."⁸¹

A proposal for the establishment of an industrial museum in Birmingham called for a facility that "would be a valuable educational agency", being "a utilitarian institution, an educational establishment, a pleasing exhibition," which would be of commercial and social benefit to the town.⁸² The need for the development of technical and industrial museums used for educational purposes also came from other quarters. Calling for the "establishment, maintenance, and utilisation of museums for the technical instruction of the people," the Society of the Arts put forward a comprehensive plan to be adopted in communities throughout the nation.⁸³

Influential thinkers of the period also contributed to this changing philosophy and contributed to an accessible body of knowledge on museum development. Feeling that popular museums should be entertaining and instructive for the public, Alfred Wallace recommended changes in natural history exhibits that would be designed "to excite the observant and reflective as well as the emotional faculties."

By making museums entertaining, instructive and a mix of intellectual culture and enjoyment, Wallace believed that "museums will increase, and may be made an important agent in national education and the elevation of the masses of the people."⁸⁴ Anthropologist Edward Burnett Tylor suggested that through the study of ethnological and historical objects, modern ends and modern knowledge could be achieved. He described the perceived results:

It is true that rudimentary conditions of arts and sciences are often rather curios than practically instructive...Perhaps our toolmakers may not gain more than a few suggestive hints from a museum of savage implements...But there are departments of knowledge, of not less consequence than mechanics and medicine, arithmetic and astronomy, in which the study of the lowest stages, as influencing the practical acceptance of the higher, cannot be thus carelessly set aside.⁸⁵

Professor Leoni Levi furthered the public discussion by describing museums of the day as "a perpetual spring of instruction and pleasure" and "places of solid instruction as well as of elevating enjoyment for the whole people." By using a systematic collection for purposes of public education, Levi concluded that; "None can fail to devise instruction from a museum, one of the best schools we can establish for the education of the observing faculties."⁸⁶

By the end of the mid-Victorian period, great strides had been made in elevating museums throughout the United Kingdom into the position of being "a powerful agent in the general education of the people," and they were rapidly becoming indispensable "in the advancement of culture."⁸⁷ These changes would have an impact not only in Great Britain but also in North America and Australia. This was reflected in comments made in 1868 by Gerard Krefft, curator of the Australian Museum. They aptly summed up the evolution of museums during these decades:

The interest which all classes take in Natural History, has gradually changed the old fashioned curiosity shops of fifty year ago, into useful Museums - where rational amusement, combined with instruction, is offered to the mass of the people, and where students have every opportunity to examine and study the specimens, of which the Museum consists.⁸⁸

Museums in the United Kingdom had evolved to be what W. Boyd Dawkins described in 1877 as

"educators of the masses." They had become popular educational institutions which were accessible to the working and middle classes, acted as purveyors of information and culture, and in some instances were competition to baser entertainments. The objective and refine the masses" would continue on into the 20th century.⁸⁹

The Late Victorian Period Through to World War 190

In 1875, American naturalist and entrepreneur Henry Aug enthusiastically about the state of British Museums:

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Ward, who had toured 80 public and private museums in Europe and Britain between 1854-1860, was very familiar with models used previously. He suggested that what he saw in the British Museum at South Kensington represented a new method of creating educational displays with representative rather than comprehensive collections. This movement toward the use of habitat groups, would result in a shift in display techniques from a taxonomic to an ecological approach in natural history museums in the United Kingdom and North America. While the debate about whether it was desirable to divide collections into separate study and exhibition series was not resolved until 1884, this change would eventually create an arrangement which would benefit the public at large as well as researchers using the British Museum for scientific purposes.⁹² The creation of dual collections was first introduced in the national museums in London and was then adopted by other institutions. What W.H. Flower would later call the "new museum idea," became the basis for museums to be centres for both scientific research and public education, helping to define their functional orientation during the last part of the Victorian era.⁹³

Suggestions for museum development varied, but many included provisions for and ideas about the educational and learning mandates of these institutions. A plan for a Colonial Museum recommended that it be "readily accessible to all the classes" and provide "sources of information" to visitors on India and other colonies.⁹⁴ Museums were seen as "important adjuncts" for teaching science. "Thorough and practical knowledge" could be acquired through the examination of real natural history objects,⁹⁵ with the institution serving "in an equal measure for the recreation of the whole mass of the people and for their instruction in the principles of Biology."⁹⁶

Similarly, a collection of Egyptian antiquities in a provincial museum could have an educational use in understanding art and history. The value of the Mayer Collection housed at the Liverpool Museum was described by the museum's assistant curator:

It helps us to realise history by means of an object-lesson, and it initiates us into the traditions of art, by a similar process...The student of history, and the student of art, alike find in the Mayer Collection, the material from which each gains knowledge and experience, and this is the use, the educational use, the only use, of the collection.⁹⁷

Prominent thinkers of the time supported the notion that museums could help the public gain a better understanding of art and beauty through the study of collections. William Morris viewed learning as a life-long activity, of which the study of past and ancient art was important. Believing that; "This age is one of transition from the old to the new," Morris saw the 19th century as one of commerce, and hoped that the 20th century would be one of education. Museums could assist in this learning process.⁹⁸ John Ruskin also added to the literature on this topic. Viewing museums as "places of noble instruction," which were "intended for popular teaching," Ruskin established a museum near Sheffield for use by local iron workers,⁹⁹ and wrote voluminously on topics related to art, natural history, museums and education.¹⁰⁰

The South Kensington Museum, using a new management system and a new philosophy, took the lead in what was regarded as "increased art culture" in the United Kingdom. A contemporary observer noted:

The basis of the museum was from the first essentially popular; its object was to instruct and refine the masses, as much as to respond to the requirements of the artist or the connoisseur.

Efforts to "raise and refine public taste" and to use collections "for the delight and instruction of everybody," resulted in "the new ideas and practices, carried out at South Kensington, being adapted and imitated throughout the world."¹⁰¹ These efforts were co-ordinated by South Kensington director, Henry Cole.¹⁰²

The use of museums and the exhibition of objects also addressed less lofty purposes. A display of old and new farm implements illustrating progress over time, was seen as being "highly instructive." The Kilburn Exhibition example was touted as giving "good service to the cause of national education," and

by example it could "pave the way for a National Museum of Models." Such an initiative would be of utility to those engaged in agriculture.¹⁰³ Sightseers could also learn by merely visiting many "interesting" museums in London.¹⁰⁴ Similarly museums in smaller centres were "calculated to take a high place in the educating of the people in the duties and privileges of citizenship,"¹⁰⁵ while it was deemed that "the true function of local Museums is to foster the education of observation in their own districts."¹⁰⁶ The passing of the 1870 Education Act (England and Wales) making provision for the free elementary education for all children as a statutory right for the first time, and making education compulsory for all children in 1880, further focussed the role of museums in the formal education system.¹⁰⁷ There was high hope for the future of museums as centres for learning. With the passing of the elementary education Acts it was projected that there would be "more general diffusion of education among the great masses" with museums playing a significant role.¹⁰⁸ Circulating museum specimens could be used by teachers for object lessons,¹⁰⁹ while in-school exhibits "formed illustrations for many an interesting object-lesson."¹¹⁰

Not all contemporary onlookers shared the view that curators and visitors had only to open the museum doors and the beneficent light of learning and culture would spill out to transform the public. British geologist and archaeologist W. Boyd Dawkins who while a strong advocate of the work museums were doing in the area of general education, called for reform in the realm of collections. In a review of provincial museums, Dawkins saw collections as "mere assemblages of units placed side by side without organic connection and without a common life." These associations of artifacts with no relationships resulted in chaos rather than harmony. According to Dawkins, museums of this "low type," created "a serious blot on our educational system, which we are striving to make as perfect as possible, since they are worse than useless for the purpose of teaching."¹¹¹ A similar concern about the educational utility of collections and whether learning from them could be practically applied, was expressed by Liverpool Museum assistant curator, Charles T. Gatty:

I think I feel a want amongst us, who possess these treasures, of a dire appreciation of what they are and what they might be. When I see poorer classes, with their families, visiting the collection, I am not impressed by the ideas that there is much education in the matter; and as for the richer classes, I am frequently asked amongst friends and strangers, what on earth I find to do down at the Museum...I find myself constantly explaining, as if it were neither a known nor acknowledged fact, that we do possess a collection of great educational value, and of European celebrity.¹¹²

Another critic was economist and professor of logic, William Stanley Jevons. He scoffed at simplistic

notions held by museum professionals regarding the effectiveness of exhibits, and argued that "great buildings filled with tall glass-cases, full of beautiful objects" and large parts of museum collections were not suited for educational purposes. He wrote:

To the far greater part of the people a large brilliantly lighted Museum is little or nothing more than a promenade, a bright kind of lounge, not nearly so instructive as the shops of Regents Street or Holborn. The well-known fact that the attendance at Museums is greatest on wet days is very instructive.¹¹³

Jevons was particularly concerned about children using museums, as their "glancing at a great multitude of diverse things is not only useless but actually pernicious." He believed that children filing through museum galleries was a senseless activity and that;

They would be far better employed in flattening their noses for an hour or two against the grocer's shop window where there is a steam mill grinding coffee, or watching the very active bootmaker who professes to sole your boots while you wait.¹¹⁴

Jevons concluded that museum collections should form "a definite congruous whole" in order to be properly studied and remembered. The growth of museums must co-exist with the progress of "real popular education," resulting in the creation of "a place of learning and science."

The utility of museums and their usefulness was questioned by other authors. Small museums across England and Scotland had a myriad of problems. The state of many of these institutions was disappointing, as their "position is frequently difficult of access, especially to strangers, and often quite unknown to many of the inhabitants who have spent all their days in the town." Even once they were located, many local museums were run by "guardians of the temple," who spent time gossiping, dusting and providing a "stereo-typed guide-book yarn regarding all the notables in the museum."¹¹⁵ Popular naturalist, the Reverend John George Wood, suggested that museums of every sort were "most intolerably dull." Wood felt that in the management of museums, the desires of the general public had been ignored. The public wanted museums for more than the purpose of study, most visiting "simply for amusement." He called for the development of museums devoted to pure scientific research, for the benefit of those trying to learn the rudiments of science, and for the general public. His ideal was to;

Construct a museum especially adapted to the despised Tom, Dick, and Harry, which would amuse them, should be of such a nature as to compel them to take an interest in the subject, and perchance to transform them into the Thomas H. Huxleys, Richard Owens and P. Henry Gosses of the next generation.

Wood concluded that the real difficulty of conveying the same information to visitors lay in a language

that could be understood by everyone.¹¹⁶ Not everyone held the views Wood did about museums in the United Kingdom. The Reverend D.V. Lucas, a Canadian temperance advocate, included various museums as some of "the sights" to see during a sojourn in England in 1888. He suggested that visiting the "British Museum, one or two days - a week would be far better...South Kensington Museum, a week - three weeks if you could spare the time. General Pitts [sic] River's collection of aboriginal curiosities ought to engage us for several hours." A visit to the "magnificent collection" at the Natural History Society's building was also highly recommended.¹¹⁷

During the 1880's and 1890's efforts at museum reform to alleviate perceived shortcomings and to further the "new museum idea" took place. Central to these initiatives was the development of synoptic displays where exhibitions were mounted as a synopsis of a particular field. This "concise account" was "intended to supply such information as is necessary for the generality of visitors to the collections, in addition to that which is furnished by the labels attached to the various objects."¹¹⁸ This reforming spirit was first adopted by natural history museums, then later by art museums and museums of history and anthropology. It also involved new architecture for museums, new methods of interpretation, and new display techniques. New was replacing old and these changes were identified in literature of the period.

A series of articles written by Henry H. Howorth in Natural Science, looked at the best arrangement of British museums and reviewed their purposes and aims. Howorth reflected on changing museums:

The old-fashioned notion that they form a kind of dustbin, where all the useless, ugly, eccentric and curious productions of art and nature are to be shown together and labelled with fantastic information, is obsolete.

New theory replaced old ideas and prevailed. Howorth explained this philosophy, noting that; "every object exhibited should teach something in a definite and precise way, and should be arranged with other objects so that a continuous lesson can be conveyed, and should not include a series of epileptic jumps from Cathay to Peru and from mermaid to mouse."¹¹⁹

Keeper of the York Museum, Henry M. Platnauer had expressed a similar opinion in the first volume of the Museums Association's Report of Proceedings:

The fact that Museums are becoming, and may still further become, potent factors in education and scientific culture, is now generally recognised, and the day when such institutions were looked upon as mere receptacles for anything curious or abnormal has gone by for ever.¹²⁰

Henry H. Higgins, president of the fledgling Museums Association and chairman of the Liverpool Free Public Museum, echoed this sentiment:

The conclusion can not be far away - that the highest aim of work in Public Museums is not - however ingeniously - to multiply facts in the memories of visitors, but to kindle in their hearts the wonder and the loving sympathy - THE NEW KNOWLEDGE - called for by every page in the remotely-reaching annals of Nature.¹²¹

This altruistic statement was directly connected to a widely held view on the place of museums in the "new learning." Professor W. Boyd Dawkins in his 1892 presidential address to the Museums Association spoke of change and its consequence. Noting that many collections in the past had not been properly separated, Dawkins suggested that; "Such collections as these neither please nor instruct." He added; "Most of us, I think, are acquainted with this type of collection, which is rapidly becoming extinct with the spread of knowledge." He concluded by stressing; "The rapid increase of knowledge makes it more and more necessary for museums to be organized, so as to be in harmony with the swiftly changing conditions."¹²² A jumbled collection could not assist a museum in carrying out its educational mandate.

Sir William Flower followed course in the next year's presidential address. He noted change over the past thirty years which recognized "the gradual development of the conception that the museum of the future is to have for its complete ideal, not only the simple preservation of the objects contained in it, but also their arrangement in such a manner as to provide for the instruction of those who visit it." If this was done, Flower deduced that; "The value of a museum will be tested not only by its contents, but by the treatment of those contents as a means of the advancement of knowledge."¹²³

Such reform was not immediate and occurred over time. At the larger institutions methods for making museums attractive to the public were initiated, but one observer saw a slower evolution in local museums:

But many present might be able to call to mind some collection in a country town containing many most valuable local specimens, the very existence of which was unknown to the majority of the inhabitants. This state of things was yearly becoming rarer; but many persons could point out some museum almost as much fossilised as the fossils it contained, with labels either illegible from age or invisible from displacement.¹²⁴

Advances were made in various sectors. R.H. Traquair, keeper of natural history collections at the

Edinburgh Museum, postulated that most people who had an interest in natural history, were "kindly disposed" to museums. Natural history museums could be used by experts studying animal types, collectors trying to gain a better understanding of their own specimens, students augmenting information found in text-books, and the general public who were curious to see real items that they had read about. While attractive for learning for this wide spectrum of the population, Traquair felt there was one great principle at the foundation of the idea of a museum:

A museum is a place where people who wish to study may find the material necessary for such study. But I have no faith in the idea of its being a place where people, who have no natural inclination for the studies concerned, may, by theatrical display be induced to cultivate an inclination which they would not otherwise possess.¹²⁵

The allure of natural history during this period was of great importance to the museum movement. Children were encouraged to acquire a taste for collecting, preserving and studying natural history objects, while young naturalists were urged to develop cabinets of specimens which could form a foundation in the study of any branch of science.¹²⁶ Geologist Francis A. Bather, in a paper read to the Museums Association in 1896, pressed for properly labelled specimens which would assist the public in their use of natural history collections.¹²⁷ Bather had previously inferred that museums were "something else than a storehouse...an active centre for both the teaching and the advancement of knowledge."¹²⁸ Sir William Flower regarded the inclination or passion for natural history as being the potential for a future career in the field. The value of a private collection to its owner was in the educational powers of the specimens. A museum collection of natural history objects could become a source of interest and knowledge which would last a life time.¹²⁹

Interest in archaeology, anthropology and ethnology lead to the creation of the Christy collection at the British Museum, the Pitt-Rivers collections at Oxford and Farnham, and the collection at the Blackmore Museum in Salisbury. At the forefront of this movement was Augustus Pitt-Rivers, who formulated a typology for museums and promoted principles of material evolution which attempted to show the development of culture and civilization without regard to race.¹³⁰ The *raison d'être* for the collections assembled by Pitt-Rivers was education. Objects on display served as an educational tool for the public at large and as a teaching and research aid for university students and scholars. Pitt-Rivers saw his museums as a means "to promulgate anthropological knowledge and render it available for the education of the masses."¹³¹ Pitt-Rivers regarded the useful by-products of museum instruction as more than the edification and enjoyment of the public. If properly organized, museums could teach history and expand

knowledge parlaying these objectives into measurable and social consequences. An agenda relating to social control was also part of his plan for museums:

Anything which tends to impress the mind with the slow growth and stability of human institutions and industries, and their dependence upon antiquity, must, I think, contribute to check revolutionary ideas, and the tendency which now exists, and which is encouraged by some who should know better, to break drastically with the past, and must help to inculcate conservative principles, which are urgently needed at the present time, if the civilisation that we enjoy is to be maintained and to be permitted to develop itself.¹³²

Other types of museums were also in the vanguard of developing their facilities as adjuncts to the formal education system, for the advancement of learning, to impart information, and to serve the needs of the general public. An educational museum was proposed by the Teachers' Guild. It would act as a model or "mother of museums," to illustrate how each school could form its own museum, how centres of industry could establish commercial museums, and how antiquarian, historical and natural history museums could be developed in communities. This museum would serve as an inquiry office and an educational bureau, offering teachers direction and information for scientific work, lending specimens for classroom study, and housing specimens collected by students.¹³³ This initiative would parallel collaboration already taking place between schools and museums in the United Kingdom.¹³⁴ The People's Palace in Glasgow opened in 1898 as part of the municipal provision for the physical well-being and cultural welfare of the city's residents. Combining a museum, picture gallery, winter garden and music hall, this facility followed other examples in London, Bridgeport and Zurich with the aim of providing the working class with a centre for culture and learning.¹³⁵ The establishment of municipal museums and the offering of public exhibits¹³⁶ were generally regarded as an attractive way to diffuse knowledge and to make these institutions "the public resort of the town." Ben Mullen, curator of the Salford Museum advocated careful selection of objects, their methodical classification and instructive exhibits and labelling in municipal museums. He added:

I think it may fairly be taken that a museum is meant to be an educational factor amongst the people in its district. If so, it manifestly becomes the duty of the Museum Board and of the curators to make its benefits as popular and effective as possible.

Dublin Alderman Cameron responded to Mullen's paper by stating:

We ought to show that a museum is a great educational institution, and intended for the general good of the public; and it is our duty to prove that the museum is a great educational instrument.¹³⁷

Upon entering the 20th century, the role played by museums in the United Kingdom in the educational

pursuits and as centres for learning was clearly identified. Frederic George Kenyon, director of the British Museum submitted that;

The history of museums as an educational force operating on the general public is a part of the history of educational progress in the nineteenth century, and of the response of museum officials to the opportunity created by that progress.¹³⁸

American museologist Oliver Cummings Farrington suggested that this role went beyond England to have an impact in North America and Europe:

[T]he possibilities of a museum as a medium of public instruction, which are at present probably best understood and exemplified in the museums of Great Britain and America, are fast becoming appreciated on the continent as well.¹³⁹

A flood of literature and ideas on museums and education in the United Kingdom would continue to be issued up to World War 1. Plans for open-air museums,¹⁴⁰ civic museums,¹⁴¹ and decorative and industrial art museums¹⁴² all having public education functions were advanced. The Burlington Magazine published a number of articles on the development and use of art museums as "centres of education in art."¹⁴³ Annual Reports of the British Association for the Advancement of Science featured papers from museologists and educators dealing with various topics related to museums and learning.¹⁴⁴ Selective articles on other aspects related to this end appeared in other scholastic and popular publications.¹⁴⁵

By far the biggest advocate of museums and education during this period was the Museums Association. In Museums Journal, articles with an emphasis on practical aspects of museum work were featured, many having "a very strong sense of educational purpose."¹⁴⁶ Representative of the ideas put forward in these many articles were the comments given by president of the Museum Association Henry M. Plantnauer, in his 1911 presidential address: "A museum would appear to be a collection of specimens arranged on educational lines and with educational purpose."¹⁴⁷

Similarly E.E. Lowe's thoughts reflected the position public museums in Great Britain were taking as educational institutions:

Just as the departmental museums of universities are the indispensable instruments of scientific teaching and research, so public museums should become recognised and necessary instruments of popular education.¹⁴⁸

This expanded role was identified as a result of the growth of education and an interest in the past. As an outcome, "museums have come continually to take a more and more prominent place in public consciousness."¹⁴⁹

Conclusion

By the end of the Victorian period, change and the evolution of museums as centres for learning were two distinct features to be recognized. The assertion of Professor Stanley Jevons that museums were not suitable for educational purposes had been addressed,¹⁵⁰ but was George Brown Goode's description of the museum idea relevant in British museums by 1914? Goode wrote that:

The museum of to-day is no longer a chance assemblage of curiosities, but rather a series of objects selected with reference to their value to investigators, or their possibilities for public enlightenment. The museum of the future may be made one of the chief agencies of higher civilisation.¹⁵¹

This mirrored Goode's previous thoughts provided to delegates at the Museum Association's 1895 annual meeting:

The Degree of Civilization to Which Any Nation, City or Province Has Attained Is Best Shown By The Character Of Its Public Museums And The Liberality Which They Are Maintained.¹⁵²

Hindsight would show that while education had been the prime function of British museums in the 19th century, the focus would change by the 1920's.¹⁵³ However, the impact that initiatives from the United Kingdom made on museums in Canada would be significant in their development as centres for learning. An amalgam of ideas, a continual and conscious adaption of shared assumptions and theories, and acceptance of trans-Atlantic influences, would result in similarities of museological values between Canada and England. Conversely, quite a separate component of this evolution would be identified as; "Canadians have always been keenly aware that their society and their cultural traditions differed from those of both Britain and America in critical ways."¹⁵⁴ This dual process would continue during the Victorian period and into the 20th century.

End notes

1. Eileen Hooper-Greenhill, Museum and Gallery Education (Leicester, 1991), p.1.

2. "19th Century Collections," English Heritage Magazine (June, 1989), #6, p. 26. See also Geoffrey Lewis, "Museums," The New Encyclopaedia Britannica (1987), v. 24, p. 478.
3. David Lowenthal, The Heritage Crusade (London, 1996), pp. 65-67, and Edward Alexander, Museums in Motion, (Nashville, 1979), p. 11.
4. "Suggestions For The Establishment of an Australian Museum," Australian Quarterly Journal of Theology, Literature and Science (January, 1828), #1, pp. 38-39. For more on Australian and British connections, see Sally Kohlstedt, "Australian Museums of Natural History: Public Priorities and Scientific Initiatives in the 19th Century," Historical Records of Australian Science (1983), v. 7, pp. 1-29.
5. For more on this philosophical shift, see Eileen Hooper-Greenhill, Museums and the Shaping of Knowledge (London, 1992), pp. 186-90, Tony Bennett, The Birth of the Museum (London, 1995), p. 24, and Archie Key, Beyond Four Walls (Toronto, 1973), p. 41.
6. For comments on the connective bond and the resulting impacts on heritage and museums, see George Brown Goode, "The Museums of the Future," Report of the U.S. National Museum (1889), pp. 430-31, and David Lowenthal, The Past is a Foreign Country (Cambridge, 1988), p. 96. A recent observer has noted: "It would be stupid to regard any country by itself in the nineteenth century...Ideas passed from continent to continent, and culture was pooled among the civilized peoples of the world." See R.B. Mowat, The Victorian Age (London, 1995), p. 95.
7. Encyclopaedia Perthensis or Universal Dictionary of Arts, Sciences and Literature (Edinburgh, 1816), 2nd. ed., v. 15, p. 432.
8. Perthensis, p. 593.
9. Ibid., p. 597.
10. Cited in The Repository of Arts, Literature, Commerce, Manufactures, Fashions, and Politics (June, 1809), supplement, v. 1, p. 486.
11. For a complete description of this museum printed in a visitor's guide, see A Companion to Mr. Bullock's Museum (London, 1810), 8th ed. Bullock's Museum was variously referred to as the London Museum, the Egyptian Hall and the Egyptian Temple. The Picadilly location also shared space with publisher Nathaniel Hailes' Juvenile Library. In 1846 Egyptian Hall featured a display by American painter George Catlin, probably one of the first North American focused exhibits to be on view in an English museum. For details, see George Catlin, Descriptive Catalogue of Catlin's Indian Gallery (London, 1846).
12. Cited in A Companion to the London Museum and Pantherion (London, 1813), pp. iii & v.
13. Cited in The Juvenile Review (1817), v. 1, p. 43. Editor Nathaniel Hailes believed that "the study of Natural History, that never-failing source of instruction and delight, may also be extended by means of books and museums, or private collections of natural curiosities." See The Juvenile Review (1817), v. 2, p. ii. Bullock would change his location, as by 1838 he had set up a museum in Cincinnati, Ohio. See

- Charles Daubeny Journal of a Tour Through the United States and Canada (Oxford, 1839), p. 189.
14. Perthensis, p. 432.
 15. Louis Simond, Journal of a Tour and Residence in Great Britain During the Years 1810 and 1811 (Edinburgh, 1815), v. 1, pp. 83-84.
 16. Quoted in John Cornforth, "London's Lost Galleries," Country Life (June 13, 1968), p. 1567.
 17. For a description of this phenomenon and a case study of philosophical society museums in Yorkshire, see Peter C.D. Brears, "Temple of the Muses: The Yorkshire Philosophical Museums, 1820-50," Museums Journal (June/July, 1984), pp. 3-19. For information on the role of mechanics' institutes in the establishment of museums and with the diffusion of knowledge, see Alan Chadwick, "Practical Aids to Nineteenth Century Self-Help-The Museums: Private Collections into Public Institutions," in M.D. Stephens & G.W. Roderick (eds.), Samuel Smiles and Nineteenth Century Self-Help in Education (Nottingham, 1983), pp. 47-69, and Toshio Kusamitsu, "Mechanics' Institutes and Working Class Culture: Exhibition Movements, 1830-1840s," in Ian Inkster (ed.), The Steam Intellect Societies (Nottingham, 1985), pp. 33-43.
 18. For comments about the "Museum Movement" which had its origin in the early decades of 19th century Britain, see David K. van Keuren, "Museums and Ideology: Augustus Pitt-Rivers, Anthropological Museums, and Social Change in Later Victorian Britain," Victorian Studies (Autumn, 1984), v. 28, #1, pp. 171-72.
 19. Marjorie Allthorpe-Guyton, A Happy Eye A School of Art in Norwich 1845-1982 (Norwich, 1982), p. 23.
 20. Henry Pidgeon, Memorial of Shrewsbury (Shrewsbury, 1837), pp. 169-70.
 21. William Sharp, "On the Formation of Local Museums," Report of the 9th Meeting of the British Association for the Advancement of Science (1839), p. 65.
 22. "On the Influence of Society," The Mirror (Saturday, March 6, 1824), # LXXIII, pp. 180-81.
 23. Dr. Watts, quoted in Mrs. Trimmer, An Easy Introduction to the Knowledge of Nature (Philadelphia, 1821), p. 1. During the 19th century the "movement of reform" for museums included consideration of their use by ordinary children. See "Collections," English Heritage Magazine, p. 26.
 24. Thomas Dick, On the Mental Illumination and Moral Improvement of Mankind (Hartford, Conn., 1847), p. 70.
 25. Jonathan Dymond, Essays on the Principles of Morality (New York, 1845), pp. 265-66.
 26. Charles Mayo, Observations on the Establishment and Direction of Infants' Schools (London, 1827), p. 5.

27. Charles Mayo, Memoir of Pestalozzi (London, 1826), p. 25. For Elizabeth Mayo's thoughts on observation and the use of objects, see Elizabeth Mayo, Lessons on Objects (London, 1831). For more on the contributions made by the Mayos to education, see Henry Barnard, Normal Schools and Other Institutions, Agencies and Means Designed for the Professional Education of Teachers (Hartford, Conn., 1851), part 2, pp. 331-33, and Ellwood P. Cubberley, Public Education in the United States (Boston, 1934), pp. 351-53.
28. James S. Buckingham, New Plan of National Colonization (London, 1834), p. 5. In this publication Buckingham proposed such a colonization scheme for Canada. See p. 1. He made a similar argument after a visit to Canada in 1839. See James S. Buckingham, Canada (London, 1843). For information on actions taken by James Greaves, see Dennis Hardy, Alternative Communities in Nineteenth Century England (London, 1979), pp. 58-60 & 243. For examples of two other emigration and colonization schemes for Canada, see Proposed New Plan of a General Emigration Society (London, 1842), and S.M. Taylor, An Essay Suggestive of a Scheme of Colonization (Montreal, 1859).
29. Diary of William Helliwell (June 19, 1832) pp. 15-16. Helliwell was one of a growing number of visitors to the British Museum. For visitation statistics between 1808 to 1843, and annual figures on increased attendance from 15,390 to 517,440 during this period, see John Pye, Patronage of British Art (London, 1845), p. 277.
30. Description of a July 28, 1832 visit to the British Museum, cited in the Colonial Advocate (September 27, 1832). Other "really wonderful sights" that Mackenzie toured were the Royal Asiatic Society's Museum, Perkin's National Gallery, the India House Museum, Wombell's and Aikin's Menageries, and the East India Company Museum.
31. "Splendid Exhibition," London Post Office Annual Directory (1836), p. xxi.
32. van Keuren, "Museums," p. 171.
33. Quoted in Victoria Dickenson, "Museums and Education: A Quotable History," CMA Annual Conference (Vancouver, 1979), p. 3. See also Edward Edwards, The Fine Arts in England (London, 1840), p. 106. Wagon was the director of the Berlin Gallery.
34. Edward Edwards, Remarks on the Minutes of Evidence Taken Before the Select Committee on the British Museum (London, 1839), p. 1. Edwards' remarks were originally published in an 1836 letter to Benjamin Hawkes Sr., M.P. for Lambeth and member of the Select Committee. Edwards believed that the masses needed "guidance", and it was the duty of government to advance popular education by means of public galleries and museums. See Edwards, Arts, pp. 271 & 320. For two contemporary descriptions of the British Museum, see William Swainson, A Preliminary Discourse on the Study of Natural History (London, 1834), p. 332-37, and Edward Edwards, A Visit to the British Museum (London, 1838).
35. Quoted in Edwards, Remarks, p. 10. Another period museum that encouraged working-class visitors was the Hancock Museum in Newcastle. From 1835, it held regular open evening hours. See Lynn Barber, The Heyday of Natural History (London, 1989), p. 168.
36. John Edward Gray, "Free Admission of the Public to Museums," The Penny Magazine (February 4,

1837), v. 6, #311, p. 46. Gray was Superintendent of Zoology at the British Museum where he noted that on occasion more than 6,000 visited daily. During 1844, the British Museum had 600,000 visitors. See John Pye, Patronage, p. 238.

37. Joyce Jones, "Museum and Art Gallery Buildings in England - 1845-1914, Part 1," MJ (December, 1965), v. 65, #3, p. 230. The Museums Act resulted in many museums receiving financial support from rate funds levied by municipalities. By 1877 about 40 museums were financed through this scheme. See Geoffrey Lewis, For Instruction and Recreation (London, 1989), p. 1.

38. Cited in Peter Parley's Annual (London, 1847), p. 138.

39. James S. Buckingham, National Evils and Practical Remedies (London, 1849), pp. 43, 152, 189 & 322.

40. For examples see J. Phillips, "Notice of the Ordnance Geological Museum," Report of the 13th Meeting of the BAAS (1843), p. 61, H.E. Strickland, "Ornithological Museums," Report of the 14th Meeting of the BAAS (1844), pp. 215-17, which includes a list of public museums in England and throughout the world, "Treasures of the British Museum," The Visitor or Monthly Instructor (1847), pp. 78-80 & 133-35, W. Cooke Taylor, "Museum of Economic Geology," The Art-Union (June 1, 1847), v. 9, pp. 227-28, Henry G. Clarke, The British Museum Its Antiquities and Natural History (London, 1848), and Edward N. Browne, "Notes and Illustrations From the Museums of Italy," The Art-Union (March 1, 1848), v. 10, pp. 85-88.

41. James Ferguson, Observations on the British Museum (London, 1849), pp. 2-5. Ferguson believed that there must be a balance reached between the public or casual use of these institutions and their use by students. A modern observer and curator of the Milwaukee Public Museum suggested that the impetus for the creation of the British Museum between 1823-52 "inspired a goodly number of collections to move into public exhibition and to assume a more permanent status." See Edward Anthony Green, "Cleverly Rearranged Cabinets of Curios," in Fred E.H. Schroeder (ed.), Twentieth-Century Popular Culture in Museums and Libraries (Bowling Green, Ohio, 1981), p. 127.

42. South African curator E.C. Chubb acknowledged this situation in a 1929 report on museums to the Carnegie Corporation. Chubb stated that by the mid-19th century great interest was taken in education in the United Kingdom and that "it came to be realized that museums were capable of playing an important part in public instruction." Cited in E.C. Chubb, Museums and Art Galleries as Educational Agents (Pretoria, 1929), p. 2.

43. For general information on this period, see Geoffrey Best, Mid-Victorian Britain 1851-1875 (London, 1971), Asa Briggs, Victorian Things (London, 1988), Richard D. Altick, Victorian People and Ideas (New York, 1973), and Mowat, Victorian.

44. R.F. Scharff, The Aims and Scope of a Provincial Museum (Belfast, 1912), p. 2.

45. Quoted in Emma Leslie, The Life and Reign of Queen Victoria (London, 1887), p. 29. For information on previous exhibitions, see "History of Industrial Exhibitions," Scientific American (June 16, 1855), v. 10, #40, p. 315, "The French Industrial Exhibition," SA (December 2, 1854), v. 10, #12, p.

93, "Industrial Fairs," SA (November 13, 1852), v. 8, #9, p. 69, and "Mechanics Fairs - New York Crystal Palace," SA (August 21, 1852), v. 7, #49, p. 389.

46. Samuel Prout Newcombe (ed.), Little Henry's Records of His Life-Time Old Eighteen-Fifty-One (London, 1852), p. 62. Newcombe saw the Great Exhibition as a vehicle for children of the middle and upper classes to open their senses to new fields of observation. He published a series of object lessons using examples from the Great Exhibition. See Pleasant Pages (1852), v. 3.

47. Edward Forbes, "The Vegetable World," in The Art Journal Illustrated Catalogue The Industry of All Nations (London, 1851), p. vii. Forbes' projection of future impact of exhibitions on museum development, was confirmed in correspondence between John George Hodgins and Egerton Ryerson in 1867. Hodgins reported to his supervisor that; "One cannot but see that the memorable Exhibition of 1851, has been the great forerunner and germ of all the progress which has of late years been made in this direction in the various Cities and large Towns of the United Kingdom." Quoted in J. George Hodgins (ed.), Documentary History of Education in Upper Canada 1867-1869 (Toronto, 1907), v. 20, p. 10. The development of "the modern Museum idea," was linked to the Great Exhibition. See G. Brown Goode, "The Principles of Museum Administration," Report of the Proceedings of the Museums Association (1895), p. 140.

48. John Tallis, History and Description of the Crystal Palace (London, 1851), div. 3, pp. 94-95.

49. "On the Great Exhibition of the Works of Industry of All Nations, 1851," Cyclopaedia of Useful Arts and Manufactures (London, 1854), v. 1, p. i. For more on the history and impact of these world fairs, see "History of Industrial Exhibitions," SA (June 16, 1855), v. 10, #40, p. 315.

50. See Altick, Victorian, p. 239, Best, Victorian, p. 199, and van Keuren, Museums, p. 171. For information on the cultural habits of various groups which was compiled by contemporary social investigator Henry Mayhew, see Eileen Yeo and E.P. Thompson, The Unknown Mayhew (New York, 1971).

51. "Preface," A-U (February 15, 1839), v. 1, #1, pp. iii-iv.

52. Cited in Henry G. Clarke, The Art-Union Exhibition for 1843 (London, 1843), pp. 1 & 3. Clarke produced hand books for the National, Dulwich and Naval Galleries, the British Museum, Hampton Court and Westminster Abbey. Interest and information about history was also conveyed through mass circulation publications. See Archibald Alison, "The Historical Romance," Blackwood's Edinburgh Magazine (September, 1845), v.58, #359, p. 346.

53. For examples, see "The Free Exhibition," A-U (January 1, 1848), v. 10, p. 28, W. Cooke Taylor, "The Mutual Interests of Artists and Manufacturers," A-U (March 1, 1848), v. 10, pp. 69-70, and Robert Hunt, "The Application of Science to the Fine and Useful Arts," A-U (January 1, 1848), v. 10, pp. 17-18.

54. Quoted from remarks given at the corner-stone laying for the Birmingham Institute, November 22, 1855. Cited in "Prince Albert on Science and Common Sense," SA (December 23, 1855), v. 11, #15, p. 115.

55. Cited in "Lord Palmerston and the Manchester Mechanics," SA (December 13, 1856), v. 12, #14, p. 107. Palmerston believed that by cultivating the faculties of the labouring classes, that their knowledge would be increased, and through their knowledge, their happiness improved. Some revisionist scholars question this paternalistic attitude. See Richard Johnson, "Educational Policy and Social Control in Early Victorian England," Past and Present (1970), v. 49, pp. 96-119, and Arnold Thackery, "Natural Knowledge in Cultural Context: The Manchester Model," American Historical Review (1974), v. 79, pp. 627-709.
56. Grace Overmyer, Government and the Arts (New York, 1939), p. 29. One of the motives for establishing the South Kensington Museum was to provide the means of fostering the art of design for its greater popular use.
57. Dick, Improvement, p. 187. For more on the history of M.I.'s, see James Hole, An Essay on the History and Management of Literary, Scientific and Mechanics' Institutions (London, 1853).
58. Dr. George Birkbeck is generally regarded as being the founder of the M.I. movement in the United Kingdom. He established the London M.I. in October of 1823. In 1814, Thomas Dick wrote a series of 5 articles in the London Monthly Magazine which promoted similar ideas for members of the middle and lower classes. See, Dick, Improvement, pp. 186-92. Money bequeathed by Professor Anderson in 1796 helped found the first institution of this kind in Glasgow. See "Origin of Mechanics Institutions," SA (November 8, 1856), v. 12, #9, p. 67.
59. James W. Hudson, The History of Adult Education (London, 1851), p. xiii, Henry T. Wood, A History of the Royal Society of Arts (London, 1913), pp. 369-70, and Hole, Essay, pp. 155 & 182-83. One contemporary author believed that the usefulness of Mechanics' Institutes and literary institutions declined in the late 1850's due to the substitution of lectures for classes. See Alexander Richardson, Middle Class Education (Glasgow, 1858), p. 11.
60. Wood, History, p. 371.
61. Hole, Essay, p. 152. Hole was the honorary secretary of the Yorkshire Union of M.I.'s.
62. Quoted in ibid., p. 154. Alexander Richardson, head master at the Western Institution and a lecturer at the Glasgow Athenaeum, regarded the Society of Arts' Union of Institutes as a "powerful influence in elevating and systematising adult education among the industrial classes." See Richardson, Education, p. 3.
63. Hudson, Adult, pp. 57 & 105. Current thinking regards the lack of funding as the major reason for the unsuccessful development of museums by Mechanics' Institutes and learned societies. See Hooper-Greenhill, Education, p. 14. The heterogeneous collections assembled by growing numbers of British museums between 1860-1880 were also seen to be impediments to their success, as they were "of great curiosity but little educational value." Lewis, Instruction, p. 1.
64. Cited in Hole, Essay, pp. 152-53. For more on the importance of the ordering and classification of collections during the Victorian age, see Victoria Dickenson, In the Arrangement of Museums, 1600-1919: An Investigation Into the Ordering of Collections (Ottawa, 1984), pp. 31-72.

65. Edward Forbes, "On the Educational Uses of Museums," American Journal of Science (November, 1854), v. 68, #54, pp. 340, 344-45 & 350-52. Forbes supported the belief that through museums, government and the people could work together to advance "intellectual aims and true civilization." The museum was seen as an antidote to the dulling rote learning in schools.
66. John W. and Wyatt Papworth, Museums, Libraries and Picture Galleries (London, 1853), pp. 2-3. See also Dickenson, Arrangement, pp. 36-37.
67. Edward Forbes, "The British Museum and Its Wonders," in Literary Papers (London, 1855), pp. 163-64. Forbes was a professor of marine biology at Kings College, London, who would be appointed keeper and professor at the University Museum in Edinburgh after the death of Professor Robert Jameson. Librarian Edward Edwards suggested that "the museum may be preserved and maintained not only for the inspection of the learned and the curious, but for the general use and benefit of the public." See Edward Edwards, Memoirs of Libraries (London, 1859), v. 1, pp. 242-43. Other sources supported the public utility of the British Museum. See "British Museum, Great Russell St. London," Journal of Education for Upper Canada (May, 1854), v. 7, #5, pp. 77-78, and The Annual Report of the Board of Regents of the Smithsonian Institution (Washington, 1863), p. 34. In this report, Joseph Henry noted the British Museum was designed for "the encouragement of original study as well as of popular instruction and amusement."
68. J.A. Picton, "Notes on the Free Library and Museum of the Borough of Liverpool," Transactions of the National Association for the Promotion of Social Science (1858), p. 695.
69. "A Visit to the East India Museum," The Leisure Hour (July 22, 1858), #343, pp. 469-73.
70. "Report of the Chief Superintendent of Education, 1856," cited in Hodgins (ed.), DHEUC 1856-58, p. 57.
71. Ibid. Growth of provincial museums was of great interest in various cities of both England and Scotland. Ryerson quoted from C.H. Wilson's address on this topic, and believed that such a course of action would "confer a public benefit." See "On the Formation of Provincial Museums and Works of Art," cited in JEUC (January, 1856), v. 9, #1, pp. 3-4. Wilson was the first director of the Edinburgh Museum and was brother of Daniel Wilson, professor and museum curator at the University of Toronto.
72. "South Kensington Educational Museum," JEUC (July, 1857), v. 10, #7, p. 101. See also "New Educational Museum," American Journal of Education (March, 1857), v. 3, #8, p. 270. In comparing his educational museum in Toronto with the one at South Kensington, Egerton Ryerson wrote that the London counterpart "appears, from successive Reports, to be exerting a very salutary influence, while the School of Art connected with it is imparting instruction to hundreds, in drawing, painting, modelling & etc..." Cited in "The Educational Museum, Upper Canada," JEUC (January, 1861), v. 14, #1, p. 7.
73. Henry Cole, "On the Functions of the Department of Science and Art," cited in The Educational Museum and School of Art and Design for Upper Canada (Toronto, 1858), Appendix B, p. 68. By 1869 the South Kensington Museum was seen as "the model for imitation for Europe and America." See "International Exhibitions and Technical Instruction," AJE (January, 1870), v. 21, p. 31.

74. "Typical Objects in Natural History," Report of the 28th Meeting of the BAAS (1855), p. 110. A current opinion is that new museums which formed during the Victorian period in the English hinterland, were developed "more in response to the great museums in London and the ideas they represented than to local needs." These provincial museums were presented "as being vital to the self-improvement of the rising artisan and middle classes." Cited in Gaynor Kavanagh, History Curatorship (Washington, 1990), p. 14.

75. "Museums," JEUC (June, 1852), v. 5, #5, pp. 87-88. Plans for a new museum "on a large scale for the increased accommodation of the specimens and other objects of interest," were put forward more than a decade before such a building was erected. Prior to moving to its new quarters, the Ashmolean Museum was viewed as "perhaps one of the most curious examples of the old style" museum. See Herman A. Hagen, "The Origin and Development of Museums," American Naturalist (February, 1876), v. 10, p. 143.

76. F.G.S., "The Oxford University Museum," Macmillan's Magazine (April, 1862), v. 5, #30, p. 533. See also Henry W. Acland and John Ruskin, The Oxford Museum (London, 1859), and Birkin Haward, "Oxford University Museum," Architectural Journal (September, 1889), pp. 40-63.

77. Acland and Ruskin, Museum, pp. 7 & 9.

78. F.G.S., "Museum," p. 525. For more on Ruskin's philosophy related to art and museums, see John Ruskin, "Education in Art," Transactions of the National Association for the Promotion of Social Science (1858), cited in E.T. Coke and Alexander Wedderburn (eds.), The Works of John Ruskin (London, 1905), v. 16, pp. 311-16, and Joan Evans (ed.), The Lamp of Beauty (London, 1959), pp. 318-23. For a period comparative assessment of zoological museums operated by European and American universities, see Louis Agassiz, "Harvard College Zoological Museum," JEUC (January, 1861), v. 14, #1, p. 5.

79. John E. Gray, "Public Museums," Report of the 34th Meeting of the BAAS (1865), p. 76. Gray's philosophy was adopted by other forward thinking museum curators. Gerard Krefft, curator of the Australian Museum suggested that Gray's opinions "should be well considered by those, who are about establishing private or public Museums in these colonies." Krefft added that Gray's ideas were, "One of the great improvements in modern Museums." See Gerard Krefft, "The Improvement Effected in Modern Museums in Europe and Australia," Transactions of the Royal Society of New South Wales for the Year 1867 (1868), v. 1, pp. 15-16. The impact of science on society was a topic addressed by Dr. J. Buller at a 1862 meeting of the Southampton Microscopical Society. See "Science a Civilizer," SA (February 22, 1862), v. 6, #8, n.s., p. 117.

80. Gray, "Public," p. 77, 80, & 86. For more on Gray's impact, see Walter Gilbey, "Educative Value of the Modern Museum," The Nineteenth Century and After (July, 1909), v. 66, #389, p. 668, and van Keuren, "Museums," p. 173-74.

81. This museum was "open free to the public at South Kensington," by 1867. See George C. Bompas, Life of Frank Buckland (London, 1885), 2nd. ed., pp. 154, 198 & 391. For more on Buckland and his contributions, see Barber, Heyday, pp. 138 & 149. For comment on the South Kensington Museum and its position amongst European museums, see M.D. Conway, "The South Kensington Museum," JEUC (October, 1875), v. 28, #10, pp. 157-58.

82. C.J. Woodward, "A Sketch of a Museum," Transactions of the National Association for the Promotion of Social Science (1868), pp. 449-50.

83. See Thomas Webster, "On Museums for Technical Instruction in the Industrial Arts and Manufactures of the United Kingdom," Journal of the Society of Arts (January 16, 1874), v. 22, pp. 136-45. In June 1875, John Ruskin began an initiative in Sheffield "as the germ of a museum arrangement for workers of iron." Quoted in Cook and Wedderburn (eds.), Works, v. 28, p. 395.

84. Alfred R. Wallace, "Museums for the People," Macmillan's Magazine (November, 1868), v. 19, pp. 244 & 250.

85. Edward Burnett Tylor, Religion in Primitive Culture (Gloucester, Mass., 1970), pp. 530-31. Tylor's thesis was originally published in 1871. Tylor's work would focus on the history of institutions, while compatriot Augustus Pitt-Rivers would elucidate the development of the material aspects of culture. See van Keuren, "Museums," pp. 179-80.

86. Leoni Levi, "The Educational and Economic Value of Museums and Exhibitions," Journal of the Society of Arts (October 16, 1874), pp. 958 & 954. Village museums which were found to be "civilizing and attractive," were established in many smaller communities in the United Kingdom. See "Village Museums," JEUC (April, 1876), v. 29, #4, pp. 62-63.

87. W. Boyd Dawkins, "The Position of Museums in Britain," Manchester Literary and Philosophical Society (1867-77), v. 16, p. 42. See also "Notes," Nature (December 7, 1876), v. 15, p. 129. Dawkins was a geologist and archaeologist who would become curator of the Manchester Museum. The former director of the British Museum wrote in the same vein some 110 years after the comments made by Dawkins. On English museums of the Victorian era, he said; "They were true expressions of the Victorian zeal for the improvement of the working classes...They made available and propagated to everyone a shared cultural heritage and its ideals." See Roy Strong, Museums Two Contributions Towards the Debate (London, 1985), p. 7.

88. Krefft, "Improvements," p. 15. Krefft corresponded with Dr. Albert Gunther of the British Museum during the 1860's, proving a direct link to museology in Australia and the United Kingdom. See Gerard Krefft, "Australian Vertebrate-Fossil and Recent," Australian Museum Zoological Writings (February 17, 1871), p. 96. Krefft had definite ideas on natural history, schools and museums. He wrote: "More attention should be paid to the study of natural history in our schools, the establishment of district museums encouraged, and the children taught to observe the habits and economy of different animals, in particular those which are useful, by which means the wealth of the country would be much increased." See Gerard Krefft, "On Australian Entozoa, With Description of New Species," Transactions of the Entomological Society of New South Wales (July 3, 1871), p. 96.

89. See Dickenson, Arrangement, pp. 99-101 for an explanation of this position.

90. Several authors have identified 1914 as being the end of a distinct period in museological history. See Alma S. Wittlin, The Museum: Its History and Its Tasks in Education (London, 1949), p. 133, Jones, "Buildings," p. 230, and A.F. Chadwick, The Role of the Museum and Art Gallery in Community Education (Nottingham, 1980), p. 8.

91. Quoted in Sally G. Kohlstedt, "Henry Augustus Ward and American Museum Development," University of Rochester Library Bulletin (1985), v. 38, p. 31.
92. J. Edward Gray, Keeper of Zoology at the British Museum had first suggested this idea in 1864. See Gray, "Public," pp. 75-86. It was further expanded upon in 1870. See P.L. Slater, "On Certain Principles to be Observed in the Establishment of a National Museum of Natural History," Report of the 40th Meeting of the BAAS (1870), v. 40, pp. 123-28. This new arrangement technique was quite different from the "Index Museum" approach followed by director Richard Owen. See Hooper-Greenhill, Knowledge, p. 199.
93. van Keuren, "Museums," p. 173.
94. Isaac Watts, "An Imperial Museum for India and the Colonies," Transactions of the National Association for the Promotion of Social Science (1876), pp. 749-50.
95. W.H. Flower, "Museum Specimens for Teaching Purposes," Nature (December 14, 1876), v. 15, p. 144.
96. J.E. Gray, quoted in A.C.L. Gunther, "Presidential Address," Report of the 50th Meeting of the BAAS (1880), p. 591. Gunther saw museums as centres for "popular instruction" and to be regarded as "one of the most important aids in the instruction of the people." See pp. 592 & 598.
97. Charles T. Gatty, The Mayer Collection in the Liverpool Museum Considered as an Educational Possession (Liverpool, 1877), p. 28.
98. William Morris, Hopes and Fears for Art (London, 1903), pp. 20, 65, 89, & 21. The first edition of this collection of lectures given by Morris between 1877-1880, was published in 1882. See also William Morris, "The Exhibition of the Royal Academy," Today (July, 1884), v. 2, #7, n.s., pp. 75-91.
99. Edward Bradbury, "A Visit to Ruskin's Museum," The Magazine of Art (December, 1879), v. 3, pp. 57-60, William White, "The Function of Museums, as Considered by Mr. Ruskin," Museums Association Record of Proceedings (1893), v. 4, pp. 73-94, and Alfred Sprigg, "The Ruskin Museum and Its Treasures," Windsor Magazine (1895), v.1, pp. 132-40. Ruskin's eloquent writings on the moral influence of museums were credited for stimulating the development of the "people's Museum." See Goode, "Principles," p. 139.
100. For examples of Ruskin's philosophy, see John Ruskin, "A Museum or Picture Gallery: Its Function and Formation," The Art Journal (June, 1880), pp. 160-62, Cook & Wedderburn (eds.), Works, v. 24, pp. 247-62, & v.30, pp. 159-293, and "John Ruskin and Museums," MJ (January, 1927), v. 26, #7, p. 169. For information about collaboration with William Morris in Manchester on "an unprecedented experiment in art education," see Sally MacDonald, "For Swine of Discretion: Design for Living: 1884," MJ (December, 1986), v. 86, #3, pp. 123-29. For information on art cultivating and refining the masses, see Ferdinand Rothschild, "The Expansion of Art," Fortnightly Review (January, 1885), v. 37, n.s., pp. 55-69.
101. J.C. Robinson, "Our National Art Collections and Provincial Art Museums," The Nineteenth

Century (January-June, 1880), v. 7, #40, pp. 979-94.

102. For information on Cole, see Alan S. Cole (ed.), Fifty Years of Public Work of Sir Henry Cole (London, 1884), 2v.

103. John Coleman, "Report on the Exhibition of Implements; Award of Medals at the International Exhibition at Kilburn," The Journal of the Royal Agricultural Society of England (1879), v. 15, 2nd. series, pp. 685-88. Museum collections and exhibitions were "instructive", a means for acquiring "scientific knowledge," and a vehicle for the extension of "technical instruction." See Frederick Abel, "The Work of the Imperial Institute," Nature (April 28, 1887), v. 35 & (May 5, 1887), v. 36, pp. 617-21 & 17-20.

104. For a description of various London museums which were promoted to visitors, see five articles entitled "The Sights of Our Great Cities: London Museums I-V," The Boy's Own Paper (January 14, 1888 - February 18, 1888), v. 10, #'s 470-475. For a traveller's account of visits to other "sights" in London, see Daniel V. Lucas, Australia and Homeward (Toronto, 1888), pp. 300, 328 & 330. It was acknowledged that; "The museum cultivates the powers of observation, and the casual visitor even makes discoveries for himself and under the guidance of labels forms his own impressions." See G. Brown Goode, "The Museums of the Future," Report of the US National Museum (1889), p. 434.

105. Thomas Greenwood, Museums and Art Galleries (London, 1888), p. viii. Civic pride went along with a widespread if somewhat paternalistic desire for education and enlightenment of the masses. In this climate museums flourished.

106. Joseph Anderson and George F. Black, "Reports on Local Museums in Scotland," Proceedings of the Society of Antiquities of Scotland (April 23, 1888), v. 10, n.s., p. 422. The authors visited 32 Scottish museums and concluded that the local museum could become an "effective instrument of education in several branches of science." See p. 422.

107. Gene Adams, "Museum and School Links in London-Past and Future," MJ (1984), v. 84, #2, p. 57, Hooper-Greenhill, Education, p. 16, and Raphael Samuel, Island Stories: Unravelling Britain (London, 1998), p. 4.

108. Elijah Howarth, "Museums," Nature (January 25, 1877), v. 15, p. 276. The era that followed successive Reform Bills from 1832 and extended voting privileges, and the various Education Acts from 1870 which gave education rights to everyone, were expressions of Victorian zeal for the improvement of the working class. Museums were part of this movement. See Strong, Contributions, p. 7.

109. Henry H. Higgins, "Circulating Museum for Educational Purposes," Journal of Science (March, 1884), 3rd. series, p. 147.

110. John Gray, "Local Museums, What They Are, and What They Ought to Be," Good Words (1882), p. 827.

111. W. Boyd Dawkins, "The Need For Museum Reform," Nature (May 31, 1877), v. 16, pp. 78-79.

112. Gatty, Collection, pp. 26-27.
113. W. Stanley Jevons, "The Use and Abuse of Museums," in Methods of Social Reform (London, 1883), pp. 55-56.
114. Ibid., p. 56.
115. Gray, "Local," p. 823.
116. J.G. Wood, "The Dulness of Museums," The Nineteenth Century (March, 1887), v. 21, #121, pp. 385-86, 391 & 395. Wood pleaded for the development of exhibits in natural history museums which would illustrate the "science of life," displays which represented actual episodes of the life histories of animals on exhibit in these museums.
117. Lucas, Australia, (Toronto, 1888), pp. 328 & 330.
118. J. Winter Jones, Principal Librarian of the British Museum quoted in Dickenson, Arrangement, p. 75.
119. Henry H. Howorth, "Casual Thoughts on Museums," Natural Science (August, 1895), v. 7, #42, pp. 95 & 97.
120. Cited in MARP (1890), v. 1, p. 1. These Proceedings would remain as the main publication of the Museums Association until Museums Journal was launched in 1901.
121. Henry H. Higgins, "President's Address," ibid., p. 37. For an overview of the early history of the Museums Association, see Geoffrey Lewis, For Instruction and Recreation (London, 1989), pp. 8-17.
122. W. Boyd Dawkins, "The Museum Question," MARP (1892), v. 3, p. 17.
123. William H. Flower, "Modern Museums," MARP (1893), v. 4. By 1895 Flower saw libraries and museums as "instruments of intellectual culture." Collections had intrinsic as well as an educational value, and in 1897 Flower wrote that; "An ill-arranged museum has been compared to the letters of the alphabet tossed about indiscriminately, meaning nothing; a well-arranged one to be the same letters placed in such orderly sequence as to produce words of counsel and instruction." William Henry Flower, Essays on Museums (Freeport, NY, 1972), reprint, pp. 57 & 66.
124. Cuthbert Peck, "Local Museums," Report to the BAAS (1894), p. 30.
125. R.H. Traquair, "President's Address," Proceedings of the Royal Physical Society (1893), v. 11, pp. 174-75 & 191.
126. W. Furneaux, The Out-Door World (London, 1894), p. v.
127. F.A. Bather, "How May Museums Best Retard the Advance of Science," Science (April 30, 1897), v. 5, #122, n.s. pp. 677-79.

128. F.A. Bather, "Some Colonial Museums," MARP (1895), v. 6, p. 238.
129. William H. Flower, "Natural History as a Vocation," Chambers's Journal (April 10, 1897), v. xiv, #693, pp. 225 & 227. For a general overview on natural history, see Lynn L. Merrill, The Romance of Victorian Natural History (New York, 1989), especially chapter 5, "Museums and Microscopes," pp. 107-137. Interest in local history and natural heritage extended to advice and information in period tourist guides. For example see The Tourist's Guide to Bridgewater (Madeley, 1875), pp. 112-13 and C.A. Johns, A Week at the Lizard (London, 1894).
130. For information on the philosophy Pitt-Rivers espoused, see Augustus Pitt-Rivers, "Typological Museums," Journal of the Society of Arts (December 18, 1891), v. 40, pp. 115-22, Goode, "Administration," p. 94, and van Keuren, "Museums," pp. 175-78.
131. A.H.L. Pitt-Rivers, "Presidential Address to Section H-Anthropology," Report of the BAAS (1889), p. 825. For more information on his museum at Oxford, see Beatrice Blackwood, The Origin and Development of the Pitt Rivers Museum (Oxford, 1991), and Henry Balfour, "Notes on the Arrangement of the Pitt-Rivers Museum," MARP (1897), v. 8, pp. 51-54.
132. Pitt-Rivers, "Presidential," p. 828. A current observer would also make a connection between education and social control by museums. "Though a declared aim of them all was educational, one of the unintended functions of these museums was to put most people in their place." See Donald Horne, The Great Museum (London, 1984), p. 16.
133. Thomas Field, "An Educational Museum," Journal of Education (London) (May 1, 1890), v. 22, n.s., pp. 273-76.
134. For examples of museums being "instrumental and useful in aiding the educated to excite a desire for knowledge in the ignorant," see Thomas Greenwood, "The Place of Museums in Education," Science (November 3, 1893), v. 22, #561, pp. 246-48, Mrs. Tubbs, "The Relation of Museums to Elementary Education," MARP (1897), v. 8, pp. 69-73, and A. Deny, "The Relation of Museums to Elementary Teaching," MARP (1898), v. 9, pp. 39-44.
135. For more information see James Paton, "A People's Palace," MARP (1898), v. 9, pp. 45-62 and Elspeth King, The People's Palace and Glasgow Green (Glasgow, 1988).
136. For example, see "Exhibition of Woodwork at Carpenters' Hall," Building World (October 31, 1896), v. 3, #55, pp. 49-50. For ideas on improving conditions in local museums, see Flinders Petrie, "On a Federal Staff for Local Museums," MARP (1896), v. 7, pp. 38-40.
137. Ben H. Mullen, "Museum and Ratepayers," MARP (1894), v. 5, pp. 180-84. For additional information on other European and British museums at the end of the 19th century, see Edmund Hovey, "Notes on Some European Museums," The American Naturalist (September, 1898), v. 32, #381, pp. 697-715, and Oliver Farrington, "Notes on European Museums," The American Naturalist (October, 1899), v. 33, # 394, pp. 763-81.
138. Frederic George Kenyon, Museums and National Life (Oxford, 1927), p. 17.

139. Farrington, "Notes," p. 781. For information on European museums of the period, see Valentine Ball and James Brennan, Report on Certain Museums, Picture Galleries, and Schools of Art in Northern and Central Europe (Dublin, 1895).
140. George Brochner, "Open-air Museums for London: A Suggestion," The Studio Magazine (1901), v. 21, pp. 158-71.
141. Huntly Carter, "Sketch Plan of a Civic Museum for London," Social Papers (1907), v. 3, pp. 237-40, and Patrick Geddes, "A Suggested Plan for a Civic Museum (or Civic Exhibition) and Its Associated Studies," Social Papers (1907), v. 3, pp. 197-236.
142. Lewis Foreman Day, "How to Make the Most of a Museum," Journal of the Society of Arts (January, 1908), v. 56, pt. 2377, pp. 146-60.
143. For examples, see "The Purpose and Policy of National Museums," Burlington Magazine (October 1906), v. 9, pp. 3-6, "Museums," Burlington Magazine (September, 1908), v. 13, pp. 319-22, "The National Gallery," Burlington Magazine (October, 1910), v. 18, pp. 3-4, and "On Bequests to Public Galleries," Burlington Magazine (February, 1911), v. 18, pp. 253-54.
144. For examples, see Joseph A. Clubb, "The Educational Use of Museums," Report of the BAAS (1913), v. 83, p. 743, A.R. Horwood, "The School and the Museum," ibid., pp. 743-44, W. Boyd Dawkins, "The Place of Museums in General Education," Report of the BAAS (1915), v. 85, p. 746, and W.E. Hoyle, "Local Museums," ibid., pp. 786-90.
145. For examples, see Henry Balfour, "The Relationship of Museums to the Study of Anthropology," Journal of the Royal Anthropological Institute of Great Britain (1904), v. 34, pp. 10-19, F.A. Bather, "The Functions of Museums: A Re-Survey," Popular Science Monthly, (January, 1904), v. 64, pp. 210-18, Sarah A. Tooley, "Women's Work at the Franco-British Exhibition," in The Woman at Home Annual (1908), pp. 51-59, E.V. Lucas, A Wanderer in London (London, 1911), pp. 27-29, and Wilfrid Mark Webb, "Museums and Education," Knowledge (March, 1914), v. 11, n.s., pp. 89-91 & 154-56.
146. Lewis, Instruction, p. 23. For examples, see "The Museum Association and Its Journal," MJ (July 1901 - June 1902), v. 1, p. 4, "Museums and Teaching," ibid., p. 249-50, William E. Hoyle, "The Use of Museums in Teaching," MJ (February, 1903), v. 2, pp. 229-39, Jonathan Hutchinson, "Educational Museums as Schools-A Proposal," MJ (April, 1905), v. 4, #10, pp. 248-52, John Minto, "The Relation of Provincial Museums to National Institutions," MJ (January, 1906), v. 5, #7, pp. 219-24, H. Bolton, "The Future of Museums," MJ (February, 1906), v. 5, #8, pp. 251-56, Bernard H. Woodward, "The Aims and Objects of Museums," MJ (October, 1907), v. 7, #4, pp. 127-37, A.C. Caddie, "The Board of Education and Provincial Museums," MJ (November, 1910), v. 10, #5, pp. 126-28, H.M. Plantnauer, "What Is a Museum?," MJ (July, 1911), v.11, #1, pp. 4-8, W. E. Hoyle, "Museums-Interesting and Otherwise," MJ (July, 1912), v. 12, #1, pp. 7-10, "Museum Guides and Education," MJ (October, 1912), v. 12, pp. 112-117, James Ward, "The Relation of Schools of Art to Museums," MJ (February, 1913), v. 12, #8, pp. 227-35, and E.E. Lowe, "The Educational Value of Museums," MJ (November, 1913), v. 13, #5, pp. 175-80.

147. Plantnauer, "Museum," p. 5. For similar comments from another prominent British museologist, see W. Boyd Dawkins, "The Place of Museums in General Education," Report of the 85th Meeting of the BAAS (1915), v. 85, p. 746.
148. E.E. Lowe, "Educational," p. 175. Lowe was honorary secretary of the Museums Association, and director of the Leicester Museums. For a synopsis of the state of museum education in England up to 1920, see "Museums in Relation to Education," Report of the 85th Meeting of the BAAS (1920), pp. 267-77.
149. See editorial comment in The Burlington Magazine (September, 1908), v. 13, #66, p. 319.
150. Goode, "Administration," p. 136.
151. Goode, "History," p. 72.
152. Goode, "Administration," p. 141.
153. Hooper-Greenhill, Museum, p. 25. For additional information about changes to museums, "that most Victorian of institutions," by 1914, see Gaynor Kavanagh, "The First World War and Its Implications for Education in British Museums," History of Education (1988), v. 17, #2, pp. 163-76. For earlier comments about differences between American and British museums, see "Museums and Teaching" MJ (July, 1901 - June, 1902), v. 1, pp. 249-50 and M.B. Hodge, "Museums in North American," MJ (May, 1938), v. 38, #2, pp. 87-104.
154. See Michael B. Katz and Paul H. Mattingly (eds.), Education and Social Change (New York, 1975), p. viii.

Chapter 3

Episodes in the Evolution of Museums in the United States to World War 1

Introduction

Early in the 19th century, Charles Willson Peale reflected upon the differences between European and American museums:

In Europe, all men of information prize a well regulated museum, as a necessary appendage to government, but in several parts of that quarter of the earth, the means of visiting those repositories, are within the reach of particular classes of society only, or open on such terms or at such portions of time, as effectively to debar the mass of society, from participating in the improvement, and the pleasure resulting from a careful visitation.¹

English naturalist Alfred R. Wallace said of Americans in 1887 that:

They are comparatively free from those old-world establishments and customs whose obstructiveness so often paralyses the efforts of the educational reformer, and their originality of thought and action has thus freer scope.²

Well known museologist Alma Wittlin suggested in 1949, that:

On the whole European efforts at utilizing museums as a means of education appear modest if compared with the vigorous contemporary activities in the United States where education was considered a primary function of the public museum from its very beginning.³

These three quotations from knowledgeable observers over a wide period of time, reflect differences between museums in the United States and museums in Europe. If the substance of these remarks is true, then the development of museums in the United States and the subsequent impact of these institutions on museums in Canada must be assessed. This chapter will investigate the evolution of museums in the United States and consider the influences and the effect American museums had on their northern counterparts in Canada, focusing on the educative, learning and knowledge functions of these institutions.

The Early Years

There is question as to when the first public museum was founded in the United States. Several general accounts indicate that the Charleston Museum started in 1773 by the Charleston Library Society, was the first museum in North America to be fitted up for public use.⁴ Other authors suggest that the American Museum of Pierre Eugene Du Simitiere in Philadelphia preceded the Charleston initiative by ten years.⁵

Both museums featured collections of natural history specimens. While the Du Simitiere Museum was dispersed by 1772, the Charleston Museum gradually broadened its mandate and adapted to the changing needs of a new republic. Its growth as a community institution resulted in an important contribution to the early evolution of public museums in the United States.⁶

Another museum that played an important role in early American cultural life was the one established by Charles Willson Peale in Philadelphia in 1786. Departing from the concept of a cabinet of curiosities, Peale organized his collection according to Linnaean classification, advanced the concept of "useful knowledge" through the museum's exhibits, and believed his initiative to be "a storehouse of utility and a source of moral education."⁷

Peale viewed his museum as an exposition of a learned variety and as a serious educational enterprise. His hopes for the museum were detailed in correspondence to Thomas Jefferson:

Such a museum, easy of access, must tend to make all classes of people in some degree learned in the science of nature with out even the trouble of study. Whether a diffused knowledge of this kind may tend to mend their morals is a question of some import. Furnishing the idle and dissipated with a great and new source of amusement ought to divert them from frivolous and pernicious entertainment.⁸

To further facilitate wide public use of his museum, Peale opened in the evenings, to reach the working classes, and used oil lamps for lighting. He established a hierarchy of entrance fees according to economic means, and promoted the sale of annual tickets to augment his income. He expected his audience to apply the religious, intellectual, moral, social and economic lessons portrayed at the museum to their daily lives, and felt that through cultural representation of his exhibits, social harmony could be promoted.

These goals seemed to be achieved according to contemporary chroniclers. The Reverend Nicholas Collin, a frequent visitor to the museum noted:

A Museum stored with specimens of quadrupeds, birds, fishes, amphibia, insects, animals &c. from all parts of the terraqueous globe, is a miniature of it; and a temple which no thinking person can frequent without adoration of the Creator. When proper instruction improves these devout sentiments, they will cause a deeper impression and higher elevation. Mr. Peale has done this.⁹

The author of a period Philadelphia guidebook echoed similar feelings about the lessons offered and the knowledge gained during a visit to the Peale Museum:

[T]he whole of the intellectual and pecuniary resources of Charles Willson Peale have been devoted, with unceasing ardour, to the accomplishment of the design of conveying instruction and amusement to his fellow citizens, and of advancing the interests of religion and morality, by the arrangement and display of the works of nature and art.¹⁰

Peale's efforts to make his museum widely accessible and to assist in the establishment of a universally educated public would ultimately have mixed results. However by example, his early experiment would help to establish precedents for the future growth of public museums in the United States and Canada, which had a focus on education and learning.¹¹

On entering the 19th century, museum development in the United States began to grow. What were the causes and driving forces behind this phenomenon? The French Revolution in 1793 became an impetus for the beginning of a new museum age throughout the world. The impact of this event would not be lost in a new country which itself had gained independence from Britain in 1776.

Political connections had been broken but cultural ties had not been completely severed. On an expanding frontier, settlers looked forward to a new land of opportunity, but often tried to replicate morality, manners, learning and literature they were familiar with in their country of origin. Organized religion was the vehicle for maintaining elements of traditional civilization, but in the United States the value of education began to supersede it. Many Americans started to substitute a faith in popular education for their former preoccupation with revealed religion.¹²

Contributing to the importance of education and laterally to the role of museums were early historical societies. In 1791, the Massachusetts Historical Society was organized. In 1797 the East India Marine Society of Salem was formed, followed by the New York Historical Society in 1804, the Pennsylvania Academy of Fine Arts in 1805, the Philadelphia Academy of Natural Sciences and the American Antiquarian Society of Worcester in 1822, the Maryland Academy of Sciences at Baltimore in 1822, and the Albany Institute in 1823. Contributing to this quest for learning were mechanics' institutes, lyceums, societies for the diffusion of useful knowledge, and reading associations. American educator Henry Barnard characterized this era by saying:

The first quarter of the present century was marked by a constantly increasing energy in the working of the leaven of educational improvement. Toward the end of the period and during the succeeding decade the ferment wrought so actively as to generate a numerous, heterogeneous brood of systems, plans, and institutions-many crude and rudely organized; many that never reached an organization; many that did their work quickly and well; few that have survived to the present time.¹³

During this period fledgling museums began to appear. Rembrandt Peale founded his own museum in Baltimore in 1814. The American Museum was established in New York City by John Scudder in 1810. Boston's Linnaean Society started a museum in 1814, while in 1816 the Columbian Institute began its museum in Washington, to be followed by the appearance of the New York Lyceum of Natural history in 1817, and the Western Museum Society of Cincinnati in 1820.

Several colleges were also forming museums in the early 1800's. These included institutions at Harvard, Yale, the University of Pennsylvania, Williams College and Bowdoin College. Zoological, mineral, geological, anatomical and art collections were assembled to aid instructors in the formal studies of their students.¹⁴ They formed a broad base for higher education in American colleges and universities acting as an essential part of instruction and faculty equipment.

One of the earliest published surveys of museums in the United States appeared in 1817. It recorded the developments made in the field of natural sciences to that date. C.S. Rafinesque, a member of the Academy of Natural Science of Philadelphia and of the Literary and Philosophical Society of New York, pointed out that public initiatives in natural history, physics and chemistry began in 1744 with the founding of the Philosophical Society of Philadelphia. Prior to 1800, only two small museums of natural history had existed in the United States, at Boston and Philadelphia. This was to change. He wrote that:

Since 1800 a great impulse had been given to some branches of these sciences; many societies have been established for the purpose of fostering their study; museums have been formed in many cities...

These pursuits were to follow "the honourable paths of knowledge and improvement." Citing examples, of the Peale Museum in Philadelphia and the Scudder Museum in New York City, Rafinesque proposed that:

These establishments, which increase the taste for natural beings, or even create it, when the simple survey of nature cannot inspire it, have become numerous and splendid of late; some of them begin to equal the best European museums.

Public museums, menageries and exhibitions were in operation in Boston, Salem, Baltimore, Charleston, Norfolk, Lexington and New Haven. These collections were assembled by individuals who had liberal patronage of the public, or in some cases assistance from state and municipal governments. Many colleges had teaching collections of mineral and shells, while private collections were on the increase. It was observed that; "Many gentlemen and ladies begin to delight in procuring collections, which has a general tendency to increase the taste for rational and innocent amusement."¹⁵

These early American museums developed largely as a response to the need for self-improvement and as a vehicle to provide cultural, scientific and educational advantages to the communities in which they were located. In some instances museums became "part of the cultural requirements" of developing cities, and provided "the habiliments of civilization" to a new country which was outgrowing pioneer crudities and the needs of the initial settlement period.¹⁶ These early efforts were seen to be seminal to the evolution of American museums, connected to past practice, yet incorporating elements unique to a new continent, as "both the Old World and the new were creating a new kind of institution - the museum of the people."¹⁷

Developments to 1850

During the first half of the 19th century work on many museums throughout the populated areas of the United States commenced and was completed. Various travellers' accounts between 1821-1850 identified and described museums which had been established and which were open for public viewing and use.

On a visit to New York City, Upper Canadian John Howison recorded his observations about the Scudder Museum. Built by the state legislature "as a national depository for antiquities, rarities and curiosities," this museum was operated by a private individual. The contents had been assembled by John Scudder, who "among a great quantity of trash, has collected some exquisite specimens of birds and amphibia, and a few valuable minerals." The collection also had paintings of American naval scenes, a wax exhibition and a musical mechanism called the Apollino. Concerts were performed in the museum each night to an audience of "milliners, merchants' clerks, governesses, and old maids of New York."¹⁸

An 1821 visit to Peale's Museum in Philadelphia elicited the following response:

This museum among other articles contains an immense fossil skeleton of the great Mastodon, or American Mammoth, which some years ago, was publicly exhibited in London.¹⁹

Scottish traveller David Wilkie provided a detailed description of an 1824 visit to an unidentified museum in New York City. The collection included examples of native insects, birds, vegetation, animals and Indian canoes, and weapons. On his "curious inspection", Wilkie noted the impact of the visit: "Such a scene indeed is a rich world of wonder and contemplation to those who thirst after knowledge. It is truly nature and invention displayed." He concluded that;

Numberless ideas and reflections were called up to our minds by these inanimate but instructive specimens of nature and art around, and we went away not a little gratified with the banquet of mental nourishment which had been so copiously served up to us.²⁰

Mark Beaufry's journey during the spring and summer of 1827 through portions of the northern United States, included visits to museums in Rochester and other "trading towns." His observations about museums were most revealing:

These latter are very frequently met with in the United States; and although the intrinsic value of the contents of each is trifling, yet they serve to diffuse a general taste and knowledge of natural history among all ranks of society; and are the means of preserving many fossils and petrifications which would otherwise be lost.

British-born Beaufry must have found the public access to and use of the local American museums to be quite a change from what he was familiar with in Britain. He further reflected on philosophical differences:

How often is it lamented in England, that Roman tessellated pavements, baths, coins, tombs, and other antiquities, have been destroyed, through the ignorance or carelessness of their owners. Now I don't think a similar circumstance would occur here, because almost every individual has seen things of nature valued and taken care of in their local museums.²¹

Theodore Dwight's travels took him to various communities along the American Eastern Seaboard. While in New York he visited Paff's Exhibition of Pictures, the Exhibition Room of the National Academy of Arts and Design, and Scudder's Museum. In Hartford he viewed a collection assembled by Isaiah Thomas in the American Historical Society Museum. Housed in a "handsome edifice", this institution was formed for the "truly important purpose of preserving every thing relating to the history, traditions and etc of the country." In addition, Dwight noted that;

Many curiosities have also been collected here from all parts of the country, but the institution has not funds to support a keeper, and the cabinet has not (unless, perhaps, recently) been opened to the public.²²

Dwight's travels continued, leading him to Boston where he visited the Athenaeum and the Academy of

Arts and Sciences. While in Philadelphia he toured the Philosophical Society's Library and Cabinet, the Wistar Museum at the University of Philadelphia, the Peale Museum, Sully's Exhibition of Paintings, the Academy of Arts, and the Academy of Natural Sciences. Of the Peale Museum he recorded that:

It contains a large collection of curiosities of various descriptions. The birds are very numerous, but not well preserved. The huge skeleton of a mammoth will attract particular attention, being represented entire.²³

The combined benefits of offering a museum both as a tourist attraction and as a place to learn, were reiterated in an 1830 guide for travellers. Its author, Gideon Davison, listed museums to visit in Alexandria, West Virginia, Baltimore, New York and Boston. The Peale Museum was described as being "one of the best in the United States, comprising the most complete skeleton of the Mammoth perhaps in the world." The author suggested that an examination of specimens in museum collections would prove to be "extremely interesting."²⁴

Throughout the 1830's and 1840's, other travellers identified museums, lyceums and athenaeums that they visited in various communities located in the northern states.²⁵ Reactions varied as to the quality and utility of these institutions. Lieutenant E.T. Coke toured the museum in Alexandria, West Virginia during a visit in 1832. His recorded comments indicated that museums were rather plentiful in the United States, but he advised readers of problems to be encountered:

Like most American towns of moderate size (Alexandria) has a museum, which, however, it is rather difficult for a stranger to find, being placed in the dark upper story of an old brick mansion, where some excellent specimens of natural history are seen to very little advantage.

Coke continued by making the following general observation about American museums he had viewed:

The museums in the States are generally good, but the owners (one and all) possess a strange taste for collecting such a quantity of trash and childish trifles...that it is quite a labour to search for what is really worthy of notice.²⁶

Irishman John Godley chronicled his 1842 visit to cultural institutions in Philadelphia:

Yesterday an American gentleman kindly devoted the morning to "lionizing" me over all sorts of libraries, and museums, and institutes; but my time was so limited that I fear I carried away a very vague and dream-like impression of them.²⁷

This was hardly a ringing endorsement for a positive learning experience, and possibly one of the first recordings of museum fatigue in the United States! More tangible outcomes were promised with a visit

to the lyceum of Natural History in New York City:

The object of this institution is to promote physical science in all its relations. The Academy is rich in specimens in various departments of Natural History, which are admirably arranged.²⁸

On reviewing events leading up to the mid 19th century, a course of action for American museums had been well established and its impact on learning and culture more clearly defined. In an account of a family visit to a museum, a Mr. Peele's comments echoed the feelings of many visitors: "I have frequently before seen most of the objects in the museum or others exactly in distant countries...and I found them always lead to profitable reflection."²⁹

American magazine editor Theodore Dwight further expounded upon the usefulness of visiting museums and the expected result:

Many of our travellers abroad will tell you, that an hour spent in the museum of Florence, or in the select society of Apollo and Co., in the palace of the Vatican, would be sufficient to convert the most rude taste to something very refined and intelligent...Even in the most refined countries, every new generation must be educated to refinement.³⁰

Would museums be an agent of change in the United States as Dwight believed them to be in Europe, or would they serve the distinctly American functions as described by British traveller Mark Beaufray? Progress in the next fifty years would answer this question.

The Rise of the Smithsonian Institution

The bequest of English scientist James Smithson to the United States government would prove to be the next major event in the development of American museums. Smithson had willed his collection and approximately half a million dollars "to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men".³¹ While the original bequest was made in 1826, the money and collections were not delivered to the United States until 1838. A proposal to found the Smithsonian Institution was placed before Congress in 1836, but passage of the measure was delayed until 1846. A Board of Regents was created and after reviewing a report written by Dr. Joseph Henry, the Board offered the professor at the College of New Jersey the position of Secretary of the Smithsonian Institution. Immediate reactions to Henry's appointment from some quarters were not positive. An article in the Scientific American suggested that there had been favouritism on the part of the Board of Regents in his hiring, and that the money which was to be spent

on staffing at the Institution would not be of public use:

The salary of the secretary had been fixed at \$3,500 per annum. This fat office of eleven dollars a day, and not much to do, is expected to be given to Professor Henry. The offices are to be filled on the same scale; and this the way the community is to be benefited by the Smithsonian fund.³²

Editorial comment as to the purpose of the establishment of the Smithsonian, and its role in diffusing and increasing knowledge and advancing science, continued in volumes of Scientific American through to 1850. Henry strove diligently to gain support for the direction he was taking the Institution. These efforts were in reaction to a campaign orchestrated by Scientific American against the use of Smithson's bequest to support initiatives related to archaeology, a museum and a library.³³

It was Henry's belief that Smithson's terms "increase and diffusion of knowledge," implied that his bequest "Should be devoted to original research in all branches of knowledge susceptible of increase, and the diffusion of the result of this through the press for the benefit of mankind generally."³⁴

Henry submitted that contributions to the progress of knowledge by the Smithsonian should be conveyed through printed Reports which would be distributed among public institutions. Elementary principles of science would be published to be of value to teachers and students. The Reports would be of a high intellectual standard:

We think it better that they should be above, rather than below the average intelligence of the country; that they should start from a given epoch, and in most cases should be preceded by a brief exposition of the previous state of each subject.³⁵

Following what Henry perceived to be Smithson's original intention, the Smithsonian matured into an institution prized by the student of literature and science, was used to spread existing knowledge, and became a means for enlarging the bounds of human thought. Such goals were consistent with Henry's views on education. He believed that "modern civilization" was founded on a knowledge and application of physical, intellectual and moral laws. "True progress" in the world of intelligence and morality would result from the gradual improvement of several generations as they succeeded each other. Intellectual instruction would have three objects:

1. To impart facility in performing various mental operations.
2. To cultivate the imagination, and store the memory with facts and precepts. and,
3. To impart the age of thinking, of generalization, of induction and deduction.³⁶

Education should ultimately impart the mental habits or facilities which could most easily be acquired in early life, while instructing the student at the proper period, in processes of logical thought, or deductions from general principles.

From this philosophical basis, Henry drew up general considerations which would serve as a guide in adopting a plan of organization for the Smithsonian. The goal of the Institution was to increase and diffuse knowledge through two objectives. The first, to enlarge the existing stock of knowledge by the addition of new truths; and the second, to disseminate this increased knowledge to the public. There would be no restrictions in favour of any particular kind of knowledge and all branches were entitled to a share of attention. Knowledge would be increased by different methods of promoting and facilitating the discovery of new truths. To effect the greatest amount of good, it was proposed that the organization of the Institution would enable it to realize results in increasing and diffusing knowledge that could not be produced by other existing institutions. The public in general would benefit from the foregoing considerations, as well as from the establishment of a library, museum, and art gallery in a building "on a liberal scale" to contain them.³⁷

With a museum identified as one of the integral components of the Smithsonian, Secretary Henry began to wrestle with issues related to collections. He acknowledged that if required, the Smithsonian would take supervision of a government museum as;

The importance of a collection at the seat of government to illustrate the physical geography, natural history, and ethnology of the United States, cannot be too highly estimated.³⁸

This collection would include objects of nature and art, instruments of research related to all branches of experimental science, casts of sculpture, models of antiquities, and architectural remains of ancient buildings. Along with the issuance of publications, the museum collection would become a vehicle for increasing and diffusing knowledge.

Henry called for the creation of a large collection of duplicate natural history specimens. The reason was twofold. Firstly, science would be advanced by furnishing to researchers new materials for critical study; and secondly, to diffuse knowledge by providing labelled specimens to colleges, academies and other educational establishments. This would provide definite ideas pertaining to the relations and diversities of

the various productions of nature. The principal end attained by this public museum would be "the gratification and incidental instruction of the visitors to the city of Washington."³⁹

The initial phase of construction of the Smithsonian was not completed until 1855. By 1859 temporary quarters for the National Museum were open for general use. Public expectations ran high. As early as 1849 popular literature featured drawings and articles about the Institution.⁴⁰ Egerton Ryerson included a piece on the Smithsonian in the May 1855 issue of the Journal of Education. It was recorded that two great methods of increasing and diffusing knowledge would be used - the first by publications, researchers, and lectures - the second by collections of literature, science, and art.⁴¹ An 1861 atlas noted that the Smithsonian which was founded "for the advancement of knowledge among men, is one of the finest specimens of architecture in the world."⁴²

Scholars and travellers alike made reference to the use of and visits to the Smithsonian. Scottish academic Robert Russell stayed in Washington for a month in 1854 and studied the meteorology of North America, with the assistance of Professor Henry.⁴³ English barrister Charles Weld visited the Smithsonian in 1855 and indicated in his chronicle that the Institution published valuable scientific works which had been extensively circulated throughout Europe by the Royal Society.⁴⁴ Irish professor, the Reverend Daniel Foley, included a stop in Washington during an 1858 summer vacation tour. He observed that the Smithsonian Institution was "much honoured there for the diffusion of valuable information gratuitously to the public, [which] admirably fulfils its design."⁴⁵

By the end of the decade the Smithsonian appeared to be meeting its original goals. It gathered and printed research in its Reports, acted as a depot for societies and museums in Europe to send their researches, then to be forwarded to kindred institutions in North America and vice versa, and provided public access of its collections for study and the acquisition of knowledge. Contemporary accounts proclaimed that it "ranks high in the scientific world", and "contains objects of interest to every one, and is a very valuable museum."⁴⁶

The Barnum Museum

Another museum developer of this era was P.T. Barnum. While the name Barnum is synonymous with circuses and showmanship, he in fact straddled the worlds of circus, zoo, freak show, cabinet of

curiosities, theatre and museums.⁴⁷ His entry into the museum business and the beginning of his contribution to the evolution of public museums in America began in 1841 when he purchased the Scudder collection. Barnum had high aspirations for his American Museum and desired to make it "the most attractive place of resort and entertainment in the United States."⁴⁸ He augmented the Scudder collection by buying the New York Branch of Peale's Museum in 1846, and by yearly purchasing "genuine curiosities regardless of cost...in Europe or America."⁴⁹ He also procured duplicates of "the models of machinery exhibited in the Royal Polytechnic Institution in London; and duplicates of the 'Dissolving Views', the Chromatrope and Physioscope."⁵⁰ He added a Chinese collection and undertook to secure exotic living animals such as beluga whales, which were captured in the St. Lawrence River in 1861.

His acquisitions were not restricted to curiosities and specimens of natural history. Fine art was central to the collection of a branch museum that Barnum opened in Philadelphia in 1849:

This was in all respects a first-class establishment. It was elegantly fitted up and containing, among other things, a dozen fine large paintings...which I had ordered copied when I was in Paris, from paintings in the gallery of the Louvre.⁵¹

Contemporary reactions to Barnum's efforts varied. Irish traveller Matthew Francis saw the Barnum Museum in August of 1852. He was delighted to view elephants, horses, camels, a tiger, panther, leopard and white bear, and described the visit "well worth notice."⁵² In 1853, English visitor William Chambers stayed at the Astor House in New York City and noted Barnum's theatre "covered with great gaudy paintings" across the street.⁵³

American surveyor Thomas Spence had a more positive response to his visit as what he described as "a great establishment." Spence recorded that the American Museum contained curiosities of nature from all parts of the world. The collection occupied five saloons of one hundred feet in length, and an observatory on the roof provided a splendid view of the surroundings.⁵⁴

A most caustic report came from English academic George Borrett, who visited Barnum's Museum in the autumn of 1864. Describing the owner as the "king of humbugs", Borrett paid an entrance fee of 50¢ to see a site which was "alive with frescoes of zoological curiosities." Suggesting that the museum was not what it appeared to be, the disgruntled patron described the museum as;

[A] dirty narrow strip of gallery, a sort of boarding-school pie, nothing but crust, with a

few dirty shelves on the inside, containing a mass of nothing higgledy piggledy, unimaginably mouldy and abominable. It is utterly impossible to make out any single article exhibited.

His bombast of Barnum continued:

Now I must say it is somewhat degrading to think that you are supporting an imposter who has lived for years upon the greenness of the public; and yet the bare-faced impudence of the exhibition has a certain charm for admirers of original talent.

Borrett concluded his tour by remarking:

Well, Barnum's is a regular do, and having been there long enough to get properly ashamed of ourselves at being so done, we will pass on down Broadway.⁵⁵

This description was much like the one provided by English poet Charles Mackay in an account given in 1859:

"Humbug" has become a good word of virtue of time and possession; and for the same reason "to Barnumize" may finally become naturalized on both sides of the Atlantic, and express the action of him who would resort to the ne plus ultra of all possible humbug for the filling of his pockets at the expense of the public.⁵⁶

While apparently not appreciated by all who visited his big city enterprises, Barnum's efforts in the hinterland brought elements of culture, wonder and knowledge to settlers living far from the amenities of an urban environment. In the summer of 1852, Barnum's Grand Colossal Museum and Menagerie made stops in Ingersoll, London and St. Thomas, Upper Canada. What was described as the "largest Travelling Exhibition in the World being a combination of all the most popular and unexceptionable amusements of the age," arrived in these communities as the "travelling paraphernalia of the American Museum". Spectators were treated to a "Museum of Wonder" which included wild animals, wax statuary, a repository of objects of nature and art, and acts by various performers, including the famous midget, General Tom Thumb. Barnum was acknowledged for his "efforts for the amusement of the public."⁵⁷

P.T. Barnum's travelling museum also visited Peterborough that summer. It included a menagerie of wild animals, negro melodists, exotic performers, and the celebrated Tom Thumb. This followed "one of the most popular public exhibitions", a circus from New York, which attracted "persons of all ranks", including farmers, persons from outlying communities, townspeople and children.⁵⁸ Such experiences were replicated throughout rural areas of Canada and the United States.

Barnum would be one of the first museum operators in the United States to combine entertainment with education, and instructive experiences with knowledge. This would be a significant contribution to the evolution of American museums. His achievement was recorded in his own words:

In all this, if I cannot be justified, I at least find palliation in the fact that I presented a wilderness of wonderful, instructive and amusing realities of such evident and marked merit, that I haven't yet to learn of a single instance where a visitor went away complaining that he had been defrauded of his money.⁵⁹

Public Education, Knowledge and Museums

Conditions and events in the United States during the last half of the 19th century helped pave the way for museums to develop as centres for learning based on particular American needs and circumstances related to public education. The centrality of public education was recognized as important to the success of this cultural growth. British author, Captain Frederick Marryat said: "It is admitted as an axiom in the United States, that the only chance they have of upholding their present institutions is by the education of the mass."⁶⁰

In Boston, lyceums, the Athenaeum, and the Massachusetts Historical Society drew large audiences.

Editor Theodore Dwight remarked:

So many meetings have been held, so many societies formed, and so many measures taken with direct reference to the diffusion of knowledge, that those who appreciate its value are sure of receiving support in any judicious effort they may make in its favour.⁶¹

A system of free schools, institutions for higher learning, libraries and a proliferation of books, magazines and newspapers all contributed to a "superior intelligence of people in the common walks of life." Results were evident. A contemporary observer noted that; "This country is pre-eminently distinguished for the facilities afforded for the diffusion of knowledge among all classes of people."⁶²

Lady Emmeline Stuart Wortley provided an aristocratic perspective on the state of affairs, through observations made during a journey between Buffalo and New York City in 1849:

Every thing in nature and art almost seems to flourish here. Schools, universities, manufactories, societies, institutions, appear spreading over the length and breadth of the land, and all seem on such a gigantic scale here.⁶³

British visitor Hugo Reid offered further thoughts:

The extraordinary development of energy, liberty, and intellectual life, in the United States of America, at once strike the traveller as something great - something new, that is seen in no other nation on the face of the earth.⁶⁴

Efforts by Horace Mann and Henry Barnard to improve the formal education system throughout the United States appeared to have reaped dividends by the 1850's. In Ohio, English commentator William Chambers wrote that public education was liberally provided for, unlike the situation that he was familiar with at home; "Where free education exists in England, it is a charity: here it is a right."⁶⁵ The English poet Charles Mackay repeated similar thoughts on the democratic proliferation of public education. He wrote:

[T]he diffusion of education among the whole - not as a charity and as a dole, but as the inherent and sacred right of every American child - led naturally to the growth of literary taste and to the encouragement of literary genius.⁶⁶

The present era was regarded as an "Age of Progress" for Americans where cultivation of the mind would result in movement towards equality in intellect and education. Education meant "the power to take our mind and make it an instrument of conveying knowledge and good impressions upon other minds, as well as being itself made happy."⁶⁷

This sense of development filtered down to students in the formal education system. A prize winning essay written in 1852 confirmed the notion of progress through change, discovery, and the pursuit of knowledge:

Man in the primeval ages, loved only the beauties of Nature but sought not to penetrate their mysteries. With each successive century the mind has expanded, and more clearly appreciated the glorious emblems surrounding it. Invention has awakened its dormant faculties and coined many gems of thought, and monuments of Art, to enrich the temples of genius. The researches of Science have revealed new lineaments of Beauty, and led the student onward to the discovery of new worlds and new systems. He has analyzed the constituents of matter, and witnessed the wonderful changes constantly working in the economy of Nature. He has seen the influence exerted by chemical forces; the power and effect of heat and electricity; the harmony exhibited in the cycle of production and reproduction, and the series of transformations revealed by successive strata composing the earth's surface.⁶⁸

Outside of the classroom, young American men and women were apprised of the benefits of self-education. Publications suggested that knowledge could be gained through the study of the arts, science and literature. The cultivation of taste would be enhanced by drawing, having a familiarity with

architecture, and through participation in music and physical activity. Intellect, tastes, affections, manners and character needed to be elevated in order to build self-reliance and to make the best of one's self in any circumstance.⁶⁹

Using the escutcheon "Knowledge is Power," voluntary associations "for mental improvement and the promotion of knowledge" were established throughout the United States. Each association was to be democratically based and have a membership open to all:

It should belong to no class, but embrace within its folds all who have a taste for, or take an interest in the progress of science and art, and the propagation of useful knowledge.⁷⁰

The impact of such educational establishments and scientific institutions in Boston in 1850, was reported on in the following manner:

The instruction of the people is a paramount consideration...The arts, too, seem to flourish and improve here, and to keep in pace with the ceaseless march of knowledge and erudition.⁷¹

The editors of Scientific American called for the establishment of museums of technology in principal cities throughout the United States. Citing successful examples which were already in operation in Washington and Boston, it was believed that through permanent displays similar institutions could "advance the interests of the public, by the instruction and entertainment such an exhibition will offer "on a perpetual basis."⁷²

An 1855 American definition of a museum shed some light on what constituted such an institution and who would use it. A widely circulated encyclopedia described a museum as;

A collection of rare and interesting objects, selected from the whole circle of natural history and the arts, and deposited in apartments, or buildings...for the inspection of the learned and the great mass of the public.⁷³

Viewed from another perspective, small museums with collections of local specimens were seen as necessary for public instruction in the United States. A contemporary observer believed that what was nearest at hand was most valuable to the museum's collection:

On no objects are the faculties so likely to be well exercised as on objects within every-day reach; the results of inquiry are sure to be more accurate, subject as they are to much stricter and frequent tests; they lead to more immediate utility.

It was therefore important to establish a local museum which could be regarded for its unique attributes:

What the traveller looks for on arriving at a town, is not what he has left behind him in another, not indifferent duplicates of the great collections of the larger towns; but what is special to the town, however small, and to the district itself.⁷⁴

At the Charleston Museum of Natural History a similar situation was described by William Rhees, chief clerk of the Smithsonian Institution. Rhees noted that with free admission, "sometimes visitors from all parts of the country crowd the halls." He concluded that the museum "exerts a beneficial influence among the people, especially the young, there can be no doubt."⁷⁵

The usefulness of financial assistance from the governments to meet the need of establishing museums for both academic and public consumption was duly noted. In explaining the great importance of educational museums, Egerton Ryerson wrote of these American institutions:

I observe that Grants are being made in several of the neighbouring United States for the establishment of Museums, to illustrate their State resources and pursuits, and to promote Mechanical and Agricultural improvements, as well as to create a taste and encourage the study of the different branches of Natural History.⁷⁶

Government financial support and public subscription resulted in a "lavish expenditure of money" for the gratification of artistic, literary and scientific pursuits. It was suggested:

The rule is, that every year more and more money - amounting in the aggregate to a sum which would stagger European credulity - is available for the encouragement of art, science, and letters in the United States.⁷⁷

Two examples of this type of museum development were the fitting up of geological and mineral cabinets at the Pennsylvania Polytechnic College of Philadelphia in 1856,⁷⁸ and the 1859 purchase of the Prescott cabinet of 6,000 specimens of natural history which formed a teaching museum at the Ohio Wesleyan University.⁷⁹

The years between 1865-1900 were categorized as the period when the greatest and most active museums in the United States were established. This was the zenith for the development of public museums, which included the American Museum of Natural History (1869); Metropolitan Museum of Art (1869); Boston Museum of Fine Arts (1870); New York State Museum (1870); Pennsylvania Museum (1876); Art

Institute of Chicago (1879); Milwaukee Public Museum (1882); Brooklyn Institute of Arts and Sciences (1889); Field Museum of Natural History (1894); and the Carnegie Institute Museums (1896).⁸⁰

British museologist Sir William Henry Flower summed up the state of American museums at the end of the 19th century. In 1898 he mused about their growth and the differences he saw between museums in the United States and the United Kingdom; "They are starting up in all directions, untrammelled by the restrictions and traditions which envelop so many of our old institutions at home!"⁸¹

Developments to World War 1

The evolution of public museums in the United States was exemplified by the development of the American Museum of Natural History in New York City. Calls for the foundation of a "Great Public

Museum" which would serve as "a place of rational amusement and of instruction"⁸² resulted in its establishment by 1869. The object of this new museum clearly outlined its reason for being:

For the purpose of establishing and maintaining in said city a Museum and Library of Natural History; of encouraging and developing the study of Natural Science; of advancing the general knowledge of kindred subjects and to that end of furnishing popular instruction.⁸³

A year later a similar call was made for the creation of "a central organization in the U.S.A. to acquire works of art." A national gallery would receive and exhibit sculpture and paintings, and act "as a school for the taste of people." A question was posed which identified the reason for such an initiative: "Would it not add a glory to our country itself, if our children here and visitors from all parts of the world should find in New York an artistic centre equal to any of them?"⁸⁴

Interest in science and natural history became the driving force for museum development in the United States during this period. Natural history had previously been viewed as a vehicle for the diffusion of knowledge in American museums. Typical of the role it would play in this transmission was the position elucidated by the Philadelphia Academy of Natural Sciences:

It is our pleasure to hope we shall be cheered on in our course, till the museum shall become an epitome of all created things, so fully displayed, that the student may resort to it with a certainty of learning what has been ascertained in the world of nature.⁸⁵

This interest in natural history was accelerated with the publication of Charles Darwin's, On the Origin of

Species, in 1859. Articles extolling the educational aspects of natural history began to appear frequently,⁸⁶ and visits to scientific and natural history museums were recorded by travellers and contemporary observers.⁸⁷ Popular reaction to and the utility of natural history to education, science and culture, was best summarized in an 1866 brochure issued by P.T. Barnum:

There is no study that is more important to the youth of a rising generation or to adult age, than that of Natural History. It teaches man his superiority over the brute creation, and creates in his bosom a knowledge of the wisdom and goodness and omnipresence of a Supreme and All-wise Creator...hence, it became necessary that man should study the history of animated nature, make himself master of a science on which his own happiness depended, and which, when developed, could not fail to advance the great causes of civilization and learning.⁸⁸

The importance of science and natural history as a basis for American museums and public education, would continue to the end of the 19th century, and into the 20th. In 1881, English writer Agnes Crane toured numerous museums in eastern cities of the United States. She viewed innovative ideas related to "synoptic" displays and concluded that science students would "be warmly welcomed, and find ample material for profitable study"⁸⁹ in the museums that she visited. However debates in the academic world raged on over the classification of collections, the place of disciplines in science, and evolution. These discussions had implications as to how collections were classified and used for exhibits and for educational purposes. Otis T. Mason organized the anthropological collections at the U.S. National Museum using a classification system found at the Pitt-Rivers Museum in England. Anthropologist Franz Boas took exception to this classificatory method, which became part of his overall opposition to the evolutionism then dominant in American anthropology. Mason also clashed with George Brown Goode over classification of the Smithsonian's ethnological collections.⁹⁰ At the other end of the spectrum, many practical applications of science and natural history were presented for the public benefit.⁹¹ Frank C. Baker, curator of the Chicago Academy of Sciences, summed up what the value of a natural history museum and its collections was to the general public and to the educational forces of the 20th century. These institutions were viewed as "gigantic text-books, educating the public unconsciously, and opening their minds to a new and fascinating field of pleasure and profit." He concluded that natural history museums were "of vast educational value, not only to the teacher and student but to the ordinary museum visitors, who today crowd our scientific buildings by millions."⁹² This was the educational mandate that American museums would pursue into the 1900's.

The Development of Art Museums

Another sector of growth in the American museum field during this period was the proliferation of art museums. Occurring principally between 1870 to the stock market crash in 1929, the development of these institutions helped lay the philosophical foundation and set patterns of museum education by intoning high ideals and advocating practical applications. These aims were stated in the 1890 Charter of the Brooklyn Institute of Arts and Sciences. Its purpose was:

[T]he encouragement of the study of the arts and sciences, and their application to the practical wants of man, the advancement of knowledge in science and art, and in general to provide the means for popular instruction and enjoyment through its collections, libraries, and lectures.⁹³

Art connected to practical results and the usefulness of art museums, continued to be stated objectives of many institutions established in this era. The Pennsylvania (Philadelphia) Museum of Art which evolved out of the 1876 World's Fair, was one example of this growth:

[T]his Institution has been founded entirely for the education of people of this City and Commonwealth in the industrial Arts...Our articles are in reality samples of the work of all Nations..in order to show our own large manufacturing population what has been done by others, and giving them the opportunity for study in order that they may profit by what has been thus collected, and so stimulated into making our own American manufacturers equal to any in the world in an artistic sense.⁹⁴

Similarly, Edward R. Morse of the Boston Museum of Fine Arts, spoke of the benefits the Detroit Museum of Fine Arts could provide a varied audience visiting its exhibitions in 1905:

A museum of art, if conducted on broad lines, should, among other things, instruct the people as to what constitutes good taste...The importance of museums of all kinds as part of the educational equipment of a community is being fully recognized...Laying aside the profit of such a museum for the student, the artisan, and the decorator, and the rational enjoyment it gives to thousands, it can be clearly demonstrated that a museum of art tends to the material gain of the community. The immediate gain comes from the throng of strangers who are drawn to the city by the attraction afforded by such a museum.⁹⁵

While some of the ideas for these developments were influenced by the art and aesthetic theories of British writers such as John Ruskin and Matthew Arnold, and through the work of Sir Henry Cole at the South Kensington Museum and other British museum innovators such as John Edward Gray, W. Boyd Dawkins and William Henry Flower, the United States had its own visionaries helping to promote the "museum movement." These included Theodore Low, George Brown Goode, Benjamin Ives Gilman, Paul Marshall Rea and T.R. Adams. Each contributed to the shift away from cultural dependence on Europe and helped trigger an artistic and museological awakening across America.⁹⁶ This movement

found its beginnings in the 1876 Philadelphia Centennial Exposition, having a similar impact on the United States just as the 1851 Great Exposition had on the United Kingdom.⁹⁷

An additional positive result was the authorization by Congress to construct a new national museum building in Washington to house the accumulation of thousands of specimens from home and abroad which had been on display at the exposition.⁹⁸ Art museums in the United States were becoming public places to be visited by many and served as important facilities for knowledge and learning. In some of these institutions proper conduct and etiquette when visiting picture galleries were stressed. This implied behaviour modification through knowledge and control. Others simply promoted the institution for both public and private educational use.⁹⁹ These sites would take a central place in the evolution of American museums as centres of education. This role for museums was identified by Valentine Ball, director of the Dublin Science and Art Museum, in observations made during an 1884 study tour in North America:

Those of them [museums] which possess directly educational functions claim an abundant harvest of good results, and there can be no doubt that the facilities which now exist for instruction in science and art are largely availed of in the principal cities of America.¹⁰⁰

Other Developments

Another important factor in the development of American museums as educational institutions was what Louise Connolly called "the modern movement in pedagogy." By 1914, Connolly believed that new philosophy on how teaching should be done had elevated the diffusion of knowledge to a more efficient plane. Student-centred learning had replaced rote learning with the following result:

So through their own observation of the response given to their efforts, and through the diffusion of ideas as to how the people should be taught, museums have been slowly led to the revolution which is now going on in their conduct.¹⁰¹

Great urban museums such as the American Museum of Natural History, the Brooklyn Museum, the Newark Museum, and the Metropolitan Museum of Art subscribed to this philosophy, and lead the way in meeting the changing needs of the American public. Curators such as Morris D'Camp Crawford, Stewart Cullin and John Cotton Dana brought new ideas into practice, replacing traditional methods which they detested.¹⁰² The implementation of progressive ideas was evidenced across a wide spectrum of many types of institutions in the United States. These included school, natural history, industrial, commercial, research, educational, historic house and children's museums.¹⁰³

Material published from the First World War through to the end of the 1930's, identified how central education, and the pursuit of knowledge and learning had become to the mandate of museums in the United States. A proliferation of ideas on these subjects through popular journals and literature from both the educational and museum fields, reinforced new philosophy and innovative directions.¹⁰⁴ The ideas of American Educational psychologist John Dewey¹⁰⁵ were also instrumental to this shift in thought and action. In his 1936 book entitled Experience and Education, Dewey laid out a philosophy of experience-based education. Believing that all genuine education came through experience and that experience was the basis for education, Dewey suggested that learning took place as an interaction between the environment (what is outside) and what is brought to the experience (what is inside). Education was a social process which could not be separated from the tasks and character of society. Activity and interest should be closely linked to the manual, intellectual, emotional and social features of community life. The attributes of Dewey's "new education" would have profound effects on educational philosophy and a progressive school system, and laterally on fundamental museum education issues.¹⁰⁶ These directions and the educational function and public use of American museums of this period did not parallel developments in British museums.¹⁰⁷ Reactions to these innovations set the tone for future developments associated with the educational mandate of American museums. Benjamin Gilman noted a change from the past:

The day is passing when the accumulations of museums will be accepted as a measure of their success. They will be asked what they are doing to make their accumulations tell of the community.¹⁰⁸

Dr. F.H. Stearns suggested that the accepted function for museums was to "satisfy the thirst for knowledge." To accomplish this Stearns suggested that;

The ideal now is to have everyone who enters the museum building go out with a broader outlook on life, a deeper conception of the universe in which he dwells, or a keener appreciation of the true and beautiful.¹⁰⁹

Conclusion

In his ground-breaking 1877 article on "The Need of Museum Reform", British archaeologist and geologist W. Boyd Dawkins wrote;

...a museum takes the form of a glass case containing a fragment of human skull and a piece of oatcake labelled "fragment of human skull very much like a piece of oatcake"...museums of this low type...constitute a serious blot on our educational system, which we are striving to make as perfect as possible, since they are worse than useless

for purposes of teaching...Well-arranged museums of every kind are now an educational necessity in every highly civilised state, and everywhere except in our own they are put on exactly the same footing as libraries.¹¹⁰

In his last sentence, Dr. Dawkins was most likely referring to museum developments taking place in the United States, where the museum was regarded primarily as an educational tool.

Other European colleagues echoed similar sentiments. Alfred R. Wallace noted in 1887, that:

The immense energy of the American people in all that relates to business, locomotion, and pleasure, is to some extent manifested also in their educational institutions...The same originality of conception, and the same desire to gain the best practical results are manifested in some of the great American museums, which now rival, in certain special departments, the long-established national museums of Europe.¹¹¹

German museologist A.B. Meyer in a 1904 article on increasing the utility of museums, suggested that:

Americans assign a leading part in the activity of their museums to the exhibition collections, which they arrange for wide circles of the educated, half-educated and uneducated classes...they make the museums contribute directly to the cause of education.¹¹²

After a tour of American museums in May and June of 1927, E.E. Lowe, director of the Leicester City Museums and Libraries reported the following:

All those engaged in museum and library work in Great Britain have long been familiar, through professional and other literature, with the great strides made during the last thirty years by the larger and more progressive museums and libraries in the United States.

Lowe went on to observe;

In recent years there has been a great growth of interest in the museum question, and many American museums have developed in scale, attractiveness and public service to a degree not reached in Britain except by national institutions. This growth has not been due to any action of the Federal government or to any state or municipal enterprise, but to the enthusiasm of those connected with museums and to the backing they have received from generous citizens.¹¹³

These statements from such diverse sources indicate that there was indeed a unique situation for museums and education, which had evolved and was prospering in the United States. Francis Henry Taylor's supposition that;

The American museum is, after all, not an abandoned European palace, a solution for

storing and classifying the accumulated national wealth of the past, but an American phenomenon, developed by the people, for the people, and of the people...,¹¹⁴

was far from being jingoistic, and contained elements of truth. Taylor's comments reiterated differences between museums in the United States and Europe which are reflected in quotations cited at the beginning of this chapter. These differences must be considered in assessing what impact American museum development had on the evolution of museums as centres of learning in Canada.

The words of Frederic A. Lucas, Director of the American Museum, aptly summarized the positive developments and directions that had taken place in American museums over half a century, and identified the role they would play and the impact they would have into the 20th century:

Whereas fifty years ago museums could be counted on one's fingers and were looked upon as being for the benefit of a favored few, today they are spread throughout the length and breadth of the land, are recognized as being for the people, and are regarded as among the most efficient instruments of both popular and advanced education.¹¹⁵

This statement would be reinforced sixty-five years later by American Marxist historian Michael Ettema who wrote; "Faith in the educational potential of artifacts has been a guiding ideal of American museums since their inception as public institutions in the nineteenth century."¹¹⁶ This standard would be exemplified in Canadian museums as an important influence in the development of these institutions as centres for learning."¹¹⁷

End notes

1. Charles Willson Peale, quoted in David R. Brigham, Public Culture in the Early Republic (Washington, 1995), p. 2. Peale used this argument early in the 19th century to express the public benefits of his museum.
2. Alfred R. Wallace, "American Museums," Fortnightly Review (1887), v. 42, n.s., p. 347. Wallace was a well known English naturalist who described how a public museum for the people should be constituted as early as 1869.
3. Alma S. Wittlin, The Museum Its History and Its Tasks in Education (London, 1949), p. 141.
4. See Archie Key, Beyond Four Walls (Toronto, 1973), p. 59, and Laurence V. Coleman, "The Museum in America: A Critical Study," The Museologist (Winter, 1989), v. 52, #180, p. 5.
5. Alexander Oleson and Sanborn C. Brown (eds.), The Pursuit of Knowledge in the Early American Republic (Baltimore, 1976), p. 209.

6. Paul M. Rea, "Our First American Museum," Museum Work (January - February, 1923), v. 5, #5, pp. 87-88, and Paul M. Rea, "One Hundred and Fifty Years of Museum History," Science (June 15, 1923), v.57, #1485, pp. 677-81. By 1824 an editorial in the Charleston Courier said; "In these enlightened times, a public museum is a necessary appendage to a city as a public newspaper or a public library." Cited in ibid, p. 678.
7. Brigham, Public, pp. 17 & 34.
8. Cited in Victoria Dickenson, On the Arrangement of Museums 1600 to 1919: An Investigation Into the Ordering of Collections (Ottawa, 1984), p. 29.
9. Quoted in Brigham, Public, pp. 61-62.
10. Cited in ibid., p. 62. Visitor Manassah Cutler provided an individual's account of what was seen at the Peale Museum in 1786 in collections "arranged in a most romantic and amusing manner." The description of the display follows: "There was a mound of earth, considerably raised and covered with green turf, from which a number of trees ascended and branched out in different directions. On the declivity of this mound was a small thicket, and just below it an artificial pond; on the other side a number of large and small rocks of different kinds, collected from different parts of the world and represented in the rude state in which they are generally found...Around the pond was a beach, on which was exhibited an assortment of shells of different kinds, turtles, frogs, toads, lizards, watersnakes, etc. In the pond was a collection of fish with their skins stuffed, waterfowls, such as the different species of geese, ducks, cranes, herons etc.; all having the appearance of life for their skins were admirably preserved...The boughs of the trees were loaded with birds, some of almost every species in America and many exotics...Mr. Peale's animals reminded me of Noah's ark but I can hardly conceive that Noah could have boasted a better collection." Cited in Joseph Kastner, A Species of Eternity (New York, 1977), p. 148. For three additional early accounts of Peale's Museum, see William N. Blane, An Excursion Through the United States and Canada (London, 1824), p. 22, Karl Bernhard, Travels Through North America (Philadelphia, 1828), v. 1, p. 139, and Godfrey T. Vigne, Six Months in America (London, 1832), v. 1, p. 41.
11. Peale may have been influenced by British traveller and naturalist, Charles Waterton. Waterton visited Peale in 1824. He was impressed by the museum and liked Peale sufficiently to allow him to paint his portrait. On his visit to the Peale Museum, Waterton said; "When you go to Philadelphia, be sure not to forget to visit the Museum. It will afford you a great treat. Some of Mr. Peale's family are constantly in it, and are ever ready to show curiosities to strangers, and to give them every necessary information." On the museum's octogenarian founder, Waterton added; "To the indefatigable exertions of this gentleman, is the western world indebted for the possession of this splendid museum." Cited in Charles Waterton, Wanderings in South America, The North-west of the United States, and the Antilles (London, 1825), pp. 264-65. Waterton's Walton Hall Museum and Nature Reserve near Wakefield, England, was open to the public in the summer for educational and recreational purposes. For more on Waterton, see Gillian Spencer, Charles Waterton 1782-1865 (Wakefield, 1982).
12. Louis B. Wright, Culture on the Moving Frontier (Bloomington, 1955), p. 223. For more on social development and the formation of American culture in its formative years, see Jack P. Greene, Pursuit of Happiness (Chapel Hill, N.C., 1988). See pp. 169-75. Yorkshire naturalist Charles Waterton provided a

contemporary comment on the expanding frontier based on observations made during a visit to the United States in 1824. He wrote; "The former wilds of North America bear ample testimony to the achievements of this enterprising people. Forests have been cleared away, swamps drained, canals dug, and flourishing settlements established. From the shores of the Atlantic an immense column of knowledge has rolled into the interior." Waterton, Wanderings, p. 274.

13. Cited in Cecil B. Hayes, The American Lyceum (Washington, 1932), p. vii. Barnard made this observation in 1864 and added that, "none created so immediate and general interest, or excited for a time an influence so great or beneficent, as the American Lyceum." Lyceums were seen as the forerunner and parent of most American institutions, including natural history museums. See Edwin G. Dexter, A History of Education in the United States (New York, 1904), p. 570. Others viewed the lyceum movement as an initiative "designed to carry cultural salvation to the country." See Wright, Culture, p. 231. For more on the early development of lyceums and efforts to improve popular education in the United States, see The Young Man's Guide (Boston, 1833), p. 222-23, "Josiah Holbrook," American Journal of Education (March 1860), v. 8, #20, pp. 227-47, Henry Todd, Notes Upon Canada and the United States (Toronto, 1840), p. 102, and Theodore Dwight, Travels in America (Glasgow, 1848), p. 210.

14. See Coleman, "Critical," p. 6, and Sally Gregory Kohlstedt, "Curiosities and Cabinets: Natural History Museums and Education on the Antebellum Campus," Isis (Fall, 1988), v. 79, pp. 405-426. Kohlstedt argues that these collections would become the foundation for centralized, specialized and systematic museums in the last half of the century, both symbols and mechanisms for education in science. See also Paul M. Rea, "Educational Work of American Museums," Museums Journal (May, 1915), v. 14, #11, pp. 348-50 for more information on the development of U.S. college museums.

15. C.S. Rafinesque, "Survey of Progress and Actual State of Natural Sciences in the United States of America," The American Magazine and Critical Review (December, 1817), v. 2, #2, pp. 81-89. Rafinesque also contributed a regular column entitled "Museum of Natural Sciences," and a monthly report on transactions of learned societies, lyceums, and historical, literary and philosophical societies was included in this journal. For more on Rafinesque's efforts to promote popular knowledge of the natural sciences in the United States, see C.S. Rafinesque, Medical Flora; or Manual of the Medical Botany of the United States (Philadelphia, 1828), v. 1, and (Philadelphia, 1830), v. 2.

16. See Walter B. Hendrickson, "The Western Museum Society of Cincinnati," Scientific Monthly (1946), v. 63, pp. 66-72. In a sermon delivered in Hartford on April 20, 1817, the Rev. Thomas Gallaudet spoke on societal change: "The progress of improvement in society, in Europe and in this country for the last twenty years has been so rapid, that we have almost lost the habit, which we suspect has been common to almost all ages of the world, of referring to each immediately preceding generation as a period of greater wisdom, if not more learning, and certainly of much greater virtue than our own." Quoted in AMMCR (November, 1817), v. 2, #1, p. 34. At the American Museum in New York City, lectures were added to public offerings to make the museum "more extensively useful" and to enhance the museum's goal of "combining amusement with instruction." See "Lectures in the American Museum," AAMCR (October, 1817, v. 1, #6, p. 455. The term "improvement" tended to acquire a different meaning in new and relatively undeveloped societies of colonial British America than it was primarily understood to mean in Britain. See Greene, Pursuits, pp. 197-98.

17. Coleman, "Critical," p. 6. For descriptions of various early American museums between 1806-1820, see John Melish, Travels in the United States of America (Philadelphia, 1812), v. 1, John Lambert, Travels Through Canada and the United States of America (London, 1816), 3rd ed., v. 2, "New York Institution," AMMCR (August, 1817), v. 1, #4, pp. 271-73, John M. Duncan, Travels Through Part of the United States and Canada (Glasgow, 1823), v. 1 & 2, and Daniel Blowe, View of the United States of America (Liverpool, 1820), p. 412.
18. John Howison, Sketches of Upper Canada (London, 1821), pp. 322-23.
19. William Bingley, Travels in North America (London, 1821), p. 48.
20. David Wilkie, Sketches of a Summer Trip to New York and the Canadas (Edinburgh, 1837), pp. 46-49. Pilgrim Hall, built by the Pilgrim Society of Plymouth was completed in 1824. It was one of the first museums in the United States dedicated specifically to the interpretation of American history. For a recent description of the Worcester Lyceum of Natural History which was founded in 1825, see Peggy Ruth Cole, "The EcoTarium Story - Past, Present, and Future," Curator (December, 1998), v. 41, #4, pp. 235-45.
21. Mark Beaufray, Tour Through Parts of the United States and Canada (London, 1828), pp. 73-74. For other period accounts of visits to museums in New York state, see R.J. Vandewater, The Tourist or Pocket Manual for Travellers (New York, 1834), 3rd ed., and H.S. Tanner, The Travellers' Hand Book (New York, 1844).
22. Theodore Dwight, The Northern Traveller and Northern Tour (New York, 1830), pp. 11, 12, & 269.
23. Ibid., pp. 318-19 & 403-05. For more on athenaeums see Professor Leiber's comments in "Columbia (South Carolina,) Athenaeum," AJE (December, 1856), v. 2, #7, pp. 735-36. Editor Henry Barnard indicates in a footnote to this article, that an athenaeum is now more frequently called a museum in Germany. For information on the Wistar Museum, see Coleman, "Critical," p. 6, and Kohlstedt, "Campus," p. 407.
24. Gideon M. Davison, The Fashionable Tour (Saratoga Springs, N.Y., 1830), pp. 37-38, 45, 57, 98, 299 & 358. The Peale and American museums were listed as "principle places of public amusement" in New York City. See The Tourist or Pocket Manual for Travellers (New York, 1834), 3rd ed., p. 13.
25. John Cleary was identified as the curator of the Buffalo Museum in 1831. See Thomas Fowler, The Journal of a Tour Through British America to The Falls of Niagara (Aberdeen, 1832), p. 218. The Detroit Museum was described by a Canadian visitor as, "A place of considerable interest. The curiosities are rare, and the statues of great persons well executed." Robert Davis, The Canadian Farmer's Travels (Buffalo, 1837), pp. 10-11. English geologist Sir Charles Lyell lectured at the Lowell Institute in Boston and visited the American Philosophical Museum and Lea's Collection of Shells in Philadelphia in February of 1842. See Charles Lyell, Travels in North America (London, 1855), 2nd ed., v.1, pp. 107 & 200-202, Scottish traveller Robert Barclay-Allardice was most impressed by an 1841 visit to the Chinese Museum in Philadelphia. For a description of the collection see his Agricultural Tour in the United States and Upper Canadian (Edinburgh, 1842), p. 126. The Lyceum of Natural History and the New York Museum were listed as points of interest in an 1844 tourist guide. See O.L. Holley (ed.),

The Picturesque Tourist (New York, 1844), pp. 21 & 25. British author James Hole further extolled the utility of American lyceums describing them as an example of how "excellent elementary museums" and "systematic interchange of local collections" work. See James Hole, An Essay on the History and Management of Literary, Scientific and Mechanics' Institutions (London, 1853), p. 155.

26. E.T. Coke, A Subaltern's Furlough (New York, 1833), v. 1, p. 97.

27. John R. Godley, Letters from America (London, 1844), v.2, p. 168. Godley also visited the Pennsylvania Picture Gallery and remarked that he was only the 10th visitor in the last 8 days according to the site's guest register!

28. H.S. Tanner, The Travellers' Hand Book (New York, 1844), p. 18. For descriptions of various American museums between 1824-1850, see William Adams, Modern Discoveries in North and South America (London, 1824), pp. 11-12 & 66, Frederick F. DeRoos, Personal Narrative of Travels in the United States and Canada in 1826 (London, 1827), pp. 35 & 49-50, Hugh Murray, Historical Account of Discoveries and Travels in North America (London, 1829), v. 2, pp. 405-7, Josiah Conder, The Modern Traveller (London, 1829), v. 1, pp. 212-13 & 314, Charles Daubney, Journal of a Tour Through the United States and Canada (Oxford, 1839), The North American Tourist (New York, 1839), N.P. Willis, American Scenery (London, 1840), v. 1, p. 42, James S. Buckingham, National Evils and Practical Remedies (London, 1849), p. 267, and Wellington Williams, Appleton's Northern and Eastern Traveller's Guide (New York, 1850), pp. 129, 213, 239-40 & 279.

29. Charlotte Elizabeth, Glimpses of the Past or The Museum (New York, 1847), p. 213. This edition was a reprint of a popular book for children first published in Ireland in 1837, and issued ten years later for consumption by the American public. A British children's book written by the wife of a British officer stationed in Lower Canada, included visits to three museums in New York City. See Henry; or the Juvenile Traveller (London, 1836), pp. 30 & 41. The intent of collections viewed by the book's central character were to "amuse his mind," thus serving an educational purpose.

30. Dwight, Travels, p. 216. For a recent assessment of American historic sites and museums as tourist attractions during the 19th and 20th centuries, see Patricia Mooney-Melvin, "Harnessing the Romance of the Past: Preservation, Tourism and History," The Public Historian (Spring, 1991), v. 13, #2, pp. 35-48.

31. Key, Beyond, pp. 68-70. See also Gene Gurney, The Smithsonian Institution (New York, 1964), "The Smithsonian Institution," in Charles C. Savage, The World Geographical, Historical and Statistical (New York, 1861), pp. 132-33.

32. "The Smithsonian Institute," The Scientific American (December 26, 1846), v.2, #14, p. 109.

33. See, "The Smithsonian Institute," SA (November, 1847), v. 3, #7, p. 53, "What to do with part of the Smithson Bequest?," SA (January 1, 1848), v. 3, #15, p. 117, "The Smithson Institute," SA (February 5, 1848), v. 3, #20, p. 157, and "Smithsonian Institute, Washington," SA (January 5, 1850), v. 5, #16, p. 122. A series of articles on the Smithsonian appeared again in 1854. While editors of the Scientific American still questioned its management and the use of the Smithsonian bequest, they supported the work being carried out by Joseph Henry in his capacity as Secretary. See "The Smithsonian Institute," SA (March 11, 1854), v. 9, #26, p. 205, "The Smithsonian Institute in England," SA (September 16,

1854), v. 10, # 1, p. 3, and "The Smithsonian Institute Again," SA (September 23, 1854), v. 10, #2, p. 13.

34. "Report of the Secretary for the Year 1872," Annual Report of the Board of Regents of the Smithsonian Institution (Washington, 1873), p. 13. Henry argued the terms increase and diffusion of knowledge were used in a specific sense by men of science during Smithson's life. He illustrated this point by referring to remarks by British naturalist William Swainson, made in 1834. Speaking of the Zoological Society of London, Swainson said: "It is more calculated to diffuse than to increase the actual stock of scientific knowledge". Swainson further remarked that, "while we may truly exult in this awakening of the national intellect, we must remember that diffusion and advancement are two very different processes; and each may exist independent of the other. It is very essential, therefore, to our present purpose, when we speak of the diffusion or extension of science, that we do not confound these stages of development with discovery or advancement; since the latter may be as different from the former as depth is from shallowness." Quoted in ibid., p. 13.

35. "Miscellaneous No. 48," ARBRSI-1848 (Washington, 1849), p. 19.

36. Joseph Henry, "Thoughts on Education," AJE (August, 1855), v. 1, #1, p. 26.

37. "Programme of Organization of the Smithsonian Institution," ARBRSI-1856 (Washington, 1856), pp. 7-8. Spencer Baird was appointed to operate the museum component of the Smithsonian after acting as assistant secretary to Henry. He had previously been a professor of natural history at Dickinson College.

38. "Report of the Secretary," ARBRSI-1854 (Washington, 1854), p. 9.

39. "Report of the Secretary," ARBRSI-1862 (Washington, 1863), p. 34. Henry went on to suggest that the collection of specimens would be divided into two classes, those which had been studied and as a consequence published in reports or transactions, and those considered of interest to naturalists who could use them to make new explorations in the domain of natural history.

40. "The Smithsonian Institution," in Robert Sears (ed.), A Treasury of Knowledge (New York, 1849), pp. 442-43. Education was regarded as a "staple commodity" in several states. The quest for knowledge could be found in many venues.

41. "The Smithsonian Institution, Washington," Journal of Education for Upper Canada (May, 1855), v. 8, #5, pp. 65-66. See also Charles Mackay, Life and Liberty in America (New York, 1859), p. 37. For more information about the perceived role of the Smithsonian, its publications and its attempts to increase knowledge, see "The Smithsonian Institution," SA (January 27, 1855), v. 10, #20, p. 157.

42. Savage, World, p. 132.

43. Robert Russell, North America Its Agriculture and Climate (Edinburgh, 1857), p. 149.

44. Charles R. Weld, A Vacation Tour in the United States and Canada (London, 1855), p. 273.

45. Daniel Foley, The People and Institutions of the United States of America (Dublin, 1858), p. 39. Foley was a professor of Irish at the University of Dublin. He began his publication by acknowledging

that; "The ignorance and prejudice which exist in England and Ireland concerning the people and institutions of the United States of America are quite surprising." See Ibid., p. 1.

46. The United States and Canada (London, 1862), p. 35. See also C.E. Bailliere, The British American Guide-Book (New York, 1859), pp. 49-50. For information on the use of duplicate collections set aside for exchange with other museums or for distribution to other educational institutions, see "Report of the Secretary," ARBRSI-1873 (Washington, 1874), pp. 48-49. The Smithsonian museum did not receive plaudits from a more recent observer. Museum education specialist Louise Connolly suggested that by 1864 it was inaccessible, "repellent within", an institution where, "Children shrank from its portals, and honeymoon travellers felt in leaving it a sense of escape". Miss Connolly's most critical comment follows: "Culture for culture's sake was what the Smithsonian meant to its lay visitors. Young people led through it contracted, not the museum habit, but museophobia, a horror of museums." See Louise Connolly, The Educational Value of Museums (Newark, N.J., 1914), p. 5. A current authority on American museum education suggests that through Henry's commitment to the advancement of knowledge, he did much to advance the causes of basic research and science. See Lisa Roberts, From Knowledge to Narrative (Washington, 1997), p. 27. For an assessment of George Brown Goode's later impact on the museums of the Smithsonian Institution, see Edward P. Alexander, Museum Masters (Nashville, 1983), pp. 277-309.

47. Tony Bennett, The Birth of the Museum (London, 1995), p. 255. It was not until 1870 that Barnum began his involvement in the circus business. In 1881 he became partner with James Anthony Bailey, and formed the famous Barnum and Bailey Circus. For more on Barnum's life, see John R. Betts, "P.T. Barnum and the Popularization of Natural History," Journal of the History of Ideas (June - September, 1959), v. 20, #3, pp. 353-68, P.T. Barnum, Struggles and Triumphs (London, 1889), and Caleb Jefferson, Life and History of P.T. Barnum (Plymouth, 1889). For more on Barnum's American Museum, see M.R. Werner, Barnum (New York, 1924), pp. 43-76. For a modern assessment of Barnum's role see Roberts, Knowledge, pp. 26-27.

48. P.T. Barnum, Struggles and Triumphs (Harmondsworth, 1981), p. 101.

49. Barnum, Struggles, p. 101.

50. Ibid., p. 222.

51. Ibid., p. 107.

52. Diary of Matthew Francis (August 12, 1852), p. 3. Another period account described the Barnum Museum as "an omnium gatherum of all sorts of curiosities." See Edward W. Watkin, A Trip to the United States and Canada (London: 1852), p. 12.

53. William Chambers, Things As They Are In America (London, 1857), 2nd. ed., p. 191.

54. Thomas Spence, The Settler's Guide (New York, 1862), p. 86.

55. George T. Borrett, Out West (London, 1865), pp. 279-81. For another equally negative response, see The United States and Canada (London, 1862), pp. 18-19.

56. Mackay, Life, pp. 101-02.
57. For a complete description of this travelling show, see the Diary of Matthew Francis (November 11, 1852), pp. 1-9. For more on Barnum and travelling shows, see Lila Perl, America Goes to the Fair (New York, 1974), pp. 87-90, and Werner, Barnum, pp. 43-76.
58. For details of these events, see Susanna Moodie, Life in the Clearings Versus the Bush (New York, 1853), pp. 82-84.
59. Quoted in Barnum, Struggles, p. 107. See also, Key, Beyond, pp. 61-62. Barnum took on the presidency of the Crystal Palace Exhibition in 1853 to utilize his business acumen to infuse new life into this venture. See Chambers, Things, p. 203, and Weld, Tour, p. 371. A scholarly study of Barnum's contributions concluded that he "probably did more than any other one person to popularize the museum idea." In addition, "Like Peale's Museum, Barnum's American Museum should be recognized when considering the educational influence of museums on the public." Dr. Mildred Porter, cited in Betts, "Barnum," p. 359. Even when fire enveloped Barnum's Museum, a scholarly journal made comment. Noting that the "familiar place of amusement" and the museum which was "interesting to students and others" was totally destroyed on July 13, 1865, an editorial comment suggested that; "a new Museum will arise from the ashes of old and the moral drama flourish exceedingly." See "Destruction of Barnum's Museum," SA (July 22, 1865), v. 13, #4, n.s., p. 49. Barnum was also recognized for innovations in advertising. See "Barnum's Opinion About Advertising," SA (August 21, 1852), v. 7, #49, p. 386. Barnum rebuilt his museum in Philadelphia. There certain displays attempted to interpret themes related to social issues of the day. A visitor in 1875 detailed an exhibit which contrasted a "drunkard's home" with one of a "cold-water drinker's home." See Richard Newton, The Giants and How to Fight Them, cited in Nigel Temple, Seen and Not Heard (London, 1970), pp. 31-32.
60. Frederick Marryat, A Diary in America (London, 1839), v. 3, p. 282.
61. Dwight, Travels, pp. 208-209.
62. Sears (ed.), Treasury, p. 3. For additional information about public education, see "The Progress of the Age," SA (February 6, 1847), v. 2, #20, p. 157, "Mental Development," SA (July 31, 1847), v. 2, #45, p. 357, "Relationship of Science," SA (August 14, 1847), v. 2, #47, p. 373, and "Education - What is It?," SA (January 29, 1848), v. 3, #19, p. 149.
63. Emmeline Stuart Wortley, Travels in the United States (London, 1851), v. 1, p. 43.
64. Hugo Reid, Sketches in North America (London, 1861), p. vi. During Reid's 1859 travels, he noted that educational and cultural institutions contributed to the development of "mental characteristics" of the American public, and that educational, literary and scientific institutions assisted in the "general advances of all classes." See pp. 52 & 59.
65. Chambers, Things, pp. 159-60. For information on the impact of Mann and Barnard, see Diana R. McCain, "The Myth of the One-Room Schoolhouse," Early American Life (October, 1991), p. 18. The paucity of educational opportunity and the introduction of schooling for all in the United Kingdom only in the 1870's, underlined fundamental differences in the United States and England. See Eilean Hooper-

- Greenhill, Museum and Gallery Education (Leicester, 1991), p. 16 and Dickenson, "Arrangement," p. 105. English traveller William Smith noted this difference in a contemporary account. "Nothing pleased me more when travelling in the States and Canada than to see the abundant facilities everywhere provided for the free and thorough education of all classes of the people." William Smith, A Yorkshireman's Trip to the United States and Canada (London, 1892), pp. 75-76.
66. Mackay, Life, p. 287.
67. Sears (ed.), Treasury, pp. 51, 157 & 159.
68. Hattie N. Robinson, "The Manifestations of the Deity, as Revealed in the Beautiful," in Proceedings of the First Annual Commencement of the Buffalo Female Academy (Buffalo, 1852), p. 10.
69. For examples of such literature, see Louisa C. Tuthill, The Young Lady's Home (Boston, 1847), pp. 43-44, 52, 70-71 & 74, and William G. Eliot Jr., Lectures to Young Men (Boston, 1854), pp. 30-34. For advice on physical activity and learning, see Thomas H. Burrowes (ed.), A Manual of Directions and Plans for Common School Houses (Harrisburg, Penn., 1855), pp. 257-61, and J. George Hodgins, The School House (Toronto, 1857), pp. 98-127.
70. "Scientific Associations," SA (November 10, 1848), v. 5, #8, p. 61. These associations were compared with Mechanics' Institutes in England, and were deemed to be quite different. See "Mechanics' Institutes in England," SA (November 17, 1849), v. 5, #9, p. 69.
71. Wortley, Travels, p. 274.
72. "Museums for Models," SA (March 23, 1857), v. 12, #29, p. 229.
73. John L. Blake, The Family Encyclopedia of Useful Knowledge (Cincinnati, 1855), p. 622.
74. J. Wyse from a paper entitled "On the Lyceum System in America," cited in Hole, Essay, p. 183.
75. William J. Rhees, Manual of Public Libraries, Institutions, and Societies in the United States and British Provinces of North America (Philadelphia, 1859), p. 450. The opening of the Museum of Comparative Zoology in Cambridge, Massachusetts in 1859 elicited a similar response. Readers of a widely circulated, popular publication were informed of the initial efforts of Professor Louis Agassiz to develop this facility. See Robert B. Thomas, The Old Farmer's Almanac (Boston, 1860), #68, p. 35.
76. Cited in J. George Hodgins (ed.), Documentary History of Education in Upper Canada - 1851-52 (Toronto, 1903), v. 10, p. 169. The American Institute in New York City was also supported in part by state funds. See James F.W. Johnston, Notes on North America (Edinburgh, 1851), v. 1, p. 387.
77. "Progress of Science and Art," Harper's Weekly (April 23, 1859), v. 3, p. 258. This article cited Professor Louis Agassiz's call for the establishment of a museum of geology and mechanics in Boston and the immediate contribution of \$75,000 towards this venture. Expenses associated with the operation of the Philadelphia Academy of Natural Sciences were defrayed by annual monetary contributions from its members. This allowed the Academy "to obtain and extend information upon every subject pertaining

to zoology, botany, geology and mineralogy. Its library and museum are collected for this purpose, and are accessible to all votaries of science, free of cost." See "Philadelphia Academy of Natural Sciences," SA (March 15, 1851), v. 6, #26, p. 202.

78. "Pennsylvania Polytechnic College," SA (September 27, 1856), v. 12, #3, p. 18.

79. "Prescott's Cabinet for the Ohio Wesleyan University," The Ladies' Repository (March, 1859), v. 19, p. 183. For more on the development of museums at American colleges and universities, see Coleman, "Critical," p. 7-8, Sally G. Kohlstedt, "Museums on Campus: A Tradition of Inquiry and Teaching," in Ronald Rainger et al (eds.), The American Development of Biology (Philadelphia, 1988), pp. 15-47, and Sally G. Kohlstedt, "Henry Augustus Ward and American Museum Development," University of Rochester Library Bulletin (1985), v. 38, pp. 21-37. For descriptions of other American museums to 1860, see Marianne French, An Englishwoman's Experience in America (London, 1853), pp. 189, 256 & 261, Robert Playfair, Recollections of a Visit to the United States and British Provinces of North America (Edinburgh, 1856), pp. 120, 122 & 166, William Ferguson, America By River and Rail (London, 1856), pp. 7 & 161-62, and Daniel Foley, The People and Institutions of the United States of America (Dublin, 1858), p. 38.

80. See Rae, "Educational," p. 351, and Rae, "History," p. 680. A British museologist has identified a decade during this period as being seminal to the development of the education function in museums in the USA: "The American conception of a museum as an instrument of education emerged in the Seventies and spread steadily in the East and Middle West." See Trenchard Cox, "Educational Methods in the Museums of the United States and Canada," MJ (November, 1948), v. 48, #8, p. 166.

81. William Henry Flower, Essays on Museums (Freeport, NY., 1972), reprint, p. 47. Historian Joel Orosz has recently suggested that museums in the United States have always been "direct products of the American democratic culture and developed in synchronization with the evolution of the general cultural climate...the great majority had serious and egalitarian aspirations." Cited in George E. Hein, Learning in the Museum (London, 1998), p. 6.

82. "Public Museum Needed," Putnam's Magazine (March, 1869), v. 3, #15, n.s., p. 383. This article suggested that the museum should be open free to the public, daily from 9 a.m. to 10 p.m.

83. George H. Sherwood, "Public Education in the Museum and in the Schools," in The American Museum School Service (New York, 1927), p. i.

84. "Museum of Art," Putnam's Magazine (February, 1870), v.5, #26, n.s., pp. 246-47. This article listed the Royal Museum in Berlin, the Glyptothek and Pinacothek in Munich, and the South Kensington Museum in London as fine examples to emulate.

85. Cited in Weld, Tour, p. 351. In 1853, Scientific American published a series of articles on topics related to natural history. See "The Natural Sciences," SA (July 16, 1853), v. 8, #45, p. 352. This interest in natural sciences was not only restricted to initiatives in the eastern USA. See "California Academy of Natural Sciences," SA (September 23, 1854), v. 8, #47, p. 376.

86. For examples see J.W. Dawson, "Natural History in Its Educational Aspects," AJE (June, 1857), v.3,

#9, pp. 428-36, "Educational Uses of Museums of Natural History," AJE (March, 1858), v. 4, #12, pp. 785-88, "Museum of Comparative Zoology," AJE (December, 1860), v. 9, #23, pp. 613-22, "Harvard College Zoological Museum," JEUC (January, 1861), v. 14, #1, pp. 4-5, "How to Skin and Stuff Birds," SA (August 5, 1865), v.13, #6, n.s. p.81, "Flowers and School-Room Museum," JEUC (April, 1869), v. 22, #4, p. 56, Henry Scadding, "On Museums and Other Classified Collections, Temporary or Permanent as Instruments of Education in Natural Science," The Canadian Journal (May, 1871), v. 8, #73, pp. 1-25, and J.G. Wood, Illustrated Natural History (Philadelphia, 1897).

87. See Weld, Tour, p. 395, Isabella Bishop, The Englishwoman in America (London, 1856), p. 395, Foley, Institutions, p. 38, Bailliere, Guide-Book, p. 54, Gardiner D. Engleheart, Journal of the Progress of H.R.H. The Prince of Wales Through British North America (London, 1860), p. 98, T. Addison Richards (eds.), Appleton's Companion Hand-Book of Travel (New York, 1860), p. 127, and John Disturnell, The Great Lakes or Inland Seas of America (New York, 1863), p. 63.

88. Cited in Betts, "Barnum," p. 358.

89. Agnes Crane, "Notes on the Eastern Cities and Museums of the United States," The Leisure Hour (1882), pts. 1-4, pp. 412, 415, 499, 545, 614 & 618.

90. For details, see Franz Boas, "The Occurrence of Similar Inventions in Areas Widely Apart," Science (May 20, 1887), v. 9, #224, pp. 485-86, Franz Boas, "Fourth Annual Report of the Bureau of Ethnology," Science (June 17, 1887), v. 9, #228, pp. 597-98, William H. Dall, "Museums of Ethnology and Their Classification," Science (June 17, 1887), v. 9, #228, pp. 587, Franz Boas, "Methods of Ethnology," Science (June 17, 1887), v. 9, #228, pp. 587-89, and Franz Boas, "Arrangement of Museums," Science (June 24, 1887), v. 9, #229, p. 614. For a plea to include geography in the field of sciences, see Franz Boas, "The Study of Geography," Science - Supplement (Friday, February 11, 1887), v.9, #210, pp. 137-41. See also David K. van Keuren, "Museums and Ideology: Augustus Pitt-Rivers, Anthropological Museums, and Social Change in Later Victorian Britain," Victorian Studies (Autumn, 1984), v. 28, #1, pp. 171-89, and Sally G. Kohlstedt, "History in a Natural History Museum: George Brown Goode and the Smithsonian Institution," The Public Historian (Spring, 1988), v. 10, #2, pp. 13-14. For additional information on science and museums in the late 19th century, see Lewis Pyenson, "The Incomplete Transmission of a European Image," Proceedings of the American Philosophical Society (April, 1978), v. 122, #2, pp. 92-114, Sally G. Kohlstedt, "Australian Museums of Natural History: Public Priorities and Scientific Initiatives in the 19th Century," Historical Records of Australian Science (1983), v. 7, pp. 1-29, and Susan Sheets-Pyenson, Cathedrals of Science (Montreal, 1988).

91. For examples, see Asa Gray, How Plants Grow (Toronto, 1858), Louis Agassiz, Methods of Study in Natural History (Boston, 1864), 2nd ed., J.G. Wood, Wood's Bible Animals (Guelph, Ont., 1877), Walter P. Manton, Insects How to Catch and How to Prepare Them for the Cabinet (Boston, 1881), Isabel S. Arnold, "The Herbarium," Harper's Young People (April 4, 1888), v.9, pp. 447-48, George D. Hulst, "Hints on Insects," Harper's Young People (June 5, 1888), v. 9, pp. 543-44, F.A. Bather, "Natural Science at the Chicago Exhibition," Natural Science (November, 1893), v. 3, pp. 336-43, Frank C. Baker, "The Educational Value of Natural History Museums," Review of Education (November, 1901), pp. 155-57, Herbert H. Smith, "The Museum as an Educator," Alabama Geological Survey Museum Paper (1912), #2, n.s., pp. 1-26.

92. Baker, "Value," pp. 155-57. Basic Christian beliefs were being challenged throughout the world and new ideas were coming to the forefront. Museums in the United States as in other countries were in some ways hotbeds for the introduction of these changes.

93. Cited in Terry Zeller, "The Historical and Philosophical Foundations of Art Museum Education in America," in Nancy Berry and Susan Mayer (eds.), Museum Education: History, Theory, and Practice (Reston, Va., 1989), p. 11. Zeller's article provides an in-depth look at the development of education initiatives in American museums of art between 1870-1970. Another recent observer has written that U.S. art museums established beginning in the 1870's were "no doubt a reflection of a climate that embraced the redemptive power of art." Both art museums and natural history museums of the period opened their doors "to a public they believed would benefit from exposure to their collections." See Roberts, Knowledge, pp. 28-29.

94. Cited in Zeller, "Art," p. 15. See also James D. McCabe, The Illustrated History of the Centennial Exhibition (Philadelphia, 1876), pp. 917-18. An interest in industrial arts had been expressed earlier. See "Mechanical Fairs," SA (October 11, 1851), v. 7, #4, p. 29, "The Great Mechanics' Hall at Baltimore," Ibid., p. 32, "Science and Arts," SA (August 14, 1852), v. 7, #48, p. 584, "Mechanics and Industrial Education," SA (January 29, 1853), v. 8, #20, p. 157, "Prizes, Clubs and Mechanics' Societies," SA (September 30, 1854), v. 10, #3, p. 21, and W.C. Dodge, "Exhibition Hall at the Patent Office - Important to Manufacturers," S.A. (November 25, 1865), v. 13, #22, n.s., p. 340. An editorial comment called for the establishment of a permanent industrial art exhibition in New York City.

95. Edward S. Morse, "The Museum of Art; A Necessity of Municipal Life," Bulletin of the Detroit Museum of Art (August, 1905), #7, p. 4. For more on museums as vehicles for technical education, see T. Egleston, "Some Thoughts and Suggestions on Technical Education," Transactions of the Institute of Mining Engineers (1888), v. 16, pp. 623-61. For a listing of American art museums contributing to civics and education, see Flora H. Krause, "Live Lessons in Civics," Teachers Magazine (September, 1907), pp. 18-19. For information on art museums as "an agency of cultural pleasure-giving," see Connolly, Value, pp. 54-56.

96. Zeller, "Art," p. 15. For insight on Ruskin's philosophy of museums, see John Ruskin, "A Museum or Picture Gallery: Its Function and Formation," The Art Journal (June, 1880), pp. 160-62. For information on Matthew Arnold and the power of culture to civilize, see James Wood, "Anarchy in Retreat," The Guardian (March 3, 1989). Goode and Gilman were particularly influential and their writings were widely used and circulated. As examples, see G. Brown Goode, "The Museums of the Future," Report of the U.S. National Museum (Washington, 1890), pp. 427-445, "The Principles of Museum Administration," Report of the Proceedings of the Museums Association (1895), pp. 69-148, and, "Museum-History and Museums of History," Report of the U.S. National Museum (Washington, 1900), pt. 2, pp. 65-81, and Benjamin Ives Gilman, Museum Fatigue, The Scientific Monthly (January, 1916), pp. 62-74, "Museum Publicity," American Museum of Art (February, 1917), pp. 145-47, "Basilica or Temple," Museum Work (December, 1920), pp. 89-95, and Museum Ideals of Purpose and Method (Cambridge, Mass., 1923). Harlan Smith would publish one of his first of many museum related articles as curator at the American Museum of Natural History. In 1911 he joined the staff of the National Museum of Canada where he would contribute significantly to Canadian museological literature. See Harlan I. Smith, "Popular Museum Exhibits," Report of Proceedings of the Museums Association (1897), pp. 63-68.

97. For Prof. Spencer Baird's report on the Smithsonian's involvement in the Centennial Exhibition of 1876, see "Appendix to the Report of the Secretary," ARBSI-1876 (Washington, 1877), pp. 64-70. See also Gurney, Smithsonian, p. 7, Key, Walls, pp. 87-88, and Kohstedt, "Goode," pp. 11-12. For an American perspective on world fairs, see McCabe, History, pp. 167-93. For American reaction to the London 1851 Exhibition, see "The Great Exhibition of Industry," SA (November 8, 1851), v.7, #8, p. 61. For information about educational displays in the 1904 St. Louis Exposition, see Howard J. Rogers, "Educational Exhibit at St. Louis World's Fair," The Educational Monthly of Canada (June 1904), v. 27, #6, pp. 252-54.

98. See Kohstedt, "Goode," p. 11, Key, Walls, p. 88, and Perl, Fair, pp. 86-87. The tradition of art, museums, expositions and fairs would continue in the United States patterned after the original experience in 1876. See Key, Walls, pp. 87-89, and Perl, Fair, pp. 102-117. See also F.A. Bather, "Natural Science at the Chicago Exhibition," Natural Science (November, 1893), v. 3, pp. 336-43.

99. Proper conduct and etiquette when visiting picture galleries was stressed. See John Young, Our Department (Detroit, 1881), pp. 162-63. Museum policy and the notion of dual arrangement of collections for public and private use was put forward at the Boston Museum of Fine Arts. See Frank J. Mather Jr., "Art in America," The Burlington Magazine (October, 1906), v. 9, pp. 62-63. American art museums were identified as public education facilities in various articles. See Alice L. Vaughan, "A Suggestion on Correlating the Instruction Given in the Museums of a Community," Bulletin of the Metropolitan Museum of Art (September, 1917), v. 12, pp. 186-87, Marina G. Van Rensselaer, "The Art Museum and the Public," North American Review (January 17, 1917), v. 205, #734, pp. 81-92, Erwin O. Christensen, "Art Museums for the Public," Museum Work (July-August, 1922), v. 5, #2, pp. 36-40, and Molly O. Godwin, The Museum Educates (Toledo, Ohio, 1936), pp. 1-45. For additional information about art and education, see Frank T. Carlton, "Art in Industry," Popular Science Monthly (September, 1904), v. 65, pp. 414-16, Henry W. Kent, "Cooperation Between Libraries, Schools and Museums," The Scientific Monthly (September, 1918), v. 7, #3, pp. 252-60, and Rossiter Howard, "Principles of Museum Education," Museum Work (November-December, 1923), pp. 121-24.

100. Valentine Ball, "Report on a Visit to the Museums of America and Canada," Thirty-Second Report of the Science and Art Department (1884), p. 310.

101. Connolly, Value, pp. 6-8.

102. For information on "the great museums and the new curators", see William Leach, Land of Desire (New York, 1993), pp. 10, 164-73, & 435-36. Dana promoted the use of museums "as instruments for popular education and recreation." His writings and actions were aimed at what he regarded to be elitist and aristocratic European orientation on which he believed influenced U.S. museum development. See Roberts, Knowledge, pp. 22-23.

103. For details on these varied initiatives see Frank C. Baker, "The Museum and the Public School," MJ (August, 1905), v. 5, #2 pp. 50-55, M.S. Prichard, "The Museum and the Public School," The Burlington Magazine (March, 1907), v. 10, pp. 405-06, Peter A. Mortenson, "Contribution to Public School Education," Museum Work (May, 1920), v. 2, #8, pp. 242-46, "American Education Week," MJ (April, 1924), v. 23, #10, pp. 261-62 Edmund M. Conaway, "A Historical Society and Museum for the Public School," School and Society (1930), v. 31, pp. 431-32, Barton W. Evermann, "Modern Natural History

Museums and Their Relation to Public Education," The Scientific Monthly (January, 1918), v. 6, #1, pp. 5-33, George F. Kunz, "Industrial Museums and Efficiency," Science (March 30, 1917), v. 45, #1161, n.s., p. 296, Charles R. Richards, The Industrial Museum (New York, 1925), pp. 4-5, Charles R. Toothaker, "The Educational Work of the Philadelphia Commercial Museum," MJ (September, 1915), v. 15, #3, pp. 94-103, Joseph Grinnell, "The Methods and Uses of a Research Museum," The Popular Science Monthly (August, 1910), v. 77, #2, pp. 163-69, Benjamin R. Andrews, "Museums of Education," Teachers College Record (September, 1908), v. 9, #4, pp. 1-98, Laurence Vail Coleman, Historic House Museums (Washington, 1933), pp. 87-95, H.J. Shepstone, "A Children's Museum," The Quiver (1901), pp. 1182-1186, and W.E. Hoyle, "Children's Museums," MJ (June, 1908), v. 7, #2, pp. 422-27.

104. A sampling of this literature includes: Ella L. Cabot, "The Museum as a Centre for Americanization and Nation Study," Proceedings of the American Association of Museums (June, 1918), v. 1, #1, pp. 11-17, John Cotton Dana, "Schools and Museums," Public Libraries (February, 1918), pp. 60-63, C.G. Gilbert, "Observations on the Use of Models in the Educational Work of Museums," Museum Work (December, 1919), v. 2, #3, pp. 90-92, Roy W. Miner, "Educational Training of Museum Instructors," Museum Work (January, 1919), v. 1, #4, pp. 114-17, John W. Beatty, "The Museum of Art in Its Relation to the Public School," Museum Work (November, 1919), v. 2, #2, pp. 45-48, Paul M. Rea, "The Future of Museums in the Life of the People," Museum Work (November, 1920), v. 3, #2, pp. 48-56, John Cotton Dana, "A Small American Museum Its Efforts Toward Public Utility," Museum Work (November - December, 1921 & January - February, 1922), v. 4, #3 & 4, pp. 144-50, Erwin O. Christensen, "Art Museums for the Public," Museum Work (July-August, 1922), v. 5, #2, pp. 36-40, James Sullivan, "The Historical Museum as an Educative Force," Museum Work (January-February, 1923), v.5, #5, pp. 84-86, Laura M. Bragg, "Culture Museums and the Use of Culture Material," Museum Work (September-October, 1925), v. 8, #3, pp. 75-83, Clark Wissler, "The Museum Exhibition Problem," Museum Work (March-April, 1925), v. 7, #6, pp. 173-80, Russell Colbert, "One Year With a History Museum in a Small High School," The Historical Outlook (April, 1925), v. 16, p. 167, John Cotton Dana, Should Museums Be Useful? (Newark, N.J., 1927), pp. 1-22, Russell Colbert, "The High School History Museum," The Historical Outlook (November, 1927), v. 18, pp. 329-30, Paul B. Mann, "The Museum as an Educational Interpreter," Natural History (July-August, 1927), v. 27, pp. 351-54, Andrey Avinoff, "Museums and the People," The American Magazine of Art (November, 1928), v. 19, pp. 596-601, Louise Connolly, Docentry (Newark, N.J., 1928), pp. 1-10, and Richard F. Bach, "A Museum on the March," Journal of Adult Education (January, 1939), pp. 65-67.

105. See John Dewey, Art As Experience (New York, 1958). Dewey originally published this work on understanding, insight, admiration and appreciation in 1934. See also John Dewey, Experience and Education (New York, 1963). For comment on Dewey's influence on educational reform, see Robert M. Stamp, The Schools of Ontario, 1876-1976 (Toronto, 1982), p. 52, and Diane Ravitch, The Schools We Deserve (New York, 1985), p. 298.

106. For an overview of Dewey's philosophy see Robert Ulich, History of Educational Thought (New York, 1945), pp. 315-336. For a discussion about Dewey's "educational populism" see Anthony O'Hear, Education, Society and Human Nature (London, 1981), pp. 16-20. For insight into the impact of Dewey's work on museum education, see Peggy Ruth Cole, "Dewey and the Galleries: Educational Theorists Talk to Museum Educators," The Museologist (1985), v. 48, pp. 13-14, Ted Ansbacher, "John Dewey's Experience and Education: Lessons for Museums," Curator (March, 1998), v. 41, #1, pp. 36-49, and Hein, Learning, pp. 2-3.

107. For information on the British context, see Hooper-Greenhill, Education, pp. 9, 25, 34 & 39-40. To help identify the significance of education in American museums the British Association sent Mr. H. Bolton and Dr. W.M. Tattersall to compile information for a report on the subject. From their investigations the authors reported that; "The American museums proved especially profitable, as in numerous cases a thorough co-operation has existed for years between the museums and every grade and kind of educational effort." See "Museums-Interim Report of the Committee," Report of the 85th Meeting of the British Association for the Advancement of Science (1915), v. 85, p. 262. For a listing of the museums visited and a description of educational initiatives at each site, refer to "American Museums," Report of the 87th Meeting of BAAS (1919), v. 87, pp. 127-31. Final observations were made in the Report of the 88th Meeting of the BAAS (1920), pp. 278-82.

108. Benjamin I. Gilman, "Docent Service at the Museum of Fine Arts, Boston," MJ (September, 1910), v. 10, #3, p. 76.

109. F.H. Stearns, "The Place of the Museum in Our Modern Life," The Scientific Monthly (December, 1918), v. 7, #6, p. 549.

110. Cited in Victoria Dickenson, "Museums and Education: A Quotable History," C.M.A. Annual Conference (Vancouver, 1979), p. 8. For information on co-operation between American museums and libraries, see Edward S. Morse, "If Public Libraries, Why Not Public Museums?," Report of the U.S. National Museum (Washington, 1895), pp. 771-80, Anderson H. Hopkins, "The Link Between Library and Museum," Public Libraries (1903), v. 8, pp. 13-15, and Edwin W. Gaillard, "The Beginning of Museum Work in Libraries," Public Libraries (1903), v. 8, pp. 9-11.

111. Wallace, "American," p. 347.

112. A.B. Meyer, "Efforts of the American Natural History Museums to Increase Their Usefulness," Report of the U.S. National Museum (Washington, 1905), p. 328. Meyer was director of the Royal Zoological, Anthropological and Ethnographical Museum of Dresden. His extensive article on museums and kindred institutions in New York City, Albany, Buffalo, Chicago and several European cities, appears in the same volume, pp. 321-608. Not all observers regarded education as being the primary function for every American museum. Joseph Grinnell, director of the Museum of Vertebrate Zoology at the University of California acknowledged in 1910 that at an exhibition museum; "Its claim to recognition as a valuable factor in public education as well as amusement has been too well established to require further proof." Grinnell believed that research was the most important aspect of a museum in a university setting. See Grinnell, "Methods," p. 163.

113. E.E. Lowe, A Report on American Museum Work (Edinburgh, 1928), pp. 9 & 11. This phenomenon was also noted by the curator of the Durban Museum and Art Gallery. He observed that American museums "can be changed from a passive condition into an active and powerful educational force of almost unlimited influence." See E.C. Chubb, Museums and Art Galleries as Educational Agents (Pretoria, 1929), p. 3.

114. Francis Henry Taylor, "Museums in a Changing World," The Atlantic Monthly (December, 1939), pp. 789-90. Taylor concluded by stating; "It is no longer necessary for us to do lip service to the institutions of a worn-out and defeated Europe. We must consider our responsibilities in terms of

twentieth-century America." Ibid., p. 792.

115. Frederic A. Lucas, "Some Features of Museum Progress During the Past Fifty Years," Natural History (January-February, 1922), v. 22, pt. 1, p. 45. The Chief of Museums for the Museums Division of the U.S. National Parks Service, would make a similar observation in the 1940's. Since 1895 there was a noted increase in American museums developing "from mere storehouses for curiosities to institutions alert to serve many of the educational and cultural needs of the community." Ned J. Burns, Field Manual for Museums (Washington, n.d.), p. 1. American museums were therefore singularly different from the "class-specific" institutions identified in existence in England in the 1940's. See Hooper-Greenhill, Education, p. 13.

116. Michael J. Ettema, "History Museums and the Culture of Materialism," in Jo Blatti (ed.), Past Meets Present (Washington, 1987), p. 62. For additional information on museums and education in the United States in the 1930's-40's, see Paul M. Rea, "What Are Museums For?," Journal of Adult Education (June, 1930), v. 2, pp. 265-71, Grace Fisher Ramsey, Educational Work in Museums of the United States (New York, 1938), M.B. Hodge, "Museums in North America," MJ (May, 1938), v. 38, #2, pp. 87-104, T.R. Adam, The Museum and Popular Culture (New York, 1939), W.G. Constable, "Museum Ethics," MJ (October, 1941), v. 41, #7, p. 145, Francis Henry Taylor, Babel's Tower the Dilemma of the Modern Museum (New York, 1945), and Theodore L. Low, "A Course for Training School Teachers in the Use of Museums," College Art Journal (Winter, 1948-49), pp. 124-28.

117. Various observers have commented on the influence of the United States on museum development in Canada. A former employee of the Royal Ontario Museum addressed museum scholarship saying "that Canadian work, gradually perhaps and imperceptibly, but none the less surely, conforms to American standards, and aims at satisfying an American public." See J.H. Iliffe, "The Museum Situation in Canada With Especial Reference to the Royal Ontario Museum," MJ (December, 1931), v. 31, #9, p. 386. A Canadian study, when recommending the establishment of an adequate system of National Museums said; "In the past Canada has borrowed more from others in cultural matters than she has given in return. This is particularly true of the relationship with the United States." Cited in Albert A. Shea (ed.), Culture in Canada (Toronto, 1952), p. 56. A Canadian museologist has suggested Canadians "usually looked to the south for museum comforts...we learned a great deal in the USA." See Donald Crowdis, "Development of Canadian Museums," in Conference Proceedings for 2001: The Museum and the Canadian Public (Ottawa, 1977), p. 7.

Chapter 4

The Canadian Scene to 1900

Introduction

According to British educationist Alan Chadwick, change and adjustment is a natural progression seen in the museological community. Chadwick suggests that; "Museums and art galleries, from their inception, have been in a state of transition."¹ This chapter will investigate change and evolution, while exploring the impact of influences from the United Kingdom and the United States during the beginning years of Canadian museum development. Observation of early museum initiatives in Canada reveal efforts comparable to those of British and American counterparts. Some unique Canadian museums, innovative enterprises by individuals and institutions, and museological trends are evident during this early period of development. These beginnings helped to shape the current system of Canadian museums² and lead to further advances (see chapters 8 & 9) which contributed to the evolution of Canadian museums as centres for learning.

Early Museum Initiatives to the 1840's

The absence of complete records makes it difficult to identify the first museum established in Canada. In the 18th century, religious institutions in Quebec housed collections of natural history objects and religious relics which were used as visual aids by priest-educators. A geology and mineral collection was formed at Laval University in the last decade of the 18th century to assist faculty in their teaching. By 1816 the Pictou Academy in Nova Scotia had a collection of insects, birds, mammals, reptiles and minerals which the Reverend Thomas McCullough utilized in lessons for his students.³ These museums had definite educational purposes for their collections. Period newspaper articles and travelers' accounts detailed less formal learning pursuits for other early collections. An advertising card announced the opening of "an elegant museum" in the Thibodo Hotel in Kingston in the summer of 1815. Ladies and gentlemen of the vicinity were requested to view a mechanical organ and wax figures in this travelling collection. Noting that previous exhibits had given "satisfaction" to patrons, the proprietors invited "the attention of the public" during a week-long stay between the hours of 8 a.m. to 9 p.m.⁴ As a centre of population and commerce situated on the St. Lawrence River which was an important travel route of the period, Kingston was deemed to be an ideal location for both travelling and permanent museum displays. In 1830 an enterprising American, Mr. Wilcox, fitted up a "Cabinet of Curiosities" on a canal boat. He

brought this floating museum from Oswego, New York to Kingston, and then moved the collection along the St. Lawrence stopping at various ports of call on his way to Quebec City. Specimens of geology, ornithology and entomology, along with historical engravings were offered for viewing. A newspaper editor commented on the utility and effect of this endeavour:

Such a neat assemblage of the wonders of nature and art, though necessarily small, will be both entertaining and edifying to the youth of country places, where access cannot be had to more extensive and expensive collections. Nothing is more sharpening to the wits of young persons, than to awaken and stimulate their curiosity.⁵

In 1828, Birmingham expatriate Thomas Barnett commenced a “laudable undertaking” by setting up one of the first permanent, public museums in Upper Canada. A newspaper account suggested that the public was “indebted for as beautiful a collection of Quadrupeds, Birds, Fishes, Insects, &c. as British North America can afford – all prepared in the best manner, and arranged with great taste and judgement.” The article continued in a most positive vein applauding Barnett’s efforts:

By frequently visiting this Museum, the inhabitants of Kingston will at once promote the cause of science, and reward the unwearied exertions of a meritorious individual. Strangers too, although they may have seen more extensive collections, cannot fail to be pleased with the neat little Cabinet in Church Street.⁶

Barnett brought his interest in natural history from England to Kingston, as had others during this period. Scottish botanist John Goldie toured Upper Canada during 1819 to examine natural and botanical species. He took plant specimens back to the Botanic Gardens in Glasgow, and was subsequently hired by the Emperor of Russia to acquire a collection of plants for the botanical garden at St. Petersburg.⁷

York born zoologist Charles Fothergill moved to Upper Canada in 1816 to study the natural history of British North America. Fothergill was a friend of the celebrated English naturalist Thomas Bewick. Fothergill believed that knowledge must be acquired before it could be communicated. Through philosophical inquiry and “journeys along one graduation of knowledge to another,” natural history study could be used “to impart wisdom, and to inculcate virtue.” His writings were designed to convince “the young Naturalist that he ought to have higher views of his favourite science than the attainment of its nomenclature or language.” The study of natural history would hopefully lead to the development of “an indulgent, and an enlightened public.”⁸ Fothergill continued to advocate such ideals and he together with Barnett, would play pivotal roles in the future evolution of early Canadian museums.

By the late 1820's, public museums were established in Lower Canada's two principal cities. In 1826, Pierre Chasseur set up such an institution in Quebec City.⁹ By 1826, there was a museum of "natural curiositie" attached to the Quebec Seminary, as well as a Museum of the Society for Promotion Literature, Science, Arts and Historical Research in Canada. Here it was observed that; "A visit to it will prove extremely interesting."¹⁰

In Montreal the museum belonging to the Society of Natural History, had "an interesting collection of animals, minerals, plants, etc. principally collected in the provinces."¹¹ This collection contained "a numerous assemblage of indigenous and exotic specimens, an examination of which will prove highly interesting to visitors of taste and science."¹² Here, it was suggested that; "Gentlemen of taste and science will realize much gratification from inspecting the museum."¹³

In York (Toronto), advertisements for William Wood's British Museum began to be published in December, 1830. The proprietor fitted up "his Apartments in the most splendid style." The public was encouraged to visit "two well-stocked Rooms" which contained "strange and rare things" including wax figures, birds and beasts from all parts of the world, several cases of insects, a great number of minerals, fossils and petrifications, a cosmorama of paintings, and a phantasmagoria of fifty figures. Season or single admission tickets were available, and Wood offered a taxidermy service for persons wanting birds or animals stuffed.¹⁴ Editor William Lyon Mackenzie visited the "York Museum" in June of 1831 and recorded his reaction:

We paid a visit to the museum in the Market Square of this town on Thursday last, and feel a pleasure in recommending its enterprizing proprietor as well deserving of a continuation of public patronage. The stock of birds and beasts, reptiles and insects, is generally enlarged, and a collection of the most rare and curious fishes is in preparation. An assortment of Indian Curiosities, coins and medals have been lately added to the Museum; and to them who go in the evening the phantasmagoria presents many attractions. It says a great deal in favour of the good taste of the capital of Upper Canada...the proprietor of the Museum has found support in exhibiting his collection of the wonderful works of nature and art.¹⁵

Regular advertisements for the British Museum in York (Toronto) continued to be published in the Colonial Advocate from 1830-32. William Wood promoted a museum of "splendid style", featuring a collection of "natural and artificial curiosities", the cosmorama and phantasmagoria, and the added attraction of "Mr. Smith the Fancy Glass Blower".¹⁶ The museum must have been a well known

attraction in the Market Square of York, as one merchant advertised being located "one door West of the British Museum".¹⁷ Contemporary historian Henry Scadding wrote that; "a travelling citizen of the United States, in possession of a collection of stuffed birds and similar objects, endeavoured at an early period to establish a kind of Natural History Museum." Scadding noted that the museum was a building next to the White Swan Inn and contained natural history specimens and wax figures including General Jackson and other notable Americans.¹⁸ In April of 1832, William Wood published the first notice of his impending retirement. He thanked customers "for past favors" and offered to them for sale his "beautiful collection of Birds And Beasts", as well as a collection of "WAX FIGURES, RICHLIY DRESSED".¹⁹

What can be deduced from these early efforts of establishing museums in the Canadas? Reactions from the period are varied and widely different. Outside observers saw very little to be positive about. Irishman Edward Talbot wrote; "In fact, the new World is completely derelict of objects interesting to the virtuoso in any branch of his profession."

While decrying the lack of antiquities in Upper Canada, Talbot conceded that the development of settlement "may compensate the want of ancient castles, ruined abbeys, and fine pictures".²⁰ Scotsman William Dunlop, while urging mechanics and artisans to settle in Upper Canada, recorded his reaction to the state of affairs in 1832:

Though the necessities and most of the luxuries of life are cheaply and easily procured; yet the elegancies of life, refined or literary society, public amusements, first-rate libraries, collections of the fine arts, and many things that are accounted almost as necessities of life by the higher ranks, belong, of necessity, to a state of society much more advanced than the Canadas, or, perhaps even the American Continent can as yet pretend to be.²¹

Fellow Scot, Thomas Hamilton believed Upper Canada would soon amalgamate with the United States. He wrote that "the mass of the people are republicans in politics, and anarchists in morals." He however acknowledged his existing prejudices:

To the impartiality of a cosmopolite I make no pretension. No man can wholly cast off the trammels of habit and education, nor escape from the bias of that multitude of minute and latent predilections, which insensibly affects the judgement of the wisest.²²

English natural historian P.H. Gosse observed that prior to his habitation near Sherbrooke, Lower Canada, that he had "lived in the far-off wilds of the west, where systems, books, and museums are almost unknown."²³ Such bleak pronouncements were not equally shared by Canadian commentators. An editorial in the premier

issue of the Canadian Garland, a semi-monthly "literary and miscellaneous journal" noted:

The progress of science, and the cultivation of literature has had considerable effect in changing the manners of our nation, and in introducing the civility and refinement by which we are now distinguished.²⁴

Settler Canniff Haight who recorded reminiscences of his life in the 1830's, recalled that:

As time wore on, and contact with the outer world became easier and more frequent, the refinements of advancing civilization found their way gradually into the country, and changed the amusements as well as the long-established habits of the people.

Progress had been recorded and positive projections were made from the beginning of the second quarter of the 19th century:

The year 1830 may be taken as the commencement of a new order of things in Canada. The people were prosperous; immigration was rapidly increasing. A system of Government had been inaugurated which, if not all that could be desired, was capable of being moulded into a shape fit to meet the wants of a young and growing country. There were laws to protect society, encourage education, and foster trade and commerce.²⁵

Did actual events confirm Haight's comments? What effect would this renaissance of an expanding colonial frontier have on the growth and evolution of Canadian cultural institutions and museums as centres for learning? A sampling of events follow to address this question.

On July 22, 1831 the York Literary and Philosophical Society of Upper Canada was formed by Charles Fothergill, Dr. William Dunlop and Dr. William Rees.²⁶ Instituted for "the purpose of promoting Literature and Science, and of Developing the resources of the Colony, by facilitating the Communication of any facts or discoveries connected with its civil and natural history, and its general productions," the Society was to have curators and librarians to take charge of its rooms, apparatus, books and other property. Public lectures would be held with the objective of "diffusion of useful knowledge."²⁷ The Society would promote the study of natural history, philosophy and fine arts, and was "particularly anxious to procure every existing and probable record of Aborigines and their language, minerals, fossils, animals, plants, geological and topographical sketches etc."²⁸ Other initiatives for the diffusion of knowledge included the operation of the York Circulating Library by Charles Daly,²⁹ the founding of the York Mechanics' Institute,³⁰ and the formation of the Society of Artists and Amateurs. Chaired by Captain R.H. Bonnycastle, the Society was to bring attention to the "Fine Arts" through an annual exhibition and presentation of honours and medals to artists. In a letter to the editor about the organization of the group, the following questions were asked:

Why should sciences and arts be only on the other side of the Atlantic, or the Ontario? Why should talents be confined to home? Is the air kindlier, or better suited to them? Does the Emigrant forget his friends when far away? Shall he forget his habit or his power?³¹

The author believed the Society would become a vehicle to arouse pride in Canadian-made works of art and show the world that something good could come out of Canada which would rival British and American productions. Through the 1840's mechanics' institutes, natural history and literary societies and mercantile library associations in Canada would "aid the efforts of the infant society", contribute to "the advancement of science, and the promotion of a taste for literature,"³² play an instrumental role "in the cause of knowledge...for the instruction of the public,"³³ dedicate their efforts to the growth of "necessary and useful knowledge,"³⁴ and "disseminate knowledge and improve the moral and social state"³⁵ of members.

The Literary Garland, a monthly Canadian magazine devoted to the advancement of general literature often detailed such matters during this period. Editor John Gibson supported enterprises towards these ends. Through art, poetry, the study of nature, self-education and an interest in literature, Gibson believed that Canadians could achieve "intellectual refinement."³⁶ Specimens in cabinets kept by these cultural organizations were deemed by Gibson to have obvious advantages: "The useful knowledge to be gained from a Cabinet, especially when taken in connection with that obtained from books, will be considerable."

Keeping a variety of specimens in these collections would serve as illustrations; "...to render definite the knowledge that otherwise would be vague." The study of objects "would have a tendency to liberalize the mind, to give it more enlarged views of the vast extent and variety of the works of creation." The influence of "a mind thus enlarged" would according to Gibson almost be felt immediately with the knowledge promoted having an influence on association members.³⁷

Other Canadian publications of the late 1840's would advocate for "a taste for polite literature among the working classes" and for "mental improvement of the masses"³⁸ through reading and self-education, and "cultivating the mind" through the study of fine arts, natural sciences and intellectual education.³⁹

By the end of the decade the efforts of these various societies, mercantile associations and mechanics' institutes in Canada were recognized by British author James W. Hudson. In his 1851 international study of mechanics' and literary institutions, Hudson described the Canadian scene and its educational impact:

Their libraries are comparatively extensive, and their annual exhibitions are purely of a practical nature, affording the best popular evidence of the progress of scientific discovery.⁴⁰

To a great extent Canniff Haight's comments had been confirmed. Two decades of growth between the years 1830-1850 helped to create what he had described as "the refinements of advancing civilization." This would include the development and beginning evolution of Canadian museums as centres for learning. The country would continue to move away from what a weekly Toronto newspaper dedicated to literature, art and music, called an "unsettled wilderness." It was now seen in a different light:

Canada is rapidly assuming national proportions...We have a large educated population..We have innumerable young men and women, with cultivated minds and correct tastes.⁴¹

Charles Fothergill

Another enterprise to assist Upper Canada to "take its proper station amongst the most enlightened communities of North America," were efforts made by Charles Fothergill to set up a Lyceum of Natural History and the Fine Arts. Fothergill's April 14, 1835 printed prospectus for the institution, noted that "whilst almost every town in the neighbouring Republic has its MUSEUM – the metropolis of UPPER CANADA is without any establishment of the kind." He recorded that while there were widely scattered private collections in the province, no public museum was available to advance science, form a depository for native natural history products, and cultivate minds. Contributions of natural history specimens and pictures were requested. The proposed lyceum would have a curator who had been employed at the British Museum, in London, England, and at the Peale Museums in Philadelphia and New York.⁴² A second petition circulated on December 13, 1836, further expanded on the original proposal. It called for the formation of a repository for all subjects of natural history, with the view of such an institution eventually becoming a "Provincial Museum, and Gallery of the Fine Arts." As an appendage, botanical and zoological gardens and a picture gallery would be attached. The lyceum complex was similar to what others had "in all parts of the civilized world." With its creation Upper Canada would "no longer remain without its Public Institute of Natural History, Antiquities, and the Fine Arts... To say nothing of the gratification which persons more advanced in life must receive from it – the advantages to be derived by the youth of this country, from such an establishment, are incalculable."⁴³

Fothergill had previously exhibited his large collection of natural history specimens in his Pickering Township home. This assemblage was described by Dr. Thomas Rolph; "Mr. Fothergill has an extensive and most valuable museum of natural curiosities... which he has collected with great industry, and the most refined taste."⁴⁴ By 1835, these objects had been transferred to quarters in central Toronto,⁴⁵ and Fothergill continued his quest to find a suitable building to properly house and display his collection. A report by a Select Committee of the Legislature on Fothergill's petition was issued on January 20, 1837. Chairman Allan MacNab recommended that a sum of two thousand pounds be loaned to build the museum. After weighing "all the advantages likely to be derived to the public at large" and stating that "whilst almost every other civilized community, both in Europe and in the United States of America, and also in the Lower Province of Canada, places a very high value upon, and takes a peculiar delight in cherishing, similar Institutions", the Committee recommended steps to be taken to complete a museum building that would be "an ornament to the city, and a credit to the Province at large." Citing as an example the development of London's British Museum from a private collection and its rise to the present status of national importance, authors of the report suggested that the Toronto Lyceum had a similar future. As supporters already had "collections nearly if not quite equal in value and extent (making due allowance for the different circumstances of the two countries) to what may be termed the original stock of the British Museum,"⁴⁶ it was recommended that the Assembly encourage a policy enabling the development of such an institution.

Fothergill's requests for public patronage went unheard and funding to build the museum was not forthcoming. A further petition to the City of Toronto for rented space in the Market Square building where the lyceum, zoological garden and observatory would be curated by his son George Alexander, was not successful. Thus ended Fothergill's dream of founding a public institution he described as being "so desirable an establishment."⁴⁷ The collection was relocated to newspaper offices of the Palladium at York and King streets. There it remained until his death on May 22, 1840. The significance of that which Fothergill assembled was described in an editorial comment:

It is well known that Mr. Fothergill has been engaged, for many years previous to his decease, in collecting a museum of natural and other curiosities – this collection – the labour of life -- is both instructive and interesting, and we certainly hope that it will not be permitted to be broken up.⁴⁸

There is no evidence that while here the collection was put on public exhibit.⁴⁹ Sadly after his death, Fothergill's collection was destroyed by fire.⁵⁰ A contemporary writer would provide some insight about

this early Canadian museum innovator's apparent lack of success. Historian Henry Scadding wrote in 1873 that; "It was Mr. Fothergill's misfortune to have lived too early in Upper Canada. Many plans of his in the interests of literature and science came to nothing for want of a sufficient body of seconders." In reference to the Lyceum and Institute of Natural History, Scadding concluded that it "was probably too advanced to be justly appreciated and earnestly taken up by a sufficient number of the contemporary public forty years ago."⁵¹ Fothergill was indeed a man "ahead of his time," however his pioneering endeavours to establish a provincial museum would come to fruition later in the century. His work would lead the way for achievements by other individuals, institutions and groups in the development of museums in Canada.

Thomas Barnett

Thomas Barnett was one of these individuals. Induced to move from Kingston to Niagara Falls by the promise of a land grant, Barnett petitioned for a license of occupation on military reserve land where he could erect a museum. The license was granted on May 2, 1832 and after a problem of transfer, was finally received on September 10, 1832.⁵² Located in Table Rock House overlooking the scenic Niagara river and gorge, Barnett's Museum soon became a popular destination for tourists and travellers visiting the Falls. As a point of attraction, a period guide book recorded; "The collection of curiosities at the Museum, and the Camera Obscura, which gives an exact and beautiful though miniature image of the falls, are well worthy of a visit."⁵³

Another author's direction to travellers noted;

...about half way between the Hotel and Table Rock, stands the very interesting Museum of Mr. Barnett, which visitors should by no means fail to visit. This gentleman Mr. Barnett, has spent years in the collection of his museum, and an examination of its contents will amply prove that the time has not been spent uselessly.⁵⁴

By 1846, the Niagara Falls Museum had upwards of 6,000 specimens comprised of "natural and artificial curiosities." An advertisement proclaimed that birds, quadrupeds, reptiles, fish, insects, plants, minerals and "Indian curiosities" were principally collected in the vicinity. In addition visitors could view a rich collection of foreign coins, natural specimens from all parts of the world, living rattle-snakes and birds and animals in galleries which were "classically arranged with the rarest and finest specimens the country can produce."⁵⁵ The merits of the collection and accolades for Barnett's efforts were proclaimed by Sir Richard Bonnycastle:

The only really pretty thing on the British side is the Museum, the result of the indefatigable

labours of Mr. Barnett, a person who, by his own unassisted industry, has gathered together a most interesting collection of animals, shells, coins, and etc., and has added a garden, in which all the choicest plants and flowers of North America and Britain grow, watered by the incessant spray of the Great Fall... He is now forming a menagerie, and also has a collection of fossils and minerals from the neighbourhood, with a camera obscura. He is, in short, a specimen of what untiring industry can accomplish, even when unassisted.⁵⁶

Not all who visited regarded the site in such glowing terms. English traveller Eliot Warburton lumped the museum in with other neighbourhood attractions built near Niagara Falls, which he claimed had been “overrun with every species of abominable fungus – the growth of rank bad taste.”⁵⁷ Most visitors however recorded positive comments and continued to include a stop at the Barnett Museum on their itinerary.⁵⁸ As a place of amusement, it was described in a period Canadian publication in the following manner

First and foremost stands Barnett’s museum, which is worth visiting, besides which are other places where refreshments are to be obtained, and Indian curiosities, crystals obtained from the rocks in the neighbourhood, and other articles to be purchased.⁵⁹

The success of the museum and concern for the safety and arrangement of the collection lead Thomas Barnett to begin construction of a more suitable, purpose-built structure in 1857. Rising costs resulted in Barnett petitioning the provincial legislature in 1859 for financial assistance to complete the new museum.⁶⁰ This Petition was referred to a Select Committee on March 10, 1859. Commissioners were empowered to investigate into matters set forth in the petition, and to report:

How far the Museum of the Petitioner has contributed to promote the knowledge of Natural History in Canada, and on the Continent of America, and how far the science would be advanced by enabling Mr. Barnett to establish a system of Exchange with Foreign Countries, of specimens peculiar to Canada for those of other Countries.⁶¹

Findings of the Select Committee was presented on April 16, 1859. They noted that the Niagara Falls Museum had been established for about twenty-five years and contained an extensive and valuable collection which had required a large expenditure of time, labour and money to assemble. A complete listing of specimens in the collection was printed with the authors noting that these articles “are very numerous and interesting and of great use to schools and students generally,” and “that it is principally a Canadian collection, and the more valuable on that account.”⁶² Professor William Hincks indicated that the collection exceeded his expectations. Valuable objects were “carefully preserved, and displayed in an instructive manner.” The museum was to be considered as “a most useful and interesting institution, affording great

public benefit, and deserving of encouragement, as a source of widely diffused and valuable instruction.”⁶³ Others giving evidence to the Committee concurred. Montreal entomologist William Couper who had visited other Provincial Museums and “has made this branch of knowledge for several years his particular study, practically and theoretically,” also declared the collection to be “instructive and valuable.” Couper assessed the new building deeming it to be “well adapted for the purpose, being large and substantial enough to hold the present collection in good order and safety.”⁶⁴ Mr. E.A. Routh stated that when the existing collection was removed to the new building and augmented by specimens expected from England, Egypt, Australia and South America, that “the Niagara Falls Museum will be second to none in the Province.”⁶⁵ He further estimated that 20,000 visitors had utilized the museum in 1858. Members of picnics and excursion parties were admitted at half price, while teachers and pupils of all schools visited free. Routh concluded that; “So far as the schools are concerned I am pleased to be in a position to say that this privilege is very freely used.”⁶⁶

Professor Hincks added to the evidence of the educational utility of the museum, indicating that it was “an important source of instruction.” The value of an easily accessible and well conducted museum such as the one operated by Thomas Barnett would in Hincks’ opinion, assist in “the encouragement of a taste for Natural History in a country to be a great means of advancing both its material and its moral and social progress.”⁶⁷ Dr. Egerton Ryerson echoed this opinion. He said of Barnett’s Museum: “I think every possible encouragement should be given by the Legislature to an undertaking of this kind, which, from its very nature, can very rarely be undertaken; cannot be adequately remunerative, though of great permanent interest and value to the country.”⁶⁸

The Committee’s Report stated that Barnett’s “Canadian Natural History Institution” was a credit to its founder and to the country. Great advantages could be derived from this institution in the general cause of education and in the promotion of the study of natural history. Members concluded that the Barnett Museum and “all institutions which tend to promote the cause of science and education, and the gratification of the public desire for exhibitions which combine useful knowledge with rational amusement,” should receive financial support from the Legislature.⁶⁹ This positive endorsement raised Barnett’s hopes, but they were quickly dashed when no provincial funding was allocated. Work on the new museum proceeded and was completed in 1860 at a cost of nearly \$50,000.⁷⁰ Erected expressly as a museum, it housed an immense

collection gathered from all parts of the world which "deserves more than a passing notice." The state of the art facility was described in the following manner:

The building is lighted on a new plan, which throws the light upon the objects in such a manner as to show them to better advantage than in any Museum we have ever before visited.⁷¹

Seen locally as a "splendid architectural ornament," it was acknowledged that, "Mr. Barnett deserves great credit for the undertaking."⁷² Large numbers of patrons continued to throng to the new museum and throughout the 1860's travellers' accounts listed the Niagara Falls Museum as a place to visit.⁷³ In 1872, Barnett staged a "Wild West" buffalo hunt which proved to be a complete fiasco and financial disaster. This contributed to the sale of the museum to Barnett's arch-rival and competitor Saul Davis, in 1877.⁷⁴ This ended Barnett's involvement in the museum business. His legacy however in founding and operating one of the first museums in Canada to be used widely by tourists, teachers, students and the general public cannot be dismissed. Far from being considered only "a notorious tourist trap,"⁷⁵ the Barnett Museum both entertained and educated thousands of visitors for nearly 50 years of its existence. Much like his American contemporary P.T. Barnum, Thomas Barnett was able to use a collection of natural, historical and archaeological materials to develop a museum which during his ownership was one of the most frequented in Ontario. As a practical naturalist and a collector, Barnett was able to capitalize on the growing interest associated with natural history and science and promote his museum as a place for instruction instead of merely amusement. This evolution would enable museums to be "recast as educational institutions"⁷⁶ serving the broader needs of society and catering more to the middle classes. Barnett was in the vanguard of this movement which would have direct impact on the development of Canadian museums during the latter part of the 19th century.

The Canadian Institute

The incorporation of the Canadian Institute in February of 1851 marked another significant date in the evolution of museum development in Canada. Spawned by "the general mid-nineteenth century faith in science as a determinant of social and economic progress,"⁷⁷ the Canadian Institute would have an impact on the development of antiquarianism, archaeology, art and the teaching of science in Canada through its museum, lectures and publications. The Institute was established to promote the physical sciences, to encourage and advance industrial arts and manufacturers, to facilitate the dissemination of knowledge connected with surveying, engineering and architecture, and to effect the formation of a provincial museum.

The objects of the Institute were extended to embrace "among its members persons of all grades and all pursuits."⁷⁸ To help achieve these goals The Canadian Journal was published as a repository of industry, science and art and as a record of the proceedings of the Institute. Through the "diffusion of practical information", the Journal was designed to benefit engineers, architects, surveyors, machinists and artisans. In addition the publication's aim was; "...the cultivation and promotion of a taste for art amongst all classes of society – nothing having a more salutary or direct effect in retiring and elevating the mind."⁷⁹

Members were expected to contribute to the cultural development of Canada by forming a general science museum which would specialize in "Architecture and Engineering, Natural History and Botany, Mineralogy and Geology, Indian Antiquities, and Arts and Manufacturers."⁸⁰ Minutes from the February 1, 1851 meeting of the Institute recorded discussion on the formation of a museum. The provincial government made a grant of £250 to the Institute and "afforded it every facility and accommodation for an immediate commencement of a Museum and Library." It was noted that plans for a private and specialized museum illustrating the arts and sciences would not conflict with the government's aim of forming "a general museum." Members would be canvassed for donations of artifacts and the Geological Survey of Canada would be approached for duplicates of geological and mineralogical specimens. It was felt that a collection of this kind would "naturally be more acceptable and more easily available than any large Public Museum."⁸¹ A museum committee was appointed to act in conjunction with the recently nominated curator, Professor Edward Chapman.⁸² The initiative of establishing a public museum was deemed to be important, as by the 1850's it was acknowledged that in Canada; "Public institutions, whether religious or secular, are alike, the common property of a country."⁸³ It was believed that the age required individuals of "self-reliance, self-culture and self-denial." The necessity and advantage of cultivating intellectual power was recognized.⁸⁴ The path to progress leading beyond the earlier pioneer phase of settlement was articulated; "It takes many streams flowing together, to fertilize a country; so individuals influence and individual energy are all required to carry on plans of public improvement."⁸⁵

The popular press identified the need for public institutions. In a series on Canadian cities and towns, editors of the Toronto based Anglo-American Magazine decried apparent shortcomings. While there was a reading room in the St. Lawrence Building, Toronto had no public library. "Nor is there a room even devoted to the collection of specimens of art, or the fruits of genius."⁸⁶ The same was true in Kingston: "It is also like

most Canadian Towns devoid of a public Library or Museum.”⁸⁷ Hamilton fared even worse. A reason was proffered:

We look in vain for almost the germ of a Public Library, a museum, even a theatre. We may be told that they will be formed in time, that the places are too young yet! The reply to this is simple and evident. In places less wealthy they exist, surely nothing else is wanting for their establishment.⁸⁸

Yet a role for museums and the collections they housed was identified:

Those things that are revealed by the light of day...are but imperfectly communicated without the aid of museums, which place on view for everyone a treasure trove of objects introducing us to the creativity and inventiveness of the human spirit down through the ages. Such places are to be found in all enlightened nations. The time has come for Canada to take its step in this same fruitful and instructive direction.⁸⁹

Results however were minimal in attaining such an outcome. The Canadian Institute was acknowledged for its efforts to promote literature, science and the arts.⁹⁰ Several members were instrumental in helping to organize the Canadian contribution to the 1855 Paris Exhibition which was judged to be superior to the representation made by the United States.⁹¹ The transfer of books and mineral specimens from the Toronto Athenaeum in November 1855, increased the holdings of the Institute. These collections were arranged in rooms and open for public viewing at least one day a week.⁹² An assortment of engineering and architectural models and natural science and geological specimens were placed on open shelves, but it was regretted by the Institute’s Council that; “The progress of the Museum has been necessarily slow owing to the state of uncertainty in which the Institute has been placed with respect to the necessary accommodation for the...specimens.”⁹³ In his presidential address of 1856, George William Allan stated that there was still no provincial museum. While noting that University and Trinity colleges had valuable collections, Allan suggested that the practical benefits of these museums were “almost entirely confined to those more immediately connected to the Universities themselves.” The Institute was interested “in the intellectual progress of the people of this country” and in “supplying a great public want.” Through the Institute Allan would mount a campaign;

...of enlisting all classes and parties in support of one great institution, in contribution to whose library and museum, all may feel that they are not assisting to build up a collection belonging to any one Section or party in the community.

This initiative sought to establish a depository of natural history, mineral products and historical antiquities into “a collection which will ever be regarded with feelings of common interest and pride by every Canadian.”⁹⁴ While the Canadian Institute continued to exert pressure on the government to establish a

permanent home for this type of facility, its efforts were not fruitful. In the Annual Report for 1856, it was recorded that a proper building was still needed in order “to render both the Library and Museum credible to the Institute and beneficial to the Province at large.”⁹⁵

Members subscribed to the ideas on education proposed by the principal of McGill College J.W. Dawson, that:

We are only following the example of the Mother Country. University Reform, a National system of Education, Industrial and Ragged Schools, with Schools of design, People's Colleges, and Museums of Economic Art and Science.⁹⁶

Both foreign and Canadian observers commented on the importance of education in Upper Canada. English traveller Isabella Bishop identified differences in actions taken:

A national system of education, on a most liberal scale, has been organized by the Legislature, which presents in unfavourable contrast the feeble and isolated efforts made for this object by private benevolence in England.⁹⁷

Montreal publisher and lecturer Rollo Campbell spoke to a Scottish audience announcing:

Few Countries have provided more liberally for general education than Canada, and the immigrant, in coming hither, has the satisfaction of knowing that his children will have privileges in this respect.⁹⁸

Noting Egerton Ryerson's role, distinguished English poet Dr. Charles Mackay wrote that Toronto “may be said to have set an example to all Canada in the cause of public education.”⁹⁹ While Ryerson was able to take forward these ideals with the establishment of his Educational Museum (see Chapter 5), the realities of the time including commercial difficulties and a general economic depression did not permit the Canadian Institute to construct a building which in part would house its increasing collection of natural history, geology and scientific objects.¹⁰⁰

Through the 1860's the object of the Canadian Institute was to “cultivate human knowledge.” It was believed that through the promotion of industry, science and art that intellectual and literary pursuits would be fostered amongst the population of Upper Canada. Still “the want of libraries, museums and instruments” retarded such progress.¹⁰¹ Land was purchased for a new headquarters for the Institute in 1864. One of the possible tenants in this new building was the Entomological Society of Canada whose collection was housed in a reference cabinet and curated by James Hubbert.¹⁰² By 1866, the Institute's curator W.Barclay McMurrich, provided a report which noted that the museum had been moved into a “large and commodious

room set apart for it" in the new building on Richmond Street. These quarters were specially fitted out with glass cases, stands and other requisite conveniences for displaying artifacts. Dr. Henry Scadding prepared a catalogue of coins in the collection, and commented on the improved facilities:

The museum being placed on a new footing, with ample accommodation, it is hoped that the members of the Institute will take a lively interest in its advancement, and contribute, or get others to contribute, such object or objects as will add to its attractiveness and value.¹⁰³

In 1869, president William Hincks outlined the Institute's ongoing mandate; "It is our aim and business to associate together all the higher culture of the country, for improvement and enjoyment, derived from the best sources." Hincks further discussed the museum and the problems associated with it:

As to our Museum, it is at present useless, and little else than a name. Personally, I am strongly impressed with the folly and wastefulness of multiplying museums in the same neighbourhood. The University of Toronto, which is a national institution, and opens all its advantages as freely as possible to the whole public, aims at a good general museum, both as a means of teaching the natural sciences in University College, and as a place for consultation of specimens and improving study to all lovers of natural history, as well as a pleasing recreation to all visitors. It is a matter of public and national interest to improve this Museum, which, if it had any funds for its increase, would speedily become highly valuable. For us to attempt a duplicate general Museum, would be absurd; and the few interesting productions of distant countries possessed by us, are really out of place with us, and wasted upon us.

Hincks suggested that the Canadian Institute Museum should cater to a natural history collection from the province featuring mammals, birds, fish, insects, and plants native to Ontario. He surmised that:

Such a collection would be a constant source of instruction amongst ourselves, and would be most interesting and attractive to strangers. It would be without a rival, and could never be regarded as what is not wanted, or as a pretension to what cannot be well accomplished.¹⁰⁴

Similar ideas were expressed by the subsequent president, the Rev. Henry Scadding. He admitted that the University of Toronto had established its own science museum and had filled the void created by lack of progress by the Institute. Scadding proposed that the Canadian Institute Museum should become a repository for Canadian historical and archaeological artifacts.¹⁰⁵

In January of 1871, Scadding read his important work on museums as instruments of education in natural sciences before the Canadian Institute. In this presidential address, Scadding urged young Canadians to travel and visit museums in Great Britain and Europe, something he viewed as having a "practical and self-educating use." Seen more as simply displays of objects, the collection of a great museum ceased "to be a mere show or plaything, and is transformed into a gallery of illustration – a delightful and precious

instrument of self-education; a means of mental expansion, intellectual enrichment, and positive increase of personal competency, in whatever sphere of duty the observer may be acting".¹⁰⁶ Through museum collections instruction in the "principles of Natural Science"¹⁰⁷ could be taught. Scadding assigned a high place in education to the knowledge of youth, and museums could help facilitate this learning process. Museums in European and American cities as well as Montreal and Quebec were cited as examples to follow. Regarding initiatives by the Canadian Institute, Scadding lamented; "I wish our own small Museum...were richer in objects, but it is not wholly to be despised."¹⁰⁸ The collection was housed in the attic of the Institute's building and would not grow in importance until David Boyle became curator in May, 1884.¹⁰⁹

Boyle donated his collection of Indian artifacts to the Institute and started a campaign to obtain financing from the Ontario Ministry of Education to support archaeology. He began to upgrade and expand the poorly managed collections and in 1887 was granted funds to begin archaeological fieldwork. This assistance enabled Boyle to become the first full-time professional archaeologist in Canada, and began an official linkage with the provincial Education Ministry, which signalled the first step in seeing a publicly supported museum of Ontario archaeology become a reality.¹¹⁰ A labelling system and annotated catalogue instigated by Boyle became the basis for an interpretive programme at the museum. Boyle had effectively used the Elora Public School Museum as a centre for education and believed that museums should be teaching institutions and places of learning for the general public. (see Chapter 5). He had previously published his ideas on museums, object learning and the use of local history in education,¹¹¹ and was able to implement some of these ideas at the Canadian Institute Museum before his resignation as curator in late 1895. This did not end Boyle's connection with museums and the Canadian Institute. The Ministry of Education decided to enlarge the Normal School and allow for offices, display rooms and galleries for the archaeological collection. This gave a great boost to the development of the museum and resulted in several significant outcomes. In 1896 Boyle was named curator of this new archaeological section and all of the Canadian Institute's archaeological specimens were transferred to these improved facilities. The new museum officially opened to the public on June 17, 1897. Through a provincial appropriation of \$1,000, Boyle conducted the first systematic archaeology in the province.¹¹² Through excavations Boyle was able to expand the Provincial Museum's collection which he saw providing "the future student of history, ethnology and archaeology with a store of material and facts relating to our own province that will be available for reference in the chief centre of our educational institutions."¹¹³ Boyle was also responsible for editing the

Annual Archaeological Report as a yearly summary of archaeological initiatives, museum acquisitions and scientific research. In the second Report Boyle noted the drawbacks of being located on the third floor of the Toronto Normal School, but spoke of the collection and advocated that; "Everything possible should be done to enable young and old, learned and unlearned to examine [it] with pleasure and profit, at the least possible expense of time and trouble."¹¹⁴

The collection continued to grow as the museum became better known and consequently used. In an optimistic vein Boyle reported the following:

As was anticipated there is an increasing disposition on the part of private collectors to place their specimens on permanent exhibition in our cases, as is the practice in connection with the best museums in Europe and the United States.¹¹⁵

In 1895 the museum was open to the public each afternoon during the week, a measure which resulted in increased attendance. With an ever expanding collection and growing visitation the Archaeological Museum was moved to new quarters in the Educational Department in 1897. For Boyle the *raison d'être* of this museum was education. This philosophy continued to be expressed and put into practice:

It cannot be repeated too often that a museum is no place for what is merely curious. Apart from educational value no object is worthy of room in any collection except it be a collection of bric-a-brac. Curiosities, as such, have a value only when they serve to illustrate some departure from natural law or from well-established popular custom.¹¹⁶

If a public museum has no educational value it cannot be said that there is any reason for its existence. It is the duty, therefore, of those concerned in the maintenance and management of such an institution to make it all it ought to be, and endeavor to lead in the adoption of new methods, rather than to lag, or to imitating tardily those of other and more progressive institutions of a similar kind.¹¹⁷

It is impossible to do too much by way of impressing on the public that while the museum is a place in which many pleasant hours may be spent merely in sight-seeing, the main object is an educational one, the purpose of which corresponds to that of a reference library.¹¹⁸

Boyle was influenced by what he had seen in European and American museums and by the writings of prominent museologists of the time. In areas of labelling, case design, cataloguing and arrangement and classification of specimens, Boyle believed that his museum did "not suffer much by comparison."

Ethnologically, however, the Ontario Archaeological Museum did lag behind museums in Europe. At museums in London, Liverpool and Paris, he observed that collections enabled "students to compare the trend of thought and the process of development in science, as well as in art, among peoples in every stage of

growth." He hoped to emulate this in Toronto. The international museological literature that Boyle referred to, stressed the importance of carefully framed, mounted and labelled collections to make them of interest "to the minds of the multitude," and identified the dual role of museums "to provide for the diverse wants of students and of visitors" and to "...contribute to the general progress of scientific knowledge."¹¹⁹

The "coming of age" of the Archaeological Section of the Provincial Museum was mainly due to the indefatigable efforts of David Boyle.¹²⁰ On his death in 1911, the success of David Boyle was noted in his obituary. From humble beginnings Boyle had risen to become Superintendent of the Provincial Museum. He had amassed 900 specimens in the Canadian Institute and over 32,000 in the Archaeological Museum,¹²¹ and was recognized for the contributions that he had made in the development of the disciplines of Ontario archaeology, ethnology, anthropology and museology.¹²² He had assisted the Canadian Institute in its efforts to "cultivate human knowledge,"¹²³ "educate public opinion,"¹²⁴ and provide a museum which could be used by students, specialists, teachers and the public at large.¹²⁵ The collections that he assembled and re-arranged in new quarters showed "to much better advantage, and are therefore more interesting and valuable educationally than they were before, and this is their only use."¹²⁶ Through his work Boyle managed to reach a broad public and establish a foundation for the collection in the Art and Archaeology Section of the Royal Ontario Museum.¹²⁷ These were both measures of Boyle's significance and achievements.

The efforts of the Canadian Institute and David Boyle were part of an extension and diversification of science in 19th century Canada which ultimately made the discipline more "accessible and egalitarian."¹²⁸ As products of their time they contributed to a process that had its roots in England but which was tempered by local circumstances:

The implanting and growth of science in Victorian Canada was one strand in a complex fabric of transplanted British civilization overseas; like other strands in that culture it was modified and the resulting pattern was not an exact duplication.¹²⁹

Museums at the University of Toronto - Early History to 1850

Museums were an integral component of the history of Canadian universities and colleges throughout the 19th century. The University of Toronto was one of the most active in this regard with its efforts connected to the growing quest for knowledge through formal educational pursuits.

Here the development of the university and associated colleges and the establishment of museums on its campus went hand in hand with the desire of Upper Canadian's to create a system of "liberal education." Whether for the merchant, farmer or mechanic, colleges were thought to be more than a storehouse of general knowledge, and were viewed as being a "school of mental discipline." In the words of Egerton Ryerson, these institutions of higher education would foster the ideal of; "Knowledge even with poverty is preferable to riches with ignorance."¹³⁰

The first charter for a university in Toronto was issued on March 15, 1827. Due to a period of political instability and financial uncertainty, the formal opening of King's College, the first admission of students, and the commencement of teaching did not take place until 1843. The concept of establishing a museum was part of the earliest vision of the university. In 1834, Dr. Christopher Widmer made representation to the Board of Governors asking for £100 "to be expended in commencing the formation of a Museum."¹³¹ This request was granted but nothing resulted from this first museum plan until college buildings were erected in 1843. In the intervening period a committee was established to inspect the collection of "Natural History & other curiosities" amassed by the late Charles Fothergill. It was deemed that the "collection offered would be of value to the college", aiding immeasurably in the formation of a natural history museum which would be connected to a general museum of the university. Committee members noted that:

For many years the ancient relics of the aboriginal inhabitants of this part of North America as well as specimens of plants & animals which as civilization advances become scarce & even extinct, have been transferred to other countries without any Collection being formed in this Province.

Further, the committee was of the opinion that Fothergill's collection of "Canadian Antiquities & Specimens of Natural History... would hereafter be found a great assistance in the elucidation of the history of the aboriginal inhabitants, their manners & customs, as well as in any investigation of the natural history & geology of the Province, ancient & modern."¹³²

Negotiations with Fothergill's widow continued. Public support for the acquisition of this collection by the university was identified in the Toronto Patriot. An editorial comment assessed the collection as being "both instructive and interesting." Noting that Lower Canada had natural history and scientific societies with cabinets of specimens, and that Upper Canada "does not possess, either by her voluntary associations or by

Corporate bodies, a single thing of the kind," the paper suggested that King's College was the only public body in the province which could preserve Fothergill's "labour of life." It was concluded that:

A cabinet of nature and of art is an almost necessary ingredient in the composition of a university, and we certainly hope that the present opportunity of forming the Nucleus of a future Provincial Museum, at a very moderate outlay, will receive a proper consideration from the directors of King's College.¹³³

It was recommended by the review committee that the college acquire the collection for £175, subject to receiving a release from the administrator of Fothergill's estate. Disaster however thwarted such plans as a fire totally destroyed the collection on June 13, 1840.¹³⁴ Other ways would have to be found to establish collections and develop facilities for museum use at the University of Toronto.

During the 1850's

Advances made during the next decade were noteworthy. A contemporary account by Professor William Hincks recalled that:

From an early period in the history of the university, although no means had yet been provided for the teaching of natural science, some efforts were made to provide a Museum. Some valuable zoological specimens were purchased, and by the exertions of a Dr. Boyes, Professor Croft, and others, a good many birds, many Canadian insects, and the land and fresh water shells of the neighbouring country were brought together.¹³⁵

By 1854, President John McCaul in a review of progress to Governor General Edmund Head, recorded that the only museum that the university possessed was "illustrative of Natural History." McCaul noted that great progress had been made in collection preparation and specimen classification. Over 600 objects related to zoology and botany were used by professors to illustrate lectures. The president made the case for the establishment of a "Mineralogical and Geological Museum", and suggested "the expediency of making an annual appropriation for additions both to it and the Museum of Natural History."¹³⁶ The lack of funding would continue to restrict successful development of museums on the campus. McCaul lamented in an 1855 report that the museum had no appropriations made to it by University College and that it was "still dependent on the private collection of the Professor of Mineralogy and Geology, for the illustration of the Lectures on those subjects."¹³⁷

Public opinion about the utility of universities and the importance of educational facilities would help to mitigate these shortcomings. The popular press began to stress the need of having universities as "higher branches of a sound and liberal education."¹³⁸ Associated with such developments would be the creation of

museums to augment teaching practices at the University of Toronto and other institutions for higher learning.¹³⁹

The hiring of professors educated in Scotland, the United States or Europe brought new methods to the teaching of science. Lectures were often demonstrated with apparatus. To properly teach natural science, a natural history cabinet or museum was a prerequisite. German educated Henry H. Croft was one of the first professors hired at the University of Toronto to teach philosophy and chemistry. Croft's interest in entomology resulted in the acquisition of a fine collection of zoological specimens which was donated to the university's Natural History Museum.¹⁴⁰ Croft's involvement with and support for this museum would continue into the 1860's. In 1853 the Irish educated Reverend William Hincks was appointed as head of the Natural History Department and as the museum's curator.¹⁴¹ Additional academic appointments that year which would have a profound impact on the future development of museums at the University of Toronto, included the hiring of Scottish trained Daniel Wilson,¹⁴² and German and Scottish educated Edward J. Chapman.¹⁴³

While limited in scope, museums at the University of Toronto were receiving notice and were used by faculty and students for teaching and studies. George William Allan, president of the Canadian Institute cited valuable collections at University and Trinity colleges and surmised:

But, although these institutions are most liberal in affording every facility to strangers who may be desirous of visiting either their libraries or their museums, the practical benefits to be derived from either the one or the other must be almost entirely confined to those more immediately connected with the Universities themselves.¹⁴⁴

Chief Superintendent of Education, Egerton Ryerson in a March 23, 1857 letter to the university chancellor wrote of these museums; "...so many advantages are enjoyed by Students in the excellent Apparatus provided, and in valuable collections of the Museum and Library."¹⁴⁵ Efforts to address cramped quarters and to expand the use of museum facilities began in July of 1856. Vice Chancellor John Langton introduced a statute relating to the museum which proposed transferring its operation to the University. The Senate approved this transfer at its meeting on October 10 and a week later moved to appropriate £1000 to be used for museum development. On February 2, 1857 a sum of £5000 was granted with approval for an additional appropriation of £20,000 to be used for the library and museum.

In parallel developments the architectural firm of Cumberland and Storm was engaged to begin design work on plans for University College. Patterned after the New Museum at Oxford, this building included space for three different museums. The Natural History Museum was to be situated in the second storey of University College and would consist of a curator's office, preparation space, a lecture room and an exhibit area encircled by a gallery. On the third floor of the new building, rooms would be allocated for separate museums of geology and ethnology. Museum fittings, cases and interior appointments were designed after specifications recommended by British architects John and Wyatt Papworth. Cumberland and Storm utilized suggestions made in the Papworth's 1853 publication on the establishment, formation, arrangement and construction of museums and galleries. Philosophically the Papworths supported the contention that public museums would be "for the instruction and recreation of the people." Museum design would allow for practical demonstrations through lectures which would "show the relation of the specimens in a museum to the different branches of art and science, and to each other with their purposes and uses."¹⁴⁶ Cumberland and Storm also borrowed ideas from architectural renderings for galleries, exhibit fittings and display cases at the Museum D'Histoire Naturelle in Paris and the Museum of Practical Geology in London.¹⁴⁷ These innovative and progressive instructions included the use of roof lighting, construction of uniform wall cases for easy movement, and provisions for lecture and apparatus rooms. The three new museums opened for use in 1859. Vice-Chancellor John Langton reported that the temporary accommodation provided for the museums and four successive moves of collections since 1853, were inadequate and materially interfered with operations and duties. Upon completion of the new building, Langton wrote that the University museum and library could properly fulfill the objects for which it was created and that the new facilities would "be open to the Public at large, without any restriction, so as to make them truly Provincial Institutions."¹⁴⁸ In 1859, the chief clerk of the Smithsonian Institution added his comments about advancements made after 1853. He noted that since then the University of Toronto Museum had;

...rapidly increased, and already contains enough to render it highly interesting and attractive. It affords the means of usefully illustrating the lectures on the various departments of Zoology and Botany; and at the same time offers inducements and assistance for the further study of natural history, by exhibiting an extensive series of objects, and especially of the productions of Canada.¹⁴⁹

Through the 1860's

In an 1860 report to the Legislature, a Select Committee confirmed that the museum and library facility was open "giving the public the freest access to it." Commissioners added that; "There is not a University, or

College in the world of any standing, which has not already acquired, or is not accumulating, a Library and Museum, as essential to the prosecution of higher studies."¹⁵⁰

The Principal of Queen's College, Kingston echoed similar sentiments in reflections on what a rival university had:

A Museum has been expensively fitted up, chiefly for the benefit of the people of Toronto. These are important educational appliances for the people at large. Why should the people of Kingston not have a similar advantage in connection with her University?¹⁵¹

At Laval University in Quebec where its museum commenced in 1862, a professor in the faculty of arts identified this institution's purpose:

Nous avons donc lieu d'espérer que le musée botanique...offrira la même utilité, et qu'il contribuera avec le temps à l'avancement des sciences dans notre jeune pays.¹⁵²

Throughout this decade progress was recorded at the museums at the University of Toronto. In an 1862 report on expenditures, it was agreed that the University would appoint a curator who would "have charge of such specimens from the Museum or such parts, as may be required by Professors for the illustration of lectures." In the case of the Mineralogical and Geological Museum, Professor Edward J. Chapman continued in charge. Chapman wrote to the Commission explaining that he had ordered or purchased directly from dealers in France and Germany, over 5,000 specimens. The collection was constantly growing with 100 specimens awaiting cataloguing and 200 more expected from the Canadian Geological Survey. Time would also be devoted to the development of a catalogue and the arrangement of the collection for viewing by students and public visitors.¹⁵³

Independent observers confirmed the merits of each curator's work and the utility of museums at the University of Toronto. English traveller Samuel P. Day visited in September of 1862 and recorded that University College had "museums of natural history, mineralogy and geology, embracing many thousand specimens."¹⁵⁴ In an article on the University of Toronto, a popular news magazine noted that the Museum of Natural History had 70 specimens of mammals, 1,000 of birds, 70 of reptiles and 150 of fish. In addition there was an "extensive and valuable" series of insects and several thousand specimens of mollusk shells. The Museum of Mineralogy and Geology was "every year increasing in interest and value," while there was also a collection illustrating natural philosophy and chemistry.¹⁵⁵ In a review of progress in Upper Canada,

John George Hodgins listed the museums connected with the University Toronto in his sketch of education. He described the Natural History Museum as being "most valuable and extensive," with interesting collections of mammals, birds, reptiles, insects, shells and native plants. The Mineralogy and Geology Museum had upwards of 6,000 specimens, with various instruments and models from Europe and a special Canadian collection. The museum at Trinity College contained various natural history, mineralogical and geological specimens.¹⁵⁶ Professor William Hincks reiterated the institutional and public importance of the Natural History Museum on receipt of duplicate artifacts from the Smithsonian Institution:

Permit me to explain the objects of the museum are first to afford the best attainable materials for instruction in the several branches of natural sciences to the professor of that department in University College; secondly, to afford opportunities for private and special study to any persons seeking them; and thirdly, to offer a pleasing and instructive exhibition to the public at large, which is opened at all proper hours without any payment, and is extensively visited both by our own citizens and the numerous travellers from the United States.¹⁵⁷

Through his work at the Ethnology Museum, Daniel Wilson was able to pursue pioneering initiatives in the fields of anthropology and archaeology. In his initial academic session at the University of Toronto, Wilson taught the first university course in anthropology in the world, and began his study of North American Indian cultures, making him Canada's first anthropologist.¹⁵⁸ In his teaching and curating, Wilson broke from the traditional form of British antiquarianism which stressed concern with classical antiquities and a sterile desire to identify all archaeological remains as the relics of historically known peoples. Instead he adopted a three tier system used at the Copenhagen Museum and arranged artifacts in terms of stone, bronze and iron ages. Wilson believed that this evolutionary sequence of prehistoric times constituted the foundations of archaeology as a science.

This philosophy was transferable to the study of museum collections where attempts were made to determine how artifacts were made and used. Archaeological evidence was used to illustrate what was already known about past cultures from historical and ethnographic sources.¹⁵⁹ Wilson had begun to formulate his ideas while serving as Secretary for the Society of Antiquaries of Scotland. In his efforts to save the Society's museum, he authored a guidebook which called for wide public access and use of such institutions and promoted the museum as an agent of education for the artisan and middle classes. Wilson wrote:

The value of such a depository of objects of antiquity is proved, not only by the preservation for study and popular education...but also by the fact that domestic implements and personal ornaments presented to the Society in its earlier years...became rare and curious illustrations of National Manners and a state of society altogether obsolete.¹⁶⁰

Wilson transferred these thoughts to initiatives undertaken at the University of Toronto, its Ethnology Museum and to the Canadian Institute.¹⁶¹ As a progressive 19th century ethnological and archaeological intellectual, Wilson brought to Toronto a combination of old world thought, a fascination for relics and antiquities, scholarship, and biblically-based Christian ideals. This mix would help Wilson achieve advancements in a country which while still maintaining its links to Great Britain, was translating and adapting the experience of Victorian science in a new world in British North America.

Comments in Wilson's 1861 presidential address to the Canadian Institute captured this sentiment:

Happily it is still our boast that, while under the genial sway of our beloved Queen, science and letters are accomplishing triumphs which will render the Victorian era illustrious in future ages.¹⁶²

By the end of the decade Wilson's colleague William Hincks succinctly described the course of action like-minded individuals would pursue; "It is our aim and business to associate together all the higher culture of the country, for improvement and enjoyment derived from the best sources."

One of these sources would be museums and Professor Hincks identified the three-fold purpose of his Natural History Museum:

The University of Toronto, which is a national institution, and opens all its advantages as freely as possible to the whole public, aims at a good general museum, both as a means of teaching the natural sciences in University College, and as a place for consultation of specimens and improving study to all lovers of natural history, as well as a pleasing reaction to all visitors.¹⁶³

Would these high ideals be realized in the years leading up to the 20th century?

The 1870's Through to a New Century

Senate minutes of the University of Toronto for the 1870's show very little change in the museums located on campus. Money was allocated for increased accommodations, additional cases, more apparatus for teaching, collection acquisition and staff salaries. Additional members were added to the Museum Committee and several new staff were appointed to curatorial positions.¹⁶⁴ Varied accounts shed some light on museum operations through this period. During his term as president of the Canadian Institute (1870-76), the Reverend Henry Scadding acknowledged that the University of Toronto had filled a void created by the

lack of development at the Institute's museum by building up its own science museum. In a presidential address delivered in 1871, Scadding noted:

Our own University Museum at Toronto is of course familiar ground already to our young lovers of Natural Science. It will be found a good antepast to the feasts that await them on their visits to larger establishments. It presents some good studies in ornithology and entomology.¹⁶⁵

Louis J. Breithaupt, a teenage student at Days Commercial College, made several visits to museums at the Normal School and the University. On his last excursion he recorded that; "Both museums are well worth one's while to see."¹⁶⁶

Curator Henry A. Nicholson's work at the National History Museum in collecting Ontario fossils and the publishing of reports on Ontario palaeontology during 1873-1875, were addressed as being "indispensable" resources for students of geology.¹⁶⁷ Travellers also noted that this site was an asset to the University, describing it as "a fine museum of natural history" and a place to visit.¹⁶⁸ The popular press wrote of the museum in different ways. In an 1878 issue of the Globe and Canada Farmer, the Victoria College Museum received a graphic description:

The museum is a large, lofty room, supplied with eleven display cases, each admitting of a roomy exhibition of hundreds of mineralogical and geological specimens. A cabinet of Egyptian curiosities and a case of antiquities have been contributed by Dr. Lachlan Turner. Among the former are a well-preserved Egyptian sarcophagus and a female mummy; relics of mummies, an embalmed sacred cat and an ibis from the Thebes; a tear bottle, wheat, dates, and ornaments from the same ruins.¹⁶⁹

If this collection was meant to enthrall and entice the public to visit the museum, then what was described at the archaeology and mineralogy museums by the Toronto Mail, was polar opposite:

Sir Daniel Wilson's archaeological collection, and Professor Chapman's collection of minerals had always been considered as too valuable to be inspected by visitors. They were jealously guarded against any chance of being tampered with. Even the students were not admitted to these rooms unless accompanied by the professors. But unfortunately these collections were in rooms not easy of access.¹⁷⁰

Valentine Ball, director of the Science and Art Museum in Dublin probably most accurately assessed the stature of the museums at the University of Toronto. During a visit made in 1884, he recorded that they were small and chiefly used "for educational purposes and lectures."¹⁷¹

The future of the museums at the University of Toronto was permanently altered when a fire broke out on

February 14, 1890 and burned much of the collections. All contents at the gallery level of the Natural History Museum were destroyed and the collections of the Geological and Ethnology Museum were lost. Biological specimens suffered comparatively little and were moved into new quarters in the Biological Building in 1892. Other collections as well as artifacts from the Victoria College Museum were stored in several buildings awaiting removal to one location which was planned as a new general museum for the University.¹⁷² This disastrous fire would lead to new directions. Publications and surveys identified the continued existence of the University of Toronto museums to 1900. Prior to the 1897 meeting of the British Association for the Advancement of Science which was held in Toronto, a preliminary programme noted that a new Biological Museum was used for teaching, while the Ferrier Collection featured Canadian minerals and the School of Practical Science housed a good mineralogical collection.¹⁷³ Henri Ami's address to the conference further described collections at the Biological Museum, the Museum of the School of Practical Science and the Museum of Victoria University. These were used primarily for "educational purposes", to illustrate lectures and for students' reference.¹⁷⁴ An 1898 Canadian encyclopaedia recorded that the Biology building erected in 1890, contained laboratories as well as the Biological Museum and the Ferrier Collection illustrating the geology of Canada.¹⁷⁵

A three-part article written in 1900 by R. Ramsay Wright, curator of the Biological Museum confirmed that this site had replaced the old Natural History Museum after the 1890 fire. The collection had grown due to donations from public institutions abroad and from private individuals. A shift in focus for the collection was identified. Professor Wright wrote that acquisitions "did not involve the models and preparations most useful for educational purposes, but chiefly concerned the mounted specimens of more interest to the general public." The museum would cater to the educational needs of students enrolled in biological studies, but was also designed to attract large numbers of visitors from the public. Because of space restrictions only a small portion of the collection was on display in quarters described by the curator as "a small educational Museum."¹⁷⁶ At the end of the 19th century, a university calendar suggested that:

The equipment of the museum is now so far advanced as to permit of its being opened to the public. It is primarily intended as an educational museum for the students taking Biology...and is arranged in such a way as to facilitate the most elementary as well as the most advanced studies...but it is anticipated that the museum will also be of great interest to the general public.¹⁷⁷

By 1902, the Geological and Mineralogical Museum curated by A.P. Coleman contained paleontology, mineralogy, petrography and economic and structural geology collections. Wright's Biological Museum had

See line 7.

King's did not exist
in 1859. Had been repl.
by U of T.

ogy and botany. Professor G.W. Wrong was in charge of the
rwash oversaw collections at the Victoria University Museum.
ditional mediums" in a published survey of natural history museums

Assessment of the Early Museums at the University of Toronto

In the 1920's the biological collection was moved to the Royal Ontario Museum. Space formerly used by the Biological Museum was utilized for research purposes. A similar fate befell other museums on the campus. The limiting of space re-created the situation which existed prior to the opening of museum facilities at King's College in 1859. At that time existing museums were "necessarily closed to the public."¹⁷⁹ Such was the case again. The role played by the University of Toronto's museums in promoting "liberal education," advancing knowledge, and acting as centres for public learning would be passed on to other institutions in the 20th century. The work of Croft, Hincks, Wilson and Chapman however would not be forgotten. Their legacy formed an important component of the museological history of Canada and contributed to the acceptance of museums and their collections as adjuncts to formal learning techniques in the university teaching environment throughout the last half of the 19th century.

The Geological Survey of Canada: The Logan Period, 1843-1869

Various authors have suggested that the provision for public museums in Canada began with the establishment of the Geological Survey of Canada in 1842.¹⁸⁰ With a growing interest in providing accurate information about the country's natural resources, the Canadian Parliament voted in 1841 to allocate funds to set up a Geological Survey and to hire a provincial geologist. Montreal-born William Edmund Logan commenced his duties in the spring of 1843. Schooling in Edinburgh together with work in the geological and museum fields in the United Kingdom, provided Logan with practical experience which was invaluable in the development of the Canadian Geological Survey and in the founding of a museum as a natural outgrowth and adjunct to this initiative.¹⁸¹

Logan and his assistant Alexander Murray immediately began geological field work and collected large quantities of fossils and minerals. Specimens were stored in temporary facilities in Montreal. This was the beginning of what would eventually become the National Museum of Canada. Logan commented on his initial efforts and the work ahead:

The collection of specimens the Survey has brought together is quite overwhelming, and when I observe the small impression Murray and I have yet made on our seventy great boxes, most of them requiring at least two men to lift, I am almost in despair. The fossils alone would be quite occupation enough for a palaeontologist for six months.¹⁸²

The uncertainty of receiving necessary funding and providing adequate quarters for the museum would be an ongoing challenge for Logan during the next decade. In the spring of 1844, Logan wrote to the director of the Geological Survey of Great Britain explaining his situation:

I have the honor to

on and am ordering proper cases to hold some of the
tation that the expenditure will be sanctioned by the
e reckoning without my host, and may be left in the lurch

*Parliament
not Legislature
after 1841*

a sufficient room for displaying the collection for public benefit was
under Murray:

; for our collection. Managing this, we must put our
l it appears to me that in the exhibition of these, large
ssion on the mind than small specimens.¹⁸⁴



In 1845, the Legislature passed a bill providing £2,000 annually for five years to run the Survey. A more commodious space for the museum was found in 1846 in a building leased from the Montreal Natural History Society. Logan's shrewdness and hard work resulted in special leave being granted by the Governor General during 1851 to superintend the Canadian exhibit at the Great Industrial Exhibition in London. Logan and his staff prepared what would be the first of a long series of displays of Canadian minerals for exhibition at World's Fairs.¹⁸⁵ His efforts were well received due to the exhibit's high standard of selected specimens and its systematic arrangement. A special commendation was given to the Canadian exhibit. The Exhibition Committee wrote:

Before commencing the detailed description of objects which have obtained medals or honorable mention, we feel bound to mention also the interesting collection from Canada procured by Mr. Logan, Director of the Geological Survey of that colony...Of all the British Colonies, Canada is that whose exhibition is the most interesting and the most complete; and one may say that it is superior, so far as the mineral kingdom is concerned, to all countries that have forwarded their products to the exhibition.¹⁸⁶

The display did much to strengthen public support for Logan's work with the Survey and museum. Logan viewed the Exhibition as a favourable opportunity "to spread knowledge of the mineral resources of the Colony."¹⁸⁷ An article in the September 29, 1851 Montreal Gazette summed up the success of Logan's work:

On Minerals, one of the principal Geologists was kind enough to say to me one day, that Mr. Logan's collection is the most complete and interesting from any country in the Exhibition, and most of the leading journals extol it highly.¹⁸⁸

On his return, Logan co-ordinated a move of the museum to a new location. While not purpose built, it was a great improvement over previous quarters. The Museum of Economic Geology was patterned after the Museum of Practical Geology in London. Logan regarded this British example as being worthy of imitation, stating that "the popularity of this Institution attests the amount of instruction derived from it." As with the Great Exhibition which Logan deemed to be "nothing more than a grand and instructive display,"¹⁸⁹ the establishment of a "Provincial Museum" would help facilitate the development of a knowledgeable public and be a means of fostering native industry.

In the Report of Progress for 1851-52, Logan described his vision for the Museum of Economic Geology:

Of the utility of such a museum for the purpose of instruction, if the arrangement of its detail is properly carried out, there can be no doubt; and one branch of the subject which it appears to me should be especially attended to, is that which relates to economic geology...it is particularly in the exhibition of useful minerals of the country, and the illustration of their applications by examples, that a collection connected with a geological survey is of essential advantage; and it is while a geological survey is in operation that such a collection can be best acquired.¹⁹⁰

Looking beyond the needs of his present institution, Logan mused about what responsibilities the government would have as the Canadian nation evolved:

It may, however, be a consideration whether a growing country like Canada could not afford to anticipate what its future importance may require in the nature of a national museum, and at some time not far distant, erect an appropriate edifice especially planned for the purpose.¹⁹¹

Logan's philosophical position on museums and education was directly influenced by British models. Edward Forbes believed that like the Museum of Practical Geology, colonial governments should exhibit mineral products in museums as "the evidences of their geological constitution, and the indications of their mineral wealth." Through the study of such collections in museums, visitors could "derive some benefit and knowledge", look at displays "with an inquiring pleasure", and cause the faculties of observation to "be healthily stimulated and brought into action."¹⁹² Observations made in 1853 by British traveller William Chambers indicated how theory had been put into practice; "A museum of minerals, united with a geological

survey of the province, attests to the attention paid to an important branch of knowledge." Chambers noted that a few weeks prior to his visit, the museum had held a public exhibit of "improved agricultural implements and livestock."¹⁹³ The utilitarian aspects of the Survey and the museum were justified in 1854, when a Select Committee pronounced that a valuable contribution had been made to geological science with a limited financial outlay. The Committee recommended that greatly improved facilities be provided and that enhanced funding be earmarked for operating costs and the publishing of geological reports and maps.

Logan continued with the arrangement of the museum and other public tasks.¹⁹⁴ Because of his success he was appointed as one of two special commissioners in charge of the Canadian exhibit at the Universal Exposition in Paris. It took most of 1854 for Logan and his staff to assemble specimens for this world's fair, however Logan's efforts were rewarded with a gold medal. International press coverage again gave plaudits. An article in Scientific American recorded that the Canadian contribution greatly outnumbered that of the entire thirty-one states. The correspondent wrote that very few visitors to the fair knew the difference between British North America and the United States, and noted that a proposal had been made to amalgamate articles from both countries into one display area. His conclusion spoke of the stature of the Canadian effort:

If this desirable amalgamation can be carried into effect, Canada will have the extreme satisfaction of fitting out, at its own expense, the entire "American Department." Well done Canada! Not so far behind after all.¹⁹⁵

An article in the September 7, 1855 issue of the Times shared similar sentiments:

It was hardly to be expected that those provinces, not yet emerged from the first labours of settlement should, nevertheless, in a rough way have taken account of their mineral resources. Yet such is the case. In this Exhibition the Canadian Commissioner, Mr. Logan, himself the Surveyor of the geological structure of the colony, and a man of rare scientific attainments, has arranged a magnificent collection of all that in this field of industry the provinces may be expected to yield.¹⁹⁶

On his return to Canada, Logan had no time to rest upon his laurels. Cases designed to hold the collection were finished in advance of the American Association for the Advancement of Science's 1857 meeting which was held in Montreal. Additional objects of natural history were collected during various field excursions in 1858. This "very illustrative collection of fauna and flora"¹⁹⁷ was used to further educational objectives of the museum. The Montreal correspondent for the Leader described the museum in the following manner:

The arrangement of this museum is really admirable, and has drawn forth the highest

encomiums of its visitors. Not only have its general divisions been clearly and scientifically arranged as a whole, but each subdivision, and each case of that subdivision, and each article exhibited has been arranged and labeled with the utmost care and exactitude. It is, all together, just such a collection as is calculated to produce the highest feelings of pleasure in a geologist.¹⁹⁸

Not only scientists but the public at large could learn from the museum's collection. English traveller Samuel P. Day provided a very illuminating account of his 1862 visit to the Geological Museum. There he was "greatly edified, if not instructed" by Logan's assistant T. Sterry Hunt. Day noted that this museum's classification system was identical to the format used at the Museum of Practical Geology in Jermyn Street, in London, England. He found the Canadian institution to be "useful, instructive, and abounding with such numerous geological specimens." After an "elaborate discourse of an hours' duration" by Mr. Hunt, Day concluded:

Though finding much that had been told to me hard to digest mentally, or associate in my mind with any definite idea, nevertheless that I gathered some entertaining, if not exactly instructive information.¹⁹⁹

Perhaps Mr. Day's visit would have been more edifying if William Logan had conducted the tour, but his services had again been called upon to co-ordinate the Canadian exhibit at the 1862 world's fair in London. Logan acted as Chairman of the Commission responsible for assembling the collection.²⁰⁰ Expectations ran high regarding expected outcomes of the fair. Observers noted:

It is to be hoped, indeed, that the Great Exhibition of 1862 will do far more to make Canada appreciated and understood in an economical point of view than all the books which have or could be written.²⁰¹

In an 1867 assessment of Logan's geological exhibitions at the world's fairs in 1851, 1855 and 1862, a contemporary observer concluded:

Canada has indeed held a very high position at each of these exhibitions...Canada considerably excelled our neighbours of the United States at every one of these exhibitions.²⁰²

This outreach activity of the Canadian Geological Survey Museum at international exhibitions would continue until 1921. Logan set the standard and others who took his place would follow by exhibiting Canada's natural resources at future world's fairs.

By 1863, the Geological Museum was located in a "suitable building" and according to Logan had "gradually assumed a value and importance which at the present time render it second to few on the

continent for the special purposes to which it is devoted." The museum was divided into mineral and paleontology divisions. Logan saw specimens in the collection as a means of learning and providing supplementary information as "in many instances they supply links otherwise wanting, in uniting the different terms of the series in an unbroken chain, and thus aid in the elucidation of those general laws of natural history, the investigation of which is always so much interest to enlightened minds."²⁰³ Logan would continue to illustrate geology and the mineral resources of Canada through the museum's collection until his retirement in January of 1869.

Post Confederation – The Selwyn Years, 1869-1895

Dr. A.R.C. Selwyn succeeded Logan as director of the Geological Survey on December 1, 1869. Under his leadership the museum grew rapidly. During his first year as director, Selwyn pointed out the lack of space in the museum building for properly displaying the collection and made a plea for improved facilities. In the summer of 1874 the offices of the Survey were moved to new quarters and vacated rooms were fitted for the exhibition of specimens. Selwyn stressed the importance of having a collection of mining and metallurgical models on display for reference and general information. He saw such a collection as "a very important adjunct to every Museum of Economic Geology" and requested adequate funding for "their full usefulness for practical and scientific purposes of reference and instruction." He began the regular practice of recording the number of visitors to the museum, and supplied David Boyle with the first geological collection for the use in public schools at the Elora School Museum.²⁰⁴ Selwyn pledged to prepare similar collections for distribution to other public schools which would utilize them for "educational purposes." This innovative educational technique was significant as it predated similar measures in the United Kingdom and in many American museums.

During 1875 Selwyn and his staff secured and prepared for shipment, a representation of Canadian mineral resources and geology to be shown at the Philadelphia Centennial Exhibition. The director viewed this initiative as "the means of making the varied mineral resources of Canada more widely known, and thus promote their legitimate and successful development." In addition a manuscript for a descriptive catalogue of the geological and mineral exhibits in the museum was in preparation, the scientific collection of Canadian minerals was re-arranged, and printed labels and brief descriptions of specimens were produced to make the exhibits "more generally interesting and instructive."²⁰⁵ Further efforts to increase the educational potential of the museum continued. Newly appointed curator J.F. Whiteaves assessed the collection for

duplicates and subsequently distributed 2,246 specimens to school collections. The Survey's display at the Philadelphia Exhibition helped to enhance the museum's educational mandate. Selwyn described this effort in his annual report for 1876-77; "The arrangement of the collection was universally commended as being the most perfect and instructive in the whole Exhibition."²⁰⁶

Ongoing development of the museum as a national resource also contributed to the work Selwyn and his staff continued to carry out:

In view of the probable establishment in the Dominion, at some future time, of a general National Museum, it has been deemed advisable to utilize the resources of the Survey as much as possible in obtaining specimens from other countries in exchange.²⁰⁷

Their industry was rewarded when in 1880 it was decided to move the Survey and its museum to new quarters in Ottawa, the Canadian capital. Selwyn had a new museum and a new ally. The Ottawa Field Naturalists' Club believed that this transplanted institution presented opportunities for learning and knowledge. In his inaugural address on February 25, 1881, president James Fletcher spoke of the "inestimable value" of the museum "which removes already every excuse for ignorance upon geological and mineralogical matters."²⁰⁸ The museum's collection could be used as a source of reference for every subject of interest to the naturalist. This position echoed one presented in a paper read to the club in January of 1880. In commenting on the move of the Geological Museum to Ottawa, naturalist H. Beaumont Small spoke of the usefulness of museums and strongly urged the formation of local museums and the establishment of a national museum. Small spoke of the importance of museums to the naturalist and the role they would play in education:

The neglect hitherto shewn in all young countries with regard to such institutions may be traced to the intense worship of wealth compared with that paid to intellect, whilst the struggle of parties and factions contribute to this neglect. In order to be a naturalist, a man need not necessarily be highly educated. We may gather ideas from books, but we get them from nature direct; books and nature are a reflex of each other; the museum is their co-worker, and the information to be gained there from collected material is the index to what we have to acquire by patient and personal observation of nature.²⁰⁹

By 1881 most specimens had been unpacked and arranged in cases in the new museum which opened to the public on December 1, 1881. The size of the collection continued to grow.

Archaeological specimens from the Pacific coast were added. Selwyn underlined the importance of obtaining this type of artifact:

Such collections will eventually constitute the only historical record of the habits, manners and customs of the early inhabitants of the Dominion, and should therefore be well represented in the National Museum.

He identified the urgency of acquiring native collections through prompt action, "unless Canada is to be forever dependent upon the museums of the United States for information relating to the life history of our own aboriginal races."²¹⁰ Additions to the natural history and biology collections further restricted space in the new building. Selwyn asked for an extension to the museum to provide more room for exhibits. He concluded his annual report with the hope that "future liberality of Parliament will enable the popularity and usefulness of the institution for practical, scientific, and educational purposes to be yet very largely increased."²¹¹

This would be a familiar refrain from the director until his retirement in 1895. In the intervening years Selwyn reported the pressing need for increased museum and office accommodation, warned of the danger of total destruction of the collection by fire, entered the debate on Sunday openings of museums, increased artifact holdings and saw attendance reach 21,000 near the end of his term as director.

In his argument for opening on Sundays, Selwyn expressed a hope "in the interests of education and knowledge," that the Geological Museum would follow the course of action taken at the Australian Museum in Sydney and in museums and galleries throughout Wales. He suggested that museums were more than just a place of amusement, and were instead "essentially as much a place of instruction as is the church and Sunday-school; and the principal difference between the two, concisely stated, is, that in the Museum the work, and in the church and school the word, of the Creator is expounded."²¹² He firmly believed that museums that were open on Sundays would confer educational advantages to the public. Selwyn commented on the desirability of Sunday openings, suggesting that the "educational advantages of doing so would confer on a large class of the community."²¹³ His overall efforts in operating the Geological Museum were acknowledged by Valentine Ball, director of the Science and Art Museum in Dublin. Ball reported that:

Of the smaller museums which I visited in America and Canada, there is not one which I saw with as much pleasure and interest...Though unpretentious and practical, the general effect and appearance of this museum is such as to attract non-scientific as well as scientific visitors, a matter of no slight importance in a country where its very existence may be said to depend on the popular vote.²¹⁴

The Ottawa Field Naturalists' Club also continued to support efforts to establish a national museum for Canada. President John Macoun noted that England, Ireland and United States had made provisions for this type of institution. Sadly Canada had not. He called for the formation of "one grand museum" which would include every branch of natural history as well as economic science, archaeology, ethnology and geology. In conclusion he stated:

I cannot here enumerate the many advantages which would necessarily be derived by the city and country at large, through the establishment of such a museum, and can only refer to the vast benefits it would confer upon students and the citizens generally.

Macoun exhorted club members to expend "increased energy and activity" towards this end.²¹⁵

Towards a New Century and a New National Museum

George M. Dawson became the third director of the Canadian Geological Survey in 1895. He continued the battle to upgrade the museum's wholly inadequate accommodations, repeatedly asking the federal government for a new building. Shortcomings did not reduce the number of visitors to the museum which topped 26,000 in 1895. Dawson wrote that:

The advantage to Canada of having an adequate display of the mineral wealth of the country can scarcely be exaggerated, and that the museum, even in its present state, possesses much interest to the general public.²¹⁶

Museum staff continued to accept and catalogue new specimens and prepare small illustrative collections of Canadian minerals for use by scientific and educational institutions. The museum's collections and records were recognized for their economic and scientific value, but also for their learning potential. Dawson reported this to his political masters:

To the numerous local visitors, the museum, even as it at present exists, affords an instructive object-lesson. To those who come, every year in increasing numbers, from other parts of the empire and from abroad, it is inspected as the only national museum maintained by the Canadian Government. Its value is duly recognized.²¹⁷

The utility of maintaining a collection of geological and mineral specimens and their use in education came from other sectors. The Ontario government issued a report which reiterated Sir William Logan's original conception of a geological museum and identified this type of institution as an adjunct of technical schools. Following ideas expressed by Professor Egleston at the American Institute of Mining Engineers, collections were viewed as vehicles for teaching by systematic methods. In essence;

The museum thus becomes a powerful object-teacher. Its instruction is all the more emphatic because silent, and the principles or facts which are demonstrated in the arrangement all the more impressive because they are unconsciously learned.²¹⁸

This tacit approval in a government report for the establishment of a provincial geological museum together with the sanction for the use of object based teaching as an accredited method for learning, were extremely significant. These measures would be pursued with the eventual construction of a new national museum in Ottawa.

Concern about housing the Geological Survey's collection in an "unsafe and ugly" building came from members of the Royal Society of Canada. Since its inception in 1882, the Society had expressed to the federal government the necessity of establishing a proper national museum. In response to its continued lobbying, Prime Minister Wilfrid Laurier stated the government's position:

The present Government has under its serious consideration now the question of seeing what can be done in that respect. That something should be done will go without saying. We cannot be otherwise than alive to the fact that under the existing circumstances the valuable collection of the Geological Museum, which has cost a great deal of labour and money, could be at any moment burned to ashes. There is no protection for it now.²¹⁹

A proposal to build the "Victoria and Albert Museum" in Ottawa had been put forward by the government as early as 1895. Enthusiastic attention to museum work during the period of Selwyn and Dawson's directorships pressed the need for a larger building. This matter also garnered support from prominent citizens outside of parliament. Sir B.E. Walker, president of the Canadian Bank of Commerce, said in a public address:

The Dominion Government at Ottawa and each province, at its city of chief importance, should have a museum belonging to and supported by the people...I should not like to suggest a limit of expenditure on such museums...I can only repeat that we are rich enough to bear the cost with ease, but we are not intelligent enough to see our own interest in spending the money.²²⁰

These and previous representations paid off in 1899. Dawson wrote that; "Preliminary plans have, however, been drawn, and the necessity of such a building has been strongly supported in the House by members of Parliament during the past session."²²¹ Dawson's death on March 2, 1901 precluded him from seeing the completion of the Victoria Memorial Museum in 1911. During the planning and construction of Canada's first national museum, advocates would continue to press for adequate facilities and stress the educational value of museums. Henry Ami wrote several articles on these topics and reflected on a museum's utility for learning:

The value of Museums to a community depends largely upon the material which is exhibited and also upon the manner in which this material is displayed. The educative value of Museums make them a necessity now-a-days and from the excellence of a museum, can be obtained a good general idea of the degree of progress and advancement which a community has made in the various branches of thought and research.²²²

Transfer of staff and collections to the new museum began in November of 1910. Director R.W. Brock believed that with new quarters, space for the museum would increase and the work of the Survey could be accelerated. He expanded his thoughts on the site:

For the present it is the intention to restrict the Museum to Canadian material (except in educational collections where necessary objects may be lacking in Canada) in order to make it, first of all, the great Canadian Museum, whose collections in Canadian material will surpass all others. When this has been accomplished in all divisions it may be advisable to enlarge its scope, and make it a world museum.²²³

The opening of the Victoria Memorial Museum brought to a close a seventy year campaign to establish a truly national museum for Canada. Through the sagacity of Logan, Selwyn, Dawson and their many supporters, the new museum was the culmination of efforts to meet changing needs of a country moving from the Victorian era into a new century.

In writing the story of the Canadian Geological Survey, historian Morris Zaslow identified the powerful role it played in promoting science in Canada. He added:

It has stood in the forefront of several advancing scientific fields, contributing to the fund of world scientific knowledge. Its work has made Canada known as an advanced, progressive country.²²⁴

Fostering the birth of the National Museum of Canada was another positive outcome of the work carried out by the Canadian Geological Survey and its staff. This served as another important contribution to the evolution of Canadian museums leading up to 1900.

Conclusion

There has been a commonly held impression that Canadian museums are a post World War II phenomenon, without a long record of development and achievement.²²⁵ Some have viewed developments in British North America as "merely an offshoot of the redundant population of other lands, with everything new and incomplete, without old institutions, or heart-stirring traditions."²²⁶ Others have suggested that only the British have had a profound impact upon the "progress of civilization" in Canada and that; "The people of

the British Islands must be considered one of the most influential for good (that is, for increasing and extending the blessings of civilization) in the whole world".²²⁷

More recently a public study of museums in Canada has suggested that until the 20th century, "museums were mainly depositories of objects accumulated for reasons of pomp and esteem". Far from being established as a medium of communication, the authors of the study concluded that:

These museums became ends in themselves, depositories devoted to conserving and preserving articles of value, centres for academic research, and last and least educational agencies feeding information into the minds of the less fortunate.²²⁸

Such assumptions misread the evolution and complex historical development of Canadian museums which are quite similar to efforts undertaken by American and European counterparts. Writings by some current revisionist museologists along with evidence from various contemporary authors, help to identify an historical past which began with first settlement and grew throughout the 19th century. One author regards Canadian museums as we see them today as "largely nineteenth-century institutions."²²⁹ Added to this, the impact of change on these institutions is generally becoming more accepted. Quebec museologist Louis Lemieux has written:

Museums, as a reflection of constantly evolving societies, must also change. They must keep up with the pace and style of community that surrounds them and of which they are a part, thus indicating the general trends of a culture.²³⁰

The forces of nationalism and public education both had tremendous influence in turning 19th century Canadian museum collections into institutions of public purpose. Observers gave early praise to the provincial legislature of Upper Canada for developing a system of public education. In 1837, English author Thomas Duncumb suggested that:

This plan of fostering education, by legislative influence, has done much already, and ere long will plant learning and civilization where as yet it is scarcely known, and will render the colony eminent for industry and intelligence – advantages which can never be attainable without education.²³¹

Five years later, Captain Thomas Sibbald who travelled through Upper Canada in 1842, recorded apparent progress that he witnessed in Toronto; "The difficulty of educating children, considered at home one of the drawbacks to emigration in the Canadas, there is no want of it here, and at a very moderate rate".²³²

His projection about the Upper Canadian public education system was verified in 1854 by British emigrant William Hutton. Hutton wrote that; "The system of education now established in Canada, far exceeds, in its comprehensive details, anything established in the United Kingdom."²³³ John W. Dawson, principal of McGill University further stressed the importance of education in the colonies; "In British America, mind, and especially cultivated mind, is the chief of the native resources of the country."²³⁴

Change in Victorian Canada would help to foster "intellectual activity." While deemed not comparable to the "high culture and intellectual standard of the old communities of Europe," it would assume its own useful and practical form in the Canadian context.²³⁵ Signs of this "general culture" came through the growth of higher education, art schools, literary societies and museums, and was characterized as being "illustrative of the greater mental activity of all classes."²³⁶ In 1884, Irish museum director Valentine Ball commented upon the results he had evidenced in museums in North America:

Those of them which possess directly educational functions claim an abundant harvest of good results, and there can be no doubt that the facilities which now exist for instruction in science and art are largely availed of in the principal cities.²³⁷

Expressions of the cultural and intellectual growth of Canadians and the role of museums in the 19th century also came from other quarters and as a result of other influences and changes. Politically, Confederation in 1867, was the greatest single factor in the growth of a Canadian national feeling. The union of previously contending parties lead to a "New Nationality" with the growth of a Dominion and a period in the new country's history "when there appeared as a living power in America, a Canadian National sentiment."²³⁸ Current research shows that by 1867, "museums were an active part of the Canadian scene."²³⁹ Other contemporary studies indicate that this nationalism had an impact on arts and letters, culture, education and science, as well as museums and galleries.²⁴⁰ Through an amalgam of ideas from England and the United States²⁴¹ mixed with the particular needs and desires of a fledgling new nation, and as a result of efforts by individuals, universities and other institutions of the period, an "adaptable tradition"²⁴² of museum-making which began in Canada during the 19th century, would continue on to face the challenges and opportunities presented in the 20th century.

End notes

1. A.F. Chadwick, The Role of the Museum and Art Gallery in Community Education

(Nottingham, 1980), p. 1.

2. For a discussion about the importance of early Canadian museum history, see J. Lynne Teather, "Museum-Making in Canada (to 1972)," Muse (Summer/Fall, 1992), p. 21.

3. Archie Key, Beyond Four Walls (Toronto, 1973), pp. 99-100. See also Teather, "Museum", p. 23.

4. "A New Museum," Kingston Gazette (August 1, 1815), p. 3.

5. "A Floating Museum," The Patriot and Farmers Monitor (August 17, 1830), p. 3, c.3.

6. "Kingston Museum," Kingston Chronicle (May 1, 1830), v. 11, #44, p. 3, c. 2. An advertisement indicated that this museum would be open to the public every day of the week. See Upper Canada Herald-Kingston (May 18, 1831), p. 3, c. 3.

7. John Goldie, Diary of a Journey Through Upper Canada (Toronto, 1897). Goldie would return to Upper Canada with his family in 1844, settle near Ayr and live there until his death in July of 1886. The first zoological garden to be established in the British North American colonies was one created in Halifax in 1847. Its founder Andrew Downs, was possibly influenced by English naturalist Charles Waterton. See Carl Berger, God, and Nature in Victorian Canada (Toronto, 1983), p. 4.

8. For more on Fothergill's early position on these matters, see Charles Fothergill, An Essay on the Philosophical, Study and Use of Natural History (London, 1813), pp. xxxiv, 231 & 234. For reflections on his move to Upper Canada, see Charles Fothergill, A Sketch of the Present State of Canada (York, 1822). For a current perspective on Fothergill's contributions to natural history in Canada, see Elaine Theberge, "Fothergill," The Beaver (February/March, 1988), v. 68, #1, pp. 12-18 and Victoria Dickenson, Drawn From Life (Toronto, 1998), p. 151.

9. Archie F. Key, "Canada's Museum Explosion, The First Hundred Years," Museums Journal (June, 1967), v. 67, #1, p. 19.

10. Gideon M. Davison, The Fashionable Tour (Saratoga Springs, N.Y., 1830), 4th ed., pp. 298-99. See also Karl Bernhard, Travels Through North America (Philadelphia, 1828), v. 1, p. 94. The Seminary Museum contained "many rare and valuable curiosities." Visitors to the seminary were admitted on application to the chaplain, and those wishing to view the museum had to apply to the professor of mathematics. See Thomas Fowler, The Journal of a Tour Through British America to the Falls of Niagara (Aberdeen, 1832), p. 60. A period guidebook also mentioned the eclectic assemblage at the Seminary Museum; "The cabinet has a choice collection of instruments, antiquities and a cabinet of mineralogy, from Abbe Haüy, Paris; fossils, petrifications, shells, insects, ores from South America, and an imitation of the Falls of Niagara." The North American Tourist (New York, 1839), p. 190. Other period publications

noted that the Quebec cathedral had a college associated with it and "a museum containing rare subjects of natural history." See Thomas Duncumb, The British Emigrant's Advocate (London, 1837), p. 212, and that "There is a small museum, or 'Cabinet de physique,' which seems in a growing condition; it contains, besides natural curiosities, electrical apparatus, telescopes, and other instruments of science." See Josiah Conder, The Modern Traveller (London, 1829), v. 2, p. 321.

11. Theodore Dwight, The Northern Traveller and Northern Tour (New York, 1830), p. 203.

12. Davison, Fashionable, p. 289. For detail on the Natural History Society of Montreal and information about its museum and preservation of natural history objects, see Constitution and Bye-Laws of the Natural History Society of Montreal (Montreal, 1828), pp. 2, 7 & 13-21. In 1828, H.H. Cunningham was the librarian and cabinet keeper for the NHSM.

13. Fowler, Journal, p. 122. See also The Tourist or Pocket Manual for Travellers (New York, 1834), 3rd ed., p. 83, and H.E. Strickland, "Ornithological Museums," Report of the British Association for the Advancement of Science (1844), p. 214. The intent of the Society and its museum was "to confer great benefits upon the country; spreading the desire of enquiry, and opening up new channels of investigation." See Robert Lachlan, A Retrospective Glance at the Progressive State of the Natural History Society of Montreal (Montreal, 1852), p. 17.

14. "British Museum, York, U.C.," Colonial Advocate (December 2, 1830), p. 3, c.5.

15. "The York Museum," Colonial Advocate (June 9, 1831), #368, p. 2.

16. For an example of the advertisement that was repeated weekly, see "British Museum, York, U.C.," Colonial Advocate (May 12, 1831), #364, p. 1.

17. See "John M. Waugh, Fancy Sign, and Ornamental Painter," Colonial Advocate (May 26, 1831), #366, p.1.

18. Henry Scadding, Toronto of Old (Toronto, 1873), p. 48.

19. See the first notice of retirement in the Colonial Advocate (April 26, 1832), #414, p. 3. See also Dorothy Duncan, "From Mausoleums to Malls: What Next?," Ontario History (June, 1994), v. 86, #2, p. 107. A current author suggest that Wood's Museum was typical of small commercial museums which "were a fixture in Ontario throughout the nineteenth century." They were accepted immediately because they were considered educational. For more on "Dime Museums," see Gerald Lenton-Young, "Variety Theatre," in Ann Saddlemeyer (ed.), Early Stages Theatre in Ontario 1800-1914 (Toronto, 1990), pp. 190-93.

20. Edward Allen Talbot, Five Years' Residence in the Canada's (London, 1824), pp. 147-48.

21. William Dunlop, Statistical Sketches of Upper Canada (London, 1832), pp. 9-10. Other

commentators were resigned to the fact of limitations for new settlers in the Canadas. "Where the emigrant is most likely to be obliged to locate himself, the absence of the refinements and society to be found in the old country must be submitted to without a murmur." See Samuel Butler, The Emigrant's Hand-Book of Facts (Glasgow, 1843).

22. Thomas Hamilton, Men and Manners in America (Edinburgh, 1833), v. 2, p. 359, and v.1, p.v.

23. P.H. Gosse, The Canadian Naturalist (London, 1840), p. ix. Gosse's experiences in Canada were not entirely negative. He said; "I have learned to stuff birds, and there are beauties in Canada. We could make a nice museum." Quoted in Lynn Barber, The Heyday of Natural History 1820-1870 (London, 1980), p. 240. An early reference to a museum in the Western District was to the initiative taken by the Mechanics' Institute in London. This building contained rooms for evening school, drawing and modelling classes, and "a library, museum, a room for chemical and other apparatus." It opened in the winter of 1843. See J.B. Brown, Views of Canada and the Colonists (Edinburgh, 1844), p. 102.

24. Editor Wyllys Smyth, cited in The Canadian Garland (September 15, 1832), v. 1, #1, p. 7. Other similar journals of this era included the Canadian Literary Magazine, the Montreal Museum, and The Canadian Magazine. In an essay to the Upper Canadian Celtic Society, a role for Upper Canada and the advancement of science was identified: "We might furnish much interesting matter for the natural philosopher, the botanist, the geologist and the mineralogist, all of whom may here find ample means of exercising their respective talents." Joseph Neilson, Observations Upon Emigration to Upper Canada (Kingston, 1837), p. 5.

25. Canniff Haight, Country Life in Canada Fifty Years Ago (Toronto, 1885), pp. 71 & 125. Another contemporary source supported Haight's assertions about change. In the period between 1834-54 commerce, agriculture and population increased and tribulations faced by the first settlers were greatly reduced. See "Contrast Now to Period of Early Settlement," The Cottager's Friend and Guide of the Young (November, 1854), v. 1, #10, pp. 233-34.

26. For more on Rees, see William Ormsby, "William Rees," Dictionary of Canadian Biography (Toronto, 1972), v. 10, pp. 610-11.

27. See Laws For the Constitution and Government of the York Literary and Philosophical Society of Upper Canada (York, 1832), pp. 1, 4, & 6. Thornhill missionary Isaac Fidler indicated that the land for the Society's building had been bestowed by the Archdeacon of York, "actuated by a laudable desire of advancing literature and science generally." Members of the Society would deliver lectures as a contribution "towards the circulation of knowledge." Cited in Isaac Fidler, Observations on Professions, Literature, Manners and Emigration in the United States and Canada (London, 1833), pp. 332-33.

28. George Walton (ed.) York Commercial Directory (York, 1833), p. 136.

29. Daly had been for many years the librarian for the Athenaeum in London, England.
30. Established in 1830, the York Mechanics Institute was based on similar institutions in Edinburgh and London. Its founders were associated with the political, social, educational and literary progress of an early Toronto, who "looked with a watchful and enquiring eye to any movement in the parent country which tended to increase the amenities of social life." Quoted in G.P. Ure, The Hand-Book of Toronto (Toronto, 1858), p. 185. In 1831, a Science Museum became part of the Halifax Mechanics' Institute. This collection would later evolve into the nucleus for the Nova Scotia Museum which was founded in 1868. See Key, "Explosion," p. 20.
31. "Organization of Society of Artists and Amateurs," York Patriot (January 31, 1834), cited in Edith Firth (ed.), The Town of York 1815-1834 (Toronto, 1966), pp. 345-46. The probable author of this letter was Charles Daly who was City Clerk of Toronto between 1835-64. For more on the Society of Arts, see Catalogue: First Exhibition, Society of Arts (Toronto, 1847).
32. "The Mechanics' Institute," The Literary Garland (May, 1840), v. 2, #6, p. 288.
33. "Editorial," The Literary Garland (December, 1840), v 3, #1, p. 48.
34. "Literary Societies," The Literary Garland (January, 1843), v. 1, #1, p. 48.
35. "The Influence of Mercantile Library Associations," The Literary Garland (August, 1849), v. 7, #8, n.s., p. 346.
36. See "The Importance of Moral Culture," The Literary Garland (August, 1843), v. 1, #8, p. 378. For a full description of a museum from this era, see Abraham Gesner, Synopsis of the Contents of Gesner's Museum of Natural History (Saint John, 1842).
37. Gibson's thoughts on this matter were printed in The Literary Garland (August, 1849), v. 7, #8, n.s., pp. 347-48.
38. See "Editorial," The Victoria Magazine (August, 1848), v. 1, #12, p. 287.
39. See "The Fine Arts-Their Influence," The Calliopean (December 23, 1847), v. 1, #3 p. 20, "The Study of Botany," The Calliopean (February 9, 1848), v. 1, #6, pp. 41-42, "Chemistry for Girls," ibid., pp. 42-43, "Education of the Young," The Calliopean (January 10, 1848), v. 1, #4, p. 26, and "Female Education," The Calliopean (May 9, 1848), v. 1, #12, pp. 89-90.
40. James W. Hudson, The History of Adult Education (London, 1851), p. 218. Hudson's comments reflected his knowledge of institutions in Montreal, Quebec, Hamilton, Toronto, Niagara Falls and Amherstburgh. By 1855, a Toronto-based writer said of literary and historical societies, mechanics' institutes and the Canadian Institute that; "Largely may they multiply and prosper, and successful may they prove in their honorable endeavours to improve their members and elevate the country." Cited in A. Lillie, Canada: Physical, Economic and Social (Toronto,

1855), p. 285.

41. "Our Enterprise," The Home Journal (June 1, 1861), v. 1, #1, p. 4.
42. Proposed Lyceum of Natural History, and The Fine Arts (Toronto, 1835), pp. 1-2. For a description of two period private collections, see E.S. Dunlop (ed.) Our Forest Home (Montreal, 1902), pp. 127-28, and Gosse, Naturalist, p. 235.
43. Second Address Relative to the Proposed Lyceum of Natural History and the Fine Arts (Toronto, 1836), pp. 1-2. In the 1830's, lyceums were in "a state of infancy" in North America, but were viewed as being "a means of mental and social improvement," as well as institutions that "may become a most valuable means of enlightening the mass of the community." See The Young Man's Guide (Boston, 1833), p. 222. In Australia, museums were also seen as vehicles "to emerge gradually and laboriously from barbarism, to that state of refinement, in which science becomes an object of attention with the body of the people." The anonymous author believed that this had not yet happened in North America, but that the "founding of a Museum for the reception and public exhibition of the natural productions and curiosities of Australia, could not but raise her in the estimation of the world at large." See "Suggestions for the Establishment of an Australian Museum," Australian Quarterly Journal of Theology, Literature and Science (January, 1828), v. 11, pp. 60-61. By mid century the impact of the United States on the growth of literary societies in Canada was noted. See Hudson, Adult, p. 218.
44. Thomas Rolph, A Statistical Account of Upper Canada (Dundas, 1836), pp. 188-89. Fothergill's interest in collecting natural history specimens was influenced by his grandfather, Dr. John Fothergill (1712-1780). This well-known English botanist had contacts with the celebrated naturalist, Carolus Linnaeus. Fothergill was a proponent of Linnaeus's system for plant identification. See Victoria Dickenson, Drawn From Life (Toronto, 1988), pp. 151, 144, & 173-74.
45. James L. Baillie Jr., "Charles Fothergill," Canadian Historical Review (1944), v. 25, p. 387. Other museums in Toronto at this time included one operated by the City of Toronto Ethical and Literary Society, see George Walton (ed.) The City of Toronto and the Home District Commercial Directory and Register (Toronto, 1837), p. 45, and one in the Toronto Hospital. Thomas Rolph said of it, there is "a preparation of singular value in its museum, more curious even than that living wonder, the Siamese Twins." Rolph, Statistical, p. 174. Travelling shows were popular. An advertisement for the "Siamese Twins," appeared in the Toronto Patriot on September 4, 8 & 12, 1837. By the 1830's, it was common practice for travelling shows in Upper Canada to be called "menageries" or "museums" which better reflected their educational value. See Lenton-Young, "Variety," p. 173.
46. See "Report of Select Committee on the Petition of Charles Fothergill, Esq.," in Appendix to the Journals of the House of Assembly of Upper Canada 1836-37 (Toronto, 1837), #30, pp. 1-2.

47. "The Petition of Charles Fothergill of the Township of Pickering," City of Toronto Council Papers (July 31, 1837).
48. Toronto Patriot (Tuesday, May 26, 1840).
49. Paul Romney, "Charles Fothergill," DCB (1988), v. 7, p. 320.
50. See Toronto Patriot (Tuesday, June 23, 1840), and Mima Kapches, "Antiquarians to Archaeologists in Nineteenth-Century Toronto," Northeast Anthropology (Spring, 1994), #47, p. 89
51. Scadding, Toronto, pp. 210 & 358.
52. See Civil Secretary's Correspondence, Upper Canada Sundries, RG5, A1, v. 116-117, p. 67194. There seems to be some confusion on when Barnett moved to Niagara Falls. In 1873, Thomas Barnett noted that the museum was relocated there in 1829. See Sidney Barnett Papers (1873-77), MV57. An educational booklet from the existing museum claims the site is "North America's Oldest Museum," being established in 1827. See Louis Grigoroff, The Niagara Falls Museum (Niagara Falls, n.d.), p. 3. For an early description of Barnett's Museum, see John Mewburn's letter to the editor, "Museum of Natural History at the Falls of Niagara," The Toronto Patriot (August 8, 1837), p. 3, c. 1.
53. O.L. Holley (ed.), The Picturesque Tourist (New York, 1844), p. 213. Other period manuals for visitors encouraged tourists to stop at the Barnett Museum after viewing the natural wonders of Niagara Falls. "A short visit to this fine collection of natural and artificial curiosities, will not be regretted." See J.W. Orr, Pictorial Guide to the Falls of Niagara (Buffalo, 1842), p. x. Barnett's service to these visitors was noted. "The owner is attentive to the wishes of his guests, and has a fine cabinet of minerals and other curiosities, which is worthy of notice." Mr. Barnett "who is both intelligent and polite, will do all in his power to render your visit agreeable." See Peck's Tourist's Companion to Niagara Falls, Saratoga Springs, the Lakes, Canada (Buffalo, 1845), pp. 5 & 107.
54. William Barham, Description of Niagara (Gravesend, 1847), p. 12. Numerous period travelogues described visits to the Barnett Museum. A professor of chemistry at the University of Oxford wrote that at Table Rock, views "from the Clifton House, from the Museum, and from the heights above" are grand. Charles Daubney, Journal of a Tour Through the United States and Canada (Oxford, 1839), p. 47. A Scottish merchant spoke glowingly of his visit; "The museum is one of the finest I have seen, and in point of variety and extent, inferior to few in America." James Lumsden, American Memoranda (Glasgow, 1844), p. 31. See also George Moore, Journal of a Voyage Across the Atlantic (London, 1845), pp. 60-61.
55. See copy of advertisement for Barnett's Museum from the 1846 Smith's Canadian Gazetteer, in Ralph Greenhill and Thomas D. Mahoney, Niagara (Toronto, 1969), p. 142.

56. Richard H. Bonnycastle, Canada and the Canadians in 1846 (London, 1846), v. 1, pp. 238-39. Another 1846 account described the menagerie. In a publication written for children, "Cousin George" noted; "the living foxes at the Museum were so cunning, - the other captive animals so funny, - and the stuffed birds, and other curiosities so fine!" The author suggested many of the waterfowl specimens on display were drowned birds "furnished to the Museum by the Falls." See Sketches of Niagara Falls and River (Buffalo, 1846), pp. 77, 103 & 109.
57. Eliot Warburton (ed.), Hochelaga; or England in the New World (London, 1847), v. 1, p. 235. See also Robert Sears (ed.), A Treasury of Knowledge (New York, 1849), p. 56, Susanna Moodie, Life in the Clearings (New York, 1853), pp. 267-68, and Isabella Bishop, The Englishwoman in America (London, 1856), pp. 219 & 235. For reflections on pressures related to tourism at Niagara Falls during this period, see Charles R. Weld, A Vacation Tour in the United States and Canada (London, 1855), p. 160, Hew Ramsay, The Canadian Tourist (Montreal, 1856), pp. 1 & 8-9, and John Disturnell, The Picturesque Tourist (New York, 1858), p. 107.
58. For examples of visitors' descriptions, see Andrew Burke, Burke's Descriptive Guide (Buffalo, 1850), p. 79, F.H. Johnson, Every Man His Own Guide at Niagara Falls (Rochester, 1852), p. 43, "A Student Tramp to Niagara Falls," Anglo-American Magazine (October, 1854), v. 5, #4, p. 355. The location of the museum was marked on a map and guide table in The Niagara Falls Guide (Buffalo, 1850), preface. A graphic of the Barnett Museum was included in a pull-out map of a period travel guide. See William S. Hunter Jr., Hunter's Panoramic Guide From Niagara Falls to Quebec (Boston, 1857).
59. W. H. Smith, Canada: Past, Present and Future (Toronto, 1852), v. 1, p. 204. An American publication also viewed museums as "Places of Amusement." At Niagara Falls, the author noted: "A short distance from Table Rock stands Mr. Barnett's very interesting Museum, a visit to which should not be omitted." See Wellington Williams, Appleton's Northern and Eastern Traveller's Guide (New York, 1850), pp. 129 & 213.
60. Sidney Barnett Papers (1873-77), MV57.
61. Journals of the Legislative Assembly of the Province of Canada (1859), p. 179.
62. "Report," Appendix to the Seventeenth Volume of the Journals of the Legislative Assembly for the Province of Canada (1859), v. 17, Appendix #56.
63. The Rev. William Hincks was a professor of zoology and botany at the University of Toronto. Cited in ibid. A description a year earlier echoed Hincks' feelings about the Barnett Museum; "It is arranged so as to represent a forest scene, and contains a fine collection of birds, beasts, and fishes, besides a camera-obscura. Charge for admission 25 cents...and is well worth visiting." See The Falls of Niagara (Toronto, 1858), p. 25.

64. "Report," Appendix #56. Couper had seen all the provincial museums including the Montreal Museum of Natural History and the Museum of the University of Toronto. In addition to the extensive and valuable collection of specimens, Couper found the associated gardens and grounds with fish ponds and living animals to be "highly attractive, interesting and useful." Cited in "Minutes of Evidence, Tuesday, 29th March, 1859," Ibid.
65. Routh was an expert witness summoned from Drummondville, Quebec. Ibid. Because of his interest in the study of zoology, Routh had known Barnett and was familiar with the contents of the museum for nearly 20 years.
66. "Minutes of Evidence, Tuesday, 29th March, 1859," Ibid.
67. "Minutes of Evidence, Wednesday, 30th March, 1859," Ibid.
68. "Minutes of Evidence, Tuesday, 5th April, 1859," Ibid.
69. "Report," Ibid.
70. Sidney Barnett Papers (1873-77), NV57.
71. Niagara Falls A Guide and Souvenir (Buffalo, 1866), pp. 21-22.
72. "Niagara Falls Museum," Niagara Falls Gazette (November 2, 1859), p. 3, c. 2.
73. In 1860 it was estimated that in a period of 2 days, over 1,000 individuals registered at the new museum. See Thomas Spence, Settler's Guide (New York, 1862), p. 91. For other descriptions of the museum during this period, see T. Addison Richards (ed.), Appletons' Companion Hand-Book of Travel (New York, 1860), p. 115, John Gellner (ed.), Cheadle's Journal (Toronto, n.d.), p. 23, John Disturnell, The Great Lakes or Inland Seas of America (New York, 1863), p. 155, John Disturnell, The Traveler's Guide (New York, 1864), p. 111, and John Taylor, The Canadian Handbook and Tourist's Guide (Montreal, 1867), p. 176. Noted Toronto cleric and historian the Rev. Henry Scadding commented; "Barnett's Museum, at the Falls of Niagara, is by no means a common-place repository of objects." He listed it as one of several Canadian museums which could be used by youth in their education. See Henry Scadding, "On Museums as Instruments of Education," Canadian Journal (May, 1871), v. 13, #73, n.s., p. 24.
74. Greenhill and Mahoney, Niagara, p. 124. Also see Niagara Falls Canada (Niagara Falls, 1967), p. 265, Grigoroff, Museum, p. 3, and "Thomas Barnett Obituary," Niagara Falls Gazette (February 23, 1890), p. 4. For additional period descriptions see George W. Holley, Niagara Its History and Geology (New York, 1872), pp. 106-07, H.T. Allen, Allen's Illustrated Guide to Niagara (Buffalo, 1881), p. 30, George W. Holley, The Falls of Niagara (London, 1883), p. 103, and R. Lespinasse, The Great Cataract Illustrated (Chicago, 1884), p. 76.
75. Gerald Killan, David Boyle: From Artisan to Archaeologist (Toronto, 1983), p. 54. A period

description of Barnett noted that the museum which he founded in Niagara Falls in 1832 was "unsurpassed (as the collection of one individual) in the world, and Canada should feel proud of having such a magnificent collection fit to grace any capital of Europe." The article further commented on the educational contribution made: "Mr. Barnett has done much for the progress of knowledge by throwing open his museum to all public schools of Canada and the United States free." See "Thomas Barnett, Esq," Canadian Illustrated News (June 8, 1872), v. 5, #23, p. 356.

76. Susan Sheets-Pyenson, Cathedrals of Science (Montreal, 1988), p. 4. For more on the impact of science on Canadian museum development, see Pat Roome, "The Darwin Debate in Canada: 1860-1880," in Louis A. Knafl et al (eds.), Science, Technology, and Culture in Historical Perspective (Calgary, 1976), #1, pp. 183-205, and Suzanne Zeller, Land of Promise, Promised Land: The Culture of Victorian Science in Canada (Ottawa, 1996), #56, pp. 1-17.

77. Gerald Killan, "The Canadian Institute and the Origins of the Ontario Archaeological Tradition 1851-1844," Ontario Archaeology (1980), #34, p. 3.

78. Sandford Fleming, The Canadian Institute (Toronto, 1852), pp. 2-3. Fleming was appointed as the Institute's first secretary. For more on Fleming's role with the Canadian Institute, see Jean Murray Cole, Sandford Fleming No Better Inheritance (Peterborough, 1990), #11, pp. 15-16.

79. From an 1852 prospectus regarding the Canadian Journal cited in Dennis Reid, Lucius R. O'Brien Visions of Victorian Canada (Toronto, 1990), p. 15. This publication had similar aims as the Reports issued by the Smithsonian Institution. Both were printed to help diffuse knowledge to the public. Henry Youle Hind, a mathematics and science teacher at the Toronto Normal School was the first editor of the Canadian Journal. Daniel Wilson took over editorship in 1855.

80. CJ (1852-53), v. 1, p. 98.

81. CJ (1853-54), v. 2, p. 98. See also Cole, Fleming, p. 15.

82. Chapman was a professor of geology at the University of Toronto and would become the curator of the University's Geological Museum in 1858. He had been a professor of mineralogy at the University of London prior to his appointment in Toronto.

83. The Maple Leaf (September, 1852), v. 1, p. 68.

84. Ibid., pp. 92-93.

85. The Maple Leaf (May, 1853), v. 2, p. 159.

86. "Toronto," The Anglo-American Magazine (July, 1852), v. 1, #1, p. 4. Toronto had an athenaeum, commercial news room, mechanics institute and a society of arts. See W.H. Smith,

Canada, v. 2, p. 7.

87. "Kingston," A-AM (August, 1852), v. 1, #2, p. 101.

88. "Hamilton," A-AM (September, 1852), v. 1, #3, pp. 194-95.

89. Napoleon Aubin, Archibald Campbell, Joseph Legaré, William S. Sewell, et al., "A Proposal to Open a Canadian National Museum", Le Canadien (May 23, 1853), cited in Sarah Iley, Befriending Museums: A Handbook (Toronto, 1991), p. 7. For more on Legaré's efforts to establish a national gallery, see John R. Porter, "Joseph Legaré," The Canadian Encyclopedia (Edmonton, 1985), v. 2, p. 996.

90. A-AM (July, 1852), v. 1, #1, p. 4.

91. "Paris Exhibition," Scientific American (June 2, 1855), v. 10, #38, p. 299.

92. Toronto Athenaeum, Transfer of Books and Minerals to the Canadian Institute (November 18, 1855), pp. 1-2. For additional information on this transfer, see Samuel Thompson, Reminiscences of a Canadian Pioneer For the Last Fifty Years (Toronto, 1968), p. 247.

93. CJ (1854-55), v. 3, p. 364. Cited in Killan, "Institute," p. 8.

94. For the full text of Allan's address see CJ (February, 1856), v. 1, #2, n.s., pp. 100-101. In an 1859 assessment of North American cultural institutions, it was recorded that the formation of a provincial museum was one of the Canadian Institute's objectives. See William J. Rhees, Manual of Public Libraries, Institutions, and Societies in the United States and British Provinces of North America (Philadelphia, 1859), pp. 537-38. For more on the evolution of the Canadian Institute, see Peter J. Bowler, "The Early Development of Scientific Societies in Canada," in Alexandra Oleson & Sanborn C. Brown (eds.), The Pursuit of Knowledge in the Early American Republic (Baltimore, 1976), pp. 330-32.

95. CJ (January, 1857), v. 2, #7, n.s., p. 144. For a contemporary description of the Canadian Institute, see Ure, Hand-Book, pp. 187-90.

96. CJ (February, 1856), v. 1, #2, n.s., p. 168. Such rationale was also supported by a contemporary Toronto writer. At a lecture read before the Mercantile Library Association of Montreal on March 18, 1858, it was suggested that Australia and British America derive "from Britain their religion, their literature, their language, and their national characteristics." Alexander Morris, Nova Britannia; or British North America, Its Extent and Future (Montreal, 1858) p. 8.

97. Bishop, Englishwoman, p. 314. See also J.H. Fyfe, British Enterprise Beyond the Seas (London, 1863), p. 143.

98. Rollo Campbell, Two Lectures on Canada (Greenock, 1857), p. 38.
99. Charles Mackay, Life and Liberty in America (New York, 1859), p. 376.
100. "President's Address," CJ (March, 1859), v. 4, #20, n.s., pp. 85-96. A modern writer claimed that the proposed Canadian Institute Museum would languish until the mid-1880's due to the lack of adequate facilities. See Killan, "Institute," p. 8.
101. See the presidential address of the Reverend John McCaul in CJ (March, 1863), v. 8, #44, n.s., pp. 98 & 110.
102. CJ (January, 1864), v. 9, #49, n.s., p. 69.
103. Quoted in CJ (April, 1866), v. 11, #62, n.s., p. 126.
104. "The President's Address," CJ (April, 1869), v. 12, #68, n.s., pp. 106-107.
105. Killan, "Institute", p. 8.
106. Henry Scadding, "Museums," pp. 2-3.
107. An interest in natural history was expressed as early as the 1840's. Two early publications that featured sections on Canadian natural history were Thomas Nuttall, A Manual of the Ornithology of the United States and of Canada (Boston, 1840), 2nd ed. and William Jackson Hooker, Flora Boreali-Americana (London, 1840), v. 1. Its importance was noted in an 1853 editorial: "No country can number more interesting natural features than Canada." The Maple Leaf (March, 1853), v. 2, pp. 92-94. Period publications were designed as primers to assist students to direct their powers of observation and to learn how to observe. See Robert Sedgewick, Amusements for Youth (Halifax, 1857), p. 5, Asa Gray, How Plants Grow (Toronto, 1858), James Bovell, Outlines of Natural Theology (Toronto, 1859), Louis Agassiz, Methods of Study in Natural History (Boston, 1864), 2nd ed., and J.G. Wood, Wood's Bible Animals (Guelph, Ont., 1877).
108. Scadding, "Museums," p. 24.
109. A.F. Chamberlain, "David Boyle", American Anthropologist (1911), v. 13, n.s., p. 160, Killan, "Institute," p. 13, and Kapches, "Antiquarians," p. 95.
110. James Hunter, "The Museum Tradition in Ontario 1842-1934," unpublished paper, University of Toronto (1983), p. 10, Killan, "Institute," p. 13, and Kapches, "Antiquarians," p. 95.
111. For examples of Boyle's writings on these topics, see David Boyle, "School Museums," The Canada Educational Monthly (February, 1879), v. 1, pp. 83-86, David Boyle, "School Work," CEM (January, 1883), v. 3, pp. 38-43, David Boyle, "Teach Children to Observe," CEM (May-June, 1883), v. 5, p. 235, and David Boyle, "History Taught by Museums," Niagara Historical

- Society Journal (1898), #4, pp. 32-33.
112. William C. Noble, "One Hundred and Twenty-Five Years of Archaeology in the Canadian Provinces," Canadian Archaeological Association Bulletin (1972), v. 4, p. 16.
113. Annual Archaeological Report, Part of Appendix to the Report of the Minister of Education, Ontario, 1887 (Toronto, 1888), p. 14.
114. AAR, 1888, p. 14.
115. AAR, 1890, p. 5.
116. AAR, 1900, pp. 2-3.
117. "A Museum, or a Musée?" , AAR, 1904, p. 101.
118. Ibid., p. 102.
119. Boyle had visited museums in London, Liverpool and Paris during the summer of 1899. He toured American museums in 1889 and 1902. He referred to Sir W.H. Flower's quote that "a finished museum is a dead museum," in the 1897-98 Report, and cited British writer F.T. Mott and American museologist Professor E.S. Morse in the Report for 1900. See pp. 1-3.
120. Boyle reviewed the history of the museum looking at its past and observing where it stood at the present. See AAR, 1907, pp. 12-19.
121. See "Dr. David Boyle," AAR, 1911, pp. 7-8.
122. See John R. Connon, Elora (Elora, 1930), pp. 163-64, Charles Trick Currelly, I Brought the Ages Home (Toronto, 1956), pp. 293-95, Gerald Killan, David Boyle From Artisan to Archaeologist (Toronto, 1983), pp. 145-216, and Pym Buitenhuis, "David Boyle, Dilettante or Museum Anthropologist: A Study of Victorian Museums and Historical Collections in Anthropology," M.M.S. Thesis (1989).
123. See presidential address of the Rev. John McCaul in CJ (March, 1863), v. 8, #44, n.s., p. 98.
124. AAR, 1893-94, p. 5.
125. "Archaeological Report," Sessional Papers (1889), v. 21, pt. 5, #42, p. 14.
126. AAR, 1897-98, p. 1. Boyle saw the museum educating society on two levels; through exhibits and by the publication of the Annual Report.
127. Buitenhuis, "Boyle," pp. 105 & 97. Some 55,000 artifacts were transferred from the

Provincial Museum to the ROM in 1933.

128. Berger, God, p. 15. See also Zeller, Land, p. 2.

129. Berger, God, p. xiii. See also Zeller, Land, p. 3, and Sheets-Pyenson, Cathedrals, p. 101.

130. Egerton Ryerson, Inaugural Address on the Nature and Advantages of An English and Liberal Education (Toronto, 1842), pp. 25-26. Ryerson's remarks were made on June 21, 1842 at the official opening of Victoria College.

131. Minutes of the Board of Governors King's College Council (November 19, 1834), v. 1, p. 210. In 1842, £4,000 was appropriated for a library, philosophical apparatus, museum and botanical garden at King's College "for the general use of the different classes in Arts and Faculties." See Douglas Richardson, A Not Unsightly Building (Toronto, 1990), p. 153.

132. Minutes of Council King's College (May 27, 1840), v. 2, p. 175, & (June 6, 1840), pp. 178-79. Members of the committee included John McCaul, Robert Jameson and Robert B. Sullivan.

133. Toronto Patriot (Tuesday, May 26, 1840).

134. See the Toronto Patriot (Tuesday, June 23, 1840). Margin notes written in college minutes verified this loss. "This collection, a few weeks afterwards, was consumed by fire." Minutes of Council King's College (June 6, 1840), p. 180. "This museum was soon afterwards burnt by accident." Minutes of Council King's College (June 13, 1840), p. 183.

135. Hincks' 1865 recollections, cited in E. Horne Craigie, A History of the Department of Zoology of the University of Toronto Up to 1962 (Toronto, 1965), p. 7. Hincks credited Henry H. Croft, Professor of Experimental Philosophy and Chemistry for acquiring collections of North American birds, insects and shells. Another contemporary account recorded that since 1853, the museum has "rapidly increased, and already contains enough to render it highly interesting and attractive." See Thomas Hodgins (ed.), The Canadian Educational Directory and Calendar (Toronto, 1857), p. 46. Dr. Boys was acknowledged for establishing an early butterfly and insect collection. See William F.A. Boys, "Early Days of the University," Supplement to the University of Toronto Monthly (December, 1901), v. 2, #3, p. 32.

136. "Report of the Council of the University College, for the year 1854," in J. George Hodgins, Documentary History of Education in Upper Canada 1853-55 (Toronto, 1904), v. 11, pp. 147-48.

137. Quoted in Hodgins, DHEUC 1855-56 (Toronto, 1905), v. 12, p. 47. It was noted that the museum at Trinity College contained many mineralogical, geological and other specimens. See ibid., p. 61. Edward J. Chapman was the professor McCaul cited. Chapman who had previously held the position of Professor of Mineralogy at University College, London, was appointed as chair of Mineralogy and Geology at University College, Toronto in 1853. He held this post for 42 years until retirement in 1895. See W. Hodgson Ellis, "Edward John Chapman," University of Toronto

Monthly (June, 1902), v. 2, #9, pp. 229-31.

138. "Thoughts on the Present Position of the University of Toronto," A-AM (May, 1854), v. 4, #5, pp. 463-66. For more on colleges and "liberal education" and the "constantly widening influence in favor of intellectual and moral culture" and the "diffusion of intelligence and of sound learning" in this period, see "Upper Canada-University and Colleges," American Journal of Education (December, 1856), v. 2, #7, pp. 732-33. University libraries and museums were listed in an 1857 educational calendar. This account noted that plants obtained from England, mosses from the southern United States and additions to the ichthyology, entomology and conchology departments "will greatly increase the interest of the collection," and offer "inducements and assistance for the further study of Natural History" through the exhibition of these objects. See Hodgins (ed.), Directory, p. 46.

139. By the 1860's New Brunswick, Laval, Toronto, Queen's, McGill and Acadia universities had museum collections of varying quality. See Richard A. Jarrell, "Science Education at the University of New Brunswick in the Nineteenth Century," Acadiensis (Spring, 1973), v. 2, pp. 56-57.

140. Croft was the driving force behind the creation of the Entomological Society of Ontario in 1863. See Craigie, Zoology, p. 4. For more on Croft, see W. Hodgson Ellis, "Henry Holmes Croft," UTM (November, 1901), v. 2, #2, pp. 29-32.

141. Prior to his Toronto appointment, Hincks had been a professor of Natural History at Manchester College, York, and Queen's College, Cork. He had contributed papers on botany to the British Association and the Linnean Society, and was successful over a young T.H. Huxley for the chair's position at Toronto. See Richardson, Building, p. 93, C.R.W. Biggar, "The Reverend William Hincks," UTM (June, 1902), v. 2, #9, pp. 232-33, and Craigie, Zoology, pp. 4-5.

142. For more on Wilson see Sir Daniel Wilson (Toronto, 1984), Carl Berger, "Sir Daniel Wilson," Dictionary of Canadian Biography (Toronto, 1990), v. 12, pp. 1109-1114, Kapches, "Antiquarians," pp. 89-90, and H.R. Fairclough, "Sir Daniel Wilson," UTM (February, 1902), v. 2, #5, pp. 118-21.

143. Chapman was previously professor of Mineralogy at University College, London. See Ellis, "Chapman", pp. 229-31. He had worked with I.K. Brunel in England, and during the 1850's had agents in Montreal, France and Germany who helped acquire over 6,000 specimens. See Richardson, Building, p. 161. Chapman also performed curatorial duties at the Canadian Institute Museum. He was nominated as curator in 1853 and was involved with the transfer of artifacts from the Toronto Athenaeum in 1855. See CJ (1853-54), v. 2, p. 120, and Thompson, Reminiscences, p. 247.

144. Quoted in CJ (February, 1856), v. 1, #2, p. 100.

145. Cited in "Proceedings of the Select Committee of the House of Assembly, March 19, 1860," in Hodgins DHEUC 1860 (Toronto, 1906), v. 15, p. 209.

146. John W. Papworth and Wyatt Papworth, Museums, Libraries and Picture Galleries (London, 1853), pp. 3 & 79. A copy of this publication is to be found in the Storm Collection, Thomas Fischer Rare Book Library, University of Toronto. Original drawings and sketches for the Geological Museum are housed in the Horwood and White Collection B65-0028, University of Toronto Archives. William Storm was a pre-eminent apprentice of architect William Thomas. Thomas had entered competitions for design of the Birmingham City Hall and the Fitzwilliam Museum in Cambridge. Thomas and Storm were admirers of sculptural decoration which is prominent in Storm's work at University College. See Glenn McArthur and Annie Szamosi, William Thomas Architect (Ottawa, 1996), pp. 26 & 128-29.

147. See Charles Rohault de Fleury, Museum D'Histoire Naturelle (Paris, 1837), Arrangements of the British Marbles, Alabasters, Serpentine, Porphyries, Granites, Building Stones, etc. in the Vestibule and Hall of the Museum of Practical Geology (London, 1851), and Arrangement of the Fossils and Rock Specimens in the Galleries of the Museum of Practical Geology (London, 1853). These reference publications are also in the Storm Collection, Thomas Fischer Rare Book Library, University of Toronto, and were originally part of William Storm's reference library.

148. Quoted in "Educational Proceedings of Legislature of Canada, 1860," in Hodgins DHEUC 1860 (Toronto, 1906), v. 15, p. 29. See also "Report of the Senate of the University of Toronto for the Years 1859," in *ibid.*, p. 187. In 1858, Langton was also given authority to procure credit from the Bursar to purchase specimens and apparatus in England for use in the new museum. See University of Toronto, Senate Minutes (May 13, 1858), p. 453.

149. Rhees, Manual, . 547. For another contemporary description of museums at the University of Toronto during the mid 1850s, see Alfred Sylvester, Sketches of Toronto (Toronto, 1858), pp. 44-45.

150. "Proceedings of the Select Committee of the House of Assembly, March 19, 1860," cited in Hodgins, DHEUC, 1860, p. 168.

151. Reverend Leitch quoted in Hodgins, DHEUC 1860, p. 242.

152. Ovide Brunet, Notice Sur Le Musée Botanique de L'Université Laval (Quebec, 1867), p. 4. The Museum of Applied Botany at Kew Gardens in London, England was cited as an example for botanic museums to follow.

153. See Report of the Commissioners Appointed to Enquire Into the Expenditure of the Funds of the University of Toronto (Quebec, 1862), pp. 96-107.

154. Samuel P. Day, English America (London, 1864), v. 2, p. 39.

155. See The Canadian Illustrated News – Hamilton (November 8, 1862), v. 1, #1, p. 6.
156. J. George Hodgins, "Historical Sketch of Education in Upper Canada," in Eighty Years' Progress of British North America (Toronto, 1864), pp. 473-74.
157. William Hincks to Joseph Henry, March 26, 1866, cited in the Annual Report of the Board of Regents of the Smithsonian Institution 1865 (Washington, 1866), p. 134. For more on the utility of science in this decade, see "Progressive Science," SA (January 2, 1860), v. 2, #2, n.s., p. 5. "Scientific vs. Practical Instruction," SA (July 21, 1861), v. 3, #4, n.s., p. 57, and "A New Science," SA (November 17, 1860), v. 3, #21, n.s., p. 329.
158. Marinell Ash, "Patriots Who Put Scotland's Heritage in Safe Keeping," The Weekend Scotsman (Saturday, October 5, 1985). For an indepth discussion on Wilson as an anthropologist, see Bruce G. Trigger, "Sir Daniel Wilson: Canada's First Anthropologist," Anthropologica (1966), v. 8, #1, n.s., pp. 3-28.
159. Bruce G. Trigger, Natives and Newcomers (Montreal, 1985), pp. 40 & 59. See also Berger, "Wilson," p. 1109.
160. Daniel Wilson, Synopsis of the Museum of the Society of Antiquaries of Scotland (Edinburgh, 1849), p. 4. Wilson shared the belief that Indian societies would disappear like native plants and that their preservation could be facilitated through the collection of artifacts and legends. See Berger, Science, p. 41. For more on the impact of arts and science on the working class and for cultivating intellect, see "Improvements in the Arts and Sciences," SA (January 2, 1864), v. 10, #1, n.s., pp. 5-6, and "Man's Object in Advancing the Arts and Sciences," A-AM (April, 1854), v. 4, pp. 406-09.
161. Between 1856-59, Wilson edited the Canadian Journal. He was president of the Canadian Institute in 1860 and 1861. In 1854 he chaired the Fine Arts Sub-committee of the Central Committee for Upper Canada, which established a plan for the Canadian display at the 1855 Paris Exhibition.
162. "Presidential Address," CJ (1861), v. 6, n.s., p. 102. For more on the culture of Victorian science in Canada, see Zeller, Land, pp. 1-18. Similarities to and a connective link with England, were identified in an earlier book on emigration. It was noted that; "But the Canadas are, to a certain extent, old colonies, and their towns form themselves, like those of Britain, by trade, and the natural increase of population." See John H. Burton, The Emigrant's Manual (Edinburgh, 1851), p. 13.
163. "The President's Address," CJ (1870), v. 12, n.s., p. 106. Hincks was president of the Canadian Institute in 1869. He contributed articles to the Canadian Journal, was involved with planning Canadian displays at the 1855 and 1862 International Exhibitions, and was credited for introducing the topic of evolution and the debate on Darwin's ideas to the Canadian public in

1866. See Knafla et al, "Science," pp. 188-89. Colleagues Daniel Wilson and Edward Chapman also contributed to this debate. See Zeller, Land, p. 16, "The President's Address," CJ (March, 1860), v. 5, #26, n.s., pp. 116-22, and Chapman's review of On the Origin of Species, CJ (July, 1860), v. 5, #28, n.s., pp. 367-87.

164. For sporadic details, see University of Toronto, Senate Minutes (August 16, 1870-August 11, 1873), v. 2, and (September 15, 1873 - May, 1880), v. 3. The amount of money invested by King's College and the University of Toronto prior to this included £3,672, 16s, 6 p, from 1828-52 and £8,313, 12s, 11p, from 1853-61. See 1862 Report of Commissioners, p. 201. Professor Henry A. Nicholson was named curator of the Natural History Museum in 1871 on the death of William Hincks. Nicholson returned to England in 1874 and Professor Robert R. Wright became the museum's curator in 1876.

165. Scadding, "Museums," CJ (May, 1871), v. 8, #73, n.s., p. 24. See also, Killan, Canadian, p. 8. The Victoria Medical College opened in 1872, adding another museum facility to the University of Toronto. See "The Victoria Medical College, Toronto," Canadian Illustrated News (September 14, 1872), v. 6, #11, p. 162.

166. See Louis J. Breithaupt Diaries (1872). Visits to Toronto museums took place on February 3, February 24, April 13 and May 25.

167. B.E. Walker, "Canadian Surveys and Museums and the Need of Increased Expenditure Thereon," Proceedings of the Canadian Institute (1904), v. 2, n.s., p. 84.

168. Willard Glazier, Peculiarities of American Cities (Philadelphia, 1884), p. 525. Another travel guide for this year noted that in Toronto the "chief building is the University with a museum." A Tour Through Canada (London, 1884), p. 31.

169. Cited in Victoria Dickenson, An Investigation Into the Ordering of Collections (Ottawa, 1984), p. 73.

170. Toronto Mail (February 15, 1890), p. 16, cited in Richardson, Building, p. 126. An earlier description of Wilson's museum portrayed it as a facility with a useful collection but having limited access to the public. A publication of the period noted that; "There is a little room at the end of the gallery of the Museum, by the favor of Professor Wilson, may be entered. In this is a remarkable collection of the crania of the aborigines...here their heads exhibited to the phrenological connoisseurs." Cited in Industries of Canada - Historical and Commercial Sketches of Toronto and Environs (Toronto, 1886), p. 53.

171. Valentine Ball, "Report on a Visit to the Museums of America and Canada," Thirty-Second Report of the Science and Art Department (1884), p. 340. By 1888, Sir Edmund Walker also confirmed that "teaching museums arose in the University." See Jubilee of Sir Edmund Walker (Toronto, 1918), p. 37. Sunday schools were also seen by some as institutions for education.

See Albert D. Carman, "The Sabbath-School as a Centre," Canadian Methodist Magazine (January, 1887), v. 25, pp. 39-46.

172. Richardson, Building, pp. 126 & 138, Craigie, History, p. 24, and Paul M. Rea, "A Directory of American Museums of Art, History, and Science," Bulletin of the Buffalo Society of Natural Sciences (October, 1910), v. 10, #1, p. 325.

173. Toronto Meeting 1897 Preliminary Programme (Toronto, 1896), p. 31.

174. Henry M. Ami, "Report on the State of Principal Museums in Canada and Newfoundland," Report of the British Association for the Advancement of Science (London, 1898), pp. 69-70.

175. James Ludon and W.H. Fraser, "History of the University of Toronto," in J. Castell Hopkins (ed.), Canada an Encyclopaedia of the Country (Toronto, 1898), v. 4, p. 175.

176. See Ramsay Wright, "On Recent Additions to the University Biological Museum", UTM (October, 1900), v. 1, #2, pp. 58-59, (November, 1900), v. 1, #3, p. 94, & (December, 1900), v. 1, #4, p. 118. Wright was an Oxford trained Scotsman with academic interests in zoology and biology. Another observer wrote saying; "There are needless to say, fine libraries, laboratories, and museums" at the University of Toronto. A "Missionary Museum" was also in operation at Trinity College. See James Lindsay, Canada: Its Commerce, Its Colleges, and Its Churches (London, 1900), p. 16.

177. Cited in Craigie, History, pp. 26-27.

178. Frederick J.H. Merrill, "Natural History Museums of the United States and Canada," New York State Museum Bulletin 62 (July, 1902), misc. 1, pp. 197-99. In 1918 it was reported that an exhibit grouping representing the family life and work of the Mohawk Indians had been developed at the University of Toronto Museum by Prof. W.H. Holmes. The article also noted materials recently received for the collection from Egypt and Asia Minor. See MJ (April, 1918), v. 17, #10, p. 156.

179. Richardson, Building, p. 160.

180. See Markham & Miers, Canada, p. 1, Royal Commission on National Development, p. 87, Guthe & Guthe, Movement, p. 3, A Museum For Canadians (Ottawa, 1961), p. 1, Key, Beyond, p. 122, and Morris Zaslow, Reading the Rocks (Toronto, 1975), p. 3.

181. Logan received his high school and university education in Edinburgh. While working in Wales his mapping of coal fields was noticed by Sir Henry de la Beche, the director of the Geological Survey of Great Britain. In 1837, Logan was made a Fellow of the Geological Society. He also served as the honorary secretary and curator of the geological department of the Royal Institution Museum of South Wales. See Sandford Fleming, The Canadian Geological Survey and Its Director, Sir William Edmund Logan (Toronto, 1856), pp. 2-3, "Sketch of Sir

William Logan," JEUC (October, 1857), v. 10, #10, p. 153, and W.H. Collins, "The National Museum of Canada," National Museum of Canada Annual Report for 1926 (Ottawa, 1928), p. 34. For additional contemporary information on Logan, see Testimonials in Favour of Mr. W. E. Logan (Montreal: Lovell & Gibson, 1846).

182. Logan to R.W. Rawson, Secretary to the Governor General, December 11, 1843. Cited in Collins, "Natural," p. 35. Alexander Murray had previously worked for Sir Henry de la Beche at the Geological Survey of Great Britain.

183. Logan to Sir Henry de la Beche, cited in Key, Beyond, p. 122.

184. Cited in Collins, "National", p. 36.

185. For a description of the collection on display, see W.E. Logan, Catalogue of Economic Minerals of Canada Grand Industrial Exhibition 1851 (Toronto, 1851), pp. 1-5.

186. Cited in Collins, "National," p. 37. For additional comments on the Canadian exhibit, see Official Descriptive and Illustrated Catalogue of the Great Exhibition 1851 (London, 1851), v. 2, pp. 957-69, and John Tallis, History and Description of the Crystal Palace (London, 1851), div. 1, pp. 51-53.

187. Geological Survey of Canada Report of Progress 1850-51 (Montreal, 1852), p. 6. This opinion was echoed a decade later in the popular press. The geological collection assembled by Logan was described as being "exhibited with great skill and judgement, displaying to the best advantages the mineral resources of Canada." See The Canadian Illustrated News – Hamilton (August 1, 1863), v. 2, #12, p. 133.

188. Cited in Zaslow, Rocks, p. 55.

189. GSCRP 1851-52, p. 56.

190. Ibid., pp. 54-55.

191. Ibid., p. 55. This was Logan's earliest reference to the Geological Survey of Canada Museum as a national museum.

192. Edward Forbes, "On the Educational Uses of Museums," American Journal of Science (November, 1854), v. 68, pp. 344-45. Logan was also influenced by his friend Lyon Playfair who was a professor at the School of Mines in London, England, a chemist with the Geological Survey of Great Britain, and a confidant of the Prince Consort.

193. Chambers, Things, pp. 69-70.

194. Scottish traveller Robert Russell met with Logan in 1854 to discuss topics related to

geology. See Russell, North, p. 53.

195. "Paris Exhibition," SA (June 2, 1855), v. 10, #38, p. 299. For a listing of articles sent to Paris, see J.C. Taché, Canada at the Universal Exhibition of 1855 (Toronto, 1856), pp. 24-52.

196. Cited in Zaslow. Rocks, p. 58. For an overview of the Canadian exhibit, a list of prizes awarded and the manner of disposal of articles to institutions in France and England, see Sir W.E. Logan's report in Taché, Canada, pp. 391-405. For an explanation of the collection of economic minerals on display, see W.E. Logan and T. Sterry Hunt, "A Sketch of the Geology of Canada," in ibid., p. 415. For his efforts Logan was knighted on January 29, 1856.

197. GSCR 1858, p. 8. For prevailing views on natural history and education see John William Dawson, A Hand Book of Geography and Natural History of the Province of Nova Scotia for the Use of Schools, Families and Travellers (Pictou, 1857), cited in Berger, God, p. vi, and Gray, Plants, pp. 2-4. Dawson believed it was important for youth to have knowledge of their own country. In addition, knowledge of the facts of natural history was a necessary element in "advanced or liberal education". Dawson presented a paper on geology at the Montreal conference, which was the first occasion for this American scientific body to assemble outside of the United States. See Phillip Kelland, Transatlantic Sketches (Edinburgh, 1858), pp. 28 & 30.

198. "Canadian Geological Museum, Montreal," JEUC (October, 1857), v. 10, #10, p. 153.

199. Day, English, v. 1, pp. 195-99. Day recorded that the museum was supported by a parliamentary grant of £4,000 per annum.

200. For a list of commissioners and a description of articles chosen for display, see Catalogue of Canadian Collection (Montreal, 1862).

201. The United States and Canada (London, 1862), p. 98.

202. John Lynch, Canada: Its Progress and Its Prospects (Brampton, 1876), pp. 14-15.

203. GSCR 1863, pp. xiii & xvi. For a summary of Logan's achievements and contributions, see "Sir William Logan," Canadian Illustrated News (January 1, 1870), v. 1, #9, pp. 129-30.

204. Geological Survey of Canada Reports of Exploration and Surveys 1874-75 (Montreal, 1876), p. 15. The circulation of mineral collections to educational institutions continued to be an important part of the GSC Museum's mandate into the 20th century. In 1904, Frank Oliver, Minister of the Interior, detailed the continuing importance of this initiative; "In the hand of competent teachers these collections induce pupils to take a real interest in the study of mineralogy, and they may gain a knowledge of the subject that will afterwards be of practical value to them." Cited in Summary Report of the Geological Survey Department of Canada 1904 (Ottawa, 1905), p. xxxvii.

205. GSCRES 1875-76, pp. 1, 3, 6, & 10. Selwyn believed that a descriptive catalogue would "enhance the value of the collections both for educational purposes and for the general information of the public." See GSCRP 1873-74, p. 4. This guide was produced. See Descriptive Catalogue of the Collection of the Economic Minerals of Canada (Montreal, 1876). The classification system adopted by Logan at the 1862 London International Exhibition was used in Philadelphia with some alterations and additions.
206. GSCRP 1876-77, p. 2. The Canadian exhibit garnered 41 medals from International judges and 28 medals from British judges. For a further description of the Canadian exhibit, see James D. McCabe, The Illustrated History of the Centennial Exhibition (Philadelphia, 1876), pp. 392-94.
207. Cited in Collins, "National," p. 41. After the Paris Exhibition in 1878, a large number of duplicate specimens were presented to French museums and universities, and to the South Kensington Museum for the proposed Colonial Museum. International exchanges continued through the activities of George Mercer Dawson. In the summer of 1882 he toured Europe cultivating useful contacts and sending home information about continental museums. See Sheets-Pyenson, Cathedrals, p. 84.
208. Ottawa Field – Naturalists' Club Transactions (1882), #3, p. 17.
209. H. Beaumont Small, "Museum Education," OFNCT (1880), V. 1, #1, p. 31. Small had long advocated the use of natural history in institutions of learning. For earlier examples of his writing, see H. Beaumont Small, The Animals of North America (Montreal, 1864), series 1, and H. Beaumont Small, The Animals of North America, Fresh-Water Fish (Montreal, 1865), series 11.
210. Geological and Natural History Society of Canada Report of Progress for 1880-81-82 (Montreal, 1883), p. 2.
211. GNHSC 1880-81-82, p. 28.
212. Geological Survey of Canada Annual Report 1887-88 (Ottawa, 1889), v. 3, n.s., p. 116a.
213. Quoted in Geological Survey of Canada Annual Report 1892-93 (Ottawa, 1895), v. 6, n.s., p. 97A.
214. Cited in GNHSC 1885, pp. 76A-77A. See also Ball, "Report," pp. 341 & 314. Selwyn listed what he believed to be excellent 1883 visitor statistics for the Sydney Museum. He concluded that a very large class of people took advantage of instruction through museum exhibits, and that in this matter "the Australian Colonies must be conceded to have an advance in the promotion of knowledge and civilization." See ibid., p. 77A.
215. John Macoun, "President's Address," Ottawa Naturalist (1887-1890), v. 1-3, p. 21.

216. Geological Survey of Canada Annual Report 1895 (Ottawa, 1897), v. 18, n.s., p. 7A. A popular travel guide noted that the site was open free to the public daily from 9 a.m. to 4 p.m., and was "a very interesting and unusually well-arranged Museum." See Karl Baedeker, The Dominion of Canada (London, 1894), p. 146.
217. GSCAR 1897, v. 10, n.s., pp. 10A-11A. For a synopsis of the collection and a listing of staff in 1897, see Ami, "Report," pp. 69-70.
218. See Report of the Royal Commission on the Mineral Resources of Ontario and Measures for Their Development (Toronto, 1890), pp. 522-24. Egelston believed that in the United States "too little is made of museum education...and too little floor space is given to museums."
219. Cited in Proceedings and Transactions of the Royal Society of Canada (1897), v. 15, pp. xi-xii. For more on the Royal Society of Canada, see John G. Bourinot "The Royal Society of Canada: Its History and Work," The Canadian Magazine (1897), v. 9, pp. 488-94, and Bowler, "Societies," pp. 333-35. In 1883, the Royal Society prepared a plan for the purpose of building a new national museum. See DFNCT (1883), v. 1, #4, p. 15. A British academic who had formerly lectured at Queen's University in Kingston described the GSC Museum in 1900, and also called for improved quarters. "Many and varied were the specimens-most excellent in form and condition-typical of that vast country. There is also a rich variety of Indian remains. Ottawa deserves a worthier building for this large collection, which will serve as a great national museum." See Lindsay, Canada, p. 19.
220. Cited in Collins, "National," p. 46. In 1899, Walker conducted a study of Canadian surveys and museums and the need for enhanced funding. This report was circulated by the Canadian Institute to all members of parliament. See B.E. Walker, "Canadian," pp. 75-89. A British academic who had formerly lectured at Queen's University in Kingston described the GSC Museum in 1900, and also called for improved quarters; "Many and varied were the specimens - most excellent in form and condition - typical of that vast country. There is also a rich variety of Indian remains. Ottawa deserves a worthier building for this large collection, which will serve as a great national museum." See Lindsay, Canada, p. 19.
221. Cited in Collins, "National," p. 46. In 1904, the Canadian Parliament voted to allocate \$150,000 towards building the new museum. MJ (February, 1904), v. 2, p. 272.
222. Henry M. Ami, "Some Colonial Museums," ON (July, 1896), v. 10, #4, p. 81. See also "The National Museum," ibid., p. 80, "A National Museum," ON (November, 1900), v. 14, #2, p. 151-52, and "Annual Address of the President," ON (February, 1901), v. 14, #11, p. 199.
223. "Victoria Memorial Museum," Summary Report of the Geological Survey Branch of the Department of Mines (1910), pp. 9-10. There was a certain amount of irony in this statement. While the mandate of the new National Canadian Museum was to have collections of Canadian materials to surpass that of all other nations, in some cases the objects required for educational

use were not available, often having been sent to museums in the United States and England. A period museum survey from 1910 noted that; "The new Victoria Memorial Museum is now almost completed and will house the collections in the near future." See Rea, "Directory," p. 324. The completion of the new museum was also noted in British sources. See MJ (August, 1912), v. 12, #2, p. 66. Brock moved his staff and collections into the unfinished building in 1910. See Loris S. Russell, The National Museum of Canada 1910 to 1960 (Ottawa, 1961), p. 4.

224. Zaslow, Rocks, p. 6.

225. Teather, "Museum," p. 21.

226. John W. Dawson, The Duties of Educated Young Men in British America (Montreal, 1863), p. 8.

227. The Public School Geography (Toronto, 1887), p. 101. This text was authorized by the Ontario Department of Education for use in public and high schools and colleges.

228. Brian Dixon et al, The Museum and the Canadian Public (Ottawa, 1974), p. 1.

229. See Eileen D. Mak, "Ward of the Government, Child of the Institute: The Provincial Museums of Nova Scotia 1868-1951," in Peter E. Ryder (ed.), Studies in History & Museums (Ottawa, 1994), p. 7. See also Teather, "Museum," pp. 21-24.

230. Louis Lemieux, "The Functions of Museums," CMA Gazette (Winter-Spring, 1981), v. 14, #1-2, p. 4. Eileen Hooper-Greenhill, while not supporting an encyclopedic approach, suggests that change is important. She argues that as our ways of understanding the world change, so too do our museums. See Eileen Hooper-Greenhill, Museums and the Shaping of Knowledge (London, 1992). Change and pressures outside the direct influence of curatorship also have an impact upon the history of museums. See Gaynor Kavanagh, History Curatorship (Washington, 1990), p. 13. Germain Bazin also identifies change as a factor in the evolution of museums. See Mak, "Ward," p. 31.

231. Duncomb, Advocate, pp. 8-9. This idea had been promoted previously as a necessity for Canada's development. "In a new country, unless education receives some support from government funds, the rising generation will be neglected." See A Concise Description of Canada (London, 1836), p. 90.

232. Cited in Transactions of the Women's Canadian Historical Society of Toronto (1917), #16, p. 29.

233. William Hutton, Canada: Its Present Condition, Prospects and Resources (London, 1854), p. 115.

234. Dawson, Educated, p. 8.

235. See John G. Bourinot, Canada During the Victorian Era (Ottawa, 1897), p. 22.
236. John G. Bourinot, The Intellectual Development of the Canadian People (Toronto, 1881), p. 118.
237. Ball, "Report," p. 310.
238. See William Canniff, Canadian Nationality: Its Growth and Development (Toronto, 1875), pp. 5, 12, & 14, and W. Stewart Wallace, The Growth of Canadian National Feeling (Toronto, 1927), p. 20. An interest in instructing Canadian youth in their country's history was identified prior to Confederation. See J.A. Boyd, A Summary of Canadian History (Toronto, 1860), p. 3. Another pre-Confederation publication saw strength in union between provinces which would ultimately lead to a federal union. See Charles Bass, Lectures on Canada (Hamilton, 1863), pp. 43-44. For a nationalistic perspective with religious overtones, see Henry W. Monk, How to Do It; or Canada to the Front (Ottawa, 1890).
239. Teather, "Museum," p. 24.
240. See Wallace, Growth, pp. 70-77, Edward Hagarty "Culture as an Element of Education," The Canada Educational Monthly (January, 1891), v. 13, #1, pp. 8-12, Bernard McEvoy, "Technical Education in Canada," The Canadian Magazine (1899-1900), v. 14, pp. 8-15, Dawson, Educated, p. 13, John A. Cooper, "Canada's Progress in the Victorian Era," The Canadian Magazine (1897), v. 9, pp. 159-61, and John G. Bourinot, Our Intellectual Strength and Weakness (Montreal, 1893), pp. xiii, 39, 42 & 53. For a modern perspective on Canadian museums and education at the end of the 19th century, see Sheets-Pyenson, Cathedral, p. 100.
241. For comment on the influence of the United Kingdom on Canada's development refer to Francis Duncan, Canada in 1871; or Our Empire in the West (London, 1872). Duncan saw in Canada "the unmistakable growth of a nationality out of the colonial chrysalis." See p. 1. For observations on the impact of the United States on Canadian museums, see Donald Crowdis, "Development of Canadian Museums," in Conference Proceedings for 2001: The Museum and the Canadian Public (Ottawa, 1977), p. 7.
242. Sheets-Pyenson, Cathedrals, p. 102, and Teather, "Museum," p. 28.

Chapter 5

Museums as "A Delightful Instrument of Self-Instruction" in 19th Century Ontario

Introduction

In his 1871 presidential address to the Canadian Institute, Toronto cleric and historian, the Reverend Henry Scadding, suggested that:

Then, at once, the museum or other large classified assemblage of objects - although access to it could be had for a few days, or even a few hours - ceases to be a mere show or plaything, and is transformed into a gallery of illustration - a delightful instrument of self-education; a means of mental expansion, intellectual enrichment and positive increase of personal competency.¹

The position of museums and their relationship to education had not been this clear some 25 years previously in Canada. The impetus for the development of public museums as educational institutions began with the passage of the Common Schools Act of 1846.

Spearheaded by the Reverend Egerton Ryerson, this comprehensive plan for public education included the establishment of a Normal School for the training of teachers, and the construction of an associated model grammar school and educational museum.² These facilities were regarded as being important for the instruction and practice of teachers in the science of education and the art of teaching. Even prior to Ryerson's input, some commentators praised the educational system in Upper Canada. An 1833 letter from an emigrant back to a friend in the United Kingdom recommended bringing children, as in Canada "they are here out of the way of learning much of the depravity that is generally to be found in the luxurious and over-refined country, like England."³ Ryerson's impact was felt soon after his appointment as chief superintendent in 1844. A period account noted that; "There is an elaborate system of schools in Canada West."⁴ Another contemporary observer wrote that "the system of education now established in Canada far exceeds, in its comprehensive details, anything of the kind in Great Britain."⁵ Hindsight would show that these initiatives would also have an enormous impact on the development of a philosophy regarding the utility of museums and education, as echoed in Henry Scadding's comments made a quarter of a century later.

This chapter will investigate the chronological development of schools and museums as important factors in the evolution of both institutions during the last half of the 19th century in Ontario. The specific efforts of Egerton Ryerson, John George Hodgins and David Boyle will be investigated. Linkages to the

philosophy of Pestalozzi, innovative educational initiatives taken by the English Home and Colonial Infant and Juvenile School Society and the South Kingston Museum, the Oswego Movement in the United States and the implementation of "object lessons" in the Ontario school system will be addressed. The impact of the establishment of school museums in communities throughout Ontario will be considered.

Early Initiatives

Museums as centres of learning for students enrolled in the public education system in Canada have had a relatively short history. In my research on this topic, the first recorded formal use of a museum by a teacher and students was in England in 1660. In his book entitled, A New Discovery of the Old Art of Teaching Schoole, the British educational reformer, Charles Hoole, commented:

But in London (which of all places I know in England), is best for the full improvement of children in their education, because of the variety of objects which daily present themselves to them, or may easily be seen once a year, by walking to Mr. John Tradescants, or the like houses or gardens, where rarities are kept.⁶

The public use of museums by school children in Canada would come much later. One of the earliest museums established for this purpose was the Pictou Academy in Nova Scotia. By 1822, Head Master, the Reverend Thomas McCullough, had assembled a collection of birds, mammals, reptiles and minerals for his students to use in their studies.⁷ By 1829, an observer reported that the academy had "the most extensive collection of zoology in the country".⁸ The development of other early community museums would be tied to the efforts of the Mechanics' Institute Movement.⁹ These initiatives provided new opportunity for adult education.

Another important factor was the establishment of local museums by historical societies. This type of museum growth was particularly evident in Ontario.¹⁰ Study collections were also often associated with the evolution of the public library system in the province. Instrumental in the development of public libraries, the common school system and school museums was the Reverend Egerton Ryerson, who acted as Chief Superintendent of Education, from 1844 to 1876.

The Work of Egerton Ryerson

Ryerson proposed the establishment of the first normal school for the training of teachers in the Common Schools Act of 1846. His ideas were influenced by earlier reports on educational reconstruction authored

by Charles Duncombe in 1836 and Mahlon Burwell in 1838 which stressed the social necessity of education. While these suggestions for reform had little impact on school management, or changes to curriculum or pedagogy, they provided Ryerson with ideas which could be implemented later when the Schools Act was enacted through legislation.¹¹ Among other basics included in this comprehensive plan for public education was the foundation of a normal school with an associated Model Grammar School. Ryerson saw these facilities as being important for the instruction and practice of teachers. After several changes in venue, these facilities were finally located in the new Normal School for Upper Canada. This impressive structure, designed by the prominent architectural firm of Cumberland and Ridout, was situated in St. James Square in Toronto. It contained classrooms, offices for the Education Department, a library, a book depository, a school of art and an educational museum.¹²

Influenced by the successful French *école normals*, the existing Prussian system of education,¹³ and the New York State School in Albany, the provincial normal school became the first institution in Upper Canada to provide for the systematic training of elementary school teachers. The first Head Master was Thomas Jaffray Robertson. The former Chief Inspector of National Schools in Ireland was chosen by Ryerson to guide new pedagogical directions in the province. He was fully acquainted with European and Irish educational techniques.¹⁴

This was consistent with Ryerson's efforts during the 1840s to introduce a new style of pedagogy throughout Upper Canada. The state would become "a collective parent" to the children of its citizens.¹⁵ Ryerson was influenced by the teachings of Swiss educator Johann H. Pestalozzi. Pestalozzi's child-centred approach to schooling engaged students in discussion through lectures, questions and answers. Instead of memorizing facts, students were encouraged to learn by examining, discussing and analyzing real things. The tenets of the "object lesson" were promoted by Ryerson in articles published in his monthly Journal of Education.¹⁶ This new method of teaching received wide exposure, as by law the Journal was required reading for all teachers and school board trustees in the province.¹⁷ The Great Exhibition of 1851, held at the Crystal Palace in London, also had an important impact on Ryerson. He had visited this event while on an educational tour of Europe. The exhibition "heralded a new era for public museums."¹⁸ The potency of the exhibits as mass-educators was realized for the first time,¹⁹ and

a tremendous stimulus was provided for the development of technical education.²⁰ Contemporary observer Henry Mayhew said of visitors to the event: "The fact is, the Great Exhibition is to them more of a school than a show."²¹

The Great Exhibition was judged as a "wondrous work" which had not only an immediate impact on those visiting it, but created a spin off effect through parallel events in Canada. In Toronto; "The Panorama now exhibiting in the St. Lawrence Hall, places those who see it almost on a level with the favored who visited the great marvel itself."²²

Readers of the Anglo-American Magazine were urged to return often to this extravaganza. Less grand exhibitions held annually by agricultural societies in rural Upper Canada, elicited similar responses from commentators:

[I]n all the departments of mechanical improvement, the meetings of the associations, are, on a small scale, what the great exhibition of all nations was to the crowds who attended it.²³

Ryerson may well have been caught up in the excitement of the exhibition, as he acquired examples of modern inventions, samples of agricultural equipment, and the latest in teaching apparatus. This collection was to be exhibited in his yet-to-be-opened educational museum.

Anxious to make additions to this collection, Ryerson decided to visit the Universal Exhibition which was being held in Paris, France. In June of 1855, the Chief Superintendent was appointed as an honorary member of the commission which had been given the mandate to manage the Canadian display at this exhibition. After receiving permission to travel from the Governor General, Sir Edmund Walker Head, an ecstatic Ryerson left for his "grand tour" on July 4, 1855. He was accompanied by his daughter and travelling companion, Sophie.²⁴

In London, Ryerson met with Captain John Henry Lefroy, son-in-law of Sir John Beverley Robinson, the Chief Justice of Upper Canada. Lefroy recommended that Ryerson should follow the method used for establishing local museums in England. Collections should be comprised of copies of original paintings and plaster casts of great works of sculpture. This philosophy of acquiring "objects of taste" instead of

teaching apparatus and specimens of natural history, lead Ryerson to purchase items of aesthetic value for the museum collection. In correspondence with Ryerson, Lefroy outlined his ideas on the selection and purchase of objects of art for the proposed museum:

My suggestion, in respect to the purchase of Casts of Statuary, and copies of Pictures...proceeds upon the assumption, that what is everywhere felt to acquire fresh claims as an element of Popular Education at Home in England, cannot be less worthy of attention in Canada...In respect to the choice of Objects, I think that sensible beauty, poetry, or pathos, rather than classic interest, should be the determining principle. Its Sculpture, I should begin with modern works, and not venture to introduce Antiques until the legitimate advance of public taste, and the classical education ensured their reception.²⁵

The importation of these European "objects of taste" to Upper Canada was seen as an essential way to bring culture to the colonial province.²⁶

Ryerson was also influenced by the ideas of Scottish author Charles Heath Wilson. Wilson's suggestions on how to form provincial museums and what objects to collect, were detailed in an 1855 pamphlet that the Honourable Francis Hincks had forwarded to Ryerson. Wilson believed it was desirable to preserve original and precious works in great central, metropolitan museums. Local museums were to be furnished with casts of sculptures, copies of pictures, electrotypes of bronzes, and imitations of other works of art. Study of these collections by students and the public at large would result in a taste for and appreciation of arts as an accompaniment of civilization.²⁷

Ryerson believed that there was value and importance in following such a philosophy. A collection of objects of both fine and practical arts would have a useful and "elevating" national purpose and be of public benefit. Through numerous articles published in 1856 in the Journal of Education, Ryerson wrote that readers would see "how vigorous have been the efforts put forth of late years in various places to promote art education, and to cultivate a taste for the fine arts by means of popular exhibitions and museums." His opening remarks noted that England and France "have been foremost in this great work of social amelioration and enlightenment." He concluded that Canada was following examples of these other countries "in providing herself with the means of refining taste and promoting the general intelligence of her people."²⁸ His plan would achieve these outcomes by the following means:

By having the Museum gratuitously open to the public, at least on certain days of the week.

By making such arrangements, with the parties, in each City, or Town, where I make purchases, that I can hereafter procure any of the same things for any Municipality, or Educational, or other Public Institution in Upper Canada desiring them.

By affording the information by which any individual in Canada may procure the same and kindred Objects.²⁹

He concluded that it was desired by all that the treasures of European art, science and literature should be rendered accessible to all parts of Upper Canada by following this course of action.

Ryerson reported on this matter in a January 1, 1856, letter to the Provincial Secretary, George-Etienne Cartier. He said:

From the introduction into our country of these new elements, of civilization and refinement, I anticipate the happiest results as in places in Europe where there is an order and propriety of conduct in the labouring classes, a gentleness and cheerfulness of manners that I have not observed among the same classes elsewhere. If all cannot read and speculate on abstract questions, all can see, and feel, and derive both pleasure and instruction from what the creations of art present to the eye, the heart and to the imagination.³⁰

At the Beaux Arts Museum in Paris, Ryerson made arrangements to purchase 250 plaster busts. Models of agricultural implements, medieval armour, scientific materials, maps, globes and tellurions were obtained from the Austrian and French displays at the exhibition. In Antwerp, Ryerson purchased over 160 paintings. The nucleus of the collection for his museum had been assembled.³¹ On his return to Toronto, the Chief Superintendent could put into action the philosophy that he had espoused in 1855:

[P]ersons of all ages, and especially children, learn and understand much more readily and remember much more perfectly and permanently, what they see than what they acquire in any other way.³²

In 1857, the Educational Museum for Upper Canada was opened to the public. While Ryerson's dream of having a separate museum building had not come to fruition, he did have a facility which was under the aegis of the Department of Education. In his Annual Report issued in 1857, Ryerson appended numerous pages of information about the museum. In the Report for the year 1858, rules for admission and the character and objects of the museum were spelled out. He further stated the goals he hoped to achieve:

A collection (however limited) of copies of those paintings and statuary which are most attractive and instructive in European Museums, and which trained teachers of our public

schools may become familiar, and which are accessible to their public from all parts of the country, cannot fail to be the means of social improvement, as well as enjoyment, to great numbers throughout Upper Canada.³³

The notion of the museum as an institution of "self-help" was clearly identified in the Character and Objects of the Museum:

This educational museum is founded after the example of what is being done by the Imperial Government as part of the system of popular education - regarding the indirect, as scarcely secondary to the direct means of training the minds and forming the taste and character of the people.³⁴

Recognition of Ryerson's accomplishment soon followed. In 1859, Edward A. Sheldon, Superintendent of Schools in Oswego, New York, visited the site. Here Sheldon saw tangible evidence of Ryerson's methods in use. This experience inspired him to return home to launch the "Oswego Movement," which would promote the "object-lesson" technique as a highly fashionable method of teaching in American public schools.³⁵

The public at large also acknowledged the benefit of touring the museum. In a letter to the Grand River Sachem, a visitor spoke glowingly of the experience:

I made a promise to go over to the museum the next day. That I consider the greatest treat in Toronto. The rooms are admirably fitted up, filled with choice casts of many world-renowned statues - two large halls entirely covered with capital copies of many of the greatest works of the old masters. Pictures, which to read about makes one delighted and astonished, are here to be seen. Truly the site of these will richly repay the journey from the remotest part of the Province...A long summer day can profitably be spent in these halls, and I cordially echo Mr. W.L. Mackenzie's opinion, "Go to the Education rooms, they are the most wonderful things in the Upper Province."³⁶

In 1862 an English traveller visited Toronto and included the Educational Museum on his itinerary. Samuel Day wrote that it was "similar to that established at South Kensington, but on a more circumscribed scale." Day was impressed with the "unique collection" on exhibit. He identified how these objects were to be used:

These furnish a means of educational and social improvement, and will eminently tend to create and develop a taste for Art among the Canadian people which, from various uncontrollable causes, has not hitherto been cultivated to any considerable extent.³⁷

In his 1859 Report, Ryerson compared his educational museum with the one at South Kensington and concluded about his site; "...the Museum has been found a valuable auxiliary to the Schools; the number

of visitors from all parts of the country, as well as from abroad, has greatly increased during the year, though considerable before; many have repeated their visits again and again; and I believe the influence of the Museum quite corresponds with what is said of the Educational Museum in London."³⁸

The next major addition to the museum's collection was made in 1867. Ryerson sent his loyal deputy, John George Hodgins, to Europe. There Hodgins procured books, charts, maps and apparatus for the depository, and a variety of objects of art for the museum. He confined his sources of supply to the British Museum, the South Kensington Museum of Science and Art and the French Exhibition at Paris.

At the Paris Exhibition, Hodgins bought models of school furniture and requisites, scientific and other models, and specimens of natural history. At the British Museum, more plaster casts of Egyptian and Assyrian sculptures were purchased. Electrotypes reproductions of decorative plates were acquired from the South Kensington Museum.

The direct influence of European exhibitions and museums in England on education and the "cultivation of the popular taste," was reflected upon by Hodgins:

One cannot but see that the memorable Exhibition of 1851, has been the great forerunner and germ of all the progress which of late years has been made in this direction in the various Cities and large Towns of the United Kingdom. The British Museum, with its varied collections of everything of historical and practical interest, is still at the head of all the popular museums of Britain, but, in the directly Educational and Aesthetic character of its vast collections, even it is now quite eclipsed by its more popular rival at South Kensington...I felt glad when I looked over these large and attractive popular Museums that we had thus far been enabled by your foresight, and the liberality of our own Legislature, to keep pace in a humble degree.³⁹

In his 1867 report to Ryerson, Hodgins recorded that great efforts were being made throughout England to popularize science and art. He acknowledged that the South Kensington Museum was responsible for assisting many local museums and schools of art through loan of its travelling collections. "Object teaching" was being practised on a grand scale with good results. Hodgins noted that:

These efforts are not only designed to promote this object, but, at the same time, they tend to interest and instruct the masses, not only by cultivating the taste, but by gratifying and delighting the eye by means of well appointed Educational Museums and popular Exhibitions such as that at Paris.⁴⁰

The Educational Museum continued to prosper. Ryerson commented on its success in his Annual Report for 1862.⁴¹

As an appendage to the Normal and Model Schools, the museum was "intended to contribute, as far as possible, to the pleasure and edification of the public, and the large and increasing number of Visitors from Foreign Countries, as well as from different parts of Canada, - whose number, annually increasing, evinces the propriety and importance of the Art collections made."⁴² The museum became a centre for learning and was also regarded as a tourist attraction for visitors journeying to Toronto.⁴³

David Boyle and the Elora Example

By the mid-1860s, proponents of "object teaching" championed its use throughout the Ontario school system. One of the most noteworthy disciples of this method was David Boyle. Boyle was an innovative, Scottish-born educator who had learned of the object lesson method while taking his teaching training at the provincial normal school in 1864. After spending six years teaching at the Middlebrook School in Wellington County, Boyle was hired to become principal of the Elora Public School. There his students were encouraged to move from the concrete to the abstract, from the simple to the complex, and from the known to the unknown through activity and sense perception.

As a teacher, Boyle was very successful. Natural history objects would often form the subject of a lesson. Through teaching with objects, Boyle assembled a collection of Canadian birds and animals, historical and Indian artifacts and geological and mineral specimens.⁴⁴ Wanting to put theory into practice, Boyle decided that a museum should be developed in the public school. This project was launched in the spring of 1873, and in December of 1874 a request was made to the Geological Survey of Canada for geological samples. This request was granted, and the collection sent included a set of typical Canadian rocks, minerals and fossils comprising 277 properly named and catalogued specimens.⁴⁵

Local papers noted weekly donations to Boyle's museum, as well as to the museum in the Elora High School. Praise for Boyle's efforts appeared in the November 7, 1873, edition of the Elora News:

This educational scheme is proving a complete success. Every week large additions are made to the collection. More room for articles will have to be provided soon.⁴⁶

Professor Henry A. Nicholson, curator of the University of Toronto Museum, provided further accolades. He viewed Boyle's museum as a valuable and important "educational agent," and an effective way to diffuse knowledge. In a letter to Boyle, Nicholson said:

I am satisfied that there is no more healthy form of intellectual activity in younger life

than that involved in personal investigation of natural phenomena. It stimulates the reasoning powers, sharpens the facilities of observation and generalization, gives keenness to the senses and vigour to the body, and renders the mind open to the reception of the thousand and one influences for good which flow from actual contact with Nature.⁴⁷

The donation of artifacts came from varied sources including the Royal School of Mines in London, England, the United States National Museum and the Smithsonian Institution.

In a March 7, 1878, letter to J.G. Macgregor at the Smithsonian, Boyle stated that his goal was to make "our collection a valuable scientific aid to students - not a mere curiosity shop." The evolution and success of the museum was further documented in this correspondence:

When I came to reside in Elora permanently, I undertook to organize a small collection on Natural History objects for the benefit of the pupils, solely. Since that time, however, the scheme has outgrown itself to such an extent that we now possess what is in many respects the best museum in Ontario.⁴⁸

Boyle viewed his museum as a centre for the "education of the masses." He co-operated with the local Mechanics' Institute and the Elora Natural History Society. He regarded each as being mutually beneficial scientific and cultural institutions. Teachers and students from the surrounding countryside frequently visited the museum. The good example set in Elora resulted in the commencement of school museums in other communities such as St. Marys, Salem and Almonte.⁴⁹ Boyle also donated duplicates from his collection to these fledgling new museums.⁵⁰

Boyle would continue to promote the use of museums by students. In numerous articles he extolled the virtues of theories advocated by Pestalozzi and Charles Darwin. Inquiry and original observation would remain as the basis of the philosophy that he followed;

What the spirit of the age demands in this, as in some other fields, is close, direct, personal observation and manipulation.⁵¹

The museum was viewed as an asset to both the students and community that used it. It was noted that the artifacts in the collection;

...will furnish a valuable object lesson, help to made the schoolroom more attractive, and give a feeling of proprietorship in the school and its surroundings to the youngest scholar.⁵²

Furthermore, in the fine collection of fossils and ores, natural curiosities, and "artificial oddities, there are

many which Barnum would covet if he saw them.”⁵³ As curator, Boyle was described as “an indefatigable and zealous collector, and whose museum in connection with the school over which he presides, is a work of great public utility.”⁵⁴

David Boyle resigned his position in 1881 and moved to Toronto to further his archaeological interests. On leaving, he took with him a collection of Indian relics and curiosities and presented them to the Canadian Institute’s Museum of Natural History and Archaeology. Ultimately, these artifacts would form the nucleus of the Provincial Archaeological Museum housed in the Toronto Normal School. Boyle was named curator of the institute’s museum in 1884. Between 1884 - 1887, Boyle worked to obtain financing to support archaeology from the Ministry of Education. In 1887 he was granted funds to carry out fieldwork, and in 1888 became Canada’s first full-time professional archaeologist. With the establishment of the Provincial Archaeological Museum in 1886, Boyle was appointed its first archaeological curator.⁵⁵ Boyle reiterated the object of this museum in his report for 1888:

In many museums a number is all that serves to identify the pieces, and constant reference to a catalogue is thus involved on the part of him who wants to get information. This, however, is not my idea of how either to popularize a collection, or to facilitate the work of a student. Everything possible should be done to enable the young and old, learned and unlearned to examine with pleasure and profit, at the least possible expense of time and trouble. This object can be obtained only by means of copious and legibly written, or printed labels.⁵⁶

During the 1890s, Boyle, the Canadian Institute, and the Ontario Historical Society, campaigned for a provincial museum. In 1897, the Institute’s collection was moved to the Toronto Normal School and incorporated into the collection that Ryerson and Hodgins had acquired. Boyle became curator and was promoted to Superintendent of the museum, a position that he held until his death in 1911.⁵⁷

The Work of John George Hodgins

The educational museum at the Toronto Normal School continued to operate under the direction of John George Hodgins. Specialties of the collection were put on display at the Ontario Educational Exhibit at the 1876 International Exhibition in Philadelphia. This exhibit won high acclaim, and Hodgins exchanged artifacts with representatives from the American, Japanese and Australian delegations.⁵⁸ Hodgins again co-ordinated the Ontario Educational Exhibit at the 1878 Paris Exposition Universelle. It received more awards than England and all other British colonies. The Paris exhibit was stored at the

South Kensington Museum and then sent to the Sydney International Exhibition, where it received a gold medal.⁵⁹

Praise for Hodgins' work came from other quarters. In the September 10, 1879, edition of the Montreal Daily Witness, a correspondent noted:

We have no free art museum like the Normal School at Toronto, where the rooms are devoted to copies of the finest works in sculpture and painting the world had produced, to photographs, to mechanical contrivances, to school implements and games - a place where one may spend a week and not be satisfied. This building is always occupied by groups of visitors in twos and threes and half-dozens. It results in cultivating the taste of the people.⁶⁰

The Ministry of Education continued to support the museum, and issued catalogues of its collection. Superintendent Dr. Samuel P. May estimated that more than 50,000 persons had visited the site during 1879. He reported that:

The Educational Museum is not a mere collection of curiosities, but a museum for imparting useful information. It is founded on a similar plan to that of the South Kensington Museum in London, and like it, its chief aim is the dissemination of a knowledge of the educational methods and appliances, as well as the relation of education to Arts and Manufactures...This Museum is not only of great benefit at present, but can be developed so as to become still more a means for promoting and advancing the general taste, and the appreciation of objects of artistic skill in design and execution.⁶¹

By 1884, the museum had become an adjunct to the Ontario School of Art. As the popularity of art education increased throughout the province, the use of the museum's collection was viewed as an innovative way of enhancing the practical value of the institution. In addition government publications pointed out that:

The museum is also a source of enjoyment and social improvement to the general public by elevating their taste and enabling them to appreciate beauty of form and excellence of art workmanship.⁶²

Deputy Minister Hodgins continued to extol the virtues of school museums and object lessons. He advocated the incorporation of appropriate appointments in the design and construction of new schools. Museums were viewed as an important component to make the interior of schools more attractive and pleasant. The furnishing of objects of art for study and observation was seen as central to approved techniques for instruction.⁶³

Conclusion

New directions and new facilities began to dictate the future of the educational museum. In 1881, and again in 1903, parts of the Educational Museum's collection were sent to the Agricultural College at Guelph. In 1907-08, more artifacts were distributed to normal schools in Ottawa, Hamilton, North Bay, London and Peterborough. From 1905 to 1911, David Boyle added archaeological, zoological and geological specimens to the collection. The museum's focus during this period shifted from fine arts to natural history and would continue in this vein until its eventual closing.⁶⁴

In 1913, the first wing of the Royal Ontario Museum (ROM) was opened to the public.⁶⁵ By 1933, the lack of space at the normal school, and the duplication of function with the ROM resulted in an Order-in-Council from the provincial government to close Ryerson's Museum. Collections were dispersed to the ROM, the Ontario College of Art, the University of Toronto and the provincial archives.⁶⁶

This action signalled the demise of the seminal efforts by Ryerson, Hodgins and Boyle to establish school museums in Ontario. However, the groundwork that they had laid would prove to be an important impetus to the future development of public museums as educational institutions and centres for learning.

David Boyle's comments about the utility and role of museums in education reinforced this sentiment:

For local history purposes, there is nothing superior to the local museum, always made and provided that the said museum be true to itself...The local museum should be the place to teach us all how much we now have to be thankful for besides giving us clear ideas as to the origin and developments of present day comforts.⁶⁷

While products of their time, the school museums established by Ryerson, Hodgins and Boyle should be duly noted for the contributions they made to the museological history of the province. The founders themselves should also be recognized for the innovative initiatives they undertook to establish the first school museums⁶⁸ as delightful instruments of self-instruction in 19th century Ontario.

End notes

1. Henry Scadding, "On Museums and Other Classified Collections, Temporary or Permanent, as Instruments of Education in Natural Science," The Canadian Journal (May, 1871), n.s., v.8, #73, pp. 3-4.
2. For information on Ryerson's role, see Henry A. Murray, Lands of the Slave and the Free (London,

1855), v. 2, pp. 95-98. James H. Love, "Cultural Survival and Social Control: The Development of a Curriculum for Upper Canada's Common Schools in 1846," Social History (November, 1982), v. 15, #30, pp. 357-82, and David Onn, "Egerton Ryerson's Philosophy of Education: Something Borrowed or Something New?," Ontario History (June, 1969), v. 61, #2, pp. 77-86.

3. A Cheering Voice From Upper Canada (London, 1834), p. 6.

4. John J. Bigsby, The Shoe and Canoe (London, 1850), v. 1, pp. 346-47.

5. J. Sheridan Hogan, Canada: An Essay (Montreal, 1855), p. 54.

6. Charles Hoole, A New Discovery of the Old Art of Teaching School (London, 1660), p. 284.

7. Archie F. Key, Beyond Four Walls (Toronto, 1973), p. 100. For additional information on museums and education in Canada, see J. Patrick Wohler, The History Museum as an Effective Educational Institution (Ottawa, 1976), Mary Herbert, Report on Canadian School-Related Museum Education (Ottawa, 1981), and John C. Carter, "The Evolution of Museums and Education in Ontario," Ontario Museum Annual (1992), v. 1, pp. 29-34. For two good general references to museums and education, see Nancy Berry and Susan Mayer (eds.), Museum Education: History, Theory, and Practice (Reston, Va., 1989), and Eilean Hooper-Greenhill, Museum and Gallery Education (Leicester, 1991).

8. T.C. Haliburton quoted in Key, Beyond, p. 100.

9. See Patrick Keene, "The Museum in the Context of Early Canadian Adult Education," Canadian Museum Association Gazette (Winter-Spring, 1981), v. 14, #1-2, pp. 32-47. Ryerson also advocated a system of education for mechanics and tradesmen. See "Canadian Mechanics and Manufacturers," Journal of Education for Upper Canada (February, 1849), v. 2, #2, pp. 17-25. For comment on the impact of public schools and Mechanics' Institutes in England, see Jonathan Dymond, Essays on the Principles of Morality (New York, 1845), p. 266.

10. For a definitive study on the influence of historical societies and especially the Ontario Historical Society, see Gerald Killan, Preserving Ontario's Heritage (Toronto, 1976). The Elora Natural History Society, of which David Boyle was one of the first vice-presidents, supported the Elora School Museum. See The Guelph Evening Mercury (October 9, 1894).

11. Bruce Curtis, Building the Educational State: Canada West, 1836-1871 (London, 1988), pp. 25, 33 & 37.

12. Fern Bayer, The Ontario Collection (Toronto, 1984), pp. 11-12. See also "Opening of the Normal and Model Schools," The British Colonial Magazine (1853), v. 1, #9, p. 214. For two contemporary accounts of Ryerson's influence on public education and common schools, see Henry Barnard, Normal Schools and Other Institutions, Agencies, and Means Designed for the Professional Education of Teachers (Hartford, Conn., 1851), part 1, p. 224, and "Egerton Ryerson," American Journal of Education (April, 1868), v. 17, #3, pp. 577-94. For Ryerson's impact on Canadian art, see Nathaniel Burwash, "Egerton Ryerson" The Makers of Canada Series (London, 1928), p. 185. For a description, illustrations and floor plans of the Toronto Normal and Model Schools, see Henry Barnard, School Architecture (New

York, 1854), 5th ed., pp. 296-301, and J. George Hodgins, The School House (Toronto, 1857), pp. 5-10.

13. See "The Prussian System of Education," The British Colonist (January 19, 1847), Robert Lachlan, Remarks on the State of Education in the Province of Canada (Montreal, 1848), p. 14, and Angus Dallas, Statistics of the Common Schools (Toronto, 1857), p. 36. For influences from Scotland and Ireland which had an impact on the system of education in Canada, see Robert Falconer, "Scottish Influence in the Higher Education of Canada," Transactions of the Royal Society of Canada (1927), v. 20, pp. 7-20, and Robert Falconer, "Irish Influences on Higher Education in Canada," Transactions of the Royal Society of Canada (1936), v. 29, pp. 131-42. A contemporary Canadian author also wrote about Scottish education and its impact. Of the Scots it was said; "They knew that knowledge was power, and that the pre-eminence of Scotland is owing to its devotion to education; and they have followed your wise and excellent example." Cited in Thomas C. Haliburton, An Address on the Present Condition, Resources and Prospects of British North America (Montreal, 1857), p. 13. European influences on common schools and teacher training in North America were identified in early reports. See Charles Duncombe, Report Upon the Subject of Education (Toronto, 1836), pp. 10 & 53-54. On assessing the impact of influences from German, Irish and American school systems, a contemporary Canadian educator suggested that these influences had been "modified and engrafted on the institutions of the country as to be universally referred to as a complete system, peculiarly Canadian." Cited in Thomas Hodgins (ed.), The Canadian Educational Directory and Calendar (Toronto, 1857), p. 14.

14. Robertson was the second choice as the normal school Head Master. John Rintoul had been chosen first but was unable to travel from Ireland. Robertson was suggested as a substitute by the Irish Board of Commissioners. For more information on European influences, see "Normal Schools," The British Colonist (January 15, 1847), Charles E. Phillips, The Development of Education in Canada (Toronto, 1957), pp. 412-16, and Egerton Ryerson, A Special Report - Systems and State of Popular Education on the Continent of Europe, in the British Isles and the United States of America (Toronto, 1868). Ryerson had contacted Henry Cole in the fall of 1857, looking for Cole's assistance in hiring a Head Master for the Normal School. See correspondence of September 4 & 29 in the Henry Cole Diaries (1857). For examples of Robertson's written work which incorporated his methodology to aid teachers and to avoid "mechanical teaching," see An Easy Mode of Teaching the Rudiments of Latin Grammar (Montreal, 1861), and The General Principles of Language; or the Philosophy of Grammar (Montreal, 1864), 3rd. ed.

15. Ryerson, quoted in David Cayley, "The World of the Child," Ideas (Toronto, 1983), p. 6. For additional comments on Ryerson's goals, see Susan Houston and Allison Prentice, Schooling and Scholars in Nineteenth-Century Ontario (Toronto, 1988), p. 254. Ryerson had visited the Fellenberg Institute in Switzerland in 1845. Fellenberg was associated with Pestalozzi early in the 19th century and contributed to Ryerson's belief that specimens, models, pictures and drawing should be used in teaching. See A.J. Madill, History of Agricultural Education in Ontario (Toronto, 1930), p. 27. Pestalozzi's impact on the philosophy used by Ryerson in setting up methods of training at the Toronto Normal School was identified by an educational observer of the period. See Dallas, Statistics, p. 4. Pestalozzi's method of teaching was described in a contemporary Toronto publication written specifically for young readers. See "Teach Children to Help Themselves," The Cottager's Friend and Guide of the Young (July, 1855), v. 2, #7, p. 160.

16. For example, see "Methods of Giving Lessons on Objects," Journal of Education for Upper Canada (September, 1851), v. 4, #9, p. 139. See also, E.A. Sheldon, "Object Teaching," American Journal of

Education (March, 1864), v. 14, #35, pp. 483-94, H.B. Wilbur, "Object System of Instruction," American Journal of Education (March, 1865), v. 15, #38, pp. 189-208, Rebecca Sisler, Art for Enlightenment (Toronto, 1993), pp. 14-15, F. Busse, "Object Teaching - Principles and Methods," The American Journal of Education (July, 1880), v. 30, pp. 417-50, and William J. Pope (ed.), The Object-Lesson Readers (London, 1891), v. 2. One of the earliest supporters of Pestalozzian principles in Canada, was Zadock Thompson. For his suggestions of implementation, see Geography and History of Lower Canada (Hamstead, 1835). The Head Master of the Provincial Normal School strongly supported this method in conveying information to students when studying natural history. For an example of this type of object lesson, see Archibald Macallum, Synopsis of Natural History (Toronto, 1857), pp. 43-48.

17. Gerard Killan, David Boyle from Artisan to Archaeologist (Toronto, 1983), p. 25 and Houston and Prentice, Schooling, p. 133. The Journal was edited by Deputy Superintendent John George Hodgins.

18. Barbara Winstanley, Children and Museums (London, 1967), p. 2.

19. Paul Greenhalgh, "Education, Entertainment and Politics: Lessons from the Great International Exhibitions," in Peter Vergo (ed.), The New Museology (London, 1989), p. 75.

20. Elizabeth Frostick, "Museums in education: a neglected role?," Museum Journal (September, 1985), v. 85, #2, p. 69.

21. Quoted in Greenhalgh, "Education," p. 75. For comments by other contemporary observers about the educational impact of the 1851 Great Exhibition, see Samuel Prout Newcombe (ed.), Little Henry's Records of His Life-Time Old Eighteen-Fifty-One (London, 1852), p. 62, and Charles Tomlinson (ed.), Cyclopaedia of Useful Arts and Manufacturers (London, 1854), v. 1, p. i.

22. "The Exhibition of All Nations," The Anglo-American Magazine (September, 1852), vol. #3, p. 280.

23. R. Cooper, "The Farming Interest; and the Influence of Agricultural Societies," The Anglo-American Magazine (November, 1852), v. 1, #5, p. 404. The author suggested that visitors would derive "fresh knowledge" from the exhibits at these local fairs.

24. In 1850, An Act for the Better Establishment and Maintenance of Common Schools in Upper Canada, allocated £200 annually for plans and publications for the improvement of school architecture and practical science. See Bayer, Collection, p. 13. In 1853, An Act Supplementary to the Common Schools Act of Upper Canada of 1850, allocated an additional £500 per annum to purchase items for the museum. See Journal of Education for Upper Canada (June, 1853), v. 6, #6, p. 85. Ryerson used these funds to pay for travel expenses and to purchase artifacts.

25. Lefroy to Ryerson, London, August 28, 1855, cited in Hodgins, DHEUC 1855-1856, v. 12, pp. 123-24.

26. F. Henry Johnson, "A Colonial Canadian in Search of a Museum," Queen's Quarterly (1970), v. 77, #2, p. 127. Lefroy was a personal friend of Henry Cole, Director of the South Kensington Museum. Cole's philosophy that "The museum is not a show, but an instrument for the diffusion of culture," may have influenced both Lefroy and Ryerson in their thinking about the educational museum. See J. Craig

Stirling, "The Development of Art Institutions in Quebec and Ontario 1876-1914 and the South Kensington Influence," Ph.D. thesis (University of Edinburgh, 1988). Lefroy and Cole's friendship continued through to 1870. They attended the 1867 Paris Exhibition and went to various historic sites and museums, as well as socializing during an August visit. See Henry Cole Diaries (1867), August 22, 25 & 27. Canadian participation at previous world fairs had another noted impact which was identified in a lecture given to members of the Mercantile Library Association of Montreal on March 18, 1858: "Canada is no longer looked upon as a dismal, dreary waste of snow-clad hills. Our representations at the Universal Exhibitions have dispelled many a prejudice." See Alexander Morris, Nova Britannia; or British North America, Its Extent and Future (Montreal, 1858), p. 27.

27. See excerpt of this pamphlet in Hodgins, DHEUC 1855-1856, v. 12, p. 121. Ryerson may have also derived some of his ideas from Scottish educator James Pillans who advocated the use of science and art to instruct the "labouring class." See James Pillans, Contributions to the Cause of Education (London, 1856), pp. 263-6.

28. The Educational Museum and School of Art and Design for Upper Canada (Toronto, 1858), p. i.

29. Ryerson to Cartier, Paris, November 20, 1855. Cited in ibid., p. 122. Regarding the impact the museum would have on the formal educational system, Ryerson suggested to the Provincial Secretary that; "The collection of Models and School Apparatus and the Galleries of Paintings, Engravings and Statuary properly arranged, with descriptive and historical catalogues, will be of great interest and utility." Cited in ibid., p. 322.

30. Cited in John George Hodgins (ed.), Documentary History of Education in Upper Canada 1855-1856 (Toronto, 1905), v. 12, p. 127.

31. The entire list of collections in the educational museum was printed in Appendix G of the Annual Report of the Normal, Model, Grammar and Common Schools in Upper Canada for the Year 1856 (Toronto, 1857), pp. 247-275, and appeared again in The Educational Museum and School of Art and Design for Upper Canada (Toronto, 1858), pp. 20-51.

32. Quoted in Houston and Prentice, Schooling, p. 256. Ryerson was also influenced by similar initiatives being taken in the United States. See "The Perception of Beauty-An Educational Museum," Journal of Education for Upper Canada (March, 1856), v. 9, #3, p. 41. The writings of American educator Horace Mann also had a great impact on Ryerson. See Angus Dallas, The Common School System (Toronto, 1855), p. iv, Dallas, Statistics, p. 49, William Canniff, History of the Province of Ontario (Toronto, 1872), p. 349, and Curtis, Building, p. 111.

33. Cited in Johnson, "Colonial," p. 229. This was confirmed by a contemporary newspaper writer: "The great aim of the Chief Superintendent was to get as large a collection of the works of the ancient masters as possible, without incurring the enormous expense of original paintings. The statuary has been provided on the same principle, and when it is all arranged as it will be in a very few days, this museum will form one of the most attractive features in our city." See G.P. Ure, The Hand-Book of Toronto (Toronto, 1858), p. 262.

34. "Appendix M. Education Museum for Upper Canada," Annual Report of the Normal, Model,

Grammar and Common Schools in Upper Canada for the Year 1857 (Toronto, 1858), p. 376. There were many similarities to the system used at the South Kensington Museum that was first described in a presentation given in 1857. See Henry Cole, "Science and Art Department at the South Kensington Museum," American Journal of Education (1882), v. 32, pp. 499-506. The ideas of self-help and a progressive system of art related to industry were influenced by other European educators. They included Lyon Playfair, Joseph Lancaster, James Pillans, David Stow, William Martin and Samuel Prout Newcombe. For an American perspective on this topic, see Jerome P. Bates, The Imperial Highway (Chicago, 1888), pp. 90-100.

35. Ryerson and Sheldon were influenced by the work of Charles and Elizabeth Mayo and James Greaves. These individuals established the English Home and Colonial Infant and Juvenile School Society and introduced the Pestalozzian theory for use in the United Kingdom. See Charles Mayo, Memoir of Pestalozzi (London, 1827), and Elizabeth Mayo Lessons on Objects (London, 1831). Sheldon would develop the object-lesson technique in the United States in the 1860s. For more on this international connection, see Herman Krusi, The Life and Work of Pestalozzi (Oswego, NY, 1875), p. 243-47, Frank P. Graves, A History of Education in Modern Times (New York, 1914), pp. 152-53, Stephen Duggan, A Student's Textbook in the History of Education (New York, 1948), pp. 242-43, Frederick Eby, The Development of Modern Education (Englewood Cliffs, N.J., 1952), pp. 469-70, H.G. Good, A History of Western Education (New York, 1965), pp. 466-67, W.A.C. Stewart and W.P. McCann, The Educational Innovators (New York, 1967), pp. 169-70, and Frederick G. Bonser and Lois Coffey Mossman, Industrial Arts for Elementary Schools (New York, 1924), pp. 464-67. Ryerson and Samuel Passmore May were also recognized for introducing "practical" art education into Canadian schools using the South Kensington Museum model. See Graeme Chalmers, "Who is to do this Great Work for Canada? South Kensington in Ontario," Journal of Art & Design Education (1993), v. 12, #2, pp. 161-78. An 1871 report on object teaching in American schools issued by the State of Iowa, reiterated the contribution made by Ryerson:

"The system was introduced and modified in adaptation to the Anglo-Saxon mind and character in the best Schools of Canada, and the celebrated Normal and Model Schools of Toronto. These Schools were visited by Professor E.A. Sheldon...There soon sprung up in Oswego, under the enterprising and persistent labours of this indefatigable Educator, an Institution, which until the present time, has maintained the character of being the great centre of Object Teaching in the United States." Cited in J. George Hodgins, Historical and Other Papers and Documents Illustrative of the Educational System of Ontario, 1862-1871 (Toronto, 1912), v. 6, p. 246.

36. Cited in The Journal of Education for Upper Canada (November, 1858), v. 11, p. 173. For another period description in a Toronto weekly publication, see "The Gallery of Paintings and Sculpture at the Normal School, Toronto," The Home Journal (June 1, 1861), v. 1, #1, p. 4. Publisher William Halley wrote that the museum possessed an "excellent public collection" and that a visit there was "well worth the inspection of any person of taste."

37. Samuel P. Day, English America (London, 1864), v. 1, pp. 42-43.

38. Cited in "The Educational Museum, Upper Canada," JEUC (January, 1861), v. 14, #1, p. 7.

39. Hodgins to Ryerson, August 1867, in Hodgins, DHEUC 1867-1869, v.20, p. 9-10. Exhibits sponsored by the Educational Department at the Provincial Agricultural Show were also seen to be

important. The display at the 1852 fair was "designed to assist in promoting the instruction of youth by an appeal as well to their senses as to their intellect." See "The Provincial Agricultural Show," The Canadian Journal (October, 1852), v. 1, p. 61.

40. Cited in *ibid.*, p. 10. For additional information about the Educational Museum of Upper Canada, see J. George Hodgins (ed.), Trustees' School Manual (Toronto, 1864), 4th ed., pp. 151-52.

41. From the Chief Superintendent's Annual Report for 1862, cited in Hodgins, HOPD 1862-1871, v. 6, p. 11.

42. Ryerson to the editor of The Leader, September 14, 1869. Cited in Hodgins, DHEUC 1869-1871, v. 22, p. 45. The museum was also regarded as an "accompanying agency" for the "agreeable and substantial improvement of all classes of Students and Pupils, and for the useful entertainment of numerous Visitors from various parts of the country." From the Chief Superintendent's Annual Report for 1869, cited in Hodgins, HOPD 1862-1871, v. 6, p. 157.

43. A correspondent from the Nova Scotia Provincial Wesleyan recorded a visit to the Educational Museum in 1869. The letter noted: "The Institution has undergone many improvements since our last visit, ten years ago...Hundreds of people visit the Institution daily in the Summer season. We are informed, that recently Members of the Corporation of the City of Philadelphia paid it a visit, and acknowledged that they had seen nothing equal to its respective departments, not even in the United States." Cited in Hodgins, DHEUC 1869-1871, v.22, p. 45. A guide published for tourists to Toronto identified the museum at the Normal School as one of the "Places of Interest," to visit. It was described as a facility which had free admission, was open daily 10 a.m. - 6 p.m., and where "the large exhibition of paintings and statuary, being chiefly copies of the ancient schools, are well worth a visit." See Toronto Guide for the Provincial Fair of 1866 (Toronto, 1866), p. 51. For general references to the Normal School and Educational Museum as destinations for tourists to Toronto, see Murray, Lands, pp. 90-92, William H.G. Kingston, Western Wanderings or a Pleasure Tour in the Canadas (London, 1856), v. 2, p. 42, William Hutton, Canada: Its Present Condition, Prospects and Resources (London, 1857), 2nd ed., p. 114, Charles Mackay, Life and Liberty in America (New York, 1859), p. 377, T. Addison Richards (ed.), Appleton's Companion Hand-Book of Travel (New York, 1860), p. 36, Thomas Spence, The Settler's Guide (New York, 1862), p. 453, George Washington Bacon and William George Larkins, Bacon's Descriptive Handbook of America (London, 1866), p. 392, John Taylor, The Canadian Handbook and Tourist's Guide (Montreal, 1867), p. 133, W.G. Campbell, The New World or Recent Visit to America (London, 1871), p. 116, and J. Timperlake, Illustrated Toronto: Past and Present (Toronto, 1877), p. 214. For a description of the museum and its collections in a contemporary newspaper, see "The Normal School, Toronto," Canadian Illustrated News (December, 14, 1872), v. 6, #24, p. 371.

44. John R. Cannon, The Early History of Elora and Vicinity (Elora, 1930), v. 1, p. 163. Boyle's interest in natural history as a component of elementary instruction could have been influenced by Deputy Superintendent Hodgins' philosophy on the matter. Natural history as a subject, would "impart valuable knowledge, but also improve the taste of the pupils, and furnish them with healthful sources of enjoyment. It would be an efficient means of mental training, well suited to children; for it would teach how to observe, to note qualities and forms, to mark agreements and differences, and how to describe natural objects in precise and distinctive language." See Hodgins, School House, p. 153.

45. The Elora Public School became the first educational institution to receive specimens from the Geological Survey of Canada. This established a long tradition for the GSC of sending applicants similar collections, on the "guarantee that they wish to utilize them for educational purposes." See Geological Survey of Canada Report of Progress for 1874-75 (Montreal, 1876), pp. 15-16.
46. Elora News (November 7, 1873), v. 1, #50. In March of 1874, fire completely destroyed the Elora High School. Nothing was saved from the inferno except for a globe and a case of curiosities belonging to the museum. Elora News (March 6, 1874), v. 2, #16.
47. Cited in Elora Lightning Express (May 29, 1874), v. 2, #28.
48. Cited in Killan, Boyle, p. 55. For information on the distribution of duplicate artifacts from the Smithsonian's collection to other museums, see Joseph Howard's, "Report of the Secretary," Annual Report of the Board of Regents of the Smithsonian Institution For the Year 1873 (Washington, 1874), pp. 48-9. For a list of recipient Canadian institutions, see "Appendix to the Report of the Secretary," Annual Report of the Board of Regents of the Smithsonian Institution for the Year 1880 (Washington, 1881), p. 92.
49. See the Elora News (May 1, 1874), v. 2, #24, and Killan, Boyle, p. 61.
50. Boyle donated a collection of fossils and shells to the St. Marys Museum. See the St. Marys Argus (June 11, 1874).
51. David Boyle, "School Museums," The Canadian Educational Monthly and School Chronicle (February, 1879), v. 1, p. 83, and David Boyle, "Teach Children to Observe," The Canadian Educational Monthly and School Magazine (May-June, 1883), v. 5, p. 235. Boyle could have also been influenced by ideas coming from educators in his native Scotland. See James Currie, "Subjects and Methods in Early Education," and David Stow, "Gallery Training Lessons," AJE (September, 1860), v. 9, #2, pp. 236-47 and pp. 412-19.
52. Elora News (December 5, 1873), v. 11, #3.
53. Elora Lightning Express (May 29, 1874), v. 2, #28.
54. Professor Henry A. Nicholson, quoted in Killan, Boyle, p. 61. The use of cabinets and object and gallery lessons were also promoted in the British school system. See Edward R. Robson, School Architecture (London, 1874), pp. 359, 391 & 394.
55. For more on Boyle, see William C. Noble, "One Hundred and Twenty Years of Archaeology in the Canadian Provinces," Canadian Archaeological Association Bulletin (1972), v. 4, p. 16, and Mima Kapches, "Antiquarians to Archaeologists in Nineteenth-Century Toronto," Northeast Anthropology (Spring, 1994), #47, pp. 94-5. Even with Boyle's departure the museum continued operation into the 1890's. A period travel guide noted that: "Elora contains a small Museum illustrating the natural history and geology of the district." See Karl Baedeker, The Dominion of Canada (London, 1894), p. 180.
56. David Boyle, "Archaeological Report," Sessional Papers (1889), v. 21, pt. v, #42, p. 14.

57. For additional information on Boyle and his work see Gerald Killan, "The Canadian Institute and the Origins of the Ontario Archaeological Tradition 1851-1884," Ontario Archaeology (1980), #34, p. 13, Henry N. Ami, "Report on the State of the Principal Museums in Canada and Newfoundland," Report of the British Association for the Advancement of Science (1898), v. 67, p. 70, Charles Trick Currelly, I Brought the Ages Home, (Toronto, 1956), pp. 293-95, Pym Buitenhuis, "David Boyle, Dilettante or Museum Anthropologist: A Study of Victorian Museums and Historical Collections in Anthropology," M.M.S. thesis (University of Toronto, 1989), and A.F. Chamberlain, "David Boyle," American Anthropologist (1911), n.s., v. 15, pp. 159-64.
58. For a full report on the Philadelphia exhibit, see J. George Hodgins, The International Exhibition at Philadelphia, 1876 (Toronto, 1877). For additional details on the Ontario Educational Exhibit, see Hodgins, HOPD 1858-1876, v. 4, pp. 311-323, and James D. McCabe, The Illustrated History of the Centennial Exhibition (Washington, 1876), pp. 393-4. For insight into the impact of this exposition on American museums, see Terry Zeller, "The Historical and Philosophical Foundation of Art Museum Education in America," in Berry and Mayer (eds.), Museum, p. 15, and Tony Bennett, The Birth of the Museum (London, 1995), pp. 81-2. As an instrument for public instruction, it was predicted that "The Exposition will be a gigantic object-lesson for and to all nations." The Journal of Education for Upper Canada (September, 1875), v. 28, #9, p. 136.
59. See Report of the Minister of Education - 1879 (Toronto, 1881), p. 22. For a detailed account of the Paris Exhibition, written by Superintendent S.P. May, see Appendix A of the Annual Report of the Minister of Education - 1878 (Toronto, 1880), pp. 97-100.
60. Cited in Stirling, "Development," p. 274.
61. See "Educational Museum and Library," Report - 1879, p. 148.
62. Catalogue of Plaster Casts, Paintings, Engravings, and Other Reproductions of Works of Art in the Museum of the Education Department, Ontario (Toronto, 1884), p. ii. For additional information on the educational museum and art, see Nathaniel Burwash, Egerton Ryerson (Toronto, 1906), p. 185, and F. Henry Johnson, "The Fate of Canada's First Art Museum," Queen's Quarterly (Summer, 1971), v. 78, pp. 241-49. The connection between art, education and museums had been identified as early as the 1850's. See "Young People's Primary Instructions in the Art of Drawing," in E. Hutchinson, Arts Revealed, and Universal Guide (New York, 1855), pp. 59-63, and James Pillans, Contributions, p. 263. Pillans was a Scottish advocate for school education for all, and noted the success of the Edinburgh School of Arts where "it can scarcely fail to be attended with the best effects, both on the happiness of the individual, and on the progress of the arts and manufactures of the country." For other similar articles from a later period see "Art in Canada," The Canadian Monthly and National Review (March, 1873), v. 3, #3, pp. 261-62, "The Fine Arts in Ontario," CMNR (June, 1873), v. 3, #6, pp. 545-46, and "The Ontario Art Society's Exhibition," Rose-Belford's Canadian Monthly (July, 1880), v. 5, pp. 98-99.
63. J. George Hodgins, Hints and Suggestions on School Architecture and Hygiene (Toronto, 1886), pp. 88-92. See also J. George Hodgins, The School House (Toronto, 1876), pp. 212-14. For more on how teachers could improve the public taste for art, see "Art in Canada," The Arion Canadian Journal of Art (March, 1881), v. 1, #6, pp. 41-42.

64. Bayer, Collection, p. 64. For a listing of where artifacts from the Educational Museum collection were sent in 1881, see Report of the Minister of Education (Ontario) 1880 & 1881 (Toronto, 1882), pp. 157-61.

65. Duncan F. Cameron, "The Royal Ontario Museum 1912-1962," Ontario History (September 1961), v. 53, #3, p. 194. For information on the Ontario Provincial Museum, see James R. Hunter, "The Ontario Provincial Museum 1896-1933," M.M.S. thesis (University of Toronto, 1987).

66. See Hazel I. MacTaggart, Publications of the Government of Ontario 1901-1955 (Toronto, 1964), p. 118, and Bayer, Collection, pp. 64-65.

67. David Boyle, "History Taught by Museums," Niagara Historical Society Annual Report (1888), #4, p. 33.

68. For additional information on museums and education, see B.R. Andrews, "Museums of Education," Teachers College Record (September, 1908), v. 9, pp. 195-292, Louise Connolly, The Educational Value of Museums (Newark, N.J., 1914), Harlan I. Smith, "The Development of Museums and Their Relation to Education," The Scientific Monthly (August, 1917), v. 7, pp. 97-119, Peter A. Mortenson, "Contribution of Museums to Public School Education," Museum Work (May, 1920), v. 2, #8, pp. 242-46, A.D.F. Fraser, "A Museum as a School Project," The School (September, 1923), v. 22, #1, pp. 59-61, Ruth M. Home, "The Museum and the Schools," The School (February, 1936), v. 24, #6, pp. 473-77, "Education Outside Schools," OISE Orbit (April, 1991), v. 22, #2, p.11, John C. Carter, "Museums and Teacher Training in Canada," GEM News (1994), v. 53, pp. 10-11, Eilean Hooper-Greenhill, Museums and Their Visitors (London, 1994), and Oliver Aston, Learning Beyond the Classroom (London, 1997).

Chapter 6

Agriculture, Education and Museums

Introduction

Agriculture in its several branches has been, and is now, the foundation on which rests the entire industrial fabric of Ontario. On it all classes depend - and with a good crop or a bad one, business operations, the abundance of money, and the social comforts of our whole people rise and fall.¹

Such was the importance given to agriculture in the province of Ontario in 1873. Agriculture would remain as the dominant force in the province until the end of the century, with the agricultural population gaining its prominent foothold between 1815-1850.²

This chapter will investigate the rise of agriculture and its connection to emigration, scientific education, fairs and exhibitions and agricultural societies. These and other factors contributed to the development of Canadian museums as educational adjuncts, as agriculture and society changed over time. This process began with the arrival of early European emigrants.

Coming to the Canadas

Contemporary observers had identified the benefits of emigrating to the Canadas early in the 19th century. In a tour made in 1813-1815, Lieutenant J.C. Morgan noted that; "The British Provinces in North America, and especially the Canadas, possess advantages superior to all other countries which we have noticed."³

The availability of land, and factors of climate and geography were regarded as positive inducements for agriculturists of the middle and lower classes to emigrate to Upper Canada from Europe. Recognized as being critically more suited for emigrants than any other country in North America, prospective settlers engaged in successful farming ventures "with a rapidity which is quite surprising, the circumstances and habits of the country providing assistance for those in want of it."⁴

Similar accolades were expressed by travellers in following decades. Captain Frederick Marryat said in 1839; "I have been for some time journeying through the province of Upper Canada, and, on the whole, I consider it the finest portion of all North America."⁵ In 1850, Scottish cleric, the Reverend William Haw

recorded that; "Agriculture has been steadily progressing, and to that, in a great measure, is Canada indebted for a position among commercial nations."⁶ By 1851 it was noted that; "No interest in national importance can ever, in this New World, compete with agriculture." As a result of this advantageous position, James Johnston concluded that; "Upper Canadians have in themselves and in their country, the materials of a first-rate people, if their eager spirit, anxious to speedily do excel, would permit them to proceed steadily on their way."⁷

The natural advantages in Upper Canada and those particularly associated with agriculture resulted in the arrival of many settlers from the United Kingdom. By the late 1820's a definite impact was felt and recorded; "This extensive district has begun to increase in population with great rapidity, and great exertions are making to introduce improvements of various kinds."⁸

Into this newly developing country, emigrants brought various customs, habits and practices from their countries of origin. Public institutions were "being modelled agreeable to the British".⁹ Laws and civil rights were being enforced with "all the usual efficiency of British administration",¹⁰ and the European custom of holding semi-annual fairs was "fast gaining ground in this Province".¹¹ These and other connections helped foster the growth of a society in North America which "showed the development of the English character under a new aspect, arising from a new state of things".¹²

In the Canadas, the connection to the United Kingdom combined with the geographic presence of the United States had influence on development. Aspects of each country were intertwined in the Canadian social fabric and its institutions. Over time, a Canadian identity would evolve incorporating borrowed traditions which would meld into a distinct society tempered by conditions and experiences of the new world.¹³

Agricultural improvements introduced from England and Scotland were an important part of this transformation. It was observed that; "The emigration into the country, of scientific agriculturists, with the establishment of agricultural societies, have been mainly instrumental in producing this great change."¹⁴

A link between English and Canadian agricultural groups was established as early as 1783. The Society for the Encouragement of Arts, Manufactures and Commerce extended premiums to exhibitors of agricultural products from the North American provinces. This group saw exhibitions and museum displays as a suitable "mode of communication to the publick."¹⁵ Influenced by British models, the first agricultural societies were created in Quebec and Montreal in 1817. By 1824 they existed in various parts of Upper and Lower Canada. Presbyterian minister, Reverend William Bell reflected upon the newly formed groups and prophesized about their future; "These have already done much good; and it is to be hoped that, in a few years, they will be enabled to introduce a new and improved system of husbandry."¹⁶

Provincial governments began providing funds to establish local societies in 1829.¹⁷ Throughout the 1830's many of these "useful associations" were formed with the intent of diffusing knowledge and as a means of promoting "useful, practical, and general education of the agricultural class."¹⁸ In 1834 noted English zoologist, William Swainson suggested that knowledge of natural history was useful to emigrants and agriculturists who settled in foreign lands. He wrote; "To them, an elementary knowledge of natural history is of much more consequence than to the English farmer."

This was because the agricultural emigrant had to be self-taught and adapt to a new climate. Swainson added:

The pursuits of the agriculturist and of the planter bring them more immediately into contact with the productions of nature; and hence they are more especially interested in understanding their qualities.¹⁹

Because of their mandate, agricultural societies would be well suited to perform this educative role in British North America.

Another reason Europeans were partial to settling in Upper Canada was that they found themselves to be more important than at home. Because the circle of society was limited and the population small, almost everyone obtained notice and attention. British traveller John Howison spoke of this situation and suggested a likely result:

There is likewise no aristocracy, and consequently no man can assume a higher station in society than another, except upon the score of superior intellect or greater wealth...This

state of things is favourable to the existence of general harmony and good-will, but rather hostile to the cultivation and advancement of manners.²⁰

The Influence of Agricultural Newspapers

A vehicle for development in Upper Canada was the early agricultural publications. These inexpensive papers and periodicals provided an accessible "system of education for all classes."²¹ They diffused knowledge to the public on a wide scale,²² promoted the founding of agricultural societies, supported the spread of agricultural science and viewed farm exhibitions and museums as means to stimulate better agriculture.²³ The British American Cultivator and the Canada Farmer were two such journals devoted to agricultural improvements, literature, science and "general intelligence". Both were magazines devoted to "practical agriculture", useful for obtaining and circulating foreign and local information on agrarian matters.²⁴ In the first issue of the Cultivator, education for the agricultural classes was promoted through Normal Schools, mechanics' institutes, lyceums and cabinets in schools and homes. In a letter to the editor, Dr. James Hunter from Newmarket argued for the extension of agricultural education which would allow agriculturists and mechanics to become familiar with the fundamental laws of nature. Learning would be encouraged through the developments of cabinets which contained "natural, rare, and valuable curiosities". These along with lectures and books in libraries would allow the agricultural classes "to discuss the natural sciences, and to aid and assist each other in the pursuit of knowledge".²⁵ Subsequent issues of the Cultivator supported the development of farmers' clubs and libraries which were associated with the state of improvement of agriculture in England. These depositories and circulating foreign magazines published information on the science of agriculture in rural areas in the Canadas, and "for the dissemination of useful knowledge among its members".²⁶

The Cultivator noted that model farms were another type of institution becoming more popular for the instruction of youth. Such ventures were well established in Europe and were to be soon chartered by several state governments in America. Editor W.G. Edmundson detailed the benevolence of James Smithson in his bequest of \$508,318 to the U.S. government to establish the Smithsonian Institution. It would include "a model farm and institution for the diffusion of knowledge". Edmundson ruefully concluded that:

We cannot refrain from lamenting that Mr. Smithson should have been induced to have granted this large sum of money to a foreign government, when aid was so much

required to give a stimulus to agricultural improvement in the British North American Colonies.²⁷

Other articles dealt with knowledge, science and practical agriculture. In order to be skilful and successful farmers, young men were encouraged to "unite knowledge with labor - science with practice, - and the great fountain of all knowledge will reward him a thousand fold for his well directed efforts".²⁸

The Canada Farmer also stressed the importance of agricultural education. It noted that with the creation of the Canadian Agricultural Society, an auxiliary to country societies for agricultural improvement in Lower Canada, was founded. Its object was the diffusion of useful knowledge connected with agriculture. In summation it was believed that "well-conducted newspapers and useful books will aid all to acquire knowledge that will be constantly beneficial." Through reading and reflection, "the germs of mental progress may be planted...that will yield abundant harvests."²⁹

First Attempt to Develop an Agricultural Museum

In 1847, an endeavour was made to establish an Agricultural College in Montreal, similar to the one at Cirencester, England. Youths would be instructed in the science and art of agriculture, with expenses paid from the products of an attached model farm. An agricultural museum and library would be integral components of this proposed college.³⁰ Plans were also made for establishing a similar institution in Toronto, and the editors of the Canada Farmer supported the introduction of the study of agricultural sciences into the Common School system in Upper Canada.³¹

The impetus for developing a model farm and museum in the province gained further support in the spring of 1848. In a letter to the Agriculturist and Canadian Journal, recent British emigrant George Buckland advocated the formation of "an extensive and suitable farm" where young men could be thoroughly instructed and trained in the practice and theory of the most approved system of agriculture. Higher and more exact knowledge on the actual wants of "advancing agriculture" could be imparted to the students. Such influences would "tend to refine and elevate - to strengthen a desire for the acquisition of useful knowledge, and the formation of plain, industrious, and business habits."

A prominent feature of Buckland's proposed model farm would be a museum of agricultural and manufacturing machinery and products. It would include specimens both native and foreign, in zoology

and botany, mineralogy and geology - comprising organic remains of former races of animals and plants. Through this collection the minds of the pupils could be beneficially directed to the anatomy and physiology of the principal domestic animals, and the treatment of disease. The causes of agriculture, education and improvement in Upper Canada would be the objects for establishing this institution. The public would have free access to both the model farm and the school of agriculture.³²

These initiatives received additional support with the formation of the Provincial Agricultural Association and the Board of Agriculture for Canada West, in August 1846. Both were incorporated as the Agricultural Association of Upper Canada in 1847.³³ George Buckland continued to play a central role. He acted as co-editor and proprietor of the Canadian Agriculturist, was appointed as Secretary of the Agricultural Association of Upper Canada, and delivered lectures on progress in scientific agriculture and improvements in farming practice to agricultural societies and clubs throughout the province.³⁴ He would use these means to continue to promote the concept of developing a provincial agricultural museum.

The Impact of Fairs and Exhibitions

Another method of raising awareness, promoting agricultural education and helping to develop agricultural related museums was through the annual exhibition sponsored by the Provincial Agricultural Association. First held in 1846, the venue rotated among different districts and the event proved to be tremendously popular. The exhibition was held in Kingston in 1849 and was described in the October issue of the Canadian Agriculturist:

The show was, upon the whole, excellent - quite equal in most departments to any previous exhibitions - and afforded unmistakable signs of an increasing interest among all classes.³⁵

The Provincial Agricultural Fair was held in Toronto in 1852. The "practical value" of such exhibitions was described in a 17 page article in the Canadian Journal. A direct connection to agricultural fairs, agricultural museums and public education was made:

We think too, that if permanent buildings for County Agricultural Shows were erected, a great step towards the establishment of a County Agricultural Museum would be gained, the most feasible method of instructing the people at large in those artifices and contrivances which distinguish the progress of the age, and are now so necessary to success.³⁶

Efforts made by the leaders of the Agricultural Association of Upper Canada succeeded in making the exhibition a social institution.³⁷ Patterned after models developed by the Highland and Agricultural Society of Scotland, the Royal Agricultural Improvement Society of Ireland, the New York Agricultural Society, and the Royal Agricultural Society of England, the annual exhibition assisted with advances in agriculture in Upper Canada during this period. George Buckland was a leading advocate in this initiative. Scottish traveller Robert Russell visited the provincial exhibition held in London in September of 1854. He recorded his feelings and identified Buckland's role:

Nothing can be better calculated to stimulate agricultural improvement than the provincial shows...Professor Buckland, the secretary, is quite enthusiastic in the duties of his office, and has great merit in the admirable organization and success of the society.³⁸

Exhibitions of international, provincial and local scope were promoted as vehicles for learning by agrarian representatives. The Great Exhibition of 1851 was projected to be;

...one of those mighty agencies which an onward and Christian civilization calls into practical operation for promoting the peace and improvement of the world and the brotherhood of mankind.³⁹

A Parliamentary Committee recommended a liberal grant be provided to assist in giving premiums and defraying expenses of articles to be sent from Canada to this event in London, England. At the close of the Great Exhibition, Canada was awarded 23 medals and stood in tenth place of all the countries participating. An agricultural analogy made by Edward Forbes, professor of botany at London's King's College, seemed to accurately portray the impact and significance of the world's first international fair:

The results of the Great Exhibition are pregnant with incalculable benefits to all classes of the community: the seed has been planted, of which the future is to produce fruit: among the eager thousands whose interest was excited and whose curiosity was gratified, where many who obtained profitable suggestions at every visit.⁴⁰

In Toronto, the Mechanics' Institute was recognized for its good work in raising public awareness. Country residents were invited to come to the city to view displays. Editorial writers noted that the; "attractive and instructive Exhibitions of the works of our Colonial industrial arts, which have elicited so much praise, and imparted no less instruction and pleasure in former years,"⁴¹ could again be viewed by the public during October 1851.

Similar reactions were noted at the provincial level. Reflecting upon the 1858 annual exhibition held in

Toronto at the Crystal Palace, William Ferguson, Vice-president of the Agricultural Association of Upper Canada suggested that:

While science is making rapid progress throughout the civilized world, it is pleasing to see Canada has kept pace in the general improvement, and this Exhibition displays an advancement not only in our improved breeds of domestic animals of every description, but also in Arts and Manufactures, far exceeding our most sanguine expectations.⁴²

Museums were also considered by agriculturists to be public institutions of valuable educational merit. The British Museum with "a collection of specimens unsurpassed, probably unequalled in the world", and "unrivalled for the number and value of articles it contains", and through its variety of departments, "meets in some way the particular taste of almost every class of society".⁴³

Reorganization of the hierarchy of agricultural institutions in the Canadas through legislation passed in 1852, enjoined agricultural boards to establish a model farm and museum.

In the Second Annual Report of the Board of Agriculture (1853-54), president E.W. Thomson announced that:

The Board has not lost sight of what is recommended by the Statute under which they act, in reference to a Museum of Agricultural implements and productions. A commencement has been made and it is confidently hoped that the object will be more rapidly advanced as soon as the experimental farm shall be in full operation.⁴⁴

George Buckland was again an important player in these developments. The Senate of the University of Toronto agreed to establish an experimental farm on its lands. With support from the Board of Agriculture, this farm and the associated museum were intended to provide practical illustration to lectures given by the Professor of Agriculture. Expectations ran high. Board of Agriculture President T.C. Street commented on Buckland's work:

Lectures of the most valuable character, may be expected from that gentleman, and the result of all practical and useful experiments made by him, will be gladly communicated for the benefit of the Agricultural classes.⁴⁵

The provincial government had appointed Buckland to the position in 1851. He first lectured in the winter of 1852-1853, and in subsequent years, taught history, the practice of agriculture and science. Other faculty members taught mineralogy, chemistry, botany, entomology and geology. While no agricultural museum was established and the success of the experimental farm proved to be marginal, several of Buckland's colleagues at the University of Toronto played pivotal roles in the establishment of

museums on the campus.⁴⁶ Continued efforts to offer opportunities for agricultural education remained tied to exhibitions, the development of the public education system in Ontario, and the growth of museums operated by other institutions and government departments.

In preparation for the Paris Exhibition of 1855, a Central Committee was established to develop Canada's contribution. Daniel Wilson chaired the Fine Arts Sub-Committee, which dealt with aspects related to architectural decorations and materials, and processes applicable to the fine arts. Agriculture formed a component of the display, with Francis Hincks suggesting to the committee "the necessity of taking active measures to secure a good representation of the agricultural products and manufactures of Upper Canada".⁴⁷ A special exhibition was held in Toronto on February 14-16, 1855, to select articles for display in the 1,000 square foot space which was allocated for the Canadian productions. Overall selection and display arrangements were co-ordinated by William Logan, director of the Canadian Geological Survey. Observers commented that the Canadian display at Paris was more complete and better arranged than that seen in London in 1851. The Times noted that the Canadian department was "pregnant with that moral and intellectual interest which we have endeavoured thus faintly to indicate". Exhibits of timber, woodworking machinery, shipmaking and nail making were noted for their merits. The display of agricultural produce was "upon the whole superior to any other". The exhibition of mineral resources was also given praise. In conclusion, the Canadian Exhibition illustrated "what can be done by a young community on the furthest verge of our western civilization, with equal laws, and left by England, the Mother Country, to find its own feet and proper level among the producing Powers of the world".⁴⁸

The Canadian government continued to render aid in collecting and transporting specimens representative of Canadian industry, skill and soil, to other international displays. At the Sydenham Crystal Palace Exhibition, more extensive and systematic arrangements of the best specimens of what the soil and industry of Canada could produce were displayed. This international exposure was regarded as a positive factor in the contribution to existing prosperous conditions in the province, and afforded "to the people at home ocular proof of the capabilities and state of industry and civilization of this important member of the British Empire".⁴⁹

The annual Provincial Exhibition continued to be an important factor in broadening educational

awareness. At the request of the Board of Agriculture, Egerton Ryerson, Chief Superintendent of Education, consented to send a collection of specimens and articles already procured for the proposed Educational Museum to the 1856 Exhibition. Items chosen were to be of practical value to the farmer and mechanic, and of interest to school trustees.

A collection of "interesting and instructive Objects" was assembled. These included models of agricultural implements, specimens of maps, charts, diagrams and apparatus found in Public Schools, and meteorological instruments. Multitudes who thronged to the exhibition and sought information and explanation of the varied objects on display showed "how general was the desire of the public to avail themselves of the facilities", and demonstrated the "practical utility of such an exhibition".⁵⁰

Again in 1857, the Education Department sent "a unique collection" of globes, maps, diagrams and other articles useful in schools to the Provincial Exhibition in Brantford. These educational adjuncts were regarded as being important and of value, adding to the educational feature of the exhibition. In a circular sent to local superintendents, trustees and school officers, Deputy Superintendent John George Hodgins commented on the connection between education, agriculture and the provincial exhibition:

Education is at the foundation of all intelligent Agricultural operations, as well as of all successful mechanical skill and enterprise. To connect, therefore, with the Provincial Exhibitions a purely educational feature; to incorporate that element in its yearly operations is both wise and appropriate. It is a just recognition of that great moral agent in the amelioration of that mental soil and character, as is appropriate culture and the introduction of suitable agents necessary to the amelioration of the soil of the earth. It is also in harmony with the public feeling and sentiment of Canada, where the education of the people is considered one of the most important duties and interests of the state.⁵¹

Reaction to this exhibit was positive and highly favourable. The Brantford Expositor noted that the educational display was one of the "most interesting and complete in the whole exhibition". It contained a large collection of electrical apparatus, mechanical and artistic contrivances illustrating principles of mathematics, astronomy, natural philosophy, chemistry, physiology, geography and natural science, magic lanterns with astronomical and zoological slides, Canadian paintings, models of steam engines, cabinets of minerals and fossils, maps, books and apparatus and school furniture. The display was deemed to be instructive through the offering of object lessons in natural history and botany, and afforded visitors "tangible evidence of the advanced stage of our Public School System".⁵² George Buckland sent a letter on behalf of the Provincial Agricultural Association, thanking Chief Superintendent Egerton

Ryerson for the "attractive and instructive display".⁵³ Exhibitions at the international, provincial and local levels proved to be an impetus behind the growing acceptance of agricultural education, and were a popular way of introducing object-centred learning to the public at large. In Canada, these two vehicles of education would be linked to the further development of agricultural museums.

Initiatives Related to Scientific Agricultural Education

The importance of education to an agrarian population, its advantages to the community, and the centrality of making it an element in the Common School instruction, had been expounded upon previously. In an address to the local Committee of the Provincial Exhibitions, Egerton Ryerson suggested that the farmer as well as the lawyer, the mechanic as well as the physician, must learn to read, write, calculate and use their native tongue. In addition, each must learn that which will provide skill in an individual's own particular employment.

Education for the agriculturist would enable the farmer to be successful in his endeavours and address the interests of the farming population. Citing government sponsored examples, in France, England and Germany, Ryerson called for a publicly funded system in Canada that would provide an education for farmers equal to that of other classes in society. He suggested that; "Mind is the gift of God, and to the Farmer, not less than to the philosopher; but the development of mind in the different departments of human knowledge and human industry, is the work of man." He viewed farmers as being arbiters of Canada's destinies, and education would enable them to "occupy their appropriate position of power and influence in comparison with the other classes of the population." Education would assist farmers in pursuing their business in a profitable and economical manner. Through a knowledge of chemistry, botany, vegetable physiology, hydraulics, geology, mineralogy, natural philosophy and the culture of his lands, the farmer could gain new principles which could be practically applied to his important profession. Ryerson proposed that such elementary knowledge should be taught in the province's Common Schools. This would be accomplished through the use of improved school books, enhanced methods of teaching, better training for teachers, and with the development of suitable circulating libraries. He concluded that for farmers, this form of practical and accessible education was "essential to the maintenance of their position in society, to the enjoyment of the domestic satisfaction and social happiness for which their situation and pursuits are so favourable, and for the success of their labours and the advancement of their best interests".⁵⁴

At the Normal School, Ryerson surrounded the building with cultivated grounds which were used to illustrate lectures on vegetable and agricultural chemistry. This practical application of Ryerson's philosophy was set forth by British traveller Henry Murray during a visit to the Normal School. Describing the quality of instruction there to be "inferior to none of its neighbouring rivals" in the United States, Murray concluded that;

...chemical and agricultural lectures there given, and practically illustrated on the small farm adjoining the building, cannot fail to produce most useful and important results in a young uncultivated country possessing the richest soil imaginable.⁵⁵

The Department of Education continued to promote the use of provincial exhibitions and museums as "important educational adjuncts." In an 1857 circular to all local superintendents, trustees and school officers in Upper Canada, Deputy Superintendent John George Hodgins urged visitation to the educational exhibit at the Provincial Exhibition held in Brantford. The fair's managing committee had requested a display related to education from the Department. It would provide "enlightenment and advancement", would be "peculiarly attractive to the thousands who will congregate on the occasion," and have "a powerful and wide-spread influence in exciting attention to the subject." In addition it would create and heighten public interest in and support for progress in education. To render this display as useful as possible, various specimens of maps, charts, prints, diagrams, globes, school apparatus and agricultural models from collections housed at the recently opened Educational Museum were sent to Brantford.⁵⁶

The attractive and instructive display mounted by the Department of Education received accolades from other quarters. Hodgins cited an article in the Brantford Expositor which described the educational exhibit in detail and suggested that it afforded "tangible evidence of the advanced stage" of public education in the province. The assembled collection dealt with natural history, botany and other "Object Lessons" which were deemed to be of great interest to visitors. George Buckland wrote Ryerson on behalf of the provincial Agricultural Association to thank him for providing the "highly attractive and most important feature" at the exhibition, and noted its "instructive" value.⁵⁷

The connection between agriculture and education also came from other quarters. James Croil in a lecture on practical agriculture, promoted interest in farmers to support efforts by local agricultural societies to increase knowledge. He concluded:

Nature has done much for us - Science has grappled with and triumphed over the obstructions of nature, - the rest, we must do ourselves. It is often vauntingly said, this is a great country. Undoubtedly it is a great country; but we have yet to learn to be a great people. Possessing all the advantages of a good system of education, let us endeavour by every means we can devise, to create a universal thirst for knowledge.⁵⁸

Agricultural publications continued to extol the virtues of collections, displays and exhibitions as vehicles for learning. The Board of Agriculture of Upper Canada actively solicited agricultural societies for a selected assortment of specimens for inclusion in the Canadian display at the Sydenham Crystal Palace Exhibition. Canada mounted a major exhibit at the Paris Exhibition in 1855. Provincial agricultural shows were deemed to be useful in two ways. At the philosophical level they assisted in agricultural education, and at the commercial level they facilitated orders and sales of the newest equipment.⁵⁹

Museums as Vehicles for Education

Some in the Canadian agricultural community championed models previously established in Europe. In these cases museums were seen as being both practical and public vehicles for education. Collections on view at museums were considered highly useful for investigation and study by farmers. Citing British examples, the editors of the Farmer's Magazine suggested that such exhibits at the Kensington Museum were "of eminent benefit in a national point of view, in diffusing sound practical information, and developing that kind of knowledge which tends greatly to promote the more extended application of known products." Exhibits designed by Dr. Lyon Playfair featured principle articles of animal food, cereals, legumes, fruits, mushrooms, herbs, narcotics and fermented liquors. These displays were described as being "full of instructive information by means of descriptive labels and printed particulars".

The collection assembled by Playfair was deemed to be of great public importance in diffusing useful information, and "will form a model well deserving imitation in the provinces and in other countries".⁶⁰

Athenaeum's and Mechanics' Institutes were also viewed as institutions which could provide advantages to the industrial and agrarian classes. The Glasgow Athenaeum was cited for its classes which addressed "the growing thirst among the working classes for education and information".⁶¹ A system of prescribed examinations guaranteed the value of training, and a competitive plan for stimulating study resulted in the generation of knowledge for the students enrolled. Such a scheme was praised by the Board of Arts and Manufactures for Upper Canada. In the lead issue of its monthly Journal, the Board reiterated its involvement with Mechanics' Institutes, Arts Institutions, provincial and international exhibitions, and the

agricultural and education departments. Agriculture, commerce and manufacturing went hand in hand, and the Board held annual examinations for members of incorporated Mechanics' Institutes "in various walks of useful learning", including the subjects of agriculture and horticulture.⁶²

Another part of the Board's mandate, was to take measures to collect for and establish museums of minerals, material substances and chemical compositions for the instruction of practical artisans and mechanics at Toronto and Montreal. These institutions would contain Model rooms, stocked with models of works of art, and implements and machines adapted to facilitate agriculture. In connection with these museums, libraries and schools of design could also be established to assist in promoting the improvement in the arts and manufacturers of the province. All Mechanics' Institutes and Arts Associations receiving grants from the government were placed under the general supervision of the Board.⁶³

By August of 1861, the Board of Arts and Manufactures established its quarters in the new Toronto Mechanics' Institute building. Space occupied included a board room, free library, model room and model gallery.⁶⁴ The Board advocated for the development of a museum of mineral, vegetable and animal products at each permanent exhibition building.⁶⁵ This Board paralleled efforts of the Board of Agriculture, and represented the growing importance of industrialization in Ontario. The idea of a museum as a place of recreation and instruction for members of the working population continued to be a topic of interest in subsequent volumes of the Journal. The issue for October, 1861 contained an excerpt from the London Builder. It called for the opening of the British Museum in the evenings, made possible by the installation of gas lighting. Noting that currently the British Museum was not open at convenient hours for "crowds of working men and their families", the article suggested that without the use of gas lighting, the museum "will not become a means of enlightenment to the artisans and numerous other classes of the metropolis who cannot spare the working hours for the purpose of pursuing those studies which would advance them in skill and intelligence". The opening of the museum in the evening was regarded as being advantageous to the general public as it would afford an opportunity for viewing the "rare treasures and curiosities" which had been gathered and exhibited at a large expense. In addition, the "advancement and improvement" of the working population could be facilitated in this period of "advanced intelligence" through reasonable opening hours.⁶⁶

Another example was published in 1864, when Professor George Wilson contributed a two-part article on the utility of industrial museums in the United Kingdom. Wilson viewed the Great Exhibition of 1851 as "one of those cyclical blossomings of the mighty banyan tree of the nations which occur only at immense intervals." One of the fruits which followed this flowering was the birth of the Edinburgh Industrial Museum. Subsequent exhibitions at New York, Dublin, Paris and Manchester supported the argument for the establishment of such facilities with collections which were of great public interest and value. Wilson regarded the value of these museums "as important aids in practical education," suggesting that the Industrial Museum of Scotland in Edinburgh, of which he was director, was the most fully recognised museum of this type. Wilson suggested that industrial museums should have exhibit galleries, a laboratory and workshop, a library and systematic lectures illustrating the nature of technology or industrial science. Various educational functions could be performed. One service which an industrial museum could render to commercial enterprise, would be instruction on how to recognize the important raw, working and modifying materials of industrial art. Secondly, it should be a place where the nature and value of unknown products from home and abroad could be ascertained and made public.⁶⁷ Thirdly, exhibit galleries could be assigned for the display of finished products which would prove especially instructive for visitors as "a stranger's curiosity will often make up for his defective experience, and that the industrial museum would secure his services for all the arts represented." To render the contents of the displays useful to the public, they must be carefully classified, labelled and described in catalogues. A further essential appendage to the museum would be a lecture room where detailed information could be provided about the collection. A fifth function to be considered would be initiatives taken by curators to render the museum "more instructive to the public". To achieve this goal, laboratories and libraries should be made "directly serviceable to the community." This philosophy was surely passed on and shared by George Wilson with his brother Daniel at the University of Toronto.⁶⁸ Individuals were encouraged to keep a collection of objects of natural history. Whether a labourer, mechanic, lawyer, merchant or farmer, a museum or cabinet of their own, would "enable them, as it were, to look upon the mighty field of nature at one view, with the advantage of having the various classes placed in systematic orders, to investigate which in their native wilds would be the business of a life-time".⁶⁹ While drawings and engravings could provide information about the general appearance of animals, they were thought to be deficient in many particulars that specimens could actually illustrate. Hence the advantage derived from collections of natural history objects would be of benefit in increasing knowledge.

The collection of pictures, statuary, bronzes, models, natural history specimens, coins, musical instruments, philosophical and school apparatus and ladies work displayed at the Toronto Mechanics' Institute Exhibition, had a similar effect. It was through this and other exhibitions sponsored by Mechanics' Institutes, "which the tasks of their members and of the public cannot fail to be educated and improved".⁷⁰ Use of electric lights enabled visitation by the public on certain evenings. The task at hand was to develop a provincial institution where all could benefit from the objects in its collections and displays.

Another Attempt to Establish an Agricultural Museum

During the 1860's the need for the establishment of a provincial agricultural museum was reiterated. The want of accommodation for the Board of Agriculture resulted in the construction of the Agricultural Hall at Yonge and Queen streets in Toronto. It was completed in 1862 at a cost of \$14,000. The lower portion of the building was leased as an agricultural seed and implement warehouse. The upper portion was used as an office and library for the Board. A large room was set aside "which it is intended to fit up as a museum, for the reception and display of natural and agricultural products of every kind which will illustrate the resources and industrial capabilities of the country."⁷¹ Subscribers to the Canadian Agriculturist were asked to contribute specimens to this interesting and important project. The main object would be "the collecting and arranging in a suitable building, the characteristic productions of Canadian agriculture, including farm implements and machines, dairy utensils, and in fact whatever relates to, or illustrates our rural life in this country".⁷²

Specimens from Great Britain, other colonies, Europe and the United States would also be collected. Exchanges between individuals and other agricultural societies were encouraged. Once formed, this collection "would be highly useful and instructive, and would give the visitor, whether a stranger or otherwise, a much clearer idea of the industrial condition and capabilities of this magnificent portion of Her Majesty's dominions, that could possibly be otherwise obtained, except by extensive travel and careful observation".⁷³ President John Barwick in his 1861 address to the Board of Agriculture, noted the agreement to erect an agricultural museum, and recorded the purposes of establishing such an institution:

The Agriculturist will then have a repository where samples of the various products of our country can at all times be viewed - an object of interest not only to the Canadian Farmer, but to foreigners and intending settlers.⁷⁴

Progress in assembling this collection was slow. Periodic announcements by H.C. Thompson, Secretary of the Board of Agriculture acknowledged receipt of articles for the museum's collection. These included specimens of gypsum, samples of grain, peas, potatoes and beans.⁷⁵ Government assistance was solicited and it was noted that New Zealand had sent 600 natural history specimens to England. It was suggested that the Canadian government should follow suite and forward specimens that were unknown and unavailable to English collectors.⁷⁶

Collections were sent to Europe in 1865 as part of the Dublin Exhibition. The Boards of Agriculture for Upper and Lower Canada and private individuals, contributed to what was described as "a very fine display of agricultural produce".⁷⁷ By the end of the year preparations for participation in the 1867 World's Fair in Paris were underway. The pressing need for a permanent museum of agriculture in Upper Canada was again highlighted in an editorial published in The Canada Farmer. This piece noted that the Provincial Board of Agriculture had provided a large hall for this purpose, but little had been accomplished in procuring a collection of specimens. Circulars had been issued by local agricultural societies, but these overtures met with limited success. A newspaper article noted that the Board was left with "a pretty extensive collection of grains, in bottles, chiefly foreign specimens". The paper called for a museum which contained characteristic specimens from every county in Upper Canada, along with models of agricultural implements and machines. The name, address of maker, price and claimed advantages of each article should be placed on cards attached to every item. This would afford the manufacturer a standing advertisement as well as providing "much useful information to the public". The collection should contain specimens of grains and grasses, weeds and injurious insects, examples of flax, hemp, minerals and woods, and examples of industrial products of the field and workshop. Public education would be one of the foremost goals of such a museum. The collection would "be the means of awakening an interest in some minds", "add much interest and utility", and be the "means of drawing attention to the resources of the country, and of imparting in the most practical manner much valuable information".⁷⁸ To be successful, all agricultural societies were urged to co-operate and contribute. This project, it was hoped would ultimately become the provincial museum.

In 1868, An Act for the Encouragement of Agriculture, Horticulture, Arts and Manufactures was passed by the provincial legislature. One of the powers given to Agricultural Commissioner John Carling, was

to establish a museum which would illustrate industrial pursuits including agriculture, horticulture, arts and manufactures. The practical working out of this initiative was given to George Buckland, Deputy Commissioner of Agriculture. Buckland communicated with manufacturers in Ontario and adjoining provinces to solicit specimens. The intent was to make the collection "as full and perfect as funds and the disposition of manufacturers will allow". The museum was to display all practical agricultural inventions brought into use, and exhibit grain and cereal products. Another primary goal in the formation of the museum was "the promotion of immigration and the fostering of the material interests of the Province".⁷⁹

George Buckland continued to bring the matter of the development of a museum to the agricultural public in his lecture tours. He did not restrict his efforts only to Upper Canada. During a visit to England in April of 1868,⁸⁰ he obtained additional pieces for the collection from various British manufacturers. He met with leading agriculturists to receive suggestions as to the progress of farming, to inspect machinery, and to receive specimens of grain and implements for the museum's collection. Progress in the direction of forming the museum was slow, and it was noted in the Globe that the articles collected by Buckland "are almost alone in the room devoted to the purpose of a museum, in the parliament buildings".⁸¹ It was stated that no specimens of agricultural implements had yet been received from any Canadian manufactures. This apathy and the abandonment of importing seeds by the Council of the Agricultural and Arts Association, created serious impediments in the successful completion of Buckland's cherished idea.

A circular was issued by Buckland to all agricultural societies in the province. It reminded them of the purpose of establishing a museum, asked for the donation of specimens from their fields, gardens and workshops which would indicate "industrial and social progress", and stressed that the success of such a venture would "depend on the cordial co-operation of our farmers and mechanics".⁸² "A very indifferent response" from agriculturists and manufactures resulted in only a few samples being received for "the projected Industrial Museum."⁸³

Steps Towards Establishing the Ontario Agricultural College

Progress was however being made on another front which would ultimately have an effect on the future of the agricultural museum. In 1869, Commissioner John Carling sent the Reverend William F. Clarke to the United States to study agricultural schools, and to recommend a plan for the development of a similar

institution in Ontario. Clarke was most impressed with agricultural colleges in Michigan and Massachusetts, the former which included a "Botanic Museum". Clarke submitted his report, and recommended that an Ontario Agricultural College be developed adjacent to the Town of Guelph.⁸⁴ John Carling accepted this recommendation and instigated the organization of the Ontario School of Agriculture which was established at Guelph in 1874.⁸⁵

In 1877, the Agriculture and Arts Act attached the Bureau of Agriculture and Arts to the Department of the Commissioner of Agriculture. Commissioner S.C. Wood was empowered to further develop the school of agriculture at Guelph, along with a museum and a library. This was designed to be a separate institution where students would be taught the science and practice of agriculture. Farmers could receive training in their own profession at a college that was not over-shadowed by literary studies, as was the case in a university. In due course a museum would become an integral part of this institution.

Practical Education Versus Theoretical Studies

The philosophy of various representatives in the agricultural community had an impact on directions "scientific agriculture" took and on the development of a provincial agricultural museum. The utility of practical education versus theory had long been a topic of discussion in the agricultural profession. Twenty years previously, American agricultural author John Blake noted "an inexplicable prejudice against book-farming."⁸⁶ He called for the establishment of more agricultural schools in the United States. Citing the importance of education to farmers, Blake suggested that; "Learning and useful education are by no means identical. They may exist together, or seemingly be without much affinity or resemblance."

To be useful, Blake reasoned that learning opportunities "must be adjusted to the peculiar aptitudes, originating in the various grades of mental culture, to which different individuals have been subjected".⁸⁷

Farm children should know history, literature, grammar, arithmetic, geography, geometry, entomology, natural philosophy and the anatomy and physiology of farm animals. To aid the agriculturist in learning, Blake recommended that; "There should be, therefore, at least in every town, a cabinet of farm animal skeletons; and, as often as once a year, there should be lectures on them."⁸⁸

In Upper Canada, the first attempt at providing this type of education was made with the appointment in 1851 of George Buckland as Professor of Agriculture at the University of Toronto. This venture was never a success, as many farmers considered the teaching of agriculture at a university to be too theoretical.

In an 1862 report into expenditures at the University, Commissioners stated that:

Experience teaches those who have most deeply interested themselves in the subject, that if agricultural instruction is to be made available for practical purposes to any large number of farmers, it must be elementary in its nature and brought to their immediate locality.

They concluded that; "The Agriculturist is best formed in the field of the Farm, not in the Hall of the College".⁸⁹ As a result, the Chair of Agriculture was discontinued at the University. The need for applied agricultural education did not however cease with this action. In 1864, J.W. Dawson, principal of McGill University argued that agriculture had become a scientific art, but knowledge of this kind was yet only partially diffused to farmers. In a textbook written to promote the acceptance of scientific agriculture, Dawson submitted:

That agriculture is the most important of the arts; that in this country it is the occupation of the majority of the people; that all are largely interested in its success, and that this success is connected with the diffusion of intelligence and scientific knowledge, every one will admit.⁹⁰

Egerton Ryerson also supported initiatives to make teaching practical in relation to employments, manufactures and agriculture in Upper Canada. To render practical the teaching of agricultural chemistry, Ryerson proposed that a lectureship in the elements of chemistry, agriculture and natural history be established at the Toronto Normal School, with the view of eventually making these subjects part of the course of instruction in all Common Schools throughout the province.⁹¹

Fairs and exhibitions also continued as a public means of education for Ontario's agricultural community. Commenting on the 1871 provincial exhibition and local fairs held in London, Hamilton and Guelph, editor William F. Clarke suggested:

If, as often represented, these exhibitions are Educational in their influence, then we have four great colleges temporarily set up in various parts of our noble province, whose yeomanry by thousands have been receiving instruction, stimulus and help in the onward march of improvement.⁹²

Tangible Steps Towards a Solution

The importance of "intellectual farming" and the value of scientific research to agricultural improvement and economic growth, were shared by the Ontario Minister of Agriculture and Public Works, Sir John Carling. Carling's philosophy connected rural and agricultural progress with the development of intellectual organizations such as agricultural colleges, effective agricultural societies and practical research programmes.⁹³ This reflected the goal of the Ontario School of Agriculture, which was to:

[P]lace this most important institution on a safe and permanent basis, and be the means, through many generations, of educating large numbers of our agricultural youth, so as to improve and elevate the time-honoured pursuits of husbandry, and increase continually the wealth, progress, and happiness of the country.⁹⁴

By 1877, many of the exhibits from Ryerson's Educational Museum had been sent to the Ontario Agricultural College (OAC). The rationale for establishing such a collection was made official in Clause 9 of the 1880 Act Respecting the Agricultural College. It read:

In connection with the college there shall be a museum of agriculture and horticulture, together with the scientific and technical branches relating thereto, in order to afford aids to practical instruction, and illustrations of the agricultural and horticultural products of the Province.⁹⁵

OAC president James Mills viewed the museum as being a crucial component in furthering agricultural education, scarcely less necessary than a laboratory or a library. In 1881, Mills wrote about such a facility and its important role:

A museum at the College is much needed. We have quite a collection of insects, entomological and geological specimens, but no place to keep them...The teaching of these branches must be imperfect, so long as we are without such a museum. The students are encouraged to make collections of specimens, and they have done a good deal at it this year. I would not say that entomology could not be taught efficiently without having a museum of the kind I speak of, but I think it could be taught much better if we had one to put the specimens in.⁹⁶

The transfer of Ryerson's collection was completed in 1881 on directions given by Adam Crooks, Minister of Education.⁹⁷ This assistance was recorded by S.C. Wood, Commissioner of Agriculture, in his 1882 report to parliament:

The museum has just received from the Department of Education a most valuable addition of upwards of five thousand duplicate specimens of natural history objects...There are probably few agricultural colleges either in the new world or the old, that have secured in so short a time a library and museum of equal magnitude and value.

Wood added that a catalogue of the collection had been prepared by Dr. May which is "scientifically arranged, but popular in its character".⁹⁸

A room was dedicated for the museum in the south end of the college building, under the aegis of the Biology Department. Professor J. Playfair McMurrich acted as Curator and was entrusted with the duty of making "a very interesting and useful display of grains, seeds and specimens in Natural History, Entomology, Geology, Meteorology, etc".⁹⁹

McMurrich reported that the museum's first year of operation was "a comparatively prosperous one", but that many important objects found in a museum of agriculture were still wanting. These included farm products from various parts of Canada, a collection of Canadian birds and larval forms of insects. He argued that such "important and useful objects" could be used instructively by both students and the farming community at large.¹⁰⁰ The curator added a catalogue of the specimens in the collection to his first report.¹⁰¹

George Buckland continued to deliver tri-weekly lectures on agriculture to students registered at the Ontario Agricultural College. His death in 1885 ended a personal crusade of over 35 years to establish a provincial agricultural museum, and to improve scientific agriculture throughout Ontario. His efforts would be fondly remembered:

Probably no individual did more for Agriculture in Upper Canada than Professor Buckland. He was the first qualified person to give leadership in agriculture, both theoretical and practical.¹⁰²

Further Development of an Agricultural Museum at OAC

Training in scientific and practical husbandry continued at the Ontario Agricultural College. This initiative was viewed as "a step in the right direction, and must exercise a beneficial influence upon the agricultural interests of the country".¹⁰³

The agricultural museum remained an adjunct to these efforts. Initially it was located in one room at the Agricultural College and it received limited support:

We spent no money on cases or furniture of any kind, but simply removed old desks and

placed in the room a number of things which had been lying about, or packed out of sight for months - natural history specimens, varieties of wood, samples of grain. We have made a beginning, and if the government will only vote the money necessary to fit up the room and construct a gallery around it, the professors and students will do their best to make the collections a credit to the institution.¹⁰⁴

At first the collection consisted mainly of bottles filled with grain samples which had been displayed at the 1876 Philadelphia Centennial Exhibition and a few fossils. It was augmented by natural history specimens which came from Ryerson's Educational Museum at the Toronto Normal School. By 1883 the museum contained over 5,000 specimens representing an amalgam of earlier collections. There were arranged and classified as a teaching and research collection. The rationale behind establishing this type of institution was established in a catalogue of the collection:

It may be that a museum gives reality to the intellectual acquisitions of the student of agriculture. He must necessarily, in the pursuance of his studies, acquire a knowledge of zoology, botany, mineralogy, etc., but without a museum of specimens his knowledge is exclusively theoretical - a shadow without substance.¹⁰⁵

The museum's mandate was further detailed in the curator's 1885 report to the president of OAC:

A Museum for an Agricultural College should partake more largely of an instructive character than for the glorification of public curiosity; while it may, to a certain extent, possess features of popular interest; still these should be subservient to the objects of instruction...By a proper use of these facilities, inquiring, thoughtful young men have impressed upon their minds much of the instruction received in the class-room. There is no doubt, that the more we can illustrate our lectures by specimens, easy of access, the more successful we will be in developing an interest in the different studies of our curriculum. To effect this, we should make our collection of specimens largely provincial and closely associated with the instruction imparted.¹⁰⁶

By upgrading the collection and improving the quarters allocated to the museum, it was deemed that the facility would become an important factor in promoting agricultural education, while being of interest to the ordinary visitor and instructive to students. While musing on the utility of his institution, curator J.H. Panton also cautioned about its future:

This very important department of instruction should be a credit to our College and to the wealthy Province in which it is located, but if the improvements already suggested cannot be carried out, we can scarcely expect to hold the position we should.¹⁰⁷

Efforts were made to cull items in the collection which were "more curious than instructive", and as the years passed specimens were introduced "to illustrate, in a marked degree, the instruction given in the class-room". Galleries were established to display collections related to geology, entomology, zoology

and botany. Glass wall cases were added to the botanical laboratory to exhibit common weeds. Changes in the museum's quarters and the utility of the specimens on display, were recorded by Professor Panton; "[T]he advance made in this room, now commodious, bright, cheerful and attractive, yearly becoming more and more practical."¹⁰⁸

Improvements continued to be made as cabinets were set up in various departments of the college. Plans were formulated for the development of a new agricultural museum which was regarded as being an asset to the institution, and of practical advice to various users:

This museum will be a unique and important addition to the equipment of the College. The interior will be so arranged as to illustrate the invaluable results of a great variety of agricultural experiments which have been conducted at the College during the past ten or twelve years, and should therefore prove of much educational value, not only to the students, but more especially to farmers and others who visit us during the winter months when it is not possible to examine the various crops as they are grown in the field.¹⁰⁹

Curator Panton commented on the direction he wished the site to follow, citing potential conflicts he believed existed between various users:

Our museum is yearly becoming more useful as an adjunct to the class-room. The specimens desired are those of a practical nature, rather than suited for the ordinary observer, who looks only for strange things.¹¹⁰

This dichotomy was not resolved, as Panton alluded to it again in his report for 1896; "We have learned from experience that it is a mistake to have specimens exposed in such a way that the public can handle them."¹¹¹

James Hoyes Panton died on February 2, 1898¹¹² and William Lochhead, professor of Biology and Geology, was appointed curator of the agricultural museum. Lochhead brought a philosophy espousing inquiry learning and observation to his new job. While not mentioning the museum in his first report, Lochhead stated; "The process of observation includes the three-fold processes of comparison, relation and judgement, and these are virtually the requisites of the successful farmer, merchant, or statesman."¹¹³ The intent was the training of observational powers of students in close contact with natural objects housed in the museum.

As cases and cabinets were added and the collection was expanded through donation,¹¹⁴ the

improvements to the museum when completed were regarded to be "of inestimable value as an agricultural educator".¹¹⁵

With the completion of a Biology-Physics Building in 1902, the museum was moved to new quarters. Curator Lochhead reiterated the role of the facility and indicated how popular the museum was to the public:

A well-appointed agricultural museum is a necessary part of the equipment of a college such as ours, where so much instruction is given on the Nature Study plan, and which is visited by more than 35,000 persons every year.¹¹⁶

His report for the following year was less positive and echoed concerns expressed by his predecessor; "A liberal annual appropriation for the purchase of desirable collections and specimens is urgently needed to make the Museum an educational factor in college work and a place of interest for our many visitors." Lochhead suggested that little had been done towards fitting up the museum and it sorely lacked suitable display cases for the collection.¹¹⁷

By 1905 considerable progress was noted with the arrival of additional new exhibit cases. Several interesting "Process Exhibits" were expected to help illustrate the manufacture of binder twine, sugar beets, pulp paper, fur and wool. The curator indicated the direction in which he wished to proceed:

It is the aim to build up a representative Agricultural Museum that will illustrate the rock materials from which our soils have been made; the various classes of soils; the insects; the birds and other wild native animals; the plants, both useful and injurious to agriculture; the product of the forest, the mine, and the farm; such implements as will show the evolution of agricultural machinery; and the process of manufacture of the necessities of every-day life.¹¹⁸

Lochhead was not able to fulfil his objectives, as he left the Ontario Agricultural College in 1906. He was replaced by Professor S.B. McCready.¹¹⁹ In 1908 the museum came under the care of Professor Charles J.J. Bethune from the Department of Entomology and Zoology. He noted that; "The whole collection is not only of much interest to visitors to the Museum, but it is also most useful in illustration of the lectures in Zoology."¹²⁰

Little is recorded about the museum after 1910. Why the museum disappeared is unknown. Many factors were possible. It may have been from a chronic lack of financial support, or as a result of changes in teaching theory from the study of specimens to laboratory investigation. It may have been from the

death or departure from OAC of its most ardent supporters, or because of the age and improper care of the collection. By the 1930's, much of the collection had been dispersed and the museum's role as a place for the education and enlightenment of students and the general public was greatly diminished.¹²¹

A Further Attempt to Develop a Provincial Agricultural Museum

No formal attempt at developing another provincial agricultural museum took place until the passing of the Ontario Agricultural Museum Act in 1967. This piece of legislation provided for the establishment of a facility which would:

[C]ollect, preserve, exhibit and interpret those objects, customs, and values that serve to illustrate the history of agriculture and rural life in the Province of Ontario from the time of first settlement to present day.¹²²

In addition, the museum was to provide opportunities for the public to gain a better understanding of the importance and scope of the agricultural industry in Ontario, and its development over time. The museum would be operated as a Branch of the Ontario Ministry of Agriculture and Food.

Construction of the site near Milton began in 1974, with the administrative building and display hall officially opened to the public in September of 1975. By 1996, the site had grown to encompass 30 buildings, was recognized internationally for its collection of agricultural artifacts, and became one of North America's leading agricultural history research centres. Even this success could not save the museum from provincial government budget cuts. In 1995 plans were made to close the site as a cost cutting measure.¹²³

By the spring of 1997, the Country Heritage Experience Inc. made an agreement with the provincial government to assume control of the Ontario Agricultural Museum (OAM), and to operate the site as a private sector enterprise known as the Farm Museum.¹²⁴ This development added another strange twist in the story of the evolution of Ontario's agricultural museum!

Conclusion

The history of agriculture, education and museums in Canada is rather disjointed. In Ontario, jurisdictional problems between township, county and provincial agricultural societies, the lack of

continuity due to the frequent replacement of ministers, limited government support, and changes in the nature of farming and the philosophy of scientific agriculture, all lead to this patchwork story.

It is however a story which should recognize the contributions of individuals such as Buckland, Ryerson, Hodgins, Carling, Pantton and others. It reflects how agriculture changed from being a way of life, to a way of earning a living. A constant thread in this story was the various attempts to develop a provincial museum of agriculture, which had a direct association with the growth of interest in public education.

While these efforts in many cases proved to have fleeting success, they constitute an important but often untold component of the evolution of Canadian museums as centres of learning.

End notes

1. The Canadian Farmer (January 15, 1873), p. 9, cited in Robert L. Jones, History of Agriculture in Ontario 1613-1880 (Toronto, 1977), p. xi.
2. Ibid. In the Canadian context, domestic agriculture was considered essential to the profitable and safe conduct of those activities which were of prime economic interest to the country. See Vernon C. Fowke, Canadian Agriculture Policy (Toronto, 1978), p. 272.
3. J.C. Morgan, The Emigrant's Note Book and Guide (London, 1824), p. 301.
4. Martin Doyle, Hints on Emigration to Upper Canada (Dublin, 1834), 3rd. ed., pp. 5 & 46. Doyle believed that Upper Canada was best suited for poor Irish and Scotch settlers. For another perspective on settlement for the poor, see James S. Buckingham, New Plan of National Colonization (London, 1843). For a current assessment on English emigration to Canada during the 1830's, see Terry McDonald, "Come to Canada While You Have a Chance: A Cautionary Tale of English Emigrant Letters in Upper Canada," Ontario History (Autumn, 1999), v. 91, #2, pp. 111-130.
5. Frederick Marryat, A Diary in America (London, 1839), 2nd pt., v.2, p. 24.
6. William Haw, Fifteen Years in Canada (Edinburgh, 1850), p. 69.
7. James F.W. Johnston, Notes on North America (Edinburgh, 1851), v.1, pp.259 & 262. Johnston was a reader in chemistry and mineralogy at the University of Durham. Similar sentiments were expressed in other period literature. See Colton's Traveller and Tourist Guide-Book (New York, 1854), p. 72, and Canniff Haight, Country Life in Canada (Toronto, 1885), p. 125.
8. Theodore Dwight, The Northern Traveller and Northern Tour (New York, 1830), p. 103.
9. Morgan, Emigrants, p.150.
10. W.F. Goodmane, Seven Years in America (London, 1845), p. 31.

11. Thomas Rolph, Observations Made During a Visit in the West Indies, and a Tour Through the United States of America Together With a Statistical Account of Upper Canada (Dundas, 1836), p. 161. See also Thomas Rolph, Comparative Advantages Between the United States and Canada for British Settlers (London, 1842), p. 14. For a modern perspective see Janet Eagleson, "Come to the Fair," The Beaver (August/September, 1996), pp. 48-50.
12. Marryat, Diary, v.1, p. 17. The merits of emigrating to the Canadas were sometimes viewed as being superior to settling in the United States, as the inhabitant of Canada, "has the happiness and privilege of continuing to live under British institutions, and is protected by laws that are promptly and impartially administered". Cited in "The Advantages Offered by the Colonies Equal, if Not Superior to Those Offered by the United States," The Anglo-American Magazine (July, 1852), v.1, #1, p. 9.
13. Differences between Canadians and Americans were recorded prior to 1850. A contemporary observer noted; "The fact is indisputable. It is not a matter of reasoning, of influence, of opinion; it is immediately perceived, as much as going out of a warm room into a cold atmosphere". Cited in James Dixon, Methodism in America (London, 1849), 2nd. ed., p. 90.
14. Haw, Fifteen, p. 69. See also W.H. Smith, Canada Past, Present and Future (Toronto, 1851), v.1, p. 474 for the impact of agricultural societies on a better system of husbandry.
15. Transactions of the Society of the Encouragement of Arts, Manufactures and Commerce (1783), v. 1, pp. 23-4 & iv. This Society would later become the Royal Society of Arts.
16. See Charles F. Grece, Facts and Observations Respecting Canada and the United States of America (London, 1819), p. 41, and William Bell, Hints to Emigrants (Edinburgh, 1824), p. 162.
17. William Dunlop, Statistical Sketches of Upper Canada (London, 1832), p. 105.
18. See S.S. Hill, The Emigrant's Introduction (London, 1837), p. 145, and William Evans, Agricultural Improvement (Montreal, 1837), p.7.
19. William Swainson, A Preliminary Discourse on the Study of Natural History (London, 1834), pp. 143 & 139.
20. John Howison, Sketches of Upper Canada (London, 1821), pp. 265-66.
21. Hugo Reid, Sketches in North America (London, 1861), p. 241.
22. C.S. Rafinesque, "Survey of the Progress and Actual State of Natural Sciences in the United States of America," The American Magazine & Critical Review (December, 1817), v. 2, #2, p. 84.
23. W.H. Kesterton, A History of Journalism in Canada (Toronto, 1967), p. 16.
24. In 1847, the British American Cultivator and the Canada Farmer merged to form the Agriculturist and Canadian Journal.

25. British American Cultivator (January, 1842), v. 1, #1, p. 5. Between 1800-1850, advances in science were one of the factors attributed to improvements in agriculture in England. See G.R. Porter, The Progress of the Nation (London, 1912), p. 180.
26. BAC (November, 1844), v. 3, #1, pp. 170-71. For an example of the holdings of such an agricultural society, see Catalogue of Books of the Farmers' Institute and Subscription Library Service (Toronto, 1840), pp. 1-10.
27. BAC (February, 1845), n.s., vol, #2, p. 43.
28. BAC (January, 1846), v.11, #1, p. 11. The argument for a balance between book learning and practical experience was made as early as 1844. See Samuel Smiles, Self-Help (Boston, 1861), pp. 329-30. For more on self-help and mechanics' institutes in Canada, see "Adult Education and Mechanics' Institutes", The Journal of Education for Upper Canada (January, 1865), v. 18, #1, pp. 9-10. For an example of an early Canadian textbook which was designed for use in schools with the object of promoting an improved system of agriculture adopted by "scientific farmers," see The Canadian Agricultural Reader (Niagara, 1845).
29. Cited in Robert B. Thomas, The Old Farmer's Almanac (Boston, 1860), #68, p. 7.
30. Canada Farmer (March 12, 1847), v.1, #4, p. 27. The desirability of establishing agricultural colleges was also promoted in other quarters. See "Agricultural Education," The Anglo-American Magazine (October, 1852), v.1, #4, pp. 369-70.
31. Canada Farmer (April 19, 1847), v.1, #6, p.42. The Board of Agriculture saw the utility of educating farmers. President E.W. Thomson in an address given in Hamilton on October 7, 1847 noted; "How important it is, then, that the commencement be made upon a proper system, and that the leaven that is to leaven the whole mass of future generations be pure". Thomson went on to suggest that the energies of the Board "be applied to aid in the establishment of an Educational Farm, where the art could be scientifically and practically taught". Quoted in Journal and Transactions of the Board of Agriculture of Upper Canada (Toronto, 1856), v.1, pp. 49 & 55.
32. The Agriculturist and Canadian Journal (February 15, 1848), v.1, #3, pp. 28-29. Buckland was well known in England for a series of articles that he had published on "Scientific Agriculture". He was an active member of the Royal Agricultural Society of England and a lecturer to various agricultural societies in the United Kingdom. He promoted the advancement of agriculture in Upper Canada, and was regarded as a prime candidate for the Chair of Agriculture at King's College, University of Toronto.
33. Eighty Years' Progress of British North America (Toronto, 1864), p. 44. For the impact of England, Scotland and the United States on the formation of the Provincial Agricultural Society, see JTBAUC (Toronto, 1856), v.1, p.17.
34. Johnston, Notes, p. 273. For a description of two of these lectures, see The Agriculturist and Canadian Journal (April 1, 1848), v.1, #4, pp. 64-5, and The Canadian Agriculturist (January, 1852), v.4, #1, pp. 11-12.

35. The Canadian Agriculturist (October 1, 1849), v.1, #10, p. 251. For a description of the Provincial Agricultural Show, see Susanna Moodie, Life in the Clearings (New York, 1853), pp. 245-56.
36. "The Provincial Agricultural Show," The Canadian Journal (October, 1852), v. 1, p. 53.
37. Jones, History, p. 173. In 1850, steamboats to the Niagara exhibition were crowded with visitors from every port on Lake Erie and Lake Ontario.
38. Robert Russe, North America, Its Agriculture and Climate (Edinburgh, 1857), p. 50. For comment on the contribution of agricultural societies to the advancement of the province, see Moodie, Life, p. 250. For a full description of the 1854 show see "The Provincial Exhibition," The Anglo-American Magazine (November, 1854), v.5, #5, pp. 438-41.
39. The Canadian Agriculturist (January, 1850), v.2, #1, p. 12. For more on the impact of the Great Exhibition and the "exhibitionary complex", see Tony Bennet, The Birth of the Museum (London, 1995), pp. 59-88. For the impact of the Toronto Industrial Exhibition on shaping late Victorian culture, see Keith Walden, Becoming Modern in Toronto (Toronto, 1997). For a definitive study on exhibitions in Canadian society during the 19th century, see E.A. Heaman, The Inglorious Arts of Peace (Toronto, 1999).
40. Edward Forbes, "The Vegetable World," in The Art Journal Illustrated Catalogue The Industry of All Nations (London, 1851), preface. For information on the contribution made by Sir William Logan to the Canadian display, see "Sir William Logan," The Canadian Illustrated News-Hamilton (August 1, 1863), v.2, #2, p. 133, and "Canada at the Great Exhibition," Journal of Education for Upper Canada (September, 1862), v. 15, #9, pp. 130-31. For additional information on the educational impact of the 1851 Exhibition see "International Exhibitions and Technical Instruction," American Journal of Education (January, 1870), v. 21, pp. 29-32.
41. The Canadian Agriculturist (September, 1851), v.3, #9, p.219.
42. Quoted in Transactions of the Board of Agriculture and the Agricultural Association of Upper Canada (Toronto, 1850), v.3, p. 160.
43. The Canadian Agriculturist (March, 1851), v.3, #3, p. 67. In the January, 1852 issue of this publication, a destructive fire at the Museum of Highland Society in Edinburgh was noted on p. 31.
44. Quoted in JTBAUC (Toronto, 1856), v.1, p. 314.
45. Quoted in ibid., p. 267. The idea of establishing a professorship in agriculture as an "indispensible" part of the university was brought forward as early as 1844. See J.B. Brown, Views of Canada and the Colonists (Edinburgh, 1844), p. 64. With Buckland's appointment it was acknowledged that while he had no college degree, he was "an authority on Agriculture," holding executive positions with the Board of Agriculture for Upper Canada and the Central Agricultural and Horticultural Club. Cited in Thomas Hodgins (ed.), The Canadian Educational Directory and Calendar (Toronto, 1857), pp. 48 & 112.
46. Edward J. Chapman was behind the establishment of the Mineralogical and Geological Museum,

H.H. Croft and William Hincks, the Biological and Natural History Museum, and Daniel Wilson, the Ethnology Museum. See Chapter 4 for full details on the evolution of museums at the University of Toronto. For Buckland's comments on the Experimental Farm, see the Canadian Agriculturist (January, 1855), v.7, #11, pp. 20-21.

47. Cited in "Paris Exhibition, 1855, Central Committee for Upper Canada," Minute Book (December 9, 1854 - February 23, 1855), n.p.

48. Cited in the Canadian Agriculturist (November, 1855), v.7, #11, pp. 348-50.

49. The Canadian Agriculturist (May, 1854), v.6, #5, p. 153.

50. "Educational Features of the Provincial Exhibition of 1856," in J. George Hodgins (ed.), Documentary History of Education in Upper Canada 1856-58 (Toronto, 1906), v.13, pp. 34-36.

51. Cited in ibid., pp. 194-95.

52. Ibid., pp. 195-97.

53. Ibid., p. 197.

54. For the full text of Ryerson's address on agricultural education, see Hodgins, DHEUC, 1856-58, v.13, pp. 36-45.

55. Henry A. Murray, Lands of the Slave and the Free (London, 1855), v. 2, pp. 92 & 100. See also Alexander Morris, Canada and Her Resources: An Essay (Montreal, 1855). Morris wrote that the Toronto Normal and Model Schools had a botanical garden where agricultural chemistry was "practically illustrated." See p. 106.

56. The Educational Museum opened on June 1, 1857. For additional details see John C. Carter, "Ryerson, Hodgins and Boyle: Early Innovators in Ontario School Museums," Ontario History (June, 1994), v.86, #2, pp. 120-23. See also Chapter 5. Ryerson saw agricultural models purchased at the Paris Exhibition as having two primary functions: "I trust that the Models of Agricultural Implements, which I have purchased, and to which I hope to make considerable additions, will be interesting to Canadian Agriculturists, both as illustrating Science and Practice of Agriculture in Europe, and as affording possibly, some useful suggestions for the improvement of some Agricultural Implements in Canada." Ryerson to George Cartier, cited in Hodgins, DHEUC 1855-56, v.12, p. 118.

57. For details on the educational display at the Provincial Exhibition of 1857, see Hodgins, DHEUC 1856-58, v.13, pp. 194-97.

58. Quoted in TBAAAUC (Toronto, 1859), v.3, p. 84. For additional comments on the connection and application of science to Canadian agriculture, see J.E. Farewell, "The Practical Adaptation and Money Value of Science to the Canadian Farmer," TBAAAUC (Toronto, 1860), v.4, pp. 108-36.

59. The Farmer's Magazine (January, 1858), v.48, #1, p. 61. The dual purposes of these exhibitions were

further identified in the popular press. Details of efforts made across the country to stage fairs were given in an article that concluded; "We trust the farmers, mechanics, and manufacturers of Canada, independently of any local feeling, will use their joint exertions to make these industrial shows attractive and profitable." Cited in "Provincial, County, and Township Exhibitions," The Canadian Illustrated News-Hamilton (September 12, 1863), v. 2, #18, p. 206.

60. The Farmer's Magazine (June, 1858), v.48, #6, pp. 481-82. This article suggested that exhibits at the Museum of Economic Botany, The Crystal Palace Company and the Royal Agricultural Society of England were of limited use. Displays at the East India Company's new museum were however, seen to be important "for careful study and inspection". Egerton Ryerson was influenced by Playfair's philosophy. See Egerton Ryerson, The Educational Museum and School of Art and Design for Upper Canada (Toronto, 1858), Appendix A, pp. 51-62. Henry Cole's work at the Science and Art Department was also noted. See pp. 62-70.

61. Journal of the Board of Arts and Manufactures for Upper Canada (January, 1861), v., #1, p. 28. For more information on athenaeums, see "Columbia (South Carolina) Athenaeum," AJE (December, 1856), v. 2, pp. 735-36. A recent Canadian study has suggested that while mechanics' institutes were open to women, they were mainly used by men to "accumulate intellectual capital." Canadian women found opportunities for "organized intellectual self-improvement" through local literary societies. See Lynne Marks, Revivals and Roller Rinks: Religion, Leisure, and Identity in Late-Nineteenth-Century Small-Town Ontario (Toronto, 1996), pp. 125-26.

62. Cited in The Canadian Agriculturist (January 1, 1861), v.13, #1, p. 31. For more on Mechanics' Institutes see Thomas Davidson, "Mechanics' Institutes and the Best Means of Improving Them - I," The Canadian Monthly and National Review (1876), v. 10, pp. 220-23, and Richard Lewis, "Mechanics' Institutes and the Best Means of Improving Them - II," The Canadian Monthly and National Review (1876), v. 10, pp. 223-38.

63. See "The Act Relating to Boards of Arts and Manufactures," in JBAMUC (April, 1861), v.1, #4, pp. 99-101. The Board was established by provincial legislation in 1857.

64. For a description and floor plans, see JBAMUC (August, 1861), v.1, #8, pp. 232-33.

65. See TBAAAUC (Toronto, 1864), v.5, p. 220.

66. See "Proposed Opening of the British Museum to the Public by Gas-Light," in JBAMUC (October, 1861), v.1, #10, pp. 275-76. Gas lighting was already used with safety and good effect at the South Kensington Museum.

67. For the first section of this two-part article, see JBAMUC (May, 1864), v.3, #5, pp. 141-47.

68. The second part of Wilson's article appeared in JBAMUC (June, 1864), v.3, #6, pp. 169-72. For connections between George and Daniel Wilson, see Marinell Ash, "Patriots Who Put Scotland's Heritage in Safe Keeping," The Weekend Scotsman (October 5, 1985), and Marinell Ash, "New Frontiers: George and Daniel Wilson," in Jenni Calder (ed.), The Enterprising Scot (Edinburgh, 1986), pp. 40-51.

69. Cited in S.P. Keator, "Collections of Natural History," The Canadian Agriculturist (May 1, 1862), v. 14, #9, p. 283.
70. JBAMUC (April, 1865), v.5, p. 94.
71. TBAAAUC (Toronto, 1864), v. 5, p. 547. For an illustration of the Agricultural Hall, see The Canadian Illustrated News-Hamilton (March 14, 1863), v. 1, #18, p. 215.
72. The Canadian Agriculturist (July, 1863), v. 15, #7, p. 249.
73. The Canadian Agriculturist (July, 1863), v. 15, #7, p. 249. The Board would "take every pain to accumulate a collection which will render a visit to the museum at all times interesting and instructive". TBAAAUC (Toronto, 1864), p. 457.
74. Quoted in ibid, p. 219.
75. See The Canada Farmer (July 1, 1864), p. 187, and (April 15, 1864), p. 105.
76. The Canada Farmer (November 1, 1864), p. 323.
77. The Canada Farmer (July 1, 1865), p. 202.
78. See "An Agricultural Museum," The Canada Farmer (June 15, 1866), v.3, p. 186. These goals were similar to ones set out for the agricultural museum in the U.S. Patent Office in Washington. There collections and publications were used "for the benefit of the people." See "An Agricultural Museum At Washington," Scientific American (February 11, 1865), v. 12, #7, n.s., p. 101. In his 1867 presidential address to the Agricultural Association of Upper Canada, J.P. Wheeler indicated that the formation of an agricultural museum had been contemplated for some time, but little yet had been accomplished in this regard. He urged that active measures be taken to "secure the speedy realization of so interesting and useful an object," and supported co-operation with the Board of Arts and Manufactures. He suggested that the Upper Canadian initiative should follow the pattern set by the Bath and West of England Society, through the promotion of agriculture, manufactures and fine arts. See TBAAACU (Toronto, 1872), v.6, pp. 439-40.
79. See "The New Agricultural, Mechanical and Industrial Museum," The Canada Farmer (May 1, 1868), p. 137, and Reaman, History, v.1, p. 121.
80. In December of 1867, Buckland had offered to place his services at the disposal of the Board of Agriculture during a 9 month excursion to the United Kingdom. While there Buckland would lecture on the resources of Canada and collect articles for an agricultural museum. The Board approved payment of \$2,000 for these services and travelling expenses. See TBAAAUC (Toronto, 1872), v.6, pp. 435-36.
81. "The Agricultural Museum," The Globe (February, 25, 1869), p. 1.
82. "Circular to the Agricultural Societies," The Canada Farmer (July 1, 1868), v.5, #13, p. 200.

83. The Ontario Farmer (April, 1869), v.1, #4, p. 98.
84. See "Report of Reverend W.F. Clarke on Agricultural Education in the United States to the Honourable John Carling, Commissioner of Agriculture," in Hodgins, DHEUC 1871-74, v. 25, pp. 176-87. See also A.J. Madill, History of Agricultural Education in Ontario (Toronto, 1930), p. 148, and "Michigan Agricultural College," The Ontario Farmer (January, 1870), v. 2, #1, pp. 1-3..
85. See T.H. Anstey, One Hundred Harvests (Ottawa, 1986), p. 7, and Reaman, History, v.1, p. 156.
86. John L. Blake, The Farmer's Everyday Book (Auburn, N.Y., 1851), p. iii. This conflict had been recognized in the U.S.A. as early as 1817. Botanist C.S. Rafinesque suggested that while agriculture was beginning to be taught as a science by individuals, "their attempts failed, because the great mass of farmers conceive that they know enough." Cited in Rafinesque, "Survey," p. 84.
87. Blake, Farmer's, p. 45.
88. Ibid., p. 30. Another contemporary, Richard Allen who was editor of the American Agriculturist echoed similar sentiments as Blake on the establishment of agricultural colleges in the United States. He suggested that; "These institutions should be schools for the teachers equally with the taught; their liberally-appointed laboratories and collections should contain every available means for the discovery of what is yet hidden, as well as for the further development of what is already partially known". See Richard L. Allen, The American Farm Book (New York, 1853), p. xii.
89. See Report of the Commissioners Appointed to Enquire Into the Expenditure of the Funds of the University of Toronto (Quebec, 1862), p. 23. This prejudice continued, as President E. Mallory suggested to the provincial Agricultural Association that "book farming and essays upon agriculture have been too often made the theme of decisions". Quoted in The Ontario Farmer (October, 1869), v. 1, #10, p. 295.
90. J.W. Dawson, First Lessons in Scientific Agriculture for Schools (Montreal, 1864), p. 15. Dawson's text remained popular and was revised by S.P. Robins and re-issued in 1897. For Dawson's thoughts on the use of natural history as a branch of education, see J.W. Dawson, "Natural History in Its Educational Aspects," AJE (June, 1857), v. 3, #9, pp. 428-36. For a later article that also connected agriculture with the arts, see "Agricultural, Industrial and Art Exhibitions," Canadian Illustrated News (October 7, 1871), v. 4, #15, pp. 225-26.
91. See "Lectureship on Agriculture in the Normal School," in Hodgins, DHEUC 1869-71, v.22, pp. 44-45. Ryerson made these suggestions to the Commissioner of Agriculture, John Carling in a November 12, 1869 letter. The ideas of American journalist and lecturer Horace Greeley on agriculture, were included in Ontario Readers which were officially sanctioned by the Minister of Education. Greeley postulated that modern agriculture was "a circle of arts - based upon divine law". See Horace Greeley, "Agriculture," Fourth Reader (Toronto, 1885), p. 244. For Greeley's earlier influence, see Horace Greeley, "Why I Want the Boys to Learn Farming," JEUC (March, 1869), v.22, #3, pp. 38-9. For another perspective see "Scientific Education for Women," Canadian Illustrated News (July 2, 1870), v. 2, #1, p. 3.

92. "The Exhibitions," The Ontario Farmer (October, 1871), v. 3, #10, p. 488. The importance of fairs in diffusing agricultural knowledge and as a vehicle for education in North America, continued into the 20th century. See Harlan I. Smith, "The Labelling of Fair Exhibits as an Aid to Agricultural Production," Science (June 21, 1918), n.s., v. 47, #1225, pp. 603-4. See also Walden, Becoming, p. 15, O.A. Howland, "The Canadian Historical Exhibition," The Canadian Magazine (1896), v. 7, pp. 165-70, James Johnson, "A Dominion Exhibition," The Canadian Magazine (1903), v. 21, pp. 234-39, and Norman Patterson, "The Exhibition Habit," The Canadian Magazine (1906), v. 27, pp. 291-98. For a perspective on Canada's continued role at international fairs, see W.R. Stewart, "Canada at the Paris Exposition," The Canadian Magazine (September, 1900), v. 25, #5, pp. 386-403.

93. See Anstey, Harvests, p. 7, and Julie Harris and Jennifer Mueller, "Making Science Beautiful: The Central Experimental Farm, 1886-1939," Ontario History (June, 1997), v. 89, #2, pp. 104-5. Carling and Dr. William Saunders would be the driving forces behind establishing the first Canadian experimental farm in Ottawa in 1886. Saunders visualized having an agricultural museum which would enable visiting farmers the opportunity to compare different varieties of crops grown throughout the country. For more on the federal government's agriculture collections, see D.F. Hardwick, "The History and Objectives of the Biosystematics Research Institute," Entomological Society of Canada Bulletin (1976), v. 8, #2. For more on Carling's efforts to promote the merits of Canada as a destination for farmers, see Emigration to Canada (Toronto, 1869). The philosophy of linking agriculture with industry and rural with urban, would further be developed by Ebenezer Howard in his 1898 publication Tomorrow: A Peaceful Path to Real Reform. See Ebenezer Howard, Garden Cities of To-morrow (London, 1974), and Stephen Bayley (ed.), The Garden City (Milton Keynes, 1975), #23.

94. Archibald McKellar, quoted in the Annual Report of the Commissioner of Agriculture and Public Works for the Province of Ontario 1873 (Toronto, 1874), p. xi. For more on the growth of "scientific farming", see Adam Shortt and Arthur Doughty, Canada and Its Provinces (Toronto, 1914), v. 18, pp. 569-74.

95. Annual Report of the Commissioner of Agriculture and Arts for the Province of Ontario 1881 (Toronto, 1882), p. 443.

96. See Mills' comments in "Agricultural Education," Ontario Agricultural Commission Report of the Commissioners (Toronto, 1881), p.531.

97. Hodgins, DHEUC 1851-52, v. 10, p. 170, and DHEUC 1855-56, v. 12, p. 140. The dismantling of the collection housed at the Educational Museum must have been unsettling for Hodgins. He had acquired models of agricultural equipment and an insect collection at the Paris Exhibition, and a food analysis exhibit from the South Kensington Museum during his European tour of 1867.

98. ARCAAPO 1882 (Toronto, 1883), p. 7.

99. President James Mills, quoted in ibid., p. 38.

100. Ibid., pp. 129-30.

101. Ibid., pp. 133-42.

102. Reaman, History, v.1, p. 106.
103. Haight, Country, p. 168. Advances in scientific agriculture and research leading to progress in this field were promoted through other allied institutions. See James Chessman, "Agricultural Experimental Stations," Rose-Belford's Canadian Monthly and National Review (1881), v. 6, pp. 62-8.
104. Report of the Commissioner of Agriculture and Arts, Appendix B, 1868 (Toronto, 1869). This modest beginning was corroborated by Professor J.H. Panton who recalled that the museum in its infancy had "old cupboard-like cases that stood around the upper class-room". See J.H. Panton, "Museum Evolution," The O.A.C. Review (May, 1890), v.1, #7, p. 59. Panton, who was a Professor of Natural History and Geology, became curator of the museum in 1885.
105. Commissioner of Agriculture, S.C. Woods, quoted in S. Lynn Campbell, "An Ontario Hybrid: The Ontario Agricultural Museum," Proceedings of the 1988 Annual Meeting of the Association for Living Historical Farms and Agricultural Museums (Washington, 1991), v. 11, p. 153.
106. ARCAAPO 1885 (Toronto, 1886), p. 88.
107. Ibid., p. 90.
108. Panton, "Evolution," p. 59. In 1892, the museum was moved to a new building established for the study of botany, zoology and horticulture. The collection was regarded as being useful for teaching and research, and for the education and enlightenment of students and the general public. Microscopic and lantern slides, diagrams and three-dimensional objects were used to make studies "simple, instructive, and popular". See J.H. Panton, "Natural History Department of the O.A.C.," The O.A.C. Review (December, 1893), v. 5, #3, pp. 4-6.
109. "By Our College Reporter," The O.A.C. Review (December, 1898), v. 10, #3, p. 13.
110. ARCAAPO 1892 (Toronto, 1893), p. 23.
111. ARCAAPO 1896 (Toronto, 1897), v. 1, p.6.
112. For information on Panton, see "Unveiling of the Portrait of the Late Professor James Hoyes Panton," Twenty-sixth Annual Report of the Ontario Agricultural and Experimental Union 1904 (Toronto, 1905), pp. 81-4.
113. ARCAAPO 1898 (Toronto, 1899), v. 1, p. 9.
114. In 1910, the collection from Captain Spain's museum in Port Dover was donated to O.A.C. Another significant addition was the Potter wax fruit collection. See J. Whitmore, "The Wax Fruits in the O.A.C. Museum," The O.A.C. Review (May, 1925), v. 37, #9, p. 326 and Campbell, "Hybrid," p. 154.
115. "By Our College Reporter," The O.A.C. Review (April, 1899), v. 10, #7, p. 9.
116. ARCAAPO 1902 (Toronto, 1903), v. 1, p. 10.

117. ARCAAPO 1903 (Toronto, 1904), v. 1, pp. 20-1.
118. ARCAAPO 1905 (Toronto, 1907), v. 1, pp. 46-7.
119. McCready co-authored a publication with W.H. Muldrew, Dean of the Macdonald Institute on the subject of nature study. The bulletin was intended to be kept in schools for permanent reference, and was reprinted by the Nova Scotia Department of Education for this purpose. See W.H. Muldrew and S.B. McCready, "Hints on Making Nature Collections in Public and High Schools," Journal of Education (April, 1907), v. 5, # 5, 3rd series. Charles C. James, formerly Professor of Chemistry at OAC and laterally Deputy Minister of Agriculture for Ontario, also contributed to the literature on scientific agriculture. See Charles C. James, Agriculture (Toronto, 1900).
120. ARCAAPO 1909 (Toronto, 1911), v. 1, p. 36.
121. Information provided by Gloria Troyer, librarian at the Archives Branch of the University of Guelph Library. Cited in Judy Henderson, "The Background and Development of the Ontario Agricultural Museum, Milton, Ontario," unpublished paper, University of Toronto (1987), p. 4.
122. Cited in Campbell, "Hybrid," p. 154. See also R.W. Carbert, "The Ontario Agricultural Museum," unpublished paper, Ontario Agricultural Museum (April, 1974).
123. See Mike Strathdee, "Group Fights for Ag Museum," Kitchener-Waterloo Record (December 22, 1995), p. B5, and "Agricultural Museum Faces Closure," Ontario Museum Association Currently (March/April, 1996), v. 19, #2, p. 1.
124. "Agriculture Museum to be Privatized," Ontario Museum Association Currently (March/April, 1997), v. 20, #2, p. 1.

Chapter 7

Conservation Authorities, Historic Resources and Museums

Introduction

The connection between "harmony with nature", education, and "institutions professedly established for the encouragement of science and art", was made relatively early in the chronicles of Canadian history. In August of 1852, a call was issued to practice conservation and to preserve native specimens by setting aside land for public parks.¹ The establishment of these preserves came barely a decade after approval for Britain's first such venture, Victoria Park in London's east end, and coincided with the beginning of the public park system in the United States.² These early initiatives might have seemed strange in a developing country and in advance of a "conquering civilization" of settlers. However the editor of the Anglo-American Magazine cited attempts in England for the public to derive social benefit and to gain valuable information about natural sciences, through government supported parks and related initiatives. Knowledge could be gained by ascribing to such practices, and readers were exhorted to, "make the attempt to induce our fellow-countrymen, while there is yet an opportunity, to set apart in each of our cities and towns, spacious grounds in which we may preserve specimens of our native woods".³

These initial attempts at nature preservation would prove to be the basis for later initiatives at the provincial level, connected to the mandate of conservation authorities. This chapter will trace chronological events in Ontario, and investigate the role of conservation authorities in the management and operation of historic resources and museums as centres for learning.

Original Impetus

Two important influences often overlooked in the evolution of Ontario museums and historic sites as centres for learning, are the growth of the conservation movement and the work carried out by conservation authorities with their historic resources.

The original impetus for the establishment of conservation authorities came from citizens who were concerned about their environment. During the 1920's and 1930's, extensive deforestation and poor land management practices resulted in severe flooding and massive soil erosion in Ontario. This concern was

coupled with an interest in natural heritage preservation and interpretation and had its genesis in the United States. It was there in the 1890's that the educational value of lands reserved for recreational purposes or as national parks was recognized. The use of interpretation in this context was first attributed to the famous naturalist John Muir during his work in the Yosemite Valley in the 1870's.⁴ The establishment of the U.S. National Park Service (NPS) in 1916, further formalized interpretive activities. Director Stephen T. Mather in his initial report emphasized that "one of the chief functions of the national parks and monuments is to serve educational purposes."⁵

This type of reasoning paralleled a philosophy espoused earlier by the Canadian Dominion Archaeologist, Harlan I. Smith. During the summer of 1913, Smith undertook work to re-arrange and re-organize the collection at the Rocky Mountains Park Museum at Banff, Alberta. Banff was Smith's first step in making "all the museums in Canada progress until the museums are taken seriously, or thronged by people who wish to use them, and until museums in Canada are looked upon as educational institutions of equal value to the people with the library, the schoolhouse and the laboratory."⁶

This initiative addressed the goal of J.B. Harkin, Commissioner of Dominion Parks who wished "eventually that the Dominion Parks should be something like a Chautauqua, that is educational as well as healthful and recreational."⁷

In addition to making the museum more useful with the resources it already had, Smith created an interpretive handbook for the park. Its purpose was;

...to serve as a frame work upon which to build and guide for the future, something to be enlarged and corrected in our next edition and for ever after.⁸

Following the format of his earlier handbook on the archaeology of the interior of British Columbia, Smith viewed such publications as being a part of a series which would give "to the people who pay for the work some of the cream of science, so that they may come to appreciate science and defend it. My idea is not to prostitute science but rather to gain her friends."⁹

The importance of museums as centres for learning and as public educational institutions would remain central to Smith's work during his life time. His philosophy was crystallized in a January 18, 1916 speech

to the Commission of Conservation: "The great value of a museum is to supply practical facts and stimulate public interest."¹⁰

Early Efforts in Ontario

In Ontario the preservation of natural resources and their public use was formally recognized with the passing of the Public Parks Act in 1883. This legislation provided for the establishment of public parks in any town or city. Parks boards were to be set up to administer parks and other improvements such as "museums, zoological or other gardens, collections of natural history, observatories, monuments, or works of art".¹¹

During the 1880's many urban public parks were established as a result of this Act. Desire for and support of such publicly accessible facilities were the reasons for establishing the Queen Victoria Niagara Falls Park in 1887.¹² This first provincial park was followed by the creation of the Algonquin National Park in 1893.¹³ Through the efforts of Alexander Kirkwood, 1,466 square miles of wilderness were set aside as a park and opened for the people of the province to enjoy. Kirkwood's conception of Algonquin was based on his knowledge of British preservation practices and paralleled initiatives taken in the Royal Forest of Dean in Gloucestershire and the New Forest in Hampshire.¹⁴ In 1894, Rondeau Park was opened on the shores of Lake Erie.

The growth of provincial parks up to 1914 would continue to move forward slowly. Most blue collar workers faced a sixty hour, six day work week which resulted in a situation where;

For the great mass of urban labourers and artisans, the notion of outdoor recreation at distant resorts and parks was quite irrelevant.¹⁵

During the twenty years prior to World War I, only two more parks were established. The pressures and dislocations of the war dampened any thoughts of the Conservative government to take further initiatives.

It was only with the election of Ernest C. Drury's Farmer-Labour government in October 1919, that renewed efforts were made to establish more provincial parks. The Premier was a Simcoe County farmer who took pride in his own conservation record and had been an ardent supporter of wasteland reclamation. His Minister of Lands, Forests and Mines, Beniah Bowman, was favourably disposed to setting aside additional lands for the development of provincial parks. Bowman initiated the installation

of a provincial parks' exhibit at the Toronto Exhibition in 1921. The Minister requested that the display be "interesting and educative", and it elicited widespread positive reactions. The Governor General, Lord Byng, said of the exhibit:

This is a revelation and an education to me. To see a section of our northland hastily bundled together in quaint frontier disorder...affording the public an opportunity to catch a breath of the pine, the spruce and the balsam.¹⁶

Another observer questioned;

Why do the teachers neglect this exhibit? Here the children can receive object lessons in one visit, which are a hundred times more impressive, more lasting and more interesting than can be derived in six months' study.¹⁷

At the second annual display in 1922, the public again showed its approval through record-breaking attendance. The exhibit was packed with spectators from its early morning opening until closing at night.

Minister Bowman commented on the educational utility of the exhibit:

The public school teachers of the city embraced the opportunity to bring the children to view these object lessons, many times more impressive and more interesting than those derived from cold prints.¹⁸

During the inter-war years, most new parks were created on an ad hoc basis with no system of interconnection. It was not until the 1930's that preservationists called for a change in the accepted philosophy of use and profit, and fought diligently for a balance between utility and profit on one hand, and protection on the other. It was in this spirit that the Canadian conservation movement would grow and conservation authorities in Ontario were born.¹⁹

Throughout the depression and the Second World War, concerned taxpayers and early environmental organizations demanded that steps be taken to ensure proper conservation and resource management. Because of these pressing problems innovative solutions had to be found. At the forefront of this campaign were the Federation of Ontario Naturalists (FON), the Ontario Conservation and Reforestation Association (OCRA), and the Conservation Council of Ontario (CCA). Conservation was seen to be the concern of everyone. Frank H. Kortright, founder of the CCA, echoed the philosophy that many fellow conservationists espoused during this period:

Civilization has now changed wide areas of this Province into a land of cities and towns, large farms, huge industrial plants, mines, and paper and lumber mills. This is a land largely denuded of its forests; vast areas are eroded and unfit for cultivation or any other purpose; many of its streams are dried up, or polluted to the extent that they can no

longer support aquatic life. In Ontario, we are living dangerously - through the heedless exploitation of natural resources.²⁰

Co-operation between OCRA and FON led to the convening of a conference at the Ontario Agricultural College in Guelph on April 25, 1944. There representatives from various organizations already active in conservation, met to develop an agenda which would investigate the establishment of a Canadian conservation corps and other initiatives connected with conservation and reforestation. The Guelph Conference, as this meeting came to be known, agreed on four major objectives:

- 1) To give coherence and coordination to a programme of conservation.
- 2) To make available to government or municipal bodies the advice and guidance of its members who are recognized as specialists in their respective fields.
- 3) To give impetus in every possible way to implementing recommendations regarding conservation measures.
- 4) To disseminate information relating to the present status of our renewable resources and the need for undertaking adequate measures for their restoration.²¹

Buoyed by the success of the outcome of this gathering, organizers asked Professor A.F. Coventry, an activist with FON and a biologist at the University of Toronto, to write a conference report. The resulting booklet Conservation and Post-War Rehabilitation, pointed to the deplorable state of natural resources in southern Ontario.

Conclusions from this publication noted the serious decline of soil fertility, the lessening of water quantity and quality, the decreasing areas of forest cover, and the increase of erosion.²² These difficulties and the enormity of the problems identified in Coventry's report, emphasized the necessity for an immediate plan of action to be implemented. It was agreed that a demonstration conservation project should be carried out which could form the basis for general application throughout the province. Negotiations with Mitchell Hepburn, Ontario's premier, led to the appointment of an Inter-departmental Committee on Conservation Rehabilitation.

A.H. Richardson, a forester from the Department of Lands and Forests, was appointed full-time chairman of the committee with the responsibility to organize the test survey. The Ganaraska River watershed was

chosen for study and the work of compiling the report was conducted during the fall of 1942 and the spring of 1943. Historian Verschoyle B. Blake was added to the survey team. It was Blake's keen sense of the worth of history and his philosophy of how the conservation ethic could be supported through an understanding of the past, that resulted in the inclusion of an introductory historical chapter in the Ganaraska study. Subsequent conservation reports would also include the historical background of each watershed area studied, as Blake and Richardson believed that in reading the reports the public would find them more interesting and that technical recommendations would be easier to understand. In effect the historical introduction became "the sugar-coated pill, which it was hoped, would stimulate the interest of the reader and entice him to read the report in full."²³ It was in this section that suggestions for the implementation of heritage conservation and the establishment of museums were included. This was the important link which would lead to new innovations associated with educational programmes offered by conservation authorities through their historic sites and museums.

The need for widespread public input and acceptance of the "Conservation Ethic" were themes which dominated other similar publications of the period. Professor A.V. Coventry concluded that;

The success of a programme of restoration and conservation depends on a widespread appreciation of the need for it, and an understanding of the procedures necessary to accomplish it.²⁴

In the Ganaraska Report, a similar stance was taken. In his introduction to this volume, Dr. R.C. Wallace noted that the content would be "of general significance for the conservation and rehabilitation of all our resources throughout Canada." The report was not written solely for the specialist, and Wallace hoped "that this contribution to our literature on conservation will bear good fruit, both in stimulating public interest and in developing programmes ready for action."²⁵ While primarily a study in land use with plans for the rehabilitation of this particular watershed during the post-war period, the Ganaraska Report would become the model for future conservation studies throughout the province of Ontario.

Dr. J.R. Dymond of the Royal Ontario Museum, and secretary-treasurer of the Guelph Conference, saw the study as "a landmark in Ontario conservation literature." He deemed its format and content to be of great educational value, and the general subject dealt with in the report to be "vital to the future welfare of our province." Dymond concluded;

It is therefore of importance that this first report be presented in such a way that it will reach and be understood by as many interested people as possible.²⁶

The establishment of recreational centres and the erection of historical monuments were part of conservation measures identified in the report's final recommendations.²⁷ A lengthy historical section prefaced the survey. These inclusions in the reports during the gestation period of the development of conservation authorities, would prove to be most instrumental in the future growth of museums and heritage resources. An exultant A.H. Richardson noted the support for such measures. He pronounced that "[I]t was evident that here was an open sesame to promote and encourage historical projects in the programmes of the authorities, if they should be formed."²⁸

The Creation of Conservation Authorities

The pressure for more action to be taken on conservation led to the formation of the Department for Planning and Development. The Conservation Branch became an integral part of this new department. One of the first orders of business for the Minister, Dana Porter, was to hold a conference to investigate the needs and new approaches to conservation. The theme of this symposium was river valley development in southern Ontario. Discussion centred around methods to be undertaken in the restoration and preservation of all natural resources in river valleys.

Delegates arrived at a consensus that to be effective with such initiatives, the area of development would have to include an entire river basin. Public involvement and sound planning would become the keystones for future developments. It was resolved that:

Progress depends on ever-widening public appreciation of the need of conservation, so that in time a considerable proportion of the population will come to the conclusion that "something must be done about it." If the conviction is strong enough to go beyond talk, it is the starting point of action.²⁹

Steps to be undertaken included setting up conservation authorities, conducting master plans for each watershed, implementing recommendations coming from these studies, and providing provincial grants to carry out approved schemes. All would come under the provision of the Conservation Authorities Act. This legislation would put into effect a unified programme for the prudent use and rehabilitation of all renewable natural resources in Ontario.³⁰

In November 1944, A.H. Richardson was asked to become head of the Conservation Branch. He immediately began work on drafting Bill 81 which would ultimately become the Conservation Authorities

Act. This act was passed during the 1946 session of the provincial legislature. It embodied three fundamental concepts: local initiative, cost sharing by the province and member municipalities, and watershed jurisdiction. All municipalities in a watershed were required to be included in a corporate body. An integrated approach to conservation was advocated and each authority was encouraged to undertake programmes designed to further conservation, restoration, development and management of natural resources in its watershed.

The establishment of conservation authorities coincided with the need of the provincial government to put soldiers returning from World War II back to work. This mirrored efforts in the U.S.A. which were being undertaken by the Civilian Conservation Corps (CCC). Through the formation of conservation authorities two problems could be addressed: conservation and job creation. While the first objective would be achieved, the second would not. The rapid shift from an agrarian to industrial society negated the need for government make-work projects.³¹

Within five years of the introduction of the Conservation Authorities Act, sixteen authorities were organized across the province.³² This rapid development was indicative of the enthusiasm municipalities had for the new approach to conservation. The Conservation Branch of the Department of Planning and Development undertook a series of preliminary investigations to ascertain the conservation needs of each new authority. The resulting detailed reports outlined proper conservation measures to be followed in each watershed. Technical teams headed by A.H. Richardson produced conservation reports which highlighted land use, forestry, hydraulics, wildlife, and recreation. Incorporated into each report was a study covering the history of the specific geographical area being investigated. This historical research served as a backdrop to the varied technical and conservation issues related to the watershed. Lessons could be learned from looking at past practices. Such knowledge could be profitably utilized to promote the "Conservation Ethic." Richardson spelled out the reasoning behind this tactic:

Experience has shown that this fresh approach is of great interest to a large section of the public, and especially to the inhabitants of regions dealt with in the reports. It often serves to promote an interest in conservation among people who would otherwise remain indifferent or even hostile to it.³³

A chronological progression of historic sites and museum development under the management of conservation authorities can be charted from information contained in these early reports. The Don Valley Conservation Report (1950), suggested that co-ordinated efforts be made to protect and preserve

houses, churches, mills, and other historical sites within the Don River watershed. A recommendation was put forth for the establishment of a farmers' museum where heritage buildings could be moved into one area or "village". This facility would be used as a repository for equipment, utensils, tools and vehicles of historical interest.³⁴

The Moir Valley Conservation Report (1950), noted that "relics of the past" such as churches, mills and village groupings were of increasing interest to visitors. These resources added considerably to the attraction of the watershed. The preservation of such resources was recommended as one aspect of the authority's overall conservation effort. The site and buildings of O'Hara's Mill in Madoc Township were to be acquired and preserved because of their exceptional historical merit. It was acknowledged that;

Future generations would reap the greatest value from any effort which the Conservation Authority might make to further preservation of the buildings.³⁵

Coinciding with these two ventures was the release of the Report from the Select Committee on Conservation. Commissioned by Premier T.L. Kennedy, this study put forward a practical and workable plan of action. Of impressive proportions, this document presented eighty-seven major recommendations which defined the huge area of responsibility associated with conservation measures and the negative impact resulting from the lack of them.

In the recommendation section of the report, it was noted that erosion control demonstrations, examples of good land and forestry practices, and historic sites, all excite general public interest.³⁶ The chapter on conservation and schools recommended that the teaching of history should serve to illustrate the use and abuse of the natural environment. The definition of heritage was broadened to encompass the renewable resources of soil, water and forests.³⁷

Public reaction to this study was most favourable. The Globe and Mail regarded it as "a milestone in the development of a Provincial conservation policy."³⁸ Frank H. Kortright, president of the Toronto Anglers' and Hunters' Association, viewed the "excellent report" as part of a much desired "Big Plan."³⁹ The development of historic sites and museums by conservation authorities would be further enhanced through the recommendations made in this report because of its wide circulation and quasi-governmental approval.

In 1952, two more conservation reports were issued. The Upper Thames Valley study promoted the use of historic sites, identified public interest in local history, suggested that the Byron Mill be purchased and preserved, and recommended that cairns or markers be erected at points of significant historical value in this watershed.⁴⁰

The Saugeen Valley study took a more pro-active approach. It advocated for the preservation of records, buildings and objects which illustrated the history of the Saugeen Valley. The conservation authority pledged to take measures to preserve and care for these cultural resources in libraries, museums and archives. Where such facilities were part of or near properties acquired by the conservation authority, they would be incorporated into the development scheme of that area. Archaeological investigations would be undertaken prior to any site development, and care would be given to the restoration of historic buildings back to their original state. A museum function was cited as some of these buildings would "be used to house collections of objects of domestic, agricultural and industrial use and documents illustrating the history and development of the area." In addition, an active historical plaquing programme would be instigated to mark the sites of the earliest mills, churches and taverns.⁴¹

As the number of conservation authorities grew, so did the recommendations related to heritage and museums under their jurisdiction. In 1953, the Upper Holland Valley Report suggested:

That where records, buildings and objects of sufficient interest exist, illustrating the life of the watershed during the period of development, the preservation of these relics be considered an aspect of conservation; and that where such records and other relics are the private property of individuals and corporations within the watershed, the Authority take definite measures to encourage their preservation by their owners or their commitment to proper care in libraries, museums, archives and other suitable repositories.⁴²

Additional reports written up to 1962 by staff of the Conservation Branch, echoed similar sentiments.⁴³ Most noteworthy were recommendations made in the 1954 Grand Valley study and the first annual report of the Metropolitan Toronto and Region Conservation Authority issued in 1957.

The Grand Valley document rated the preservation of historical material and buildings as an important component of a comprehensive recreation programme. A knowledge of history was viewed as a "source of pride" for people in the watershed, was identified as "an important inspiration for future

accomplishments," and had immediate application to the solution of conservation problems of the day. Such initiatives were seen as an integral component of this conservation authority's mandate.

The report urged that the authority preserve significant monuments of cultural heritage for "enlightenment and enjoyment." Co-operation with local historical societies was advised, and the marking of historical sites would be within the mandate of a newly created Historical Sites Advisory Board.⁴⁴ One of the twelve conservation aims of this authority was the preservation of historical sites relating to natural resources. An authority handbook concluded that:

It is considered important that natural scenic areas because of their topography and location, or historical significance should be set aside for public use.⁴⁵

This combination of the preservation of natural and cultural heritage of the Grand watershed, would help in the development of Doon Pioneer Village by the Grand Valley (now Grand River) Conservation Authority.

In 1957, the Metropolitan Toronto and Region Conservation Authority (MTRCA) was created through the merger of the Humber Valley, Etobicoke-Mimico, and Rouge, Duffin, Highland and Petticoat Authorities. An Historical Sites Advisory Board was formed and given the tasks "to preserve, restore and record significant landmarks and to establish museums and demonstration areas."⁴⁶ This process was a continuation of the work begun by the Humber Valley Conservation Authority in 1954, with the founding of the Dalziel Museum.⁴⁷ The objectives of the advisory committee were threefold: to relate land use progress by re-enacting early history of the area, to make residents of the watershed aware of their heritage, and to provide visitors from other countries with an insight into the origin of pioneer traditions. Plans called for the further development of the Dalziel Museum through the acquisition of more artifacts and the inclusion of additional exhibits. The establishment of a re-created pioneer settlement with the purchase and restoration of the Stong complex of buildings, would constitute the nucleus of Black Creek Pioneer Village. This site would form part of an integrated programme of conservation. In addition the progressive plan for plaquing historical landmarks would be carried out in conjunction with the Toronto Historical Committee and the Ontario department of Travel and Publicity.⁴⁸ The preservation of cultural heritage by the MTRCA for future and present generations, remained a central tenet in the progressive development of one of Ontario's earliest living history museums.⁴⁹

Into the 1960's

By 1960, five conservation authorities had become actively involved in the development of full scale museum facilities. A.H. Richardson and his staff at the Conservation Branch were still intimately associated with such projects. They ardently pursued the philosophy which had been initially introduced with the founding of the first conservation authorities.⁵⁰ Branch historian Verschoyle Blake further expounded upon this matter:

We need something more than archives to tell us how our forefathers lived. To know this, we must preserve buildings, furniture and tools. We must know how these things were made and the way they were, and the uses for which they were intended. To read this in books and pictures is a good thing, but it is infinitely better to preserve some of these things themselves. To let these be lost through our indifference is to deprive future generations of a heritage to which they are entitled.⁵¹

Very few government agencies however were involved in this type of work, and efforts by fledgling conservation authorities to preserve heritage resources filled a vacuum.⁵² Government policy seemed to give tacit support this type of initiative by extolling the virtues of history. It was viewed as "a starting point for each separate division of the conservation study."⁵³ But to what extent was the encouragement for and support of museums and historical sites operated by conservation authorities, influenced by individuals such as Richardson and Blake?

The growth of a supporting philosophy to bolster interpretive programmes in Ontario parks and conservation areas, evolved from the pioneering efforts of Dr. J.R. Dymond. Others soon followed in his steps. Geographer Alan Helmsley who joined the Department of Lands and Forests in 1955, built upon Dymond's work and began to establish interpretation as an essential part of the provincial parks system. His interpretive programmes and the use of ideas from the U.S. National Parks Service resulted in a widened focus which included human history, archaeology, outdoor exhibits and museum development. Helmsley's 1960 Manual of Park Interpretation set directions that would be followed even after his departure in 1965.⁵⁴

Another tremendous influence was the work carried out by R. Yorke Edwards. As an interpretive innovator in the British Columbia park service, Edwards had initiated B.C. park interpretation in 1957. He regarded it as an information, guiding, educational, entertaining, propaganda and inspirational service. Interpretation was intended to improve people's knowledge and to open the minds of visitors through

interesting signals that parks were constantly sending.⁵⁵ Learning was seen as something that everyone did daily, and park interpretation could become the vehicle for this pleasant and exciting experience. Whether preserving the recent historic past or natural heritage, Edwards viewed parks as public places having "a major value in being yesterday's habitats available today."⁵⁶ It was around these principles that Edwards developed interpretive techniques that would have wide ranging influence on such programmes throughout Canada.

In 1962, A.H. Richardson retired after forty-one years of service with the provincial government. In that year, the ministry acknowledged that the development of historic sites and museum villages had attracted much public attention. Statistics showed that over 150,000 visitors, a large number of them being school children, had used these facilities during 1962. It was clearly pointed out however, that these developments were financed entirely by the conservation authorities from municipal revenues, and that this type of operation was not eligible to receive provincial grants from the Department of Lands and Forests.⁵⁷ Some dollars were freed up through water management and recreation funding, but the majority of expenses associated with the development and operation of conservation authorities' museums and historic sites were dependent upon municipal levy.

The lack of provincial government support and the resulting shortfall of capital required by conservation authorities to proceed with museum projects, would lead to serious problems in the future. The former emphasis on the importance of heritage would begin to evaporate. Museums and historic sites would no longer be considered as part of the mandate of Ontario conservation authorities by the provincial ministry to whom they reported. As a result, numerous conservation authorities which were involved with such projects began to express their consternation. They believed that historic sites and museums should be considered as an integral part of their overall operation, and should therefore be eligible for provincial government funding assistance.⁵⁸

A.S.L. Barnes, who had replaced Richardson as Director of the Conservation Authorities Branch, expressed quiet optimism about the importance of history. He noted that several conservation authorities had asked for assistance in the preparation of historical reports. He surmised:

Probably, as the years pass, this aspect of the section's activities will increase, as past achievements will become part of the historical record.⁵⁹

Changes in the 1970's

Within the Ministry of Natural Resources (MNR) there was evidence of additional support for more attention to be given to historical sites. During 1970-71, the Parks Branch pressed for a larger role in the cultural resources field. By 1972, an Historical Sites Branch was created within the Parks Division. It had the responsibility for the development and operation of Sainte Marie Among the Hurons, the Penetanguishene Naval and Military Establishment, and Old Fort William, and for carrying out interpretation, planning and historical research.

Tom Lee, Director of the Park Planning Branch, supported a new parks classification system and agreed that historical parks should be included. This initiative was viewed as a way to become more business-like and followed guidelines established by the Committee on Government Productivity to streamline the workings of government departments.⁶⁰

The government passed the Historical Parks Act (1972) which authorized cabinet to use public lands for the creation of historical parks. Staff in the Historical Sites Branch began to develop an historical systems plan entitled, A Topical Organization of Ontario History. This plan would identify and protect important historical resources throughout the province.

This was seen to be integral to the mandate given to MNR in 1972; to conserve and present historical resources as part of its programmes of outdoor recreation and management of crown lands.⁶¹ Bob Bowes, then director of the Historical Sites Branch suggested that:

Although our orientation was towards historical parks, we also realized that other historical resource programmes such as archives, museums, restored historical buildings in urban settings, existed in government.⁶²

Paradoxically these advances in heritage preservation through MNR came to an abrupt end. The provincial government began working on a draft of a new Heritage Act. A team including Dick Apted and Richard Rogers from the Ministry of Colleges and Universities and William Cranston, Chairman of the Archaeological and Historic Sites Advisory Board under the direction of Malcolm Rowan in the Cabinet Office, shepherded this legislation through parliament. This resulted in the creation of the Ministry of Culture and Recreation (MCR) in 1975. In a climate characterized by "internal territorial manoeuvring,"⁶³ Rowan was moved from Cabinet Office to become deputy minister of the newly created

ministry. He was credited for doing most of the work in assembling the ministry which would consolidate all heritage ventures into one portfolio.⁶⁴ The Historical Sites Branch was subsequently moved to this newly created ministry. Now lacking resources and specialized staff, the MNR Parks Division deleted historic parks as a separate component of the provincial parks system. Recommendations contained in the Topical Organization of Ontario History report were shelved and never implemented.⁶⁵

All heritage initiatives became the mandate of the Ministry of Culture and Recreation. With this change the concept of heritage parks under the aegis of MNR was concluded. Support for enhanced linkages between conservation authorities, heritage resources and the Ministry of Natural Resources were weakened.⁶⁶ The separation of heritage from the Ministry of Natural Resources lessened the support afforded it by conservation authorities.

During this same time period, attempts by conservation authorities to have their role in heritage preservation and museum development recognized and accepted were being initiated. At their 14th biennial conference held in Ottawa in September of 1974, the following motion was unanimously carried by all authorities present:

Whereas there is an ever-increasing interest by the people of Ontario in preserving important parts of our historical heritage; Therefore be it resolved that the Minister of Natural Resources be requested to provide 50 percent grants for the acquisition, restoration and operation of historic structures and sites where the historic features form an integral part of a Conservation Area project.⁶⁷

The Metropolitan Toronto and Region Conservation Authority (MTRCA) continued to lobby government for support of this stance. MTRCA officials made the argument that conservation authorities were the result of a union between the province and municipalities, not municipalities and ministries. Therefore conservation authorities believed that they should be eligible for funding from all government ministries, and not only MNR.

On May 7, 1975, representatives met with the provincial culture minister, Robert Welch, to discuss the issue of funding assistance. A week later, Welch wrote to the natural resources minister, Leo Bernier about the matter:

I can speak for my Ministry and the Ontario Heritage Foundation in saying we expect to make more capital assistance for the conservation authority projects having a large element of historic preservation and building restoration. I am less certain we can assist these museums above the level of operating grants we provide to historical museums, even though the grants we may be able to provide may not be adequate for operations on a larger scale. I hope your Ministry will be able to review its present position on operating grants and respond to conservation authorities' need for funding.⁶⁸

Bernier's response to Welch acknowledged the motion made by conservation authorities at their 1974 conference. He further stated:

I am in full agreement that the matter of grants to historic developments should be reviewed not only by my Ministry, but also by yours on behalf of the government. We need to develop some policy of whether or not grants are to be paid by some ministry and if so, on what kinds and types of projects.⁶⁹

Beginning of the Decline

Sadly no positive directions resulted from these discussions. Instead inter-ministerial rivalries and provincial bureaucracy in the 1970's, together with economic recession in the 1980's, severely limited the role of conservation authorities. The Ministry of Natural Resources "straightlined" the budget allocated to conservation authorities and shifted its grant structure by placing priority on water management. Even the format of the conservation reports changed, as the historical foreword was no longer written as an introduction to these studies. As a result, no leeway was left for conservation authorities to look to the Ministry of Natural Resources for assistance in continuing with extensive undertakings related to museum and historical site development and operations.⁷⁰

However some help was to come from another provincial source. In 1980, Reuben Baetz, the Minister of Culture and Recreation, unveiled the Community Museum Policy for Ontario. This document outlined the provincial government's commitment to supporting community museums throughout Ontario. In 1981, Standards for Community Museums were introduced and a Regulation Governing Grants to Community Museums (O.Reg 398/81) was passed in the provincial legislature. This statutory funding programme enabled the Minister to make yearly operating grants payable to eligible applicants. Money allocated was to help offset museum operating expenses. Conservation authorities were identified as one of the five eligible applicant groups. Internally, staff at MCR believed it was important to include conservation authorities in this new Regulation because of the historic sites, museums and heritage

resources that they already managed. Ongoing operating funding assistance would be critical to the understanding of and protection for these resources within the mandate of conservation authorities.⁷¹ In the first grant run offered through this programme, thirteen conservation authorities which operated fourteen museum facilities were awarded funding.⁷² They constituted 6.76% of the total number of community museums in Ontario in 1981.

The Ministry of Culture and Recreation and the Ontario Heritage Foundation (OHF) recognized the considerable opportunities for conserving the province's heritage through programmes offered by conservation authorities, and worked closely with these bodies by providing museum grants, archaeological surveys, architectural conservation grants, commemorative plaques and conservation planning for industrial monuments. In 1979, MCR encouraged authorities to increase their commitment to heritage conservation and interpretation.⁷³

Continued adherence by the Ministry of Natural Resources (MNR) to stringent policy guidelines and constraints on transfer payments, would result in a decline in the number of museums and historical sites operated by conservation authorities. In 1982, Minister Alan Pope, circulated a memorandum to all conservation authorities. It reiterated that their mandate encompassed only water and related land management activities. Pope noted that some conservation authorities had become involved in operating a variety of historical, educational and recreational facilities, and in some instances these initiatives had become "an entity unto themselves and the fundamental theme of water management has been lost." The Minister pointed out that under the Conservation Authorities Act, he must approve of every authority project, whether MNR funding was given or not. He warned chairmen of each conservation authority that they must ensure that "primary responsibilities" were met, and that the major efforts of conservation authorities would be concentrated on water management activities.⁷⁴

Programme-specific policy directions for local government transfer payments were further defined in a 1983 document entitled Preliminary Provincial Policies for Conservation Authorities. Activities related to the conservation of land and water resources were deemed eligible for funding support, but other initiatives such as heritage conservation and outdoor education field schools were not. Conservation authorities were given permission to implement programmes and projects not covered in the authorized policy sections of the report, but they had to seek approval from the Minister of Natural Resources to

negotiate with other lead agencies for both the responsibility and the funding to implement such programmes.⁷⁵

This position did not auger well for any expansion of museums and historic sites within the jurisdiction of conservation authorities. Even the faint glimmer of hope for funding assistance as part of the community relations function of conservation authorities was extinguished. A report on this matter had been prepared by consultants. Heritage initiatives were included as part of the environmental and conservation education mandate, but in final consideration by MNR the contents and recommendations of this study were not accepted nor included in ministry policy documents.⁷⁶ One observer commented on the government's role in the entire process:

Repeated attempts over the past ten years to define a formal role for conservation authorities, which would involve limiting their activities largely to water management, have failed miserably because of opposition from authorities.⁷⁷

In 1987, an Inter-ministerial Steering Committee established by the subsequent Liberal government, made a further attempt to stipulate the mandate of conservation authorities. In A Review of the Conservation Authorities Programme, (Burgar Report), heritage conservation was identified as one of the many activities that conservation authorities were engaged in. Conservation authorities owned and operated eleven community museums which had a combined annual attendance of approximately 400,000 visitors. These museums received \$325,000 in operating grants from the Ministry of Culture and Communications. In addition, conservation authorities acted as custodians for the Ontario Heritage Foundation, by managing fourteen properties totalling 750 hectares. This report presented recommendations which directed conservation authorities towards very specific roles. The authorities would have limited responsibilities for heritage conservation. They would however be allowed to continue to be involved in the restoration, operation, and maintenance of established community museums and historic buildings that they already owned. Conservation authorities would also be responsible for the protection and preservation of significant archaeological sites located on their properties. The lead Ministry was identified as Culture and Communications (MCC), and any expanded efforts by conservation authorities in the heritage conservation area would occur only at existing sites with approval from MCC.⁷⁸

Still no final decisions were made. After wide circulation of this document another parliamentary

committee was formed to review issues that had not been resolved. Recommendations coming from this report were set out in Conservation Authorities Program Review-Outstanding Issues (Ballinger Report).⁷⁹

In this report the mandate of conservation authorities was differentiated as core and non-core. Core mandated activities could be funded by provincial transfer payments, local levies and user fees and other generated revenues. Non-core mandated programmes were not to be supported by transfer payments, but instead had to rely on funding from other ministries, agencies, municipalities and user fees. Heritage conservation projects were regarded as non-core, essentially optional and not eligible for transfer payments from MNR. Conservation authorities anticipated that heritage resource projects would be designated as "secondary programmes," and predicted that additional funding support would have to come for such projects from member municipalities.⁸⁰

In a cabinet submission dated October 31, 1989, these recommendations were supported. This document pointed to the long and successful partnership of the province and municipalities in the operation of conservation authorities. It outlined concerns about the ability of conservation authorities to deliver programmes in a consistent, equitable and cost effective manner. It noted that; "During the last decade, at least six reviews, briefs or sets of recommendations proposing changes to the conservation authorities program have been formulated. However, no changes have been made."⁸¹ It concluded that conservation authorities could continue to make meaningful contributions to natural resource management, only with restructuring and refocusing. These measures were expected to enhance the effectiveness, efficiency and accountability of Ontario conservation authorities. Transitional funding for a two year period was suggested to assist amalgamated and restructured conservation authorities in implementing the recommended changes.

Government Response in the 1990's

With the election of the New Democratic Party (NDP) in the fall of 1990, yet another chapter in the story of conservation authorities, historic resources and museums in Ontario began to unfold. From some quarters, conservation authorities were seen as "resting places" for former Conservative party politicians. The NDP was very wary about partnerships that were not directly controlled by the central provincial

government. It wanted to play the lead role in making decisions on how provincial grants from MNR would be spent by conservation authorities.

The announcement of further funding constraints to all public bodies in April of 1993 meant the use of limited financial resources in a more efficient manner would become a central tenet for conservation authorities to operate by.

An inefficient and ineffective system for the delivery of resource management in Ontario could not be supported. Instead, a grass roots, cost-effective model which could lead to reductions in overall public expenditures was advocated. Resource management by conservation authorities would be planned on a watershed ecosystem basis. Resource management and environmental protection would become the central mandates of all conservation authorities.⁸²

These directions left little room for consideration of historic resources and museums operated by Ontario conservation authorities. In a position paper presented to the provincial government in May of 1993, conservation authorities identified co-ordination of watershed planning and related resource management initiatives to be their primary role.⁸³ No mention of historic resources or museums was made in this plan for an integrated ecosystem based management approach. Similar sentiments were echoed by the Association of Conservation Authorities of Ontario (ACAO) in a written brief to Howard Hampton, then Minister of Natural Resources.⁸⁴ It provided further elaboration to points made by conservation authorities in "A Blueprint for Success," by proposing a model which would result in increased efficiencies in the delivery of services offered through partnerships between conservation authorities, municipalities and community groups.

The focus of this submission was for conservation authorities to reduce existing overlap, duplication and gaps in resource management programme delivery. Conservation authorities would manage natural resources and regulate flood plains, valleys and water courses as their basic responsibilities. Their central mandate would be to co-ordinate watershed strategies, to develop watershed plans in co-operation with municipal partners, and to implement provincial recommendations. Conservation authorities would in effect assume the role of an environmental delivery agency for managing natural resources on a

watershed basis. No provision was made for museum or cultural history conservation projects as part of a vision for the future role of conservation authorities in Ontario.

This natural resource management role was further enunciated in a provincial government discussion paper which set out a framework for direction for the Ministry of Natural Resources in the 1990's. Conservation authorities were viewed as one of the Ministry's partners when implementing resource management initiatives. Their role was deemed to be significant in the facilitation and co-ordination of the watershed planning process which would include natural resource management, environmental protection and growth and development planning.⁸⁵

The final chapter in this saga was the passing of the Omnibus Bill (Bill 26) in February of 1996. The newly elected Conservative government in its attempts to reduce the provincial deficit, slashed direct funding to conservation authorities by 50%, and called for further cuts in 1997. Provincial funding which represented 35% or more of many authorities' budgets would be reduced to a total of ten million dollars, or one-tenth of what it once was. Funding would be limited to the operation and maintenance of flood-control structures, and the payment of property taxes on provincially significant conservation lands. As a result, education and recreational services were eliminated, and in many cases substantial reductions to the staff at museums and historic sites put the operation of such facilities in jeopardy. An ironic end to a co-operative venture begun fifty years ago!⁸⁶

Conclusion

What conclusions can be drawn about the impact of both the conservation movement and the role of conservation authorities on the evolution of museums and historic sites as centres for learning in Ontario? While the most recent focus of conservation authorities was primarily related to issues and initiatives related to water and land management, they helped to create a legacy of heritage conservation to the province which should not be overlooked nor forgotten.

Early efforts to preserve local heritage resources, to build museums, and to interpret and educate through these facilities, were instrumental in the development of numerous community museums throughout the province. While this role was never clearly articulated officially sanctioned, nor mandated through government directives, it was generally accepted. Initiatives were based on individual conservation

authority's interests and needs, and implemented at different periods in time with varied degrees of results. Even when somewhat reluctantly agreed to, this "accidental offshoot" for conservation authorities often resulted in significant outcomes.⁸⁷ While now more often viewed as a non-essential part of the operations of today's conservation authorities, museums and historic sites play a reduced but highly visible role in ongoing efforts to promote the "Conservation Ethic". They will continue to provide venues for education and learning in the 1990's and into the next century,⁸⁸ and constitute an important component in the chronicles of museums and education in Canada.

End notes

1. "A Plea for Parks," The Anglo-American Magazine (August, 1852), v.1, #2, pp. 156-58.
2. J.R. Wright, Urban Parks in Ontario: Origins to 1860 (Ottawa, 1983), p. 17.
3. "Plea", p. 158. Such efforts were aimed at "infusing taste and winning the thoughtless to better ways." English examples cited which aroused "a taste for those pursuits which elevate the whole man," included Birmingham, Manchester and London.
4. C. Frank Brockman, "Park Naturalists and the Evolution of the National Park Service Interpretation Through World War II," Journal of Forest History (January, 1978), v.22, #1, p. 26.
5. Quoted in ibid., p. 29. For the definitive work on museums in the N.P.S., see Ralph H. Lewis, Museum Curatorship in the National Park Service 1904 - 1982 (Washington, 1993). For the history of Canada's National Parks, see Sid Marty, A Grand and Fabulous Notion (Toronto, 1984).
6. Smith to William Peterson, McGill University, Montreal, Quebec, October 14, 1914. Harlan I. Smith Collection, Canadian Museum of Civilization, Box 216R, Folder 10.
7. Harkin, quoted in ibid. Harkin also pressed for the creation of historic parks, rationalizing their usefulness as "places of resort by Canadian children who, while gaining the benefit of outdoor recreation, would at the same time have opportunities of absorbing historical knowledge." Quoted in C.J. Taylor, Negotiating the Past (Montreal, 1990), p. 29.
8. Smith to Walter Hough, U.S. National Museum, Washington, D.C., April 6, 1914. HSC, Box 216, Folder H.
9. Ibid. Smith is credited for developing the first interpretive handbook for use in Canadian parks. See Handbook of the Rocky Mountain Park Museum (Ottawa, 1914).
10. Harlan I. Smith, "Museums as Aids to Forestry," Scientific American Supplement (May 6, 1916), v.81, #2105, p. 297.
11. Cited in J.R. Wright, Urban Parks in Ontario: The Public Park Movement 1860-1914 (Ottawa, 1894),

p. 108. For insight on the development of the first urban parks in Toronto, see David Bain, "The Early Pleasure Grounds of Toronto," Ontario History (Autumn, 1999), v. 91, #2, pp. 166-82.

12. E.A. Meredith, "The Queen Victoria Niagara Falls Park," The Canadian Magazine (1897), v.9, pp. 228-39. See also Thomas W. Gibson, "Provincial Lands Reserved for Parks and Game Purposes," in Handbook of Canada (Toronto, 1897), pp. 221-24, and Ronald L. Way, Ontario's Niagara Parks: A History (Niagara Falls, 1946), pp. 136-51.

13. C.R. Tilt, Provincial Parks in Ontario (Toronto, 1959), pp.7-9. For a contemporary account on establishing this National Park, see James C. Hamilton, The Georgian Bay (Toronto, 1893), pp. 150-53.

14. D. McConnell, Provincial Parks, 1893-1954 (Toronto, 1965), p. 3. For more information on the concept of the New Forest, see John R. Wise, The New Forest, Its History and Scenery (London, 1863); F.E. Kenchington, The Commoners New Forest (London, 1943), and H.L. Edlin (ed.), New Forest Forestry Commission Guide (London, 1969). Preservation practices were also given special provision in the establishment of federal parks. See J. Jones Bell, "In Canada's National Park," The Canadian Magazine (1893-94), v.2, pp. 265-69, A.M. Burgess, "Lands Reserved for Parks, in Handbook of Canada (Toronto, 1897), p. 198, and Elihu Stewart, "The Conservation of Natural Resources," The Canadian Magazine (1909-10), v.34, pp. 217-20.

15. Gerald Killan, Protected Places (Toronto, 1963), p.21. Severe recession in 1913 and the start of World War I marked the end of the initial period of growth of public parks in Canada.

16. Quoted in Report of the Minister of Lands, Forests and Mines 1921 (Toronto, 1922), pp. 11-12.

17. Dr. Powell, quoted in ibid., p. 12.

18. Quoted in Report of the Minister of Lands and Forests 1922 (Toronto, 1923), p. 12.

19. Killan, Protected, p. 57. For more information on the early Canadian conservation movement, see George Altmeyer, "Three Ideas of Nature in Canada, 1893-1914," Journal of Canadian Studies (August, 1976), v.11, #3, pp. 21-36. See also Ron Thoman, "Where Do We Go From Here," Journal of Interpretation (1988), v.12, #1, p. 9, on interpretation as an instrument of preservation in the U.S. National Park Service.

20. Frank H. Kortright, Ontario's Future? Conservation or Else (Toronto, 1940), p. 2. The conservation movement in Ontario began in the late 19th century. It was acknowledged that; "The early conservation impulse spread widely in reaction to the intense urban and industrial growth of the period, and the resulting destruction and exploitation of Ontario's natural, scenic, and recreational resources." See Gerald Killan, Protected, p. 1.

21. Cited in A.H. Richardson, Conservation by the People (Toronto, 1974), p. 10.

22. For more information on recommendations coming out of the Guelph Conference, see A.F. Coventry, Conservation and Post-War Rehabilitation (Toronto, 1942). In some quarters deforestation was viewed as a national problem. See P.S.H., "Forest Destruction," Rose-Belford's Canadian Monthly

and National Review (1879), v.3, pp. 136-45.

23. Richardson, People, p. 101. Richardson had previously promoted the use of both natural and historical resources in public education. See A.H. Richardson, Trees for Schools (Toronto, 1933), A.H. Richardson, Dufferin and Grey Counties Forestry Field Day (Toronto, 1939), and A.H. Richardson, School Forestry Clubs (London, 1942). The provincial Department of Lands and Forests had realized early on the importance of awakening and enlightening the public to resource conservation. Beginning in 1921, the Department staged an exhibit at the Toronto Exhibition which became a popular annual event. In 1941, an Information and Education Section was formed to help create a new attitude towards the use and management of natural resources. See Richard Lambert, Renewing Nature's Wealth (Toronto, 1967), pp. 534-35.

24. Coventry, Rehabilitation, p. 14. The British plan for restoration and conservation was referred to as a possible model to follow in Canada.

25. Cited in Summary of the Ganaraska Report (Toronto, 1944), p. 7.

26. Cited in Richardson, People, p. 17. See also R.F. Legget, "Conservation in Southern Ontario," in Conservation in Eastern Ontario (Toronto, 1946), p. 17. Dymond was a pioneer in offering interpretive programmes at provincial parks. He began nature education programmes at Algonquin in 1943 and introduced field trips and nature talks in 1944. From his initial efforts, interpretation in Ontario parks would develop into sophisticated and extensive educational programmes. See McConnell, 1893-1954, p. 25.

27. See A.H. Richardson, A Report on the Ganaraska Watershed (Toronto, 1944), p. 221, and Summary, pp. 14-15.

28. Initial discussion about the inclusion of the historical section in this report has led a majority of committee members to question its relevance to conservation. In his role as chairman, Dr. R.C. Wallace argued forcefully that the historical section was germane, and ruled that it should be retained in the final volume. See Richardson, People, p. 104.

29. Cited in A.F. Coventry, The Need of River Valley Development in Ontario (Toronto, 1944); p. 14.

30. Paul Masterson, Herbert Richardson (Richmond Hill, 1992), p. 55.

31. Interview with Bob Burgar, May 2, 1994. Burgar was the former Director of the MNR Conservation Authorities Branch, and subsequently the MNR Assistant Deputy Minister from 1982-90.

32. The first three authorities to be organized through the Conservation Authorities Act were the Ausable, Etobicoke, and Ganaraska in 1946. They were followed by the South Nation, Moira, Napanee, and Upper Thames in 1947, the Grand, Don, Humber and Big Creek in 1948, the Mimico Creek, Catfish Creek, and Saugeen in 1949, and the Upper Holland and Middle Maitland in 1951. The prototype for all conservation

authorities in Ontario was the Grand Valley Conservation Commission, established in 1938 by an Act of

Parliament.

33. A.H. Richardson, Conservation Authorities in Southern Ontario (Toronto, 1953), p. 17. See also A.H. Richardson, "Ontario's Conservation Authority Program," Journal of Soil and Water Conservation (1960), v. 15, p. 254. As a senior government bureaucrat, Richardson could make decisions which would be implemented because of his authority. He also had a budget which could be expended to carry out the initiatives that he introduced. Interview with Bob Bugar, May 2, 1994.
34. Don Valley Conservation Report (Toronto, 1950), p. iv. This was the first mention of the development which would later become Black Creek Pioneer Village.
35. Moir Valley Conservation Report (Toronto, 1950), pp. iv-v & 28-29. For additional information on the use of O'Hara Mill as "a historical monument," see O'Hara Mill (Belleville, 1955), p. 5.
36. See Report from the Select Committee on Conservation (Toronto, 1950), p. 153.
37. Ibid., pp. 160 & 181.
38. Cited in "Milestones in Conservation," The Men of Trees (April, 1950), p. 3.
39. Frank H. Kortright, This Conservation Business - Are We Progressing? (Toronto, 1951), p. 7. This report became a valuable source of procedure in the formation of conservation authorities. See A.H. Richardson, "Looking Back," Watersheds (December, 1966), p. 11.
40. Upper Thames Valley Conservation Report - Summary (Toronto, 1952), p. 198.
41. Saugeen Valley Conservation Report (Toronto, 1952), pp. 1-3.
42. Upper Holland Valley Conservation Report (Toronto, 1953), p. 1. The development of interpretive programmes at provincial parks appeared to run in tandem with initiatives taken by conservation authorities. Beginning in 1954, such programmes provided the visitor with "the key to the park environment and enables him to understand the points of greatest interest and inspiration. It enlarges the visitor's experience and presents the park environment and its complexities of nature in recognizable and understandable terms." Cited in A.F. Helmsley, Manual of Park Interpretation (Toronto, 1960), p. 1.
43. Heritage preservation and museum development issues were mentioned in reports on the Credit Valley and Rouge, Duffin, Highland and Petticoat Valley in 1956, Napanee Valley and Otter Creek in 1957, North Grey Region in 1959 and Spencer Creek in 1962.
44. Grand Valley Conservation Report (Toronto, 1954), p. 4 & pp. 126-128. The destruction caused by Hurricane Hazel in 1954 also had an impact on the importance of the work done by all conservation authorities and their rapid growth. It was a catalyst for an increased focus on watershed management including the preservation of natural and heritage resources.
45. Conservation: A Handbook for the Aims and Objectives of Conservation (Galt, 1954), p. 4. For more information about Doon Pioneer Village, see Doon Master Plan Study (Cambridge, 1979).

"Provincial Rural Life Museum," Annual Report of the Waterloo Historical Society (1953), v. 41, pp. 31-38, and Mary Tivy, "From Memory to History: Recreating the Past at Doon Pioneer Village," unpublished paper (Waterloo, 1990), pp. 1-42.

46. Metropolitan Toronto and Region Conservation Authority (Toronto, 1957), p. 15.

47. For more information on this site, see the pamphlet entitled Pioneer Museum Dalziel Conservation Area (Woodbridge, n.d.). For Richardson's involvement as early as 1955, see "Dalziel Pioneer Museum," The York Pioneer (1959), p. 19. As a museum preserving artifacts related to farming and pioneer living, see Paul and Marie Hughes, "Museums of Ontario," Waterloo Historical Society Journal (1956), p. 39.

48. The first interest in historical projects by conservation authorities, was through the placing of interpretive plaques on sites of special historical significance. The Don Valley Conservation Authority provided leadership in this area, and this work continued after its merger into the MTRCA. See Richardson, People, pp. 104-105. During the 1950's, nature museums were being established in various provincial parks. Exhibits featured both artifacts of cultural and natural heritage. These museums became very popular with the visiting public, and hence interpretation and education initiatives formed an important part of these parks' programming. See Tilt, Provincial, pp. 21-22.

49. For additional details about the early development of Black Creek Pioneer Village, see "Metropolitan Toronto and Region Conservation Authority," Our Valley (Summer, 1960), pp. 33-35, Dorothy Duncan, Black Creek Pioneer Village (Downsview, 1963), and Allen Terry Carr, "The Metropolitan Toronto and Region Conservation Authority's Conservation Education Programmes - A Forty Year Retrospective 1950-1990," Pathways (July/August, 1996), v.8, #4, pp. 4-5.

50. A.H. Richardson, Conservation Authorities in Ontario (Toronto, 1960), p. 9. The museums which were being developed at this time included O'Hara Mill, Fanshawe Pioneer Village, Black Creek Pioneer Village, Doon Pioneer Village, and Backus Mill. A contemporary observer noted that conservation authorities had been actively involved in the business of historic conservation from 1952 to 1958, but by 1960 "only the conservation authority serving Metropolitan Toronto has any extensive programme while two others are struggling along." See Anthony Adamson, "Preserving Ontario's History," in Past Reflections: Museum Clippings (Toronto, 1994), p. 28.

51. Quoted in Richardson, People, p. 103.

52. Interview with Arthur D. Latornell, May 20, 1986. Latornell suggested that conservation authorities took on the roles of heritage conservation and museum development by default as no other body was committed to this task. Latornell was a former Director of the MNR Conservation Authorities Branch for the Province of Ontario.

53. Annual Report of the Minister of Lands and Forests-1962 (Toronto, 1963), p. 25. In 1962, the Conservation Authorities Branch was transferred from the Department of Planning and Development to the Department of Lands and Forests. Its function was to oversee the broadened scope of activities of conservation authorities which had grown from merely the control of floods, to other matters such as water control, soil conservation, land use, forest conservation, wildlife preservation and recreation. Recreational pursuits were seen as supplying a useful service to the public. See Lambert, Renewing, p.

492. In several provincial parks, educational activities interpreted local wildlife, nature and history to the public. This emphasis on recreational activities which were not available in urban settings, was a policy advocated by the Parks Branch in the 1960's. Ibid., p. 486. The Department of Lands and Forests regarded museums in provincial parks as "interpretive tools employed to inform park visitors of the total park environment and for the historical significance of the park area." Museums introduced the park story and attempted to stimulate the visitor's interest. See A.B. Wheatly, "Ontario Provincial Park Museums," Ontario History (September, 1961), v.53, #3, pp. 197-199.
54. Killan, Protected, pp. 123-126. See also D. McConnell, Provincial Parks 1954-Present (Toronto, 1965), p. 13, and John M. MacFarlane, "Our Own Interpretation Heritage," Interpscan (Summer, 1994), v.22, #1, pp. 3-5.
55. R. Yorke Edwards, "What is Interpretation?," Park News (Spring, 1985), v.21, #1, pp. 3-5.
56. R. Yorke Edwards, "What Is A Park?," Canadian Audubon (November/December, 1965), p. 139.
57. Annual Report of the Minister of Lands and Forests - 1963 (Toronto, 1964), p. 36.
58. See John C. Carter, "Historic Sites: Their Place in Conservation Authorities," Proceedings of the Ontario Conservation Authorities' Conservation Education and Community Relations Conference (Burlington, 1980), p. 49, Stephen F. Sloan, "A Study of the Administration and Operation of the Conservation Authorities System in Ontario," MSc. Thesis (Syracuse, 1967), p. 122 & pp. 171-72, and G. Ross Lord, "Conservation Authorities in Ontario," Proceedings of the Ninth Biennial Conservation Authorities Conference (Vineland, 1964), p. 14.
59. A.S.L. Barnes, "Ontario's Conservation Authorities," in Ontario's Conservation Authorities and the Conservation Authorities Branch of the Provincial Government (Toronto, 1970), p. 14.
60. Interview with Bob Bowes, Executive Vice-President, Heritage Canada, January 6, 1997.
61. Interview with Bob Bowes, March 16, 1995. See also Killan, Protected, pp. 257-59.
62. Quoted in A Topical Organization of Ontario History (Toronto, 1974), p. iii.
63. Interview with Bob Bowes, January 6, 1997.
64. James Files, "Smocks and Jocks: The Establishment of the Ontario Ministry of Culture and Recreation," Ontario History (September, 1991), v.83, #3, p. 218.
65. Killan, Protected, pp. 258-60.
66. Interview with Bob Bowes, March 16, 1995.
67. Resolutions as Considered by the 14th Biennial Conference of the Ontario Conservation Authorities (Ottawa, 1974), p. 1.

68. Welch to Bernier, May 12, 1975. Archives of Ontario RG 47-58, Accession 19362.

69. Bernier to Welch, May 26, 1975. Ibid. See also Mary Tivy, "Ministering to the Community: The Province of Ontario and the Management of the Past in Community History Museums," Ontario History (June, 1994), v.86, #2, p. 155.

70. See Ron Reid, "Ontario's Conservation Authorities Coming of Age at 40," Seasons (Summer, 1986), p. 42, and David M. Wood, "An Investigation of the Objectives of the Conservation Authorities in Ontario," MA Thesis (Waterloo, 1972), p. 37. A government long-range plan for conservation authorities in the 1970's, made no mention of heritage preservation. Instead emphasis was put on ecology and the environment. See Conservation 70's (Toronto, 1970), pp. 1 & 14. Some conservation authorities continued to identify heritage conservation as part of their mandate in interim watershed plans. For example see the MTRCA's Heritage Conservation Proposal for the Cultural Heritage Background Study of the South Nation Basin Study (Toronto, 1980), and "Heritage Conservation," (Peterborough, 1985), pp. 6.1 - 6.6. The lack of adequate funding however, remained a deterrent for the operation of these heritage resources. See "Heritage Conservation," Watershed Plan Highlights (Downsview, 1980), p. 8.

71. Interview with Dorothy Duncan, Executive Director of the Ontario Historical Society, January 17, 1997. The Regulation formalized government funding to Conservation Authorities for the operation of community museums. A less formal grant programme had existed prior to the passage of the Regulation in 1981. See V.N. Styrmø, "Provincial Assistance to Community Museums in Ontario," Ontario Library Review (March, 1975), v. 59, p. 23.

72. The following museums operated by Ontario Conservation Authorities received funding through the Community Museum Operating Grant Programme in 1982:

Museum

Watsons Mill
Valens Log Cabin
Ska-nah-doh
O'Hara Mill
Mill of Kintail
Lang Mill
Hope Mill
Fanshawe Pioneer Village
Doon Pioneer Village
Black Creek Pioneer Village
Bell Rock Mill
Backus
Balls Falls
John R. Park Homestead

Conservation Authority

Rideau Valley
Hamilton Region
Lower Thames
Moir River
Mississippi
Otonabee
Otonabee
Upper Thames
Grand River
Metropolitan Toronto
Napanee Region
Long Point
Niagara
Essex

73. See John Weiler, A Review of the Report of the Working Group on the Mandate and Role of

- Conservation Authorities of Ontario (Toronto, 1979), p. 4.
74. Memo to Chairmen, Each Conservation Authority, from Alan W. Pope, Minister of Natural Resources, Toronto, November 30, 1982.
75. See Preliminary Provincial Policies for Conservation Authorities (Toronto, 1983), p. 34.
76. For details about heritage and community relations in conservation authorities, see Community Relations Strategy-Conservation Authorities (Toronto, 1983), pp. 47 & 65.
77. Ron Reid, "Ontario's Conservation Authorities Coming of Age at 40," Seasons (Summer, 1986), p. 43.
78. See A Review of the Conservation Authorities Program (Toronto, 1987), p. 42.
79. See Conservation Authorities Program Review-Outstanding Issues (Toronto, 1989). Heritage conservation is mentioned on p. 8 of this document.
80. See A Conservation Strategy for the 90's (Allanburg, 1989), p. 15.
81. "Conservation Authorities Program Review," Cabinet Submission (Toronto, 1989), p. 1.
82. "A Blueprint for Success," Restructuring Resource Management in Ontario (Toronto, 1993), p. 4.
83. "Blueprint," p. 12.
84. See Restructuring Resources Management Delivery in Ontario - "Documenting the Opportunity" (Peterborough, 1993).
85. Framework For Resource Management Partnerships (Toronto, 1994), p. 5.
86. This action prompted Craig Mather, chief administrative officer of the MTRCA to say; "The province is turning its back on a 50 year partnership that is the envy of the world." Quoted in Stephen Leahy, "Poverty Tarnishes Paradise," The Toronto Star (March 16, 1996), p. C6.
87. Interview with Bob Bugar, May 2, 1994. Bugar also suggested that many successful heritage preservation projects were the result of personal interest by individual general managers and senior MNR staff. This point was corroborated by Bob Bowes. Interview with Bob Bowes, March 3, 1995.
88. The 1994 Community Museum Operating Grant run had 8 conservation authorities applying for funding assistance for museums. This constituted 4% of museums in the Community Museum Operating Grant Programme (CMOG). Results of an education programme survey conducted by the Association of Conservation Authorities of Ontario in 1995, showed that 37 of 38 conservation authorities had active education programmes for schools, the general public and special interest groups. For specific details see Conservation Authority Education Programme Survey (October 19, 1995).

Chapter 8

Canadian Museums 1900 to 1950: Developments to Mid-Century

Introduction

In summing up his exhaustive 1904 report of museums throughout the world, Scottish academic David Murray wrote:

In a general sense a museum is a popular educator. It provides recreation and instruction for all classes and for all ages. Its doors are open to all alike, and each visitor gets profit or pleasure by viewing its gallery. The modern museum however has more definite aims. A museum has now become a recognized and necessary instrument of research; it plays an important part in university and technical instruction, and it should be adopted as an aid in elementary and secondary education.¹

Similar sentiments about the role of museums entering a new century were echoed in a 1906 issue of Museums Journal. Citing statements by prominent museologists of the day, the educational value of and the potential for learning in museums were identified:

The great purpose of museums is to stimulate the observant powers into action. The educational value of museums will be in exact proportion to their powers of awakening new thoughts in the mind.

Edward Forbes

It is not the objects placed in a museum that constitutes its value, so much as the method in which they are displayed and the use made of them for the purpose of instruction.

William Henry Flower

A museum is an institution for the preservation of those objects which best illustrate the phenomena of nature and the works of man, and the utilization of these for the increase of knowledge and for the culture and enlightenment of the people.

George Brown Goode²

Were these quotes indicative of the position and situation of museums in Canada? This chapter will investigate the growth and further development of Canadian museums as centres for learning during the first half of the 20th century. A more complete picture of the state of these institutions will be presented and evaluated, through an examination of events, individuals and groups making contributions to this evolution.

A Reflection on the Age

Recent studies have shed some light on what constituted Canadian museums during the transitional

period between the waning Victorian era of the late 19th century and the dawn of the 20th century. By 1900, colonial natural history museums came of age in terms of the size of their collections, their financial resources and their level of public support. While it appeared that at this time some measure of international stature and independence might be achieved, a downturn in the museum movement world-wide forestalled any further gains in these areas. Colonial museums flourished only as long as the museum movement prospered elsewhere.³

By the end of the 19th century the emphasis in Canada on natural history and philosophy changed to one of artistic and historical context. This spawned the development of local art and historical societies which were formed "for educational purposes, out of a feeling of local pride, or in a spirit of celebration for pioneers and local community leaders." This movement of local galleries and museums would become the most common form of museum in Canada, combining a growing desire for nationalism with the development of an interest in local history.⁴ This thrust would remain popular until the end of the Second World War. The need for public museums to be established throughout Canada was addressed by B.E. Walker in a 1904 speech to the Canadian Institute:

The Dominion Government at Ottawa and each province, as its city of chief importance should have a museum belonging to and supported by the people. These museums should contain exhibits of the metallic and non-metallic minerals of the country, both those of economic and of merely scientific value, the forest trees, with the bark preserved...and each specimen accompanied by a small map showing its habitat; the fresh water and sea fishes, mounted after the modern method; the fur-bearing animals, the game birds, and the birds of our forests, fields and sea-coast, many of them mounted so as to tell a child their habits at a glance...the archaeological and ethnological evidences of the races we have supplanted in Canada, and much more that does not occur to me at the moment.⁵

This plea was made by a well respected businessman and supporter of Canadian culture. What would be the results and who would take active roles in this quest?

The Ontario Historical Society

The Ontario Historical Society (OHS) was an instrumental force in efforts to establish a provincial museum in Ontario, as well as in the development of various community museums operated by affiliated local historical societies. Founded originally in 1888 as the Pioneer Association of Ontario, this fledgling body was reorganized and renamed the Ontario Historical Society on April 1, 1899.⁶ Instrumental in making these changes was president James Coyne. Patterning the OHS after the philosophy espoused by

the State Historical Society of Wisconsin, Coyne began to create a democratic institution which would cultivate sound historical interest among the public and gain financial support from the provincial government. The OHS would continue to co-ordinate co-operation between local societies, but in addition would publish volumes on Ontario history and begin collections for the establishment of a provincial archives, library and museum.

Discussions about the desirability of having a permanent headquarters as well as space for an historical library and museum, began in March of 1898.⁷ These ideas were formalized with the adoption of the OHS constitution on May 23, 1898 which contained the following objectives:

The Society shall also engage in the collection, preservation, exhibition and publication of materials for the study of history, especially the history of Ontario and Canada; to this end studying the archaeology of the Province, acquiring documents and manuscripts, obtaining narratives and records of pioneers, conducting a library of historical reference, maintaining a gallery of historical portraiture and an ethnological and historical museum, publishing and otherwise diffusing information relative to the history of the Province and of the Dominion, and, in general, encouraging and developing within this Province the study of history.⁸

The advisability of forming a provincial historical museum was further considered at the 1899 annual meeting. A motion was passed appointing a committee to take steps to accomplish this task, and work began on plans for an historical exhibition. President James Coyne suggested that a collection of articles of historical interest on display at such an exhibition, would provide "no better object lesson" to interest the people of Ontario in its history. In addition to arousing public interest, this collection would facilitate learning by teaching "...us without effort what columns of description would fail to communicate. What was vague and uncertain to the mind of the student is here crystallized into fixed and definitive knowledge." Above all "the object directly aimed at is the establishment of a permanent historical museum."⁹

The OHS organizing committee sent a circular to local historical societies soliciting the loan of artifacts and outlining the purpose of the exhibition which was;

...intended to be both attractive and instructive to illustrate the history of this province in particular, during the century now ending and to demonstrate the progress of our people along commercial, social and intellectual lines; the history of localities as well as the entire province; the advancement made in social and domestic comforts, and in scientific and domestic economy.¹⁰

Planning for this event was the responsibility of the Historical Exhibition and Museum Committee, a group composed largely of members of the Women's Canadian Historical Society of Toronto (WCHST). The WCHST saw Canada rapidly rising in stature among the nations of the world, and regarded the country's past as being important. Society by-laws noted that history, literature, archives, poetry and art were "yearly becoming more valuable in affording the necessary knowledge." The WCHST felt that the value of documents, records and relics "as notes in the history of a people" were not generally recognized, and the WCHST pressed for their collection and preservation.¹¹ The aims and objectives of both the WCHST and the OHS were compatible and it was logical that the two societies would work together to achieve similar goals.¹² Support for the exhibition came from many quarters. The Board of Governors at Victoria College allowed the Exhibition to be housed in the main building, free of charge. Committed citizens raised one thousand dollars to establish a guarantee fund for articles on loan. Thousands of exhibit items flowed in from across Canada and were included in an exhibition catalogue of 150 pages.¹³ The event was open to the public for two weeks during June of 1899. The "Great Canadian Historical Exhibition" was most successful. Enthusiastic editorials and thousands of visitors resulted in the Exhibition's extension for three additional days. The immediate objective of assembling artifacts of historic value and establishing a provincial museum was achieved when George Ross, the Minister of Education provided space in the Department of Education offices for the OHS library and a small collection of artifacts. President Coyne spoke optimistically about the establishment of permanent headquarters and suggested that this space would be "...where we have the nucleus of what will ultimately become a valuable museum and historical library."¹⁴

Changing political agendas and the defeat of the Ross Liberal Government in 1905 dashed this fleeting hope. The OHS library, historical collections and secretary's office remained at the Education Department, but little progress on developing a provincial museum was realized. The long serving secretary David Boyle retired in 1907 due to poor health. His death in 1911 ended his efforts on behalf of the OHS of creating a library, archives and museum complex. President David Williams wrote that Boyle was; "A power in the work of this organization and practically the founder of the Provincial Museum, he became widely known and his advice and information were much sought after."¹⁵

Boyle however may have been at cross-purposes with the agenda of the OHS when its high hopes for a museum failed to materialize. Boyle believed he was the obvious choice to become administrator, adding

to his duties as Provincial Archaeologist and Superintendent of the Provincial Museum. In the last years of his life, Boyle expressed his frustration at the lack of proper facilities for the Archaeological Museum and the inadequacy of his salary from the provincial government. In 1904 he asked for an assistant and additional workshop and exhibit space. Without these, Boyle reported that "the museum may be maintained in the old way, but as a factor in our educational system, it must prove to be of little or no value."¹⁶ His lack of purpose seriously hindered any advances the OHS may have made with the Whitney Conservative Government in meeting the objective of maintaining "a gallery of historical portraiture and an ethnological and historical museum."¹⁷ The opening of the Royal Ontario Museum in 1914 ended any further serious negotiations by the OHS in support of notion of an Ontario museum. Future efforts would be concentrated on preservation of historic buildings, expanded initiatives to broaden the teaching of history, and assistance to affiliated societies in the operation of local museums.¹⁸

For the OHS, history became a vehicle for educating all of society, from children to the public at large. Vice-president, the Reverend Nathaniel Burwash suggested that;

...history is a moral as well as intellectual element in the education of our youth. It not only informs the mind and teaches, by example, the way to true and permanent success, but it enlightens and stimulates the conscience and gives the highest incentives and ambitions to a noble and useful life.¹⁹

By the 1920's, it was agreed that "the work of the Ontario Historical Society is educational in its nature."²⁰ Energies would now be directed in support of local historical societies who believed each had a mandate to operate museums in their own district.

Historical Societies and Their Museums

During the first three decades of the 20th century, the number of permanent museums in Canada more than doubled.²¹ The National Museum of Canada opened in Ottawa in 1911 and became a focus for national rather than regional or local collections. Without a provincial museum for Ontario, small, local museums were extremely important for the preservation of collections and for the development of interpretation and education programmes which could be utilized by visitors of all ages. Many of these sites were museums operated by historical societies.²² A sampling of some of the museum endeavours undertaken in Ontario illustrates the significance of these institutions.

York Pioneer and Historical Society - Toronto

One of the earliest organizations to collect artifacts and preserve an historic structure as a museum, was the York Pioneer and Historical Society. Founded in 1869, this group moved two log cabins to the grounds of the Canadian National Exhibition in 1879. Toronto media noted that; "The old log cabin was to be used as a museum for arms, uniforms, pictures, maps, etc. The new cabin was to be a pioneer's lodge displaying furniture and household equipment of the previous era that illustrates the progress of our city and country during the last hundred years."²³ Through this museum the aim of "preserving and perpetuating" historical recollections and incidents relating to the early settlement of Ontario and Canada could be achieved.²⁴ The York Pioneers continued such efforts throughout much of the century, and even became involved with a plan to construct a large building on the Exhibition Grounds "for the purpose of holding historical matter."²⁵

The Victoria Museum - Peterborough

The origin of a museum collection in Peterborough began with the founding of the community's first Mechanics' Institute in 1843. Objects of its constitution called for "The establishment of a Library consisting of Works of the Arts and Sciences and General Literature, a Museum of Natural History, Mineralogy, etc, etc."²⁶ A later counterpart was formed in 1868, and like its antecedent called for the establishment of a museum:

The Peterborough Mechanics' Institute...is formed for the purpose of diffusing scientific and Literary Knowledge by a library of reference and circulation, by the formation of a museum of specimens in Zoology, Geology or other subjects of Nature, Science or Manufacturing.²⁷

Minimal success was achieved by 1881, but the project set in motion the development of the Town and County of Peterborough Historical Society in December of 1896.²⁸ One of its first actions was to strike a museum committee to plan for the fitting up of the Victoria Museum in Inverlea House. Entries in the Society's Minute Book and period newspaper clippings detailed activities leading up to the museum's official opening on June 22, 1897. Members were asked to donate artifacts and a circular was posted requesting the public to contribute "rare articles or curios" to the museum. The local press saw the museum as a facility "which can be utilized by the public and appreciated by those who are interested in the history of the town and country."²⁹ A programme for the official opening suggested that the

collection "would be of interest to the public," and by donating articles to the museum's collection, the public would be given an opportunity "to enjoy it."³⁰

The museum had a decidedly educational purpose. The collection of geological, historical and ethnographical materials was viewed in this manner, and public support was solicited:

As an incentive to research and as an educator the museum is praiseworthy. Therefore, it is that it should, now that it has been so creditably and encouragingly launched, receive the interested support of all.³¹

The museum would be open for the free use of the public and be used "as an advantage to the teachers of the Public Schools of the county, as it would serve as a reference library, and the information gained there could be imparted to the pupils."³² Many interesting exhibits made the Victoria Museum "Educative as well as Entertaining," a facility in which "Public Interest Should be Manifested."³³ While the museum proved to be an attraction of great interest to many people, the declining fortunes of the Historical Society lead to its closure in 1909. In 1911 the collection was transferred to the public library which ran a limited operation through to the 1960's. Formal ties to the library were severed on September 7, 1967 when the collection was transferred to the Peterborough Historical Society. These artifacts would form the nucleus of the collection of the newly constructed Peterborough Centennial Museum, a community museum which still carries on the legacy begun over 150 years ago.³⁴

The Huron Institute - Collingwood

In the spring of 1904 a group of citizens interested in setting up a society for the study of science and history held a public meeting in the Collingwood Town Hall. It was decided that a collection of "relics and specimens" should be assembled to aid in the preservation of information relating to the social and natural history of Collingwood and surrounding district. Founders believed that the society "would be of interest not only to it's members, but also to students and other community citizens."³⁵ The newly formed Huron Institute recognized five distinct departments for collecting: botanical, zoological, geological, historical and civic improvement, all to be housed in quarters in the town's Carnegie Library.

The first objects were offered to the Institute only months after its establishment. The idea of a Loan Exhibition was formed in September of 1904 with the resulting exhibit open to the public between November 17-19 of that year. By 1909 the collection constituted 3,907 items. This rapid growth created

certain logistical problems which hampered full use of the collection:

We are crowded for space in which to display the numerous articles, relics, specimens, etc. During the year several new cases were added but these are already filled, it might be said to overflowing, numerous exhibits being stowed away, awaiting proper facilities for display.³⁶

The intent of this museum was as an institution of public learning. First curator C.E. Freer regarded specimens in the collection as "grand invigorators of memory."³⁷ Housing of the collection in the library facilitated use by school students "to whom it has become an indispensable aid for nature study and themes for English composition."³⁸ Overtures to the provincial Ministry of Education about funding assistance brought initial questions about the Huron Institute's educational mandate and the role of small, local museums. Minister R.H. Ryne questioned whether the government should aid community museums, rather than the Central Museum already established by the Education Department. Ryne wrote that most local museums only lasted for a brief duration and when more permanency was established organizers become "weary in well-doing." He added; "To make a local museum successful as an educational factor, demands more time and attention than any but the enthusiastic founders, are prepared to give it." In conclusion, the Minister suggested that:

For practical educational purposes in villages and towns, the material for nature study should be in the schools, where it would be available at any moment for use by the teachers.³⁹

Response from Collingwood citizens and representatives of the Huron Institute regarding its role as an historical society, museum, and affiliate of the Ontario Historical Society must have assuaged Ryne's concerns. A grant for \$300 was made to assist with its operation. Through the leadership of David Williams, the Huron Institute's educational mandate continued to grow. Student groups regularly visited the museum and it was recorded that:

As long as this use is made of the collection, it cannot be other than of lasting benefit to the attainment of knowledge and the spread of culture in the community.⁴⁰

In 1919, Williams reported that "the Huron Institute continues to occupy its place of prominence amongst the educational institutions of Collingwood."⁴¹ By 1921 a children's department utilized books for a story hour and artifacts from the museum collection in child-centred programming. It was observed that:

As the children pass in and out, and walk around among these many concrete aids to knowledge and culture, it cannot but be to their young and plastic minds a source of enduring good.⁴²

Williams devoted his energy to work at the Huron Institute until his death in 1944. The museum continued to operate in the Carnegie Library until its destruction by fire in 1963. Many artifacts were saved and again put on display when the Collingwood Museum, now municipally-owned and operated, was opened to the public in May of 1966. Today, over nine decades after the establishment of the Huron Institute, the Collingwood Museum continues to operate as an historical and educational resource carrying out aspects of both its original mandate and the responsibilities associated with a modern community museum.⁴³

Other Historical Societies and Museums

The growth of local museums dedicated to collections of art, community and pioneer history continued through to mid century.⁴⁴ Many historical societies believed that the onus for preserving and interpreting the material culture of the province was their responsibility. With the closure of the Normal School Museum in 1933, no central depository for these types of artifacts remained (See Chapter 5). As early as 1909, the Ontario Historical Society had identified the importance of local societies in this task. President F. Barlow Cumberland reported on the work of the Niagara Historical Society. He wrote:

The Historical Museum which that Society has constructed and maintained is a work of highest value and an example and incentive for all other societies to follow and emulate.⁴⁵

Each year the OHS recorded examples of good practice and advances made by their affiliates in its Annual Report. In 1927, a representative from the Brant Historical Society noted the following:

Our society is active and much of its activity is concerned with the preservation of historical material in the museum. The society finds that it is absolutely necessary to protect the material, and much of the expenses during the ensuing year will be in protecting this material.⁴⁶

In the same year, David Williams summed up achievements accomplished at the Huron Institute:

...as in preceding years, the chief activity has been directed toward the building up of the museum with the result that many valuable and interesting additions have been received. These in the main pertain to local history, which is in keeping with the chief aim of the Institute.⁴⁷

In 1929, the Perth and Lanark Historical Society announced the establishment of its museum in the Perth Public Library. According to Dr. George Locke, the chief librarian of the Toronto Public Library, this type of operation was not unusual:

Museums are now being established in small cities in various parts of Canada; their collections are generally housed in the public library, and are valuable because they save local material which otherwise might be lost or absorbed by the great museums of the United States always on the alert for historical specimens.⁴⁸

OHS secretary A.F. Hunter acknowledged this common practice and one of the accrued benefits; "In many places the historical society has its local museum in the public library, and in that case the librarian can keep an eye on what is going on."⁴⁹

The acquisition and preservation of collections were not the only functions these museums focussed upon. Most historical societies saw education as an important part of their mandate which could be addressed through the study of artifacts in museum collections. Curator Janet Carnochan commented on this aspect of the Niagara Historical Society Museum's operation; "We feel that the collection, to the young particularly, will prove of distinct educative value and if such is the case, we shall feel amply rewarded."⁵⁰

A similar notion was expressed at the Brant Historical Society Museum, "where for some time the society has felt the need of a secure and convenient place where people may with confidence send articles for safe-keeping and where they would be of educational use to the public."⁵¹ Initiatives taken to popularize the concept of education as a function of museums operated by Ontario historical societies prior to World War 1, were in part, due to David Boyle's influence. Boyle's previous experience as a teacher and curator influenced his work as secretary for the Ontario Historical Society. His philosophy on the topic was well known. With the removal of the Canadian Institute's Museum to the Educational Department, Boyle reported that this change "should render the collection more popular, and add to its value as an important educational factor, failing which, any museum is worse than useless."⁵² Janet Carnochan, curator of the Niagara Historical Society Museum, wrote to Boyle about his position on museums and education:

I may tell you that several people have spoken of your statement of the value of a museum education...I was struck by your remark that the collection should not be one of curios.⁵³

Boyle's writings on the topic were published and widely circulated. A central theme was evident in these articles:

It cannot be repeated too often that a museum is no place for what is merely curious. Apart from educational value no object is worthy of room in any collection except it be in

a collection of bric-a-brac. Curiosities, as such, have a value only when they serve to illustrate some departure from natural law or from well-established popular custom.⁵⁴

Boyle's position was attributed to a mixture of years of practical application and to what he had witnessed in museums in Liverpool, London and Paris.⁵⁵ His friendship with Harlan Smith may have also influenced his philosophy on museums and education.⁵⁶

Upon entering the 1930's, various libraries, art galleries⁵⁷ and museums in Canada were on one hand co-operating but on the other deemed to be "rivals in the business of attracting the public towards an interest in things of the spirit."⁵⁸ In many localities humble efforts by historical societies, literary groups and Women's Institutes had resulted in the formation of small local museums. A good museum was seen as "a magnificent instrument of education." Through the determined work of dedicated individuals it was believed that; "Many a little museum is...destined to develop into a centre of education and culture, if it can be persuaded to proceed on the right lines."⁵⁹ With artifacts housed in these facilities history could be taught "to explain the significance of modern things." This could then lead to useful outcomes for the public who visited these museums and used their resources. George Locke expounded upon this:

Education is a process and not a state, and that therefore no one is an educated person but one who is in the process of being educated so that he may develop the judgement that is necessary to understand and decide upon the issues which he is faced in his everyday life.⁶⁰

Such was the state of museum development in 1929 in Canada. In Ontario, museum growth had been stimulated by the Ontario Historical Society.⁶¹ Other factors would influence museum development in Ontario and throughout Canada in the next two decades.

Developments in the 1930's to 1950

In 1932 British museologists Sir Henry Miers and Frank Markham issued their report entitled The Museums of Canada. As part of an ongoing world-wide study of museums financed by the Carnegie Foundation,⁶² the Miers and Markham Report gave a rather dismal and pessimistic portrayal of Canada's museums. Novel because it was the first survey of Canadian museums not appended to an American report, its findings reflected what its authors viewed following the stock market crash of 1929, and the resulting impact on the Canadian economy and social mores.⁶³ The report placed responsibility upon municipal and provincial governments for the provision of financial support for museums. Its

recommendations were in spirit decentralizing, written prior to the period of increased state intervention in the cultural and other sectors of Canadian life.⁶⁴ The authors concluded:

Our firm belief is that Canada will never acquire a museum service worthy of her position as a leading nation until she spends at least as much on her museums as the leading cities of north-west Europe or the United States, and has the courage to appoint first-class curators at first-class salaries to at least 90 out of her 125 museums.⁶⁵

This damning indictment was somewhat softened by positive comments about the efforts undertaken by the Ontario Historical Society. Miers and Markham identified 15 of 23 affiliated societies operating museums. While in many cases local museums were viewed as "isolated units cut off from the main stream of museum activity," the OHS was applauded for "doing very commendable work, and work which should be still further encouraged by the Government of the province."⁶⁶

The report further stated that provision for educational requirements "is a feature of quite recent date," but at least half of the museums listed in the directory provided some instruction to school classes.⁶⁷ In a positive vein, the authors suggested that Canadian museums and galleries had an important role to play:

There is ample evidence that public interest can be aroused in anything that tends to secure a better educated community. There is no doubt that museums and art galleries might become a tremendous force towards the education of the public in matters which are of vital importance to the physical and moral health of the nation.⁶⁸

There were museum successes of the period which were overlooked by the study. The National Museum and National Gallery were involved with active extension and education programming. Art museums in Vancouver, Toronto, Winnipeg and Edmonton initiated travelling exhibits. A children's museum was created at the New Brunswick Museum.⁶⁹ In a country-wide survey conducted by the Dominion Bureau of Statistics in 1938, the efforts of Canadian museums in developing closer co-operation with schools were identified and detailed.⁷⁰ Measurable advances were recorded. The study showed that collaboration took many forms, ranging from class visits and the sale or gift of specimens, to the loan of lecturers, lantern slides and films. Two main categories were distinguished: arrangements for schools and classes going to the museum, and arrangements for taking the museum to the schools. In forty-five city school systems, visits to museums were conducted by teachers. In thirty other jurisdictions, children were encouraged by the schools to use local museums by themselves. Another ninety respondents did not give encouragement or provide the opportunity to make use of museums, however half of these were in smaller centres with no museum provision.

In Canadian teacher training institutions, about half required their students to visit museums, but not all of these made an attempt to train teachers in the use of museums. Some summer schools which provided upgrading for about one-eighth of all teachers in Canada, offered specialized instruction in the use of museums. Co-operation with schools in arranging attendance at "Saturday Morning Classes" was also recorded. Often museum staff would visit schools to give lectures, show lantern slides and motion pictures, and loan collections as instructional aids. Top subjects in which school authorities desired museum aids included art, history, geography, nature study and science. Subjects in which schools wanted museums to provide photographs, colour reproductions, lantern slides and films, included history, geography, science, art and nature study. Citing portions of a memorandum issued by the Board of Education for England and Wales, the survey noted that; "It is desirable that both teachers and museum officers should explore the subject of the conduct of school visits and the possibility of improvement in the light of actual experience."⁷¹ Results showed that school use of museums in Canada was "essentially a matter of the schools working in collaboration with institutions under different control,"⁷² and museums growing in popularity as an adjunct to learning in the Canadian public school system. This phenomenon was consistent with a philosophy espoused by advocates in the United States and Great Britain during this period.⁷³ Through the 1940's the notions of museums as a community asset, as a valuable learning experience for pupils, and as "centres of education" for the public at large continued to be cultivated.⁷⁴ While great progress was delayed by World War II, growth in the Canadian museum sector was evidenced immediately after the war's end.⁷⁵ The next two decades would signal an ever burgeoning museum profession in Canada. With this flourishing growth a broader acceptance as museums as centres for learning would be realized.

Contributions Made by Harlan I. Smith

From his appointment as archaeologist with the Geological Survey of Canada (GSC) in 1911 until his retirement in 1936, Harlan I. Smith played a pivotal role in the development of Canadian museums as centres for learning. During his tenure at the GSC, Smith demonstrated the need for establishing effective museum displays. He developed various activities for diffusing knowledge through museum collections, and became an advocate for and a leader in the field of museum education. Through his enthusiastic direction, the National Museum, which grew out of the GSC collection, became the first museum in Canada to undertake a systematic and organized programme of educational work.⁷⁶

Smith's first involvement with museums was through employment at the American Natural History Museum in New York City. There he started to hone his museum educational skills and began a career marked by prolific publishing of articles on his work and ideas.⁷⁷ Central to his philosophy was a focus on designing museum exhibits which would be of interest to the public, were intended to be popular, and held the interest of casual visitors by being instructive and retaining the scientific usefulness of the specimens on display. Smith believed that visitors should be allowed to make their own discoveries when viewing museum displays, and inquiry learning could be promoted through the judicious use of "interrogatory labels."⁷⁸ By 1911 the allure of working at the American Museum of Natural History had worn thin. In correspondence with Edward Sapir, Chief of the Anthropological Division of the GSC, Smith wrote of his disillusionment:

I have been so humiliated for so long here that a change in scene might be of great benefit in restoring me to my activities of say fifteen years ago.⁷⁹

A month later Smith again wrote Sapir. He asked his Canadian colleague to recommend him for the job as archaeologist at the GSC, a position which Smith would accept if he was allowed to do research, publish and "to develop the World's best museum of Canadian archaeology for the scientist, the student and the public or any one or more of them."⁸⁰

Smith was successful in winning the job competition and began his employment in Ottawa at the Victoria Memorial Museum on June 15, 1911. Archaeological material was unpacked and sorted into groups corresponding to five ethnological culture areas of Canada which had been adopted for the proposed museum exhibits. Ever mindful of his educational goals, Smith divided his efforts into "activities for diffusing archaeological knowledge by such means as museum exhibits, guide books, and lectures, and those for increasing such knowledge, as by exploration, original research, and systematization."⁸¹ In the arrangement of the archaeological collection Smith identified the purpose of these displays:

I propose to exhibit them showing who collected them, who presented them, and in such a way that they will convey all the truth and science in them to even young people and the most ignorant of the people.⁸²

Much time was devoted to the development of permanent exhibits which were intended to be interesting and of great educational value. Talks for school classes and general visitors were offered and students

were afforded access to study material in addition to specimens on exhibit. Smith commented on his work:

Here not only educators and students, but all Canadians may make use of the collections, and such use will soon dispel the unfortunate idea that a modern museum is merely a storehouse for curiosities or abnormal objects.⁸³

Extension activities were also proposed outside the confines of the Victoria Memorial Museum. Smith suggested establishing branch museums throughout the country. He believed that such institutions would promote co-operation between the national and provincial museums, and enable all citizens rather than only those living in Ottawa the opportunity of using the museum's resources. Smith also advocated the establishment of free lecture courses under the auspices of school boards, and recommended the use of schools in the evening for this purpose. The inauguration of this initiative took place on November 10, 1911. In an illustrated public lecture, Smith expanded his ideas on the educational work of his site, concluding that as a great educational museum, visitors should be "entertained and instructed" and use it as a venue "for recreation, education or research."⁸⁴

Smith's ambitions for museum reform went far beyond his work at the Victoria Memorial Museum. In a letter to contract archaeologist W.B. Nickerson, Smith noted that; "Museums all over North America very much need modernizing, and this is especially true so far as I have seen in Canada."⁸⁵

Smith visited various museums throughout Canada and found many of them to be in great need of improvement. This triggered a response which was put in writing to the principal of McGill University, William Peterson:

...my great ambition in life is to be the means of making not one museum in Canada but all the museums in Canada progress until the museums are taken seriously, or thronged by people who wish to use them, and until museums in Canada are looked upon as

educational institutions of equal value to the people with the library, the school house and the laboratory.⁸⁶

This grand design meant that each museum should be arranged with a view to the type of person for which it was intended, and should be appropriate for its particular uses in a particular place. Smith believed that museums should be useful and not be facilities for hoarding specimens or giving prominence to curiosities. This type of assemblage was deemed to be problematic and of limited use:

Like a magpie makes a rubbish heap of them, no longer caring to study them, and leaves them in such shape that they are useless to anyone else for study and research, or of interest to those who are attempting to educate themselves.⁸⁷

Rather, Smith urged that ideas be the chief message presented by museum collections. Specimens would have two purposes; to illustrate ideas and to offer material for research. As a place for the exhibit of the evidences of science, visitors would gain pleasure and recreation from interaction with objects on display.

Making museums useful, promoting efficient operations, incorporating the use of new interpretive techniques, and arousing interest through object-centred learning all became tenets of Smith's dogma. In Ottawa Smith put his thoughts into action at the National Museum⁸⁸ and published numerous articles which put forth his ideas to an international audience.⁸⁹ Children were another user group upon which Smith focussed. When asked for his advice on what the minimum age should be for children for admission to the museum, he suggested that rules be established so that children old enough to go to public libraries and schools in Ottawa, also be allowed to use the museum.⁹⁰ Smith was convinced that in museums for children, young visitors "can freely do things which only a brave and radical scientific museum or natural history museum dare attempt, for a children's museum is for children rather than for nature or art."⁹¹ Citing examples in the United States,⁹² Smith moved forward to implement child-centred learning activities at the Victoria Memorial Museum. Central to this initiative were elementary study collections on loan to local public schools. This service was implemented in 1915 for Ottawa schools and proved a success with both teachers and students.⁹³ Lantern slides were also loaned for free educational purposes and films were furnished to assist with learning opportunities in schools and with public groups. In conjunction with lectures, it was recorded that the direct educational value of these offerings warranted "the continuation of the work and the hope that the local experiment may ultimately result in the distribution of lectures, lantern slides, and moving picture films throughout Canada."⁹⁴ The ongoing programme of sending collections of minerals to schools also proved to be of utility. This combined with loaned zoological exhibits, lectures in schools and to the general public, loans of lantern slides, and the use of moving picture films provided results which in Smith's estimation "seem to indicate that this effort to interpret and spread the results of the work of the Geological Survey and Museum is much appreciated."⁹⁵

Smith's crusade for a wider use of museums continued through the depths of World War I. Opportunities

for public education were advocated. He argued that his museum could stimulate public interest and supply practical facts in many areas. Far from being pessimistic during these trying times, Harlan Smith promoted positive ways in which his museum could assist with the war effort, further knowledge, and facilitate learning.⁹⁶ Remaining central to his argument was the relationship of museums to education. In a synopsis of eleven types of museums, Smith suggested that; "All knowledge is the result of research, so that research is one of the most important services to education that a museum can accomplish." He concluded that; "Only a few years ago some communities looked upon libraries as of little or no importance, but now prize them highly. Museums come next in this evolution."⁹⁷

Smith would pursue his efforts to develop the educational side of museum work until his retirement in 1936. He continued writing articles about his work which were published in international journals.⁹⁸ Through his influence the National Museum of Canada in Ottawa, collected and served as a repository for natural history material of economic and scientific interest, educated the public concerning natural history and resources through exhibits, publications and lectures, and conducted research. In an article written in 1932 on the history of the institution, Smith noted its role and progress to date:

It warehouses treasures of the Nation, many of them the results of its expeditions and exploration. During the past twenty years it has made great strides in the educational side of museum work.⁹⁹

Smith recorded that various techniques assisted in the "teaching work" of the museum designed for "the adult public, the student, and the child." These included phonograph records of Indian songs and orations, educational exhibits, loan collections for schools, travelling displays in railroad cars, publications of "an educational nature," lectures, sets of lantern slides, radio talks, and motion pictures. These became the source of the museum's education offerings and were regarded as being of paramount importance to "the various activities of a truly great National Museum."¹⁰⁰ Smith's awareness of the value of this and other museums outside of Ottawa as inspirations to the imagination and as a social force for the future, was stated in 1917:

Museums may cheer, educate and uplift...Museums may compete with ignorance and vice by pointing the way to the appreciation or use of things now neglected or unknown and to greater joys and healthfulness through beauty and knowledge, until there is no room left in the mind for vice.¹⁰¹

This was Harlan Smith's philosophy. A philosophy he would advocate for and implement until his death in 1940.¹⁰² While he was not able to completely attain his ambition of modernizing all museums in

Canada, nor achieve ultimate recognition of Canadian museums as educational institutions on a par with libraries and schools, Smith did influence actions and decisions which would fulfil a goal that he set in 1914. This standard was for museums to become "a place for the exhibition of the evidences of science in such form that they will give to the visitor the results of science or will give...pleasure and recreation."¹⁰³

The overall impact of Smith's efforts were recorded one year after his death:

Educational work is one of the most important activities of the National Museum, and it is through the extension services of this work that the Museum is able to reach out to all sections of the country; and to assist in the diffusion of accurate and specialized knowledge on natural history and related subjects.¹⁰⁴

Through his writings,¹⁰⁵ research and application of innovative and visionary thinking theory, Harlan I. Smith's contributions to the development of Canadian museology and museum education have left a remarkable legacy.

The Rise of the Royal Ontario Museum

In the 1927 Miers and Markham Report, the two British authors wrote that few museums in Canada "make any effort to attract or interest the general public...Paralytic modesty is a common museum disease from Calgary to Halifax." One museum which was exempted from this charge was the Royal Ontario Museum (ROM). Miers and Markham noted that;

...its collections cannot fail to be of educational value to all visitors. Many of the exhibits are definitely arranged with an educational purpose in view, and it performs very full offices both of a university and a public museum.¹⁰⁶

This section will review the developments that lead to this positive pronouncement and assess the role that the ROM played in the evolution of Canadian museums and their educational mandate.

Its Beginnings

The foundations of the ROM were established as early as 1888. Banker Byron Edmund Walker approached Ontario premier Sir Oliver Mowat to establish a natural history survey for the province and an adjunct museum for teaching purposes.¹⁰⁷ While this overture was not successful, Walker continued to work behind the scenes to bring his idea to fruition. In 1902 the president of Victoria College, Dr. Nathaniel Burwash again raised the matter, suggesting that a new institution be developed to house both

the college collection and artifacts being acquired by archaeologist Charles Trick Currelly.¹⁰⁸ Support for the concept of a museum complex gained momentum. In 1905, Dr. William A. Parks, a professor in the Geology Department at the University of Toronto, gave an address to the Canadian Mining Institute about the need for a provincial museum. Citing Professor F.A. Bather's idea that a museum fulfilled three functions: investigation, instruction, inspiration, Parks argued that some action should be taken to establish a museum where these objectives could be achieved. Noting that Toronto was "the heart of the educational system of the province," Parks called for measures to build a large provincial museum to take the place of existing departmental and academic facilities.¹⁰⁹ Conference delegates expressed general approval for "a museum belonging to and supported by the people." Some suggested that the establishment of such a museum "would be of incalculable advantage to the province," "one of the best investments which a country can make," and a "very necessary step in the education of nearly everybody in the province." A call for the appointment of a committee to place the matter before the provincial government was put forward.¹¹⁰

In 1906, a Royal Commission Report on governance at the University of Toronto recommended provision for "a home for culture and science under the same academic roof, uniting them as far as possible, yet leaving each in its own way untrammelled by the union."¹¹¹ This recommendation further propelled the concept of the development of a complex of separate museums with costs and responsibilities to be shared by the University of Toronto and the Ontario government. In 1908, prominent citizens B.E. Walker, Sir Edmund Osler and John Hoskin approached the provincial government for financial assistance to construct a building. With personal assurances of corporate support, Premier James Whitney agreed to introduce a bill to set up the ROM and authorized advance payments so that construction could begin. Walker expressed his gratification in a May 13, 1909 letter to Victoria College's Chancellor, Nathaniel Burwash:

This morning I received from the Premier the concurrence of the Government in our general plan for the Museum, and direct consent to join the University in immediately building the foundation...I recall the morning when you consented to the material collected down to that time by Currelly, and other material collected by friends of, and owned by Victoria passing into such a general museum, and I may say that the encouragement received at that time had a very great influence upon the writer in persisting in what has been a long and wearisome struggle.¹¹²

An influential lobby of a combination of the city's university, corporate and social elite had won its battle

to develop a cosmopolitan museum in a new purpose-built facility.¹¹³ In May of 1911 a working committee was constituted, and on February 26, 1912, Bill 138 to establish the Royal Ontario Museum was introduced in the legislature. With its passing on April 16, a board of trustees was empowered to perform the duties required to complete the new museum.

Construction commenced and progress was recorded in a 1910 museum survey.¹¹⁴ Input on building plans, exhibit design and museum management came from experts in England and the United States.¹¹⁵ The new museum was officially opened to the public on March 19, 1914 by Canada's Governor General, H.R.H. the Duke of Connaught.¹¹⁶ The Royal Ontario Museums of Archaeology, Geology, Mineralogy, Palaeontology and Zoology shared the building, each having its own director, budget and administration. A connective link was maintained to the University of Toronto with the appointments of professors Coleman, Walker, Bensley and Parks as directors of the four natural history museums. Sir B.E. Walker became the ROM's first chairman. Walker would continue to play an instrumental role in the fortunes of the ROM. He donated his library and personal collection of fossils to the Palaeontology Museum, provided input to the development of the Zoological Museum,¹¹⁷ and most importantly influenced other wealthy friends and patrons to extend their donations of much needed financial support for research and operations.¹¹⁸

The First Three Decades

Collections grew rapidly, a reputation for scholarship was established and new methods of educational programming were initiated. In 1918 Margaret McLean began freelance lectures for the public. In 1919 she was hired as the ROM's first female guide and given responsibilities for conducting public tours and lectures, study hours for children and school programmes. Through her persistence, Margaret MacLean was given credit for developing "the educational activity of the Royal Ontario Museum."¹¹⁹ Her work would be continued by Dorothy Haines and then by museum education innovator, Ruth Home. Home expanded the story-hours programme into a Saturday Morning club for children. The increased use of the ROM by children resulted in the appointment of Lilian Payne by the Board of Education. In 1928, Miss Payne began a 21 year tenure of offering classes in the museum for school children. These educational initiatives were provided through the Department of Public Instruction. Ruth Home pursued trend-setting ideas such as having the Canadian National Railways put on special cars to bring school classes from the country to the city for a tour of the ROM, and hiring artist Sylvia Hahn to paint murals as

a backdrop to the Saturday Morning Club's activities. Home's philosophy in her work was described in a history of the ROM; "Education was simultaneously entertainment and a search for knowledge." She would continue in the position until 1946, when internal differences forced her to resign and transfer her talents to the Ontario College of Art.¹²⁰

Examples of good practice offered through the ROM were recorded in various publications of the time. In 1937 the Board of Education teachers gave instruction to 672 classes of fourth book pupils, totalling 25,480 students during the school year. It was observed that; "The teaching has gone on with such an increase in numbers that on one occasion I noticed that nineteen classes had taken place in the Museum at the same hour." The co-operation of railway and bus companies made it possible for 3,561 out-of-town students to participate in gallery talks given by Ruth Home. These statistics were recorded in the Dominion Bureau of Statistics' 1938 educational bulletin on schools and museums.¹²¹ In 1937-39, The School ran a series of articles on other educational programmes offered at the ROM. Through its collection the museum offered an "excellent selection for teaching purposes," of exhibits where students could learn about Egyptian history "in a logical and connected sequence," and material remains from Babylonia which could help teachers and students bridge the gap between ancient civilizations and themselves.¹²² An earlier report spoke of the "amazingly rich collections illustrating all branches of science, archaeology and art" which were "always open to the public and attracts large crowds."¹²³

The success of these ventures was a mixed blessing. With the rapid increase of collections and growth in public use, the ROM had outgrown its building by 1920. This lack of space was exacerbated by the closing of the Provincial Museum at the Toronto Normal School and the eventual transfer of its collections to the ROM. These crowded conditions called for an immediate and adequate expansion. In 1931 a new wing was under construction, designed to double the space for exhibits. The estimated \$2,000,000 cost was paid by the provincial government.¹²⁴ After two and a half years of limited operation, the greatly enlarged and remodelled ROM was re-opened for full public use on October 12, 1933.¹²⁵ Miers and Markham had projected its stature:

At Toronto, the Royal Ontario Museum, situated on a splendid site in Bloor Street, is the largest museum building in the Dominion, and the new extensions render fair to make this one of the largest museums on the American continent. It is well planned, well equipped, and well staffed.¹²⁶

How was it to meet its educational responsibilities in these new quarters? An insightful reflection on this

topic was provided by J.H. Iliffe, a former assistant keeper at the ROM. In a paper read at the July 1931 Museum Association Conference in Plymouth, England, Iliffe suggested that the growth of the ROM "well reflects the pioneering aspects of Canadian intellectual life." While describing this unique attribute, Iliffe noted an important factor in the ROM's development and activities as being, "the influence of the North American museum movement." This movement was characterized by a desire "for creating centres of culture and learning" and by erecting museum buildings in which "learning and knowledge shall be set before the mass of the people." While such experiments were not all successful, the author wrote that "there certainly is a widespread stir and activity to foster the growth and use of museums." Iliffe observed that in Europe museums were different from their North American counterparts as "we have not yet really considered whether we are prepared to adopt these methods of bringing our popular educational institutions to the notice of Everyman." In his estimation, the ROM was being influenced by ideas on popular education from the United States, and "lives in this atmosphere and has to aim at this kind of service."¹²⁷ Continuing with his observations about the site, Iliffe recorded that in his experience, no other museum in Canada had developed a system of close contact between the schools and the museum, as had been created at the ROM. He expounded upon the museum's educational mandate:

The Royal Ontario Museum, like all the greater American museums, is making great endeavours to bring and keep itself before the public; and not merely the educated public who read the more serious papers, but also the half educated, and more especially the children in the public or elementary schools.¹²⁸

From the 1940's Onward

Internal changes in governance were important milestones in the further development of the ROM. In 1947 its Act was changed making it an integral part of the University of Toronto. The five original museums merged into three, and in 1955 the ROM became one institution with one director and one administration. The evolution towards a completely unified, public museum was complete. Under the direction of Theodore Allen Heinrich, the ROM would take "on a new life."¹²⁹ Heinrich's experience "in the popularization of culture" and his plan to make Toronto "a centre of art and culture on the North American continent," would dictate directions for the ROM during his tenure.¹³⁰

Early in the 1950's the ROM was recognized for its research, publications and its offering of "general education throughout the province and beyond." The Massey Report (See Chapter 9) further noted the "admirable exhibition services of the Royal Ontario Museum" and concluded that because of the valuable

work it was undertaking, the ROM was "an institution of national importance."¹³¹ A provincial study identified the educational contribution the ROM was making to the residents of Ontario. The Hope Commission noted instruction given to public and high school classes in the galleries, teacher training, public lectures, childrens' clubs, the loan of lantern slides, radio broadcasts, travelling exhibits, special displays and the use of films as examples of an educational smorgasbord. In its final assessment, this study said of the ROM:

In general, the Museum provides for the cultural development and entertainment of thousands of people and offers educational services for thousands of pupils in the elementary and secondary schools of the province.¹³²

During the 1950's, the emphasis of the ROM slowly shifted from collecting and preserving, to public education. To increase public support for and interest in the museum, new measures were taken:

Consequently, not only is it doing everything in its power to entice more lay people within its doors, but it also has been going out into the highways and byways to display its treasures, and to discourse upon them, for the benefit of the rising generation.¹³³

A visit to the museum would become an "aesthetic experience," and the demand for expanded public and educational services translated into a museum filled with people of all ages. School programmes, lectures, travelling cases and exhibits, television shows and publications all attempted to meet these growing needs. One observer noted; "The stress on education in museums is a typically North American concept."¹³⁴ Robert Fennell, chairman of the ROM board characterized his institution "as one which represented the greatest single contribution to the cultural life of the nation."¹³⁵ In a statement made at the Museum Association's annual conference held in Bristol, England in 1957, the ROM's director reiterated the course of action he was taking:

It used to be said that the primary duty of a museum was to conserve, but from the Canadian point of view a museum exists primarily for what it can do for the people.¹³⁶

Further reflections categorized the ROM as an "outstanding example"¹³⁷ of a general museum. Research, study, teaching, exhibits and public programming contributed to "knowledge and understanding" for a wide audience that included casual visitors, school children, students from universities, colleges and technical schools, adult learners, and the public at large through radio, television and the press.¹³⁸ This educational mandate would continue through museum expansion and the changing needs of a museum-going public from the 1960's to 1990's.¹³⁹

Assessment of the ROM's Role

Miers and Markham's 1927 evaluation of the import of the educational value of the ROM had proven to be accurate. This situation would be upheld and actively developed through to the present day. The ROM would move away from a "supine acceptance" of the idea of the static museum,¹⁴⁰ to become a more effectual social institution. Shifting from the notion of museums being dusty places reserved only for scholars, the ROM was the chief Canadian advocate for museums as institutions contributing to culture, education and the good of society as a whole. Taking the lead in this evolving process, the ROM became involved in a mission which would change the role of museums in North America to one which catered to a new focus on educational functions. Museums would become, "research centres and guardians of cultural and historical treasures, and, at the same time, function as information organizations. While acting as community institutions, they promote not only education but inspiration through interpretive exhibits of visual material."¹⁴¹ In a similar vein, the philosophy of Marshall McLuhan was adhered to:

The age of lecture and of teacher up front passing out data is behind us. The students must now become part of a team engaged in discovery. Discovery, not the mere accumulation of data.¹⁴²

Initiatives taken by the ROM echoed Jacques Barzun's supposition as to why the public had an interest in museums:

The answer is, broadly: to convey, preferably in some organized form, knowledge with pleasure - aesthetic pleasure sometimes, and the simple pleasure of knowledge at other times. In either case, the work is infected with pedagogical intent.¹⁴³

The progressive stance taken by the ROM would have a major impact on the development of Canadian museums during the latter part of the 20th century, and help to affirm their position as centres for learning.

Conclusion

During the first half of the 20th century the Canadian museum movement went through a further phase of development. Museums grew in number, diversity and location. Many began to concentrate on their educational purpose. Although the adversity of two world wars slowed this transformation, advances were recorded by 1950. These initiatives would set the stage for the growth of these institutions into centres for learning as we know them today.¹⁴⁴ The chronicling of action taken by individuals, groups and various museums throughout this fifty year period, proved that contemporary sentiments expressed

about museums as popular educators, were as relevant to the situation in Canada as they were to circumstances in the museums of the United Kingdom and the United States.¹⁴⁵

End notes

1. Cited in Archie Key, Beyond Four Walls (Toronto, 1973), pp. 54-5.
2. "General Notes," Museums Journal (November, 1906), v. 6, p. 189.
3. Susan Sheets-Pyenson, Cathedrals of Science (Montreal, 1988), pp. 23 & 101. For insight on the stagnation of museums in the United Kingdom, see Gaynor Kavanagh, History Curatorship (Washington, 1990), p. 15.
4. J. Lynne Teather, "Museum-Making in Canada to 1972," Muse (Summer/Fall, 1992), p. 26. For more on the impact of nationalism and the valuing of the past, see David Lowenthal, The Heritage Crusade (London, 1996), pp. 13 & 63-65. For information on the connection between nationalism and history in Ontario, see Gerald Killan, Preserving Ontario's Heritage (Ottawa, 1976), pp. 4-8.
5. B.E. Walker, "Canadian Surveys and Museums and the Need of Increased Expenditure Thereon," Proceedings of the Canadian Institute (1904), v. 2, n.s., p. 88.
6. For information on earlier efforts to form a provincial historical society, see William Canniff, History of the Settlement of Upper Canada (Toronto, 1869), p. v, and Killan, Preserving, pp. 6-16 & 37-42.
7. See Pioneer and Historical Association of the Province of Ontario Report of Special Meeting Held in Toronto on March 30th, 1898 (Toronto, 1898), p. 10. For the president's thoughts on the importance of history, see J.H. Coyne, "The Value of History," Globe, (January, 1898), p. 10.
8. Cited in Killan, Preserving, p. 57.
9. "Presidential Address," Annual Report of the Ontario Historical Society 1899 (1899), pp. 33-34.
10. Circular for the Canadian Historical Exhibition, cited in Ian Kerr-Wilson, "Historical Societies and Their Museums: A Survey of the Ontario Case," MMS Thesis (Toronto, 1987), p. 59.
11. Transactions of the Women's Canadian Historical Society of Toronto (1896), #1, p. 5.
12. WCHST members Mary A. FitzGibbon and Sara Mickle were appointed respectively as Convenor and Secretary of the Exhibition Committee. FitzGibbon received plaudits for her efforts as, "The unique Historical Exhibition held in Victoria College in 1898 was largely her undertaking." See "Sketch of Agnes FitzGibbon," TWCHST (1915), #4, p. 16. For more on the Society's involvement see TWCHST (1970), #29, p. 8.
13. Dorothy Duncan, "From Mausoleums to Malls: What Next?," Ontario History (June, 1994), v. 86, #2, p. 111.

14. Quoted in AROHS 1901 & 1902 (1903), p. 50. See also Killan, Preserving, pp. 109-10, and Duncan, "Mausoleums," p. 111. The use of objects in teaching would continue to be important for the OHS. A motion was passed at the 1906 annual meeting which urged Boards of Education and School Trustees to place portraits and busts of distinguished persons and pictures of historical incidents in schools. See AROHS 1905 & 1906 (1906), p. 42.
15. AROHS 1911 (1911), p. 20.
16. Annual Archaeological Report 1904 (1905), p. 6.
17. AROHS 1912 (1912), p. 5. For more on Boyle and the probable redundancy of an OHS museum, see Killan, Preserving, pp. 115-17, and Kerr-Wilson, "Historical," pp. 66-67.
18. For examples of articles on these topics, see John Dearness, "The Teaching of History," AROHS 1913 (1913), pp. 40-47, John Dearness, "The Sphere of the Historical Societies," AROHS 1914 (1914), pp. 36-43, and Clarence C. Warner, "The Growth of the Canadian National Feeling," AROHS 1915 (1915), pp. 16-26.
19. AROHS 1909 (1909), p. 43.
20. AROHS 1922 (1922), p. 26.
21. By the end of the 19th century 37 permanent museums were recorded. By 1930 this number had grown to 81. See Archie F. Key, "Canada's Museum Explosion, The First One Hundred Years," MJ (June, 1967), v. 67, #1, p. 20. The 1902 OHS Annual Report listed 19 active affiliated societies, 9 operating or planning to operate museums, and 6 listing keeping collections as a regular activity. AROHS 1901-02 (1902), pp. 8-21.
22. For statistical information on Canadian museums during this period, see Valentine Ball, "Report on a Visit to the Museums of America and Canada," Thirty-Second Report of the Science and Art Department (1884), Henry Ami, "Report on the State of the Principal Museums in Canada and Newfoundland," Report of the British Association for the Advancement of Science (1897), Frederick J.H. Merrill, Natural History Museums of the United States and Canada (Albany, 1902), #62, misc. 1, Paul M. Rea, "A Directory of American Museums," Bulletin of the Buffalo Society of Natural Sciences (1910), v. 10, #1, and E. Howarth & H.M. Platnauer, Directory of Museums (London, 1911), pp. 287-304.
23. The Globe (August 25, 1879), cited in Duncan, "Mausoleums," p. 109. For a listing of the collection 17 years after its establishment, see Pioneers' Cabin, Industrial Exhibition Park, Toronto, 1896 (Toronto, 1896), pp. 1-3.
24. See Constitution and By-Laws of the York Pioneers' Association (Toronto, 1883), p. 3. Scadding Cabin still exists today and continues to be operated by the York Pioneers.
25. AROHS 1923 (1923), p. 18. A recommendation to house headquarters for the OHS in this building was deemed to be "contrary to the aims of the rights of the outside or local historical societies." Ibid., p. 19. It has been suggested that territorial squabbles between the OHS and affiliates were partly to blame

for the lack of grass roots support for the establishment of a Provincial Museum. See Kerr-Wilson, "Historical," p. 66.

26. Cited in Ken Doherty, "The Common Thread: One Hundred and Fifty Years of Museums in Peterborough," OH (June, 1994), v. 86, #2, p. 133. For two period accounts on Mechanics' Institutes in Canada, see Thomas Davison, "Mechanics' Institutes and the Best Means of Improving Them - 1," The Canadian Monthly (September, 1876), v. 10, #3, pp. 220-23, and Richard Lewis, "Mechanics' Institutes, and the Best Means of Improving Them - 2," ibid., pp. 223-38. The work of mechanics' institutes in Canada varied in scale according to resources. A recollection from 1848 described what the Toronto M.I. did: "The Institute inaugurated the first of a series of exhibitions of works of art and mechanism, ladies' work, antiquities, curiosities etc. This was kept open for two weeks, and was a means of instruction and amusement to the public, and of profit to the Institute funds." Remembrances cited in Samuel Thompson, Reminiscences of a Canadian Pioneer for the Last Fifty Years (Toronto, 1968), p. 274.

27. Cited in Rhona Wegner, "The Influence of the Peterborough Mechanics' Institute on Museum Development in Peterborough," unpublished paper, Sandford Fleming College, (1993), pp. 2-3.

28. "Formation of an Historical Association," Peterborough Examiner (December 8, 1896). The main object of this Society was to collect and preserve remnants of Peterborough's early history. David Boyle urged the formation of this local body in affiliation with the Pioneer and Historical Association of Ontario.

29. Daily Record (May 14, 1897), in Minute Book of the Town and County of Peterborough Historical Society (May, 1897), p. 46.

30. The Town and County of Peterborough Historical Society - Victoria Museum - Dedicated on Jubilee Day, June 22nd, 1897, p. 3.

31. Daily Review (June 26, 1897), in MBTCPHS, p. 48.

32. C. Fessenden, quoted in ibid., p. 49. By 1903 the collection was still being used by the schools: "The teachers of the city will acquire valuable aid in their nature studies and our museum will become more interesting." See AROHS 1903 (1903), p. 19.

33. "Victoria Museum Open to the Public," Examiner (April 14, 1899).

34. For more on the role of the Peterborough Historical Society and its connection to the Peterborough Centennial Museum, see Doherty, "Common," pp. 137-46.

35. Quoted in "The Huron Institute," Historical Bulletin of the Collingwood Museum (May, 1996), p. 1. See also Huron Institute, in Rea, "Directory," p. 322.

36. AROHS 1907 (1907), p. 42, cited in Kerr-Wilson, "Societies," pp. 98-99.

37. Ibid., p. 99.

38. "The Huron Institute," Mer Douce (June, 1921), p.6.
39. Letter, Toronto, January 8, 1906 from R.H. Ryne to J.S. Duff, Cookstown, Ontario.
40. "H.I.", Mer Douce, p. 6.
41. AROHS 1919 (1919), p. 36.
42. "H.I.", Mer Douce, p. 7.
43. In 1991 the Collingwood Museum won an Award of Excellence from the Ontario Historical Society for outstanding community service.
44. Teather, "Museum", p. 26. Another opinion suggests that this growth stalled by 1930 because of the depression and World War II. See Key, "Explosion," p. 20. For a synopsis of these developments, see Key, Beyond, pp. 141-49, and Duncan, "Mausoleums," pp. 111-12. For specifics on the two typical museums of the period, see information on the Hamilton Association Museum in Report of the Minister of Education for 1888 (Toronto, 1889), p. 198, Ami, "Museums," p. 70, and a current events notice in MJ (March, 1905), v. 5, p. 330. For details on the Ottawa Literary and Scientific Society Museum, see Report of the Minister of Education 1880 & 1881 (Toronto, 1882), p. 263, and Ottawa Field-Naturalists' Club Transactions (1884), v. 2, #2, p. 13.
45. AROHS 1909 (1909), p. 22.
46. Mr. McFadden, cited in AROHS 1927 (1927), p. 13.
47. Cited in ibid., p. 57.
48. George H. Locke, "Co-operation Between Libraries and Museums," MJ (February, 1930), v. 29, #8, p. 263.
49. AROHS 1926 (1926), P. 11.
50. AROHS 1907 (1907), p. 40.
51. AROHS 1916 (1916), p. 42.
52. "Archaeological Report," Part of Appendix to the Report of the Minister of Education, Ontario, 1896-97 (Toronto, 1897), p. 1.
53. Carnochan to Boyle, September 18, 1897. Cited in Kerr-Wilson, "Societies," p. 104. Boyle provided advice in the planning for Memorial Hall, Niagara on the Lake. This was the province's first purpose built museum for an historical collection. See John Field, Janet Carnochan (Markham, 1985), p. 37.
54. "Archaeological Report 1900," pp. 2-3. See also David Boyle, "History Taught by Museums," Niagara Historical Society Journal (1898), #4, p. 33, and David Boyle, "A Museum, or a Musee," Archaeological Report 1904 (Toronto, 1905), p. 101.

55. In a study tour of European museums in the summer of 1900, Boyle noted; "There are magnificent collections, enabling students to compare the trend of thought and the process of development in science, as well as in art, among peoples in every shape of growth." See "Archaeological Report 1900," p.2.
56. Smith had visited Boyle's museum at the Normal School in 1911, and in an 1912 letter made reference to "my old friend David Boyle." See Smith to Dr. T.B. Beeman, May 11, 1912, in Harlan Smith Correspondence, Box 216R, Folder 2. Smith had formulated a position on the role of museums and education as early as 1897. See Harlan I. Smith, "Popular Museum Exhibits," Museum Association Report of Proceedings (1897), v. 8, pp. 61-68. Smith sent information on free lecture courses to David Boyle in 1912. See Smith to George Laidlaw, January 23, 1912, in HSC, Box 216R, Folder 9.
57. For information on various art related initiatives, see Katherine Reid, "Encouraging Native Handicrafts," The Canadian Magazine (1908), v. 31, pp. 313-18, Roy F. Fleming, "The National Gallery and Its Possible Relation to Education in Our Schools," The School (December, 1914), v. 3, #4, pp. 273-77, Eric Brown, "The National Gallery of Canada," The School (September, 1915), v. 4, #1, pp. 16-23, Edward R. Greig, "The Art Museum of Toronto," Museum Work (March, 1919), v. 1, #6, pp. 183-85, A.D.R. Fraser, "A Museum as a School Project," The School (September, 1923), v. 22, #1, pp. 59-61, Henry Pybus, "The Museum of Vancouver, British Columbia," MJ (July, 1925), v. 25, #1, pp. 12-13, and Donald W. Buchanan, "The Loan Exhibition System of the National Gallery of Canada," MJ (April, 1935), v. 35, #1, p.9.
58. Locke, "Co-operation," p. 260.
59. Henry A. Miers, "Museums of Canada: A Talk to Canadians," MJ (November, 1931), v. 31, #8, pp. 333-34. A similar reflection was made by the curator of South Africa's Durban Museum and Art Gallery after a tour of American and Canadian museums. He wrote; "The value of a museum or an art gallery to a community depends not so much upon its size, or the extent and value of its collections, as upon the use that is made of its possessions for educational purposes and the advancement of knowledge." See E.C. Chubb, Museums and Art Galleries as Educational Agents (Pretoria, 1929), p. 38.
60. Locke, "Co-operation," pp. 261-63. Dr. Locke was a keynote speaker at the Museum Association's annual conference held in Worthing in July, 1929. E.E. Lowe, director of the Leicester Museum referred to Locke as "one of the greatest educational forces in Canada," and in response to Locke's paper, concluded that; "It is up to the museums and libraries not to wait for the education authorities, but to join in getting hold of the children and giving them in the right way the knowledge and experience necessary to appreciate the work in which we so firmly believe." Ibid., pp. 263-64.
61. Key, Beyond, p. 164, and Duncan, "Mausoleums," p. 112.
62. Henry A. Miers & S.F. Markham, The Museums of Canada (London, 1932). Other titles included E.E. Lowe, A Report on American Museum Work (Edinburgh, 1928), Henry A. Miers & S.F. Markham, A Report on the Museums and Art Galleries of British Africa (Edinburgh, 1932), S.F. Markham & H.C. Richards, A Report on the Museums and Art Galleries of Australia and New Zealand (London, 1933), and S.F. Markham, A Report of the Museums and Art Galleries of the British Isles (Edinburgh, 1938).
63. Teather, "Museum," p. 27 and Key, Beyond, p. 163. A later government study described the findings

of Miers and Markham as being "frank but not uncharitable." It concluded that the report "must be accepted as reflecting the situation at the close of an era of considerable expansion and prosperity." See Report of the Royal Commission on National Development in the Arts, Letters and Sciences (Ottawa, 1951), p. 97.

64. A recent appraisal of the Miers & Markham Report has suggested that it "established the beginnings of a referential repertoire for museum policy makers in Canada." See Laurence Grant, "Canada's Federal Museum Policy," in The Working Papers Series, The Centre for Research on Culture and Society Carleton University (March, 1991), #1, p.5.

65. Miers & Markham, Museums, p. 63. For period reactions to the findings of this study, see H.A. Miers, "President's Address, 1931," MJ (August, 1931), v. 31, #5, p. 181, S.F. Markham, "Impressions of American Museums," MJ (October, 1931), v. 31, #7, pp. 298-99, and "Museums of Canada," Nature (January 21, 1933), v. 131, #3299, pp. 84-85.

66. Ibid., p. 35. For a list of historical societies in Ontario having museums as part of their operation, see p. 34. An OHS affiliate was given credit for first advocating professional development for curators. See ibid. Mrs. McGregor of the Swansea Historical Society called for the training of curators at the 1930 OHS Conference held in Belleville. See OHSAR 1930 (1930), p. 28.

67. Miers & Markham, Museums, pp. 8 & 41.

68. Ibid., p. 63. Frank Markham stressed this public role for museums in 1931. While believing that the general public still did not understand the role of museums, Markham projected "that the museum movement, if it can expand its ideas to meet the modern requirements, can become one of the greatest cultural forces in the world, teaching men to see life clearly and to see life whole." Markham, "Impressions," p. 442. Markham responded to Harlan Smith saying; "We have been in some difficulty about the treatment of the National Museum, Ottawa in our Report." He went on to express interest in Smith's attempts to link museum work to commercial activities. See Markham to Smith, December 16, 1931 in HSC, Box 216F, Folder m.

69. See Teather, "Museum," p. 27, Buchanan, "Loan," p. 9, Helen G. Kemp, "Children at the Art Gallery of Toronto," The School (September, 1937), v. 26, #1, pp. 10-13, and J.A. Dale, "Teacher and Community," The Canadian Magazine (1923-24), v. 62, pp. 383-88.

70. "Assistance to Schools From Museums and Art Galleries," Education Bulletin #1 (Ottawa, 1938). See also Key, "Explosion," p. 20. An assessment of Canadian museums made in 1931 by a former curator at the ROM did not concur with the findings of the Miers and Markham study; "On the side of elementary education and interesting and instructing the public, Canada's museums are as advanced as any in the world." See J.H. Iliffe, "The Museum Situation in Canada With Especial Reference to the Royal Ontario Museum," MJ (December, 1931), v. 31, #9, p. 385.

71. Cited in "Assistance," p. 4.

72. Ibid., p. 1. A total of 310 collections and 91 museums were identified as resources for such collaborative efforts. See Key, "Explosion," p. 20.

73. For examples see "Training of Museum Workers," Museum Work (May, 1919), v. 1, #8, pp. 239-47, Winifred E. Howe, "The Museum Story-Its Preparation and Its Place in Educational Work," Museum Work (November, 1919), v. 2, #2, pp. 51-54, Edward S. Robinson, "Psychological Studies of the Public Museum," School and Society (January 24, 1931), v. 33, pp. 121-25, Marcus S. Goldstein "The Museum as a Potential Force for Social Enlightenment," Science (August 30, 1940), v. 92, #2383, pp. 197-98, and Frank Tyrer, "What the Teacher Requires of the Museum," MJ (August, 1947), v. 47, #5, pp. 96-98.

74. For examples of articles on these topics, see Gwendolen M. Kidd, "Historical Museums in Canada," Canadian Historical Review (1940), v. 21, pp. 285-97, Elsie M. Murray, "Local History For Your School," The School (January, 1945), v. 33, #5, pp. 447-50, and Trenchard Cox, "Educational Methods in the Museums of the United States and Canada," MJ (November, 1948), v. 48, #8, pp. 165-71.

75. See Key, "Explosion," p. 21 and Key, Beyond, p. 183. The director of the Birmingham City Museum and Art Gallery verified this growth in 1948 and added; "...small museums and art galleries are rapidly multiplying all over the Dominion; and one can confidently hope that each of these will become an integral part of a scheme for art education which will progressively enrich the cultural tradition of Canada." See Cox, "Educational," p. 171. This growth was confirmed by a prominent international museologist who concluded that; "A phenomenal numerical growth of museums has occurred here since the end of the Second World War." See Alma Wittlin, Museums: In Search of a Usable Future (Cambridge, Mass., 1970), p. 189.

76. See Morris Zaslow, Reading the Rocks (Toronto, 1975), pp. 280-81, and Loris S. Russell, The National Museum of Canada 1910 to 1960 (Ottawa, 1961), pp. 15 & 32.

77. For examples of early publications see Harlan I. Smith, "Popular Museum Exhibits," Museums Association Report of Proceedings (1897), pp. 63-68, Harlan I. Smith, "The Natural History Museum of British Columbia," Science (November 4, 1898), v. 8, #201, n.s., pp. 619-20, Harlan I. Smith, "The Preservation of Local Archaeological Evidences," Museums Association Report of Proceedings (1899), pp. 69-75, Harlan I. Smith, "Methods of Collecting Anthropological Material," MJ (October, 1902), v. 2, pp. 121-24, Harlan I. Smith, "Interrogatory Labels for Certain Kinds of Museums," Science (January 11, 1907), v. 25, #628, n.s., pp. 67-68, and Harlan I. Smith, "Primitive Industries as a Normal College Course," in Putnam Anniversary Volume Anthropological Essays (New York, 1909), pp. 487-520.

78. Smith was influenced by the writings of American educator and natural historian Dr. William H. Sherzer, and by Harvard University anthropologist Frederic Ward Putnam. In later documentation Smith quoted George Brown Goode, William Henry Flower and Edward Forbes. For these references see HSC, 1916, Box 26, File 2.

79. Smith to Sapir, February 2, 1911, Harlan I. Smith Papers, Box 429, F82. In later reflections Smith identified his concern: "A museum is not a place for the hoarding up of curiosities like a rubbish heap...even the great American Museum of Natural History and the United States National Museum with all their funds...seem to have failed in this respect." Smith to William Peterson, October 14, 1914, HSC, Box 216, File 10.

80. Smith to Sapir, March 2, 1911, Ibid.

81. Summary Report of the Geological Survey Branch of the Department of Mines 1911 (Ottawa, 1912), p. 391.
82. Smith to Corporal M.M. Joyce, March 13, 1912, HSC, Box 27, File 7.
83. Summary Report of the Geological Survey Department of Mines 1912 (Ottawa, 1914), p. 497.
84. For additional details on these ideas, see Harlan I. Smith, "The Educational Work of a Great Museum," Science (November 15, 1912), v. 36, #933, n.s., pp. 659-64. See also Harlan I. Smith, "The Educational Work of a Great Museum," Scientific America Supplement (February 8, 1913), v. 75, pp. 86-87.
85. Smith to Nickerson, October 16, 1912, HSC, Box 217R, File 13a.
86. Smith to Peterson, October 1, 1914, HSC, Box 216R, Folder 10.
87. Ibid.
88. In reviewing the purposes of the Canadian National Museum in 1912, Smith proposed the establishment of a Division of Museum Extension which would include educational extension, public education and public instruction. Staff would be in charge of liaison with school boards, design circulating and travelling collections, prepare sets of lantern slides for loan, and present public lectures and courses, all leading to "public enlightenment." See "Museum Committee Memo, A Division of Museum Extension," n.d., HSC, Box 216F, Folder 12e.
89. For examples of such articles, see Harlan I. Smith, "Museums of Sounds," Science (August 21, 1914), v. 40, #1025, n.s., pp. 273-74, Harlan I. Smith, "Making Museums Useful," Scientific America Supplement (May 29, 1915), v. 79, #2056, pp. 348-49, Harlan I. Smith, "A Cheap Case for Small Museums," The Ottawa Naturalist (May, June-July, 1915), v. 29, pp. 33-36 & 44-50, Harlan I. Smith, "The Fire and the Museum at Ottawa," Science (March 24, 1916), v. 43, #1108, n.s., pp. 415-18, and Harlan I. Smith, "A Museum Becomes the Seat of Government," Scientific American Supplement (April 8, 1916), v. 81, pp. 232-33.
90. "Memo to the Museum Committee, January 8, 1913," HSC, Box 216R, Folder 12a.
91. Smith, "Sounds," p. 273.
92. Harlan I. Smith, "The Widespread Influence of the Children's Museum," The Ottawa Naturalist (August - September, 1917), v. 31, #5 & 6, pp. 59-60. See also Bulletin of the Detroit Museum of Art (April, 1912), v. 6, #2, pp. 19-27. Smith highlighted how lantern slides were of value to the education of school children, and that the worth of visits of students to the DMA was so great that this museum was considered a part of the educational system of Detroit. Included in HSC, Box 216 R, Folder 12e. Smith's interest with museums for children continued until his retirement. Records contained a copy of The Children's Museum News (November, 1936), v. 24, #2. Included in HSC, Box 26, File 4.
93. "School Circulating Collections at the Ottawa Museum," MJ (November, 1917), v. 17, #5, pp. 69-71.

94. Summary Report of the Geological Survey Department of Mines 1916 (Ottawa, 1917), p. 11. For more on the early use of film in museums, see Harlan H. Ballard, "Museums and Movies," Museum Work (May, 1920), v. 2, #8, pp. 250-52.
95. These comments were forwarded to Miss Amelia Meissner, curator of the St. Louis Education Museum. See Smith to Meissner, April 11, 1918, HSC, Box 216F, Folder m.
96. For a selection of articles in this mode, see Harlan I. Smith, "Museums as Aids to Forestry," Scientific American Supplement (May 6, 1916), v. 81, #2105, p. 297, Harlan I. Smith, "Distinctive Canadian Designs," Industrial Canada (September, 1917), pp. 1-4, Harlan I. Smith, "The Work of Museums in War Time," The Scientific Monthly (April & May, 1918), v. 6, pt. 4, pp. 362-430, Harlan I. Smith, "Labelling of Fair Exhibits as an Aid to Agricultural Production," Science (June 21, 1918), v. 47, #1225, pp. 603-04, and Harlan I. Smith, "Archaeological Museum Work and the War," MJ (August, 1918), v. 18, #2, pp. 20-21. Period correspondence to George Laidlaw reiterated Smith's interest in the use of native motifs and his work on labelling at agricultural fairs and expositions. See Smith to Laidlaw, January 16, 1918, HSC, Box 216R, Folder 9. For a comparative reflection on museums and World War 1 in England, see Gaynor Kavanagh, "The First World War and Its Implications for Education in British Museums," History of Education (1988), v. 17, #2, pp. 163-76, and Gaynor Kavanagh, History Curatorship (Washington, 1990), pp. 19-21.
97. Harlan I. Smith, "The Development of Museums and Their Relation to Education," The Scientific Monthly (August, 1917), v. 7, pp. 97-119.
98. For example, see letter to the editor, MJ (January, 1931), v. 30, #7, p. 296, Harlan I. Smith, "Weather-Proof Labels for Out-Door Use," MJ (August, 1931), v. 31, #5, pp. 188-90, and Harlan I. Smith, "Archaeology and Ethnology in the National Museum of Canada," MJ (March, 1933), v. 32, #12, pp. 468-69.
99. "The National Museum of Canada," HSC, Box 27, File 7.
100. Ibid.
101. Smith, "Development," p. 119.
102. See Douglas Leechman, "Harlan Ingersoll Smith 1872-1940," The Canadian Field-Naturalist (October, 1942), v. 56, #7, p. 114.
103. Smith to Peterson, October 14, 1914, HSC, Box 216, File 10.
104. See "Assistance," p. 6.
105. For a comprehensive listing of Smith's publications, see "Bibliography of Harlan I. Smith 1889-1936," Annual Report of the National Museum of Canada 1930-1947 (Ottawa, 1949), #112, pp. 7-14.
106. Miers & Markham, Museums, pp. 39 & 40, Lovat Dickson, The Museum Makers (Toronto, 1986), p. 69, and Key, Walls, p. 164.

107. Jubilee of Sir Edmund Walker (Toronto, 1918), p. 35.
108. C.T. Currelly, I Brought the Ages Home (Toronto, 1976), p. 38, and Key, Walls, p. 143.
109. William A. Parks, "The Need of a Provincial Museum in Ontario," Journal of the Canadian Mining Institute (1905), v. 8, pp. 67-73. Parks had previously been involved with the formation of a committee in 1897 to collect, preserve and register Canadian photographs of geological interest. See Report of the British Association for the Advancement of Science (1899), p. 547. In 1909, Parks wrote a letter to B.E. Walker on behalf of other professors, noting the desperate need for a new museum to house the University's geology and mineralogy collections. See Dickson, Makers, p. 27.
110. Parks, "Need," pp. 73-75.
111. Cited in Dickson, Makers, p. 35. Sir Edmund Walker also saw the utility of a linkage between the University of Toronto and the proposed provincial museum, and the public educational role such a facility would play. In a letter written to Ontario Premier Sir James Whitney in May of 1906, Walker said; "The benefit of a Provincial museum committee would accrue mainly to the people as a whole, and I desire to make it quite clear that the connection in the University arises mainly from the fact that they are the natural curators of a Provincial Museum. Education of the people in technical matters and the improvement of the public taste in manufactures would be advanced by objects of artistic and historical interest. Education of the people through seeing objects which are artistically, [and] scientifically important." Walker to Whitney, cited in Norma E. Heakes, Education in the Royal Ontario Museum 1913-1975 (Toronto, 1976), p. 1.
112. Cited in Dickson, Makers, p. 28. A recent article suggests that the persistence of the museum's first curator, Charles Trick Currelly and political lobbying by Walker and Sir Edmund Osler resulted in government support for the ROM. See Keith Hyde, "Ancient Egypt and the ROM Connection," Leisure Ways (October, 1994), p. 44.
113. See James R. Hunter, The Ontario Provincial Museum 1896-1933, "MMS Thesis" (Toronto, 1987), p. 41, and Killan, Preserving, p. 111. Killan suggests that the approval for the ROM ended efforts by the OHS to develop a provincial museum. Not all museum supporters agreed entirely with the concept of the ROM. Miss Sara Mickle, president of the Women's Canadian Historical Society of Toronto spoke to this matter in a 1920 address to the membership. Mickle said; "There is room for a small Museum in Toronto which would deal with the social and domestic life of the town and country. This the great Provincial Museum, of which we are justly proud, cannot do. And yet there is an interest and charm about the intimate possessions of those who have passed away that tells us more than we can learn from books. There is a wealth of historical articles still to be secured. As a Society we must be up and doing to make our work a success." Cited in TWCHST (1920-21), #21, P. 6. The Society would establish its own museum and become involved with the preservation of Fort York and Colborne Lodge and their development as museums. See TWCHST (1970), #29, pp. 12, 23, 25 & 28.
114. "A building intended to house all the museums of the university, except certain teaching collections, is in course of erection in 1910." Cited in Rea, "Directory," p. 325.
115. Sir William Ridgeway, professor of archaeology at Cambridge University, Sir William Flinders

Petrie, professor of Egyptology at University College, architect Sir Aston Webb, Sir Cecil Smith of the Victoria & Albert Museum, and Laurence Binyon of the British Museum provided advice to C.T. Currelly. Currelly also toured numerous American museums for ideas on exhibit design and display case construction.

116. This event was noted in MJ (October, 1914), v. 14, #4, p. 148. See also Dickson, Makers, p. 37-38, and Currelly, Ages, pp. 211-13. The Governor General congratulated the museum's Board of Trustees for its focus upon popular education through "the treasures shown to appeal to ordinary mortals." Quoted in Heakes, Education, p. 4.

117. See "Jubilee," p. 35. Walker discusses his interest in science, "the truth regarding nature," and the influence of Darwin's writings. Walker received further praise from the director of the Royal Ontario Museum of Archaeology; "It was to Sir Edmund's generous gifts, his unflagging interest, his inspiring enthusiasm, and his untiring efforts of the continuous advance of the Museum, that its present position is very largely due." See Charles T. Currelly, "The Royal Ontario Museum of Archaeology," The University of Toronto Monthly (May, 1927), v. 27, #8, p. 348.

118. Dickson, Makers, p. 40. Dickson suggests that without Walker's leadership the ROM might have closed during World War I. See p. 39.

119. Dickson, Makers, p. 49. This guide-lecturer position was regarded as "an excellent method in vogue." See Miers & Markham, Museums, p. 38.

120. See Dickson, Makers, pp. 60-65 on early education initiatives at the ROM. For more on Home's ideas on museums and education, see Ruth M. Home, "Museum Photographs and Your School," The School (November, 1935), v. 24, #3, pp. 208-10, Ruth M. Home, "The Museum and the Schools," The School (February, 1936), v. 24, #6, pp. 473-76, and Ruth M. Home, "The Object of the Museum," Ontario History (September, 1961), v. 53, #3, pp. 187-91.

121. "Assistance," pp. 2 & 3. Another federal government questionnaire garnered the following statistics on the ROM: 954 average daily attendance on free days (4 days weekly), and 333 on the other days. Extension activities included free lectures, public radio broadcasts, and the loan of lantern slides. The museum was seen as providing a "variety of visual education and entertainment." See "Museums in Canada," Educational Bulletin #4 (Ottawa, 1938), pp. 3, 6 & 4.

122. For additional information on these programmes, see H.A. Thompson, "Material for the Study of the Early History of Italy in the Royal Ontario Museum of Archaeology," The School (March, 1937), v. 25, #7, pp. 586-91, E.F. Kingston, "Material in the Royal Ontario Museum of Archaeology for the Teaching of Egyptian History," The School (September, 1938), v. 27, #1, pp. 26-31, and H.A. Thompson, "Aids for the History of Babylonia in the Royal Ontario Museum," The School (January 1939), v. 27, #5, pp. 395-99.

123. E.E. Lowe, A Report on American Museum Work (Edinburgh, 1928), p. 22. Director C.T. Currelly saw the collections as a means of instruction and training for "the student and worker." See Currelly, "Royal," pp. 347 & 348.

124. "The Royal Ontario Museum," MJ (May, 1931), v. 31, #2, pp. 59-60. The critical lack of space at the ROM and the resulting consequences were described in 1927: "Objects are packed into the cases, cases are touching end to end, often side to side, in a congestion that is a very grave hindrance to the use of the material." Currelly, "Royal," pp. 349-50.
125. "The Reopening of the Royal Ontario Museum, Toronto," MJ (May, 1934), v. 34, #2, pp. 50-51.
126. Miers & Markham, Museums, p. 9.
127. Iliffe, "Situation," pp. 293, 295, 296, & 297. Iliffe was a professor at the Palestine Museum in Jerusalem.
128. Iliffe, "Situation," MJ (November, 1931), v. 31, #8, pp. 343-44.
129. Duncan F. Cameron, "The Royal Ontario Museum 1912-1962," OH (September, 1961), v. 53, #3, p. 195. Heinrich, came from the Metropolitan Museum of New York where he was associate curator of paintings.
130. Dickson, Makers, p. 124.
131. See Report, pp. 93 & 96.
132. See Report of the Royal Commission on Education in Ontario (Toronto, 1950), pp. 678-79. This public education function was identified by the director of the City Museum and Art Gallery of Birmingham. He noted students of ceramics used a "Ceramic Study Room" to handle and observe samples of ancient and modern porcelain and pottery. See Trenchard Cox, "Educational Methods in the Museums of United States and Canada," MJ (November, 1948), v. 48, #8, p. 170.
133. Elizabeth H. Trott, "The Business of Running a Museum," Canadian Monetary Times and Insurance Chronicle (September, 1955), v. 123, #9, p. 26. In 1950 it was decided to radically change the geological exhibits from being a systematic collection of minerals and shift the emphasis to geological processes. See Walter M. Tovell, "Royal Ontario Museum - The New Geology Galleries," MJ (March, 1963), v. 63, #4, p. 251.
134. Professor Gerard Brett, quoted in Trott, "Business," p. 94. In 1954, between 450,000-500,000 patrons visited the ROM, 732 city schools and 901 classes from other parts of the province participated in programmes, 326 teachers took training, and membership for the childrens' club had to be limited to 150.
135. Quoted in Trott, "Business", p. 95.
136. Dr. T.A. Heinrich, quoted in "Museums in the Commonwealth," MJ (September, 1957), v. 57, #6, p. 136.
137. Carl E. Guthe and Grace M. Guthe, The Canadian Museum Movement (Ottawa, 1958), p. 17.
138. Cameron, "Royal," p. 193 & 196. After World War II, education became such an important part of

the ROM's mandate that a separate Education Division was created. See Dickson, Makers, p. 122.

139. For further details on the ROM's educational programmes during these 30 years, see Heakes, Education, pp. 54-140, Ruth Freeman, The Discovery Gallery: Learning in the Museum (Toronto, 1989), and Ron Miles, "Two Decades of Evolving Practice: The School Visits Program," Ontario Museum Annual (1992), v. 1, pp. 21-28.

140. Alice J. Turnham, "Survey of Canadian Museums," Museum News (December, 1959), v. 38, #4, p. 35.

141. Frederick L. Rath Jr., "Interpretation in Our Museums," Ontario Historical Society Museums Section Report (1959), p. 29.

142. Cited in "Exploration of the Ways, Means, and Values of Museum Communication with the Viewing Public," A Seminar (New York, 1967), p. 14.

143. Cited in ibid., p. 73.

144. For examples of current literature on this topic, see John H. Falk and Lynn D. Dierking, The Museum Experience (Washington, 1992), Eilean Hooper-Greenhill, Museums and Their Visitors (London, 1994), Michel Côté and Annette Viel (eds.), Museums: Where Knowledge is Shared (Quebec, 1995), Gail Durbin (ed.), Developing Museum Exhibitions for Lifelong Learning (London, 1996), Lisa C. Roberts, From Knowledge to Narrative (Washington, 1997), Nello McDaniel and George Thorn, Learning Audiences (Washington, 1997), David Anderson, A Common Wealth (London, 1997), and George E. Hein, Learning in the Museum (London, 1998).

145. See quotations at the start of this chapter. For a turn of the century British impression on learning in museums, see John Brown, "Education Through the Senses," in Horae Subsecivae (London, 1907), pp. 223-34. The concept of the museum as an institution for learning was identified in the United States as early as 1889; "No museum can grow and be respected which does not each year give additional proofs of its claims to be considered a centre of learning." See G. Brown Goode, "The Museums of the Future," Report of the U.S. National Museum (Washington, 1890), p. 432.

Chapter 9

Developments in the 1950's to the 1990's: Moving Towards a New Millennium

Introduction

These four decades in the evolution of Canadian museums can be categorized as a period of dramatic growth and change. This period was punctuated by government involvement which rejected the idea of a centralized approach to cultural policy, and was replaced by a policy designed to promote national unity through cultural institutions.¹ In the late 1960's, the nation's fervour for and interest in its past, culminated in the celebration of Canada's centennial in 1967. This event alone saw 152 new museum related initiatives being co-sponsored by the federal government. Centennial projects accounted for 40-50% of museum development during this period and contributed to widespread museum-making throughout the country.² In Ontario, the creation of the Ontario Museum Association (OMA) in 1972 and a decade of lobbying by the OMA and the Ontario Historical Society (OHS), lead to the issuance of the Community Museum Policy for Ontario, and the associated Regulation, guidelines, and standards.³ These and other issues from the 1950's through to the 1990's, will be considered and assessed as factors which resulted in rewarding developments in the sphere of education and in museums throughout this era.

The 1950's

In the 1950's several reports reflected the state of museums in Canada. The tone for the times was set by Prime Minister Louis St. Laurent. In 1949 he announced a plan for the regeneration of the arts:

It is in the national interest to give encouragement to institutions which express national feeling, promote common understanding and add to the variety and richness of Canadian life.⁴

Pressed by ongoing criticism of the state of culture in the country, the federal government established the Canadian Royal Commission on National Development in the Arts, Letters and Sciences. Chaired by the Rt. Hon. Vincent Massey, the commission was charged with the responsibility of studying Canada's cultural life and recommending measures which the Canadian government could take to improve and enrich the existing situation. During a two year period, more than 224 meetings were held, 1,200 witnesses heard and 462 briefs considered. These deliberations resulted in a series of recommendations and ultimately the publication of what became popularly known as the Massey Report.⁵ As part of this study a special advisory committee was established to investigate the state of art galleries and museums.

Culture was regarded as part of education, and it was felt that intelligence could be developed through the arts, letters and sciences. The commission defined education as "...the progressive development of the individual in all his faculties, physical and intellectual, aesthetic and moral." These ends could be achieved through life experiences, formal education in schools, and non-academic education in institutions such as museums. As "instruments of education," they were seen to be of public benefit to all who chose to use them.⁶ Harking back to observations made in the Miers and Markham Report, the Massey Commission suggested that national and local museums were "still in an unfortunate situation," and noted that there had been little improvement since the findings were made in 1932. Public indifference continued to hamper progress, while other problems were cited for existing conditions:

The inability of art galleries, museums, libraries, and archives in Canada to function properly and fully - the result of unsuitable quarters, insufficient trained staff, and inadequate funds - has long been known.⁷

Inadequate accommodations were regarded as the chief problem of all Canadian museums. These drawbacks resulted in limited application of a museum's two main functions; "the enlightenment and entertainment of the public."⁸

The commission believed that an adequate system of national museums "could make a striking contribution to the development of our national life." A properly provisioned national museum could provide inspiration and make contributions to general education through assistance to other museums across the country. Through these local museums, citizens could gain "pleasure and enlightenment."⁹ Supporting documentation suggested that; "A good museum can teach more and please more than any teacher, however gifted, or any book, however well written." In addition, local museums could serve an important public education function; "Sightly and intelligent museums will draw tourists, and they will draw because they please and inform."¹⁰ Federal museums were viewed as a central element in helping other smaller institutions. While the recommendations of the commission were not law, they provided advice for consideration by the Canadian parliament and public. These ideas would help foster growth of interest and active participation in all sectors of Canadian culture, including museums and their educative role.

A study conducted during 1951-52 by the Dominion Bureau of Statistics confirmed growing interest by

the Canadian public in their museums. Total attendance for 87 of 157 institutions polled had increased markedly. Sponsorship by and financial assistance from the federal, provincial and some municipal governments for museums, had been accelerated. The study presented objective findings and a statistical analysis of Canadian museums and galleries which were generally favourable and encouraging. It suggested that museums could play an expanded role "in fostering national and international welfare." In addition, it recorded that a variety of work was carried out through extension activities such as public lectures, demonstrations, publications and radio broadcasts. Educational institutions reported receiving benefit from classroom instructional material supplied to teachers by museums, and it was concluded that; "Museum exhibits have long been considered suitable media for educational purposes" in schools.¹¹

In Ontario the Report of the Royal Commission on Education examined the specific objectives of provincial schools and studied the general aims of education. Chaired by Mr. Justice John Hope, the commission brought forward numerous progressive ideas about the relationship between society, individuals and education. One of the recommendations made by the Hope Commission identified the need to develop the concept that education was a continuing process beyond the school. Partners in this process included art galleries and museums, cultural institutions which could help children to increase their power to think, express views effectively and promote learning as a continuing process.¹²

In 1957, the Canadian Museums Association (CMA) hired the American museological team of Carl and Grace Guthe to further investigate the state of Canadian museums. The authors devoted five months to survey 152 institutions. This work resulted in a published report of findings which was described "as a constructive contribution to the advancement of the Canadian museum movement."¹³ The authors grouped subject museums into four broad types: art, science, history and general. All had the common objectives of collecting and preserving objects and interpreting these collections to the public. The overall findings of the Guthes were that Canadian museums had a relatively meagre impact upon Canadian life. It was conceded that this influence varied greatly from community to community:

In some the museum holds a respected place as a cultural and intellectual community agency. In others, which are in the majority, the museum ekes out a precarious existence in the backwaters of the community's life, as a tolerated but ineffectual social institution.¹⁴

Other weaknesses cited were that while practically all Canadian museums provided guided tours, there was little effort to interest teachers and school boards in the museum as a "teaching agency." In addition,

the failure to recognize the museum as "a community service agency" was widespread. The Guthes firmly believed that there was potential value in demonstrating the museum as "a social instrument." This could be achieved by convincing the formal school system that "the museum offers a unique learning experience which supplements the instruction given in the classroom."¹⁵ This positive aspect of a museum's mandate would over time, counteract the negative findings related to museum management and operation identified by the Guthes.

The endorsement of museums by educational institutions was projected to have a wide influence on potential users. As a social institution, museums could help to expand knowledge by interpreting collections in a logical and stimulating manner. Examples of Canadian museums joining in activities with their communities, offering successful education programmes, preserving and illustrating local history, and appealing to tourists were all indicators of progress towards the responsibilities that the Guthes believed museums in the 1950's should meet.¹⁶ These thoughts were similar to ones held by fellow compatriot Frederick Rath, Vice Director of the New York Historical Association. In a 1959 address to the Museums Section of the Ontario Historical Society, Rath acknowledged the greatly expanded educational function of museums. He categorized museums as educational institutions which had the capacity to stimulate the visitor's intelligence and to enable audiences to move beyond facts and discover for themselves. As a means for the population to know and improve their culture, museums were rapidly developing and evolving into institutions which dedicated their efforts to much more than preservation and research. Rath explained the role of museums in society:

They are research centres and guardians of cultural and historical treasures, and, at the same time, function as information organizations. While acting as community institutions, they promote not only education but inspiration through interpretive exhibits of visual material.¹⁷

By 1959 changes were made in Canadian museums which addressed many of the shortcomings identified in previous reports by Miers and Markham, the Massey Commission and the Guthes. After a six month trans-continental tour of Canada, Alice J. Turnham, president of the Canadian Museums Association saw public support for and interest in museums increasing. Commenting on what she regarded as "a fresh outlook and desire to link the museum more closely with community needs," Turnham identified a strong museum movement in all parts of the country. She wrote of the Canadian situation and what she saw in the future:

Energy, initiative, and imagination - these qualities I see in abundance among the museums of Canada...those who do catch the momentum will move with the main museum stream as it flows strongly across the new Canadian frontier toward untold possibilities ahead.¹⁸

Influenced in many instances by contemporary philosophies coming from the United States,¹⁹ Canadian museum workers and their institutions would move forward into a new decade marked by continued progress.

The 1960's to 1980

What a national publication described as a "new and surprising concern of Canadians for knowledge of their past,"²⁰ helped to propel the development of Canadian museums during the 1960's. This spirit was echoed in the words of Ontario's premier, Leslie M. Frost, prior to the opening of Upper Canada Village in the summer of 1961:

Upper Canada Village belongs to the people of Ontario; it is at once our homage to the past and our gift to the future...This is the heritage we of today have preserved for coming generations.²¹

The provincial government had expended three million dollars to build this re-created living village museum which portrayed the evolution of life in Ontario from 1795 to 1860. This project was "to benefit not only Ontario residents, but the whole country."²² Very few new museum initiatives had such large budgets but most were driven by the desire to meet public needs and to benefit the growing clientele. The ideas of rendering services as a public institution, appealing to interests of communities, interpreting the past through tangible objects, broadening each site's cultural and educational role, and enhancing the social influence of these institutions, all became important objectives in the improved climate for museums. This trend was evidenced throughout Canada, but was the strongest and most active in Ontario.²³

Across the spectrum of museums in Ontario, the preservation of objects and the interpretation of these collections "to deepen the cultural experience of the visitor"²⁴ became the vogue. A survey of 385 similar institutions throughout Canada presented statistics which identified the educational and cultural value of museums. Educational programmes for adults and children were organized by 44 museums and library services were provided by 101. Other educational programmes offered to the local community included study groups, lectures, film showings, guided tours, television programmes and extension

services. A total of 391 employees provided information and education services in 244 museums.²⁵ The rapid increase in the number of museums built was a direct result of the creative vigour and influx of financial support associated with the celebration of Canada's centennial in 1967. In Ontario the opening of more facilities meant an increased number of communities having their own museums. Each community museum could perform the role of custodian of local material culture, and act as a focal point for public education, recreation and heritage interpretation. The formal education system also assisted museums in expanding their educational mandate.

A new philosophical framework for education to meet the changing societal patterns in a late 1960's Ontario, was delineated in the Living and Learning document. The study, commissioned by the Ontario Department of Education, advocated a "progressive philosophy" would have long-standing implications on the writing of provincial curriculum guidelines, and in turn would affect partnerships between schools and museums. Immediate impacts on museums and education included, an emphasis on creative teaching methods through discovery, exploration and inquiry, support for educational and out-of-the-classroom learning opportunities as a regular part of the school curriculum, further co-operation between schools and other institutions to accommodate students' needs through new initiatives for on-site exploration, and more complete service for community education using resources beyond those available only in the schools.²⁶ Prevalent thought recognized the needs of "the new learning situation." There was support for the idea of students becoming a part of a "team engaged in discovery", the use of museums and schools as part of the pedagogical process, and the notion that museums were an "educational force" within the community.²⁷ To fully realize these goals, a sound provincial-federal government union had to be created. This was particularly important as education was part of provincial jurisdiction.

The National Museums Policy of 1972, with its main objectives of democratization and decentralization, aimed at providing access to cultural activity for all tax payers, and took steps to minimize geographic isolation by making culture available to every Canadian. The then Federal Secretary of State, Gerard Pelletier, promoted the creation of a network of associate museums, which among other things would devote their efforts to using travelling exhibits and displays, and reduce regional disparities in museum collections, activities and standards. In addition, a national loan collection and a fleet of museum-mobiles were to be initiated. Through these measures, collections could be more available to and accessible by the public. Increased funding was earmarked for the extension and education activities of the national

museums, and the federal government would become "the contemporary patron of the arts."²⁸ The intent of these innovative policies was, in part, to help enhance the educative role of museums in Ontario and across Canada. They enhanced the growth of the educational mandate of museums through the focussed development of increased outreach activities. In addition, frequent changing and travelling exhibits and better temporary displays featuring more accessible and varied collections could be created.

Did the proliferation of museums, the existence of a supportive philosophy in the established school system, and the framing of a comprehensive federal policy translate into practical application of new museum and education initiatives throughout Ontario in the 1970's? A definitive answer is difficult to provide, as hard evidence is scanty and inconclusive. Some facts are evident and were presented in literature from this decade. A 1972 assessment of educational services offered at National Historic sites is most revealing. History teacher John Boulden took a year to travel from coast to coast in Canada and was able to visit all but a very few of the staffed National Historic sites. Boulden discussed the role and effectiveness of education programmes offered by these institutions with staff, students, teachers and the general public. Regarding school programmes, he discovered that there was no common approach or method. However most teachers interviewed saw these facilities as "an essential resource for the enrichment of their classroom activities...an excellent resource for the study of the Common heritage of all Canadians."²⁹ Boulden found the most effective resources for students making field trips to museums were audio visual materials (film, video-tape and tape recordings), artifact kits, costumed interpreters and hands-on learning activities with real objects. The success of these ventures varied greatly from site to site, but only a few respondents "did not agree that the Parks could be a useful resource in the teaching of history."³⁰ From this educator's perspective there was justification for interpretation programmes for young people to become the highest level of priority at National Historic sites. These museums were uniquely suited to provide learning opportunities outside of the classroom and held "rich resources that enliven and bring reality to the school books."³¹

Another national study examined the relationship between the museum and the public. Results showed that museum-going was "a mass rather than a class activity," and "more educational than entertaining." Survey respondents rated reasons for visiting: to learn something (82%); good for education and growth (71%); for enjoyment (79%); as an inexpensive kind of recreation (69%). Active participation during a museum visit was viewed to be highly desirable, and museum experiences which were passive and

unchanging resulted in visitor dissatisfaction. The report concluded that; "Museum visitors clearly desire a higher level of involvement; they desire participation in an active, personalized learning process."³²

An analysis of local museums conducted in 1973 by the Historical and Museums Branch of the Archives of Ontario, found that each museum had the possibility "of being a research and teaching institution without parallel because of the great potential in the use of its collection." The report noted that between 1962-1972, the number of museums in Ontario had doubled. A total of 225 institutions ranging in size from the Royal Ontario Museum to a one-room school house, all made contributions "from the sociological, educational, cultural and economic points of view." By extending its resources through community educational and cultural participation programmes, it was believed that every museum even those with limited means, could directly affect the public. The study concluded that for small museums in the province to "become vital cultural and educational entities within the communities they serve," financial aid, training of personnel and expanded technical and consulting services should be provided.³³

By the late 1970's advances were apparent. Several pieces published in the OMA Newsletter shed light on this progress. An observer noted in the summation of her 1977 article that; "One may conclude that today's museum is an educational institution, although education is, admittedly, but one of several important functions the museum must meet."³⁴

The theme of museums and education was featured in the January 1976 issue of the OMA Newsletter. Curriculum-related programming, co-operative planning between museums and community colleges, educational theory, discovery learning and new methods for museum interpretation and education were topics of discussion. The consensus of the authors was that innovative changes were taking place in Ontario museums. Traditional museum education techniques such as lectures and "walk-and-gawk" tours were being downplayed. It was conceded that while much work was yet to be done, a new positive direction for museums and education was on the horizon. It was hoped that "in future the museum role will not only be to collect and preserve, but to interpret and disseminate the artifacts of the past."³⁵ The concepts of recognizing museums as information centres, as vehicles to further develop visual literacy skills, to promote learning through the use of audio-visual equipment and discovery, and the linking of schools with museums in a quest for knowledge, were advocated in a 1973 study of museums in southern Ontario. The author's conclusions were similar to those made in the OMA articles. While the

educational potential of museums was accepted, there was "much scope for development," and education in museums must continue to be expanded and improved upon.³⁶ By the end of the 1970's one author reflecting on events during the decade concluded that; "Museums, after all, are repositories of knowledge which should be communicated."³⁷ As Canadian museums prepared to enter into the 1980's, British Columbia museum educator Maureen Gee confidently predicted; "if there is one thing certain about museum education in Canada today, it is that the field is alive, expanding, and very exciting."³⁸

The 1980's and 1990's

In 1980, a federal government task force reported that in the previous 20 years as many as 2,000 community museums had been established in Canada. This grassroots movement had a tremendous impact which was recorded in the report; "The perception of what museums should be, and do has changed radically."³⁹ Did this change extend to the education, knowledge and learning aspects of Canadian museums? Mary Herbert's, A Report on Canadian School-Related Museum Education, issued in December 1981, was the next important study to consider this question. The primary purpose of this comprehensive review was to investigate and comment on the quality of school-related museum education in Canada. The report however, covered many more general issues and themes related to museums and education. The overall intent of Herbert's work was to "create a vivid, meaningful portrayal of a complex, developing aspect of Canadian museums," for use as a "reflective tool" by those working in the area of museum education. Herbert surmised:

Museum educators are working in a climate of increasing sophistication in museum professionalism on the part of all museum workers. The implications the educational function of museums has for collections, conservation and research are emerging. Museum workers are only beginning to understand the complexity of the questions raised by accepting museums as educational institutions.⁴⁰

This educative role was confirmed by other observers. Quebec museologist Louis Lemieux explained that museums should do more than own and display their collections. Through exhibits, education programmes, lectures and publications museums would become responsible for the "dissemination of knowledge."⁴¹ The Applebaum-Herbert Report, a 1982 study of cultural policy in Canada, identified education as "the essential link between past, present and future." In the realm of museums, the report's findings suggested that "display and dissemination are the ultimate goals of collection and conservation."⁴²

Standards for Community Museums in Ontario

This cross-disciplinary approach of connecting basic museological areas of function was further advocated in the Standards for Community Museums in Ontario. Issued in 1981 as a support document to the Community Museums Policy for Ontario, an important component of these standards was interpretation and education. These aspects of museum operation were described in the standards as; "a vital element of a community museum. Through its special programs the museum is able to reach audiences of all ages, interests and capabilities, and serve as a resource for the entire community."⁴³ The policy and associated Regulation, guidelines and standards were the culmination of over 25 years of lobbying by the Ontario Historical Society and the Ontario Museum Association to have the provincial government implement museum standards.⁴⁴ The final document was prepared by staff from the Museums Section of the Ministry of Culture and Recreation after wide-ranging consultation with the Ontario museum community and provincial organizations.⁴⁵

As with other areas in the standards, a policy statement was mandatory for interpretation and education. Public programming, special events and related exhibits, and school programmes were three broad categories established. The goal of this exercise was for each museum, within its capabilities and resources, to establish a full range of education programmes related to its collections and statement of purpose. These would be available to various segments of the public, both at the museum and in the community. In this way, interpretation and education became an integral building block, with research, collection records management, staff training, exhibition and conservation connecting in every museum's effort to achieve a balanced operation. Recognizing the wide diversity and variety of community museums in Ontario, a ten year implementation schedule was established. Advisory services and resource publications were provided by Ministry staff to assist Ontario community museums in attaining these standards.⁴⁶ To achieve the goals of the interpretation and education standard, each museum had until 1987 to complete all requirements. In addition, a Regulation written as part of the Ontario Heritage Act,⁴⁷ was legislated by the provincial parliament. It empowered the Minister of Culture and Recreation to establish a statutory grant programme which would provide funds on an annual basis to eligible museums to help cover associated operating expenditures.

The framing of policies and the movement towards the attainment of recognized standards had an effect on the state of interpretation and education programmes in Ontario's community museums. Efforts by

Ministry staff to track these results came from responses by client museums. In an internal 1983 survey of attachments included with the 1981 and 1982 Community Museum Operating Grants (CMOG), responses showed the quality and quantity of educational programming presented at 212 community museums varied greatly. The compiled statistics identified the importance of ongoing, long-range planning and the need for the development of a written policy specifically related to interpretation and education. They also showed that over 86% of the museums offered public programmes, 64% created special events and exhibits, and 49% had school programmes. Only 12% indicated that no programming was performed, while 25% scored an excellent rating by running programmes in all three categories. The results of a subsequent in-house evaluation conducted in 1984, and responses to a questionnaire circulated in 1985,⁴⁸ were also analyzed. The statistics generated gave some indication that the types of education programmes provided and the variety implemented at Ontario community museums in the 1980's, had evolved beyond the limited offerings available to the public during the 1970's. A 1987 investigation of the state of public and education programming in 32 Toronto area galleries, museums and historic sites showed that 97% of the respondents offered formal and informal educational opportunities to a wide range of visitors.⁴⁹ This information paralleled other findings which underlined the growing popularity of museums and acknowledged their important role as public service institutions.⁵⁰

After the first decade of the standards implementation, another survey was conducted to gauge their effectiveness and impact. A total of 197 community museums participated in this assessment. Findings showed that 74% of these sites had implemented objectives of all written policies and 89% indicated that the standards had been effective and useful. While no large growth in the number of staff hired was reported, the increased use of museum facilities and programmes, and the accepted philosophy of museums as a community asset contributed to job creation in positions associated with collection records management, administration, care of collections and interpretation and education. An indirect impact of the standards was reflected in the acceleration of visitation to museum facilities in new or upgraded buildings. Better exhibits, increased interpretive programmes and special events, longer hours of operation, and expanded public relations and advertising, all contributed to enhanced support for and a growing awareness of Ontario community museums. These generally positive responses reflected direct feedback from the majority of Ontario community museums. It appeared that the objective of the standards to promote quality in the basic aspects of a museum's operation, had been achieved. A brief submitted in 1992 to the Minister of Culture and Communications by the Ontario Historical Society,

confirmed the success of the standards and placed them into a broader perspective:

To their credit, the standards have been used as a model in other provinces and other countries. The standards have been a challenge for the museums of Ontario, a challenge which all museums have attempted to meet. They have encouraged and brought about new levels of expertise and excellence.⁵¹

Improvements resulting from museum standards were noticeable in the areas of interpretation and education. They had a direct impact on the reason for visitors most often going to Ontario museums and using the facilities and programmes offered in these institutions.⁵²

Schools and Museums

Changes made in the Ontario school curriculum also advanced the state of museum education and helped teachers and school board administrators recognize the tremendous resources that museums collectively held. With the development of the arts and a growth in public demand for cultural activities, the Ministry of Education revised its goals and attempted to apply the concepts that the arts were essential to society and a viable component of education.⁵³ The connection between the formal education system mandated primarily through provincial statute, and interpretation and education programmes offered by Ontario community museums, had been previously loosely defined. The growing acceptance of the importance of co-operative education initiatives, enthusiasm for more equality of opportunity in education, the increased use of community resources, and the issuance of new curriculum documents, enhanced the idea that good museum interpretation programmes could attract, entertain and arouse curiosity and promote learning. By the 1980's this action through interaction, and an increased willingness to utilize a variety of resources made available from within the school and from the community at large, augured well for a more direct relationship between the formal pedagogical process (mandates of the provincial Ministry of Education and local school boards), and interpretation and education programmes offered by Ontario community museums.

Time and attitudinal barriers continued to be factors which mitigated against a broad acceptance of a partners in action philosophy.⁵⁴ This may have been a cyclical problem which repeated itself,⁵⁵ and was not restricted only to Canada⁵⁶ at one specific time⁵⁷ or place.⁵⁸ Even in the 1980's similar questions continued to be raised. An Ontario government resource document published in 1983, suggested that elementary students viewing exhibits of Canada's native people;

...trudge slowly past one glass-enclosed scene of Indian life after another while being talked to be a total stranger. If it is not an alienating experience, then it is certainly a wasteful one.

While the author conceded that there were some exceptions, the validity of museum education programmes for both elementary and senior students continued to be questioned:

These trips remain on the periphery of the students' learning experiences. At the secondary level the situation is even worse, battling timetables, exams and the non-integrated secondary school programme is never-ending and more trouble than it is worth.⁵⁹

These findings seemed to be in conflict with conclusions arrived at in 1981 by museum educator Mary Herbert:

Across Canada the position in which museums and schools now find themselves is one which is ideally suited to fostering creative thought and action. School use of museums is expanding as more and more teachers and students come to understand them as educational resources.⁶⁰

Some sense can be made of the actual situation by briefly tracing the development of Ministry of Education curriculum documents. Starting with the Living and Learning report of 1968,⁶¹ written directives had immediate impact on museum interpretation and education programmes. Ongoing revisions resulted in the distribution of The Formative Years in 1975.⁶² This document, written as a statement of curriculum policy for primary and junior divisions, summarized provincial goals and curriculum expectations and stressed that programmes be developed at the local level which could be adapted to meet the needs of particular groups of pupils. The 1975 curriculum resource document entitled Education in the Primary and Junior Divisions⁶³ further elaborated on the mandate identified in The Formative Years. A series of related curriculum guidelines followed, which were designed to assist educators in the practical application of the curriculum both in and out of the classroom. Nineteen of these documents clearly identified the potential impact that this material could have on museum education initiatives. Disregarding any history-specific documents, over 80 references to heritage related activities in areas ranging from locality studies and out-of-classroom experiences, to units dealing with leisure studies, geography and opportunities for children with learning disabilities, were mentioned.⁶⁴

In 1984, the Early Primary Education Project re-emphasized the philosophy statements in the 1975 circulars and promoted personalized and individualized programmes for young children.⁶⁵ Developments were also taking place at the intermediate and secondary levels. The Secondary Education Review

Project (SERP)⁶⁶ was established in April of 1980 for the purpose of conducting a thorough study of the province's secondary school system. A response to this report was issued in a 1982 document entitled The Renewal of Secondary Education in Ontario.⁶⁷ These two studies formed the basis for the Ontario Schools Intermediate and Senior Divisions (OSIS)⁶⁸ document, and set in motion the development of new curriculum guidelines which defined the broad policy expectations for the more detailed curricula to be created by local boards of education. As a package, these documents established a significant role for museums to play. This enhanced role and the greater co-operative development of the museum-school relationship, lead to a multi-disciplinary approach which could be applied to many subject areas. Students in all grades could benefit immeasurably from incorporating museum education experiences into their individual courses of study. Teachers could augment their lessons by working with local museums to better utilize existing resources found in every community.⁶⁹

A change of philosophy from the renamed Ministry of Education and Training (MET) began to have impact on government directions in education in 1993. A desire to fully integrate the curriculum resulted in the issuance of Towards an Integrated Curriculum, a position paper defining a curriculum that focussed on the relationship between subjects and how learning could be applied to several disciplines at the same time. Of interest to museum educators were teaching strategies which included problem solving, independent research, inquiry and collaboration.⁷⁰ A Royal Commission on Learning was appointed and from its deliberations put forward the idea that schools should be situated in the context of other social institutions in the broader community. This position suggested that schools and social institutions (such as museums), must all contribute to a collective responsibility, shared vision and action plan to guide the reform of Ontario's elementary and secondary education.⁷¹ The direct outcome of these initiatives was the preparation of new curriculum guidelines contained in the Common Curriculum.⁷²

With change comes many challenges and opportunities. For museum educators the Common Curriculum supported a co-operative spirit which promoted the further development of partnerships and museum-school linkages at all grade levels. Integrated learning, a focus on collaboration with a wider community, and a commitment to outcomes-based education became central directives of this new curriculum. Philosophically the Common Curriculum, promoted the use of the accepted museological learning techniques of problem solving and inquiry. Support documents acknowledged that children arrive in school with open, inquiring minds. Already familiar with the inquiry process through their experiences

with play, museums would address an important need of the primary stream students to continue their natural inclination towards inquiry learning.⁷³ Teachers and museum educators could design co-operative learning units which used the seven main stages of the inquiry process (exploring, inquiry, predicting possibilities, planning and collecting, deciding, communicating and evaluating). Group learning activities could be implemented, while learning outcomes designed for students to tackle outside of the classroom environment could be achieved.⁷⁴ By identifying and using existing curriculum guidelines and resource documents, progress could be made in the relationship between museums and schools in developing co-operative educational initiatives. As support material for museum interpretation and education programmes, these documents provided a bridge between government expectations and requirements and the resources available in the community museums of Ontario. Continued co-operative information sharing and the adoption of directives in these curriculum documents, supported future positive directions. Museum education must be integrated with current school curricula and incorporated into relevant classroom and out-of-classroom learning activities. Museum educators have an important role to play. They must promote the concept that museums are not merely adjuncts to the classroom, but are full partners in the educative process. Ultimately co-operative curriculum design will help teachers, students, administrators, politicians and decision makers become better museum users and participants in life-long learning opportunities. If this is achieved, the educative value of interpretation and education programmes offered by community museums throughout Ontario is validated, along with the significant role these sites play in the province's educational system.⁷⁵

Other Influences

Shifts in federal government policy also played a factor in the role of museums during the latter part of the 1980's. In 1985, Gerard Pelletier, chairman of the Board of Trustees of the National Museums of Canada (NMC) stated that various efforts taken by Canadian museums were "both satisfying and stimulating the public hunger for information about ourselves and our world." He continued to believe that the NMC had a role to play in meeting the needs of clients who regarded museums as institutions "where education and entertainment merge." Still touting the benefits of the 1972 National Museums Policy, Pelletier acknowledged that some alterations were required to "strike a careful balance between the needs of present and of future generations."⁷⁶ With the election of the Conservative government the direction formerly taken by the previous Liberal regime would change. A Standing Committee was formed to review the federal policy concerning museums. The report issued by this committee

recommended repealing the National Museum Act and dismantling the National Museums of Canada. The four major federal museums would become autonomous agencies and all programmes previously administered through the NMC would be centralized, falling under the direct responsibility of the Minister of Communications. It was agreed that the federal government should formulate a new museums policy, and that a national programme of assistance to meet the needs and requirements of small museums and galleries would continue. The report stressed that part of the function of museums was "to make people aware of their history and culture, and those of other countries."⁷⁷ A centralized, departmental bureaucracy instead of an arm's length organization would be created to achieve these new federal policy objectives. Work began in earnest to follow through on these directions. The government's role was re-affirmed in a speech by Marcel Masse, Minister of Communications, given to conference delegates at the Canadian Museums Association's annual meeting on June 8, 1989. Confirming ongoing responsibilities for service and funding programmes, Masse announced his intention of presenting a new, comprehensive museum policy for the country. This action was intended to serve "Canadians through excellence and professionalism with Canada's heritage collections being the cornerstone of all our activities." The Minister concluded his remarks by defining the important position he believed Canada's museums were in:

I strongly believe that without history there is no country, that there is no history without common ground with the universal, and that a society needs to preserve the thought-provoking places which enable us to find ourselves in our collective memory. Such are our museums.⁷⁸

The federal government had finally assigned a role for museums as centres for learning. A similar function was identified by others writing about Canadian museums. In an article on the government's role in constructing new national museums, journalist Charlotte Gray wrote that; "Museums can play a fundamental role in national life - as repositories of artefacts and information, as centres of learning, as places of education and entertainment."⁷⁹

In an examination of the accessibility of museums and how they had to change to reflect the times, it was suggested that museums should be seen as "centres for inspiration and places of discovery." Efforts had to be made to develop tools offered through advanced technologies, in order for museums "to communicate their wealth of knowledge to new generations."⁸⁰ Academics studied the role cultural organizations played "in providing opportunities for informal, continuing and voluntary modes of education for the public." Their findings showed that museums served as "non-formal educational

institutions," with educational responsibilities regarded as "an expanded notion of public service."⁸¹ Other observers provided a broad range of reactions to this publicly accepted role. Advice to insurance appraisers revealed that;

The modern museum has evolved into an institution devoted to more than simply conserving and storing artworks and collections. Today's museum is involved in education and community outreach, creation of original artwork and original scholarship.⁸²

An article in a mass-circulated shopping magazine reviewed learning opportunities at various Ontario museums and referred to the activities available as "educational recreation."⁸³ Co-operative initiatives between schools and Ontario museums were described as "well-developed education programmes that provide cross-cultural and cross-curriculum development while focussing on the heritage and history of the community."⁸⁴ Another author wrote that such programmes "can contribute significantly to cultivating new generations of learners."⁸⁵ These samplings of opinions helped to confirm the relevant positions of museums, education and knowledge in Canada, and were emblematic of these institutions as centres of learning near the end of the 1990's.⁸⁶

Conclusion

The interval between 1950 to the 1990's saw new museums developing in Canada at a steady rate.⁸⁷ This museum boom resulted not only in quantity through growth, but quality through efforts, as it reached out to the public and attempted to capture the interest and imagination of visitors of all ages and cultural backgrounds. In Ontario, this movement towards better practice was supported by the implementation of museum standards which "encouraged and brought about new levels of expertise and excellence," and "provided museum curators and directors with an agenda for the 1980's."⁸⁸ Changes in federal policy,⁸⁹ the celebration of Canada's centennial in 1967, and advances in school curriculum and educational philosophy,⁹⁰ all contributed to this museum-making movement. Central to this evolution were expansions of interpretation and education functions which changed the mission of museums. Defined less in terms of collections and more in terms of social positioning, the primary purpose of Canadian museums had become the communication of knowledge. Quebec museologist Francois Lachapelle succinctly summed up this new role:

Consequently, its mission originates no longer only in a collection but also in the museum's intent to position itself in the hope of transmitting knowledge, experience or facts, thereby influencing the public. The definition of a museum's mission is now, I believe, equivalent to an expression of thought.⁹¹

The transformation of Canadian museums during the second half of 20th century was marked by change and progress which translated into an increase in numbers and growth in good practice. Events, individuals and groups all assisted in this evolution. Through this period of maturation, the educational mandate of these institutions was enhanced. The adoption of this active educational role helped Canadian museums to evolve into a position where; "we can expect a potential gain in knowledge, in thinking, and in intellectual provocation."⁹² These characteristics contributed to the continuum which resulted in the development of Canadian museums as centres for learning at the close of the 1990's.

End notes

1. See Laurence Grant, "Canada's Federal Museum Policy," in The Working Paper Series, The Centre for Research on Culture and Society Carleton University (March, 1991), p. viii. Canadian museologist Lynne Teather has categorized the period from 1950-70 as a time of "Museums in Flower." See J. Lynne Teather, "Museum-Making in Canada to 1972," Muse (Summer/Fall, 1992), p 27. Another Canadian museum administrator described change over thirty years in the area of museum education: "For the last three decades museums have provided an alternate environment for learning...It was a good era for museums, too; one in which they learned of their worth in a rapidly changing society, their importance as an alternative learning centre, and their obligations to society as a whole rather than the few elite." Barbara Tyler, "The Future For Museum Education Programs," History and Social Science Teacher (Winter, 1980), v. 21, #2, p. 86.
2. See Archie F. Key, "Canada's Museum Explosion, The First One Hundred Years," Museums Journal (June, 1967), v. 67, #4, p. 21, and Teather, "Museum," p. 28.
3. This was the first museum policy developed by a provincial government in Canada. The associated documents promoted good practice, including interpretation and education, and made provision for an annual operating grant to help defray costs associated with meeting basic museum standards in Ontario's community museums. For the Ontario Museum Association's position on policy and legislation designed to benefit museums, see A Museum Policy for the Province of Ontario (Toronto, 1974).
4. Quoted in Albert A. Shea (ed.), Culture in Canada (Toronto, 1952), p. 4.
5. Half of these meetings were held in public. The commission's work was deemed to be unique, as no other body in England or elsewhere in the Commonwealth had been "asked to explore the cultural sphere so widely and so comprehensively." See "Arts, Letters and Sciences in Canada," Museums Journal (December, 1951), v. 51, #9, p. 217.
6. Report of the Royal Commission on National Development in the Arts, Letters and Sciences (Ottawa, 1951), pp. 6-7.
7. Cited in Shea, Culture, pp. 31 & 29. See also Grant, "Canada," p. 5. ROM director T.A. Heinrich

noted that since World War II there had been "a great efflorescence of small local museums" in Ontario, many with poorly trained staff. See "Museums in the Commonwealth," MJ (September, 1957), v. 57, #6, p. 144.

8. Report, p. 95.

9. Ibid., pp. 319, 321, & 92.

10. See W.L. Morton, "Historical Societies and Museums," in Royal Commission Studies (Ottawa, 1951), pp. 253-54. For a complete list of museums prepared for the Massey Commission, see Report, pp. 485-90.

11. See Archie Key, Beyond Four Walls, (Toronto, 1973), pp. 173-74, and "Museums and Art Galleries 1951-1952," Reference Paper #57 (Ottawa, 1955), pp. preface, 14, 15, & 17. In Ontario during the 1950's the first government grants to cultural institutions including museums came from the Ministry of Education because; "It was their educational value that was relevant from the government point of view." See the Macaulay Report (1984), pp. 2 & 7, cited in Barbara J. Soren and Robert J. Williams, "The Role of Cultural Institutions as Educator," International Conference on Arts Management (Montreal, 1991), pp. 6-7.

12. Report of the Royal Commission on Education in Ontario (Toronto, 1950), pp. 39, 677-79 & 36. For a listing of 43 Ontario museums and a brief description of what each site offered to visitors, see "Museums in Ontario," Ontario History (Summer, 1954), v. 46, #3, pp. 189-95. The Community Programmes Branch of the Ontario Department of Education issued a pamphlet of practical advice on how to start a local museum. It noted that those museums "should be an integral part of teaching history" and that these enterprises had an "educational and tourist value." See Bill Cranston, "Do's and Dont's or Suggestions for Persons Interested in Starting a Local Museum," Ontario Department of Education Bulletin (October, 1950), p. 2.

13. Carle E. Guthe and Grace M. Guthe, The Canadian Museum Movement, (Ottawa, 1958), p. 35.

14. Ibid., p. 32.

15. Ibid., pp. 11, 29, & 33. This was the situation found in many community museums in Ontario. More than 50 local museums were seen to be institutions "of visual education," where children could gain "knowledge of their splendid heritage." Paul & Marie Hughes, "Museums of Ontario," Waterloo Historical Society Journal (1956), v. 44, pp. 37 & 41.

16. See the comments of Loris S. Russell, secretary of the Canadian Museums Association, in "Museums in the Commonwealth and Overseas," MJ (September, 1958), v. 58, #6, pp. 131-32, and Guthe & Guthe, Movement, p. 35.

17. Frederick L. Rath Jr., "Interpretation in Our Museums," Ontario Historical Society Museums Section Report (1959), pp. 29-31.

18. Alice J. Turnham, "Survey of Canadian Museums," Museum News (December, 1959), v. 38, #4, pp. 34-35.
19. Two key pieces of American literature which had a strong influence on museum development in Canada, were Carl Guthe's, So You Want A Good Museum (Washington, 1957), and Freeman Tilden's, Interpreting Our Heritage (Chapel Hill, 1957). This reliance was seen by one observer as being a natural phenomenon; "Since Canada was so wide and settled so close to the U.S. border, we usually looked to the south for museum comforts...we learned a great deal in the USA." See Donald Crowdis, "Development of Canadian Museums," in Conference Proceedings for 2001: The Museum and the Canadian Public (Ottawa, 1977), p. 7.
20. Stanley Fillmore, "The Miracle of Upper Canada Village," Canadian Homes (June, 1961), p. 37.
21. Quoted in an advertisement for Upper Canada Village in Canadian Homes (June, 1961), p. 9.
22. Key, Beyond, pp. 242-43, and Fillmore, "Miracle," p. 37.
23. Carl Guthe, "The Museum as a Social Instrument," OH (September, 1961), v. 53, #3, pp. 169-73.
24. Ruth M. Home, "The Object of the Museum," OH (September, 1961), v. 53, #3, p. 191. For more on efforts by the Ontario Historical Society and the Ontario Department of Lands and Forests to promote these concepts in museums, see Dorothy Dreaver, "The Museums Section," OH (September, 1961), v. 53, #3, pp. 153-55, and A.B. Wheatley, "Ontario Provincial Park Museums," OH (September, 1961), v. 53, #3, pp. 197-99. For a listing of 115 museums and a description of their public offerings, see Alice Davidson, "Museums of Ontario," OH (September, 1961), v. 53, #3, pp. 156-68.
25. See Museum and Art Galleries 1964 (Ottawa, 1966), pp. preface, 7, 14, 16, & 17. This report confirmed that Ontario played the biggest role in providing these services. For an index of the Ontario museums listed in this study, see pp. 33-42. For additional information on Ontario and Canadian museums, see S.J. Gooding, Museums in Ontario (Toronto, 1963), and Archibald F. and Marjorie E. Key (eds.), Canadian Museums and Related Institutions (Ottawa, 1968).
26. See John C. Carter, "The Potential Impact of New Ministry of Education Guidelines on Interpretation and Education Programmes in Ontario Community Museums," Education in Museums Technical Leaflet #7 (Toronto, 1988), pp. 1-7. For associated recommendations coming out of the Hall-Dennis Report, see Living and Learning (Toronto, 1968), pp. 181-213. The Minister of Education in Saskatchewan also saw the museum as "a centre for the gathering and propagation of knowledge." As "an expositor, an educational medium," museums could impart facts about the world in a systematic manner. One of the major contributions museums could make was "to assist in the transformation of our society's conception of leisure from time to waste into time to learn." See A. E. Blakeney, "Tools For Voluntary Education," OH (September, 1961), v. 53, #3, pp. 182, 183 & 185.
27. For ideas from Marshall McLuhan and Jacques Barzun, see "Exploration of the Ways, Means and Values of Museum Communication with the Viewing Public," A Seminar (New York, 1967), pp. 14 & 74. Harley W. Parker, head of the Department of Display at the ROM, supported the idea that museums were more than a means for tourism. Instead they fulfilled very important educational and

communications roles. See Key, "Explosion," p. 34.

28. See Gerard Pelletier, "A New Policy for Museums," Canadian Museums Association Gazette (April, 1972), v. 6, #3, pp. 4-6, Grant, "Canada's," pp. 8-15, and Teather, "Museums," p. 28. For more on the impact of the National Museum Policy and information on the federal government's support to museums and art galleries, see Anita Rush, "The Evolution of Federal Support to Museums and Art Galleries," unpublished paper, Carleton University (1987).

29. John F. Boulden, "An Assessment With Comments and Suggestions of the Educational Services at the National Historic Sites Service at Its Various Locations Across Canada," unpublished paper (1972), p. 13.

30. Ibid., p. 9.

31. Ibid., p. 44.

32. See Brian Dixon et al, The Museum and the Canadian Public (Ottawa, 1974), pp. 2, 44, 162 & 245. This survey showed that more than half the Canadian population visited museums and that; "Canadians see museums as providing a sense of perspective about who they are and where they have been; they feel museums are an important educational resource." See p. 3.

33. See Suggested Programme For The Development of Local Museums in Ontario (Toronto, 1973), pp. 2, 12, 56 & 62. This report was one of the first government position papers which lead to the development of the Standards for Community Museums in Ontario.

34. Adele Kimberly, "The History of Education in Museums," Ontario Museum Association Newsletter (Summer, 1977), v. 6, #3, p. 37.

35. David E. McClure, "The School and the Museum," Ontario Museum Association Newsletter (January, 1976), v. 5, #1, p. 32. History museums had a similar role. "As an educational institution the history museum is in the unique position of being able to learn and to teach in a way not available to other institutions. The factor which makes this possible is the artifact. It is, therefore, integral to the museum's role in education to collect, preserve and study these relics of Canada's past." J. Patrick Wohler, The History Museum as an Effective Educational Institution (Ottawa, 1976), p. 19.

36. See Joan Carole Sadowski, "Museums and Education: A Survey of Museums in Southern Ontario," M.M.S. Thesis (Toronto, 1973), p. 88. A national study concluded that for Canadian museums the "educational role must be accepted and capitalized on more fully than it is now." See Dixon et al, Public, p. 247.

37. Jennifer R. McQueen, "Bringing Canadian Museums to the People," MJ (1978), v. 77, #4, p. 183.

38. This conclusion was the result of a survey conducted on Canadian museum involvement in educational activities during 1977. See Maureen Gee, "Canada," in Ulla K. Olafson (ed.), Museums and Children (Paris, 1979), p. 65. For information on public education initiatives in small museums, see Mabel Ringereide, "Bringing the Community to the Museum," in Vrenia Ivonoffski (ed.), Exploring Our

Heritage: The Ottawa Valley Experience (Amprior, 1980), p. 139. For an analysis of museums in Canada in the 1970's, see Max O. Brice, A Profile of the Museum Sector in Canada (Ottawa, 1979). The "output" of museums was deemed to consist "not only of exhibits but also of services for research and educational purposes." See p. 4.

39. Report and Recommendations of the Task Force Charged With Examining Federal Policy Concerning Museums (Ottawa, 1980), p. 4.

40. Mary Herbert, A Report on Canadian School-Related Museum Education (Ottawa, 1981), p. 1. In Ontario, 20 out of 33 museums polled responded to this survey. See also Mary Herbert "Please Touch! The Time is Now for Museum Education," CMA Gazette (Summer-Fall, 1980), pp. 32-36, and Mary Herbert, "The Museum Educator and School-Related Museum Education," Ontario Museum Quarterly (Fall, 1982), pp. 15-24.

41. Louis Lemieux, "The Functions of Museums," CMA Gazette (Winter-Spring, 1981), v. 14, #1-2, p. 6.

42. Report of the Federal Cultural Policy Review Committee (Ottawa, 1982), pp. 178 & 116. Heritage in a broader sense was seen to constitute a central part in the federal government's cultural policy. "Our heritage, our past, is also part of our present. Without widespread knowledge of what has gone before, without the transmission of knowledge from one generation to another, contemporary creation would be rootless." Ibid., p. 138. By the mid 1980's the change towards "demonstration and popularization" in Canadian museums was noted. See Michael M. Ames, "De-schooling the Museum: a Proposal to Increase Public Access to Museums and Their Resources," Museum (1985), v. 37, #1, p. 26. Some saw museums as being "fundamentally educational rather than recreational." See Nelson Goodman, "The End of the Museum?," Journal of Aesthetic Education (1985), v. 19, #2, p. 56. Others believed that they would become "a centre for serious self-motivated study." Frances Johnstone, quoted in John C. Carter, "The Future of Ontario Museums," Ontario Museum Association Currently (July/August, 1988), v. 10, #1, p. 7.

43. Standards for Community Museums in Ontario (Toronto, 1981), p. 9. For recent comment on a "whole museum policy," see Eilean Hooper-Greenhill (ed.), Writing A Education Policy (Leicester, 1991), pp. 14-15.

44. For information about this process, see V.N. Styrmø, "Provincial Assistance to Community Museums in Ontario," Ontario Library Review (March, 1975), v. 59, pp. 23-27, and Mary Tivy, "Ministering History to the Community: The Province of Ontario and the Management of the Past in Community History Museums," OH (June, 1994), v. 86, #2, pp. 143-67.

45. A series of 40 public meetings were held in locations across the province to review a draft of the standards. Input from individuals, community museums, the OMA and OHS was considered by Ministry staff when drawing up the final document. These standards did not follow the accreditation process which was implemented in the United States and were closer to the ideals later presented in the United Kingdom through the Museums and Galleries Commission's Registration Scheme, and the recently introduced museum standards in New Zealand. See Jane Legget, Towards a New Zealand Museums Standards Scheme (Wellington, 1999).

46. Workshops were held in response to direct requests from individual museums, regional museum co-operatives and provincial organizations. The Museum Note series and other technical publications were issued. For example see, "Developing an Interpretive and Education Policy for the Museum," Ontario Museum Notes (1985), #1, John C. Carter, "Community Museums and Schools: An Annotated Bibliography of Resource and Reference Materials," History and Social Science Teacher (December, 1985), v. 21, #2, pp. 89-93, John C. Carter, "Developing an Interpretation and Education Policy for the Community Museum," Journal of Museum Education (Winter, 1985), v. 10, #1, pp. 17-18, and John C. Carter, "Writing a Museum Education Policy," Journal of Education in Museums (1990), v. 11, pp. 26-29.

47. O.Reg 398/81 Regulation Governing Grants to Museums (June, 1981). For information on the development of the Ontario Heritage Act, see Mark V. Obaldeston, "The Origin of Heritage Preservation Law in Ontario," Law Society of Upper Canada Gazette (1995), v. 29, pp. 68-91.

48. A total of 205 community museums were canvassed and 110 or 53.7% responded to this questionnaire which was circulated separately from the operating grant application. For two rather unflattering responses to the Standards for Community Museums in Ontario, see Lynne Kurylo, "The Ministry of Citizenship and Culture's Standards: Better Museums for Ontario or Rearranging the Deck Chairs on the Titanic?," Ontario Museum Quarterly (Fall, 1984), v. 13, #3, pp. 9-13, and Lynne Kurylo, "Living With the Standards: An Opinion," Journal of Museum Education (Winter, 1985), v. 10, #1, pp. 19-22. For a response to these criticisms, see Greg Baeker, "Focus - Raising the Titanic," Ontario Museum Quarterly (Winter, 1985), v. 13, #4, pp. 4-6.

49. For details see Gillian Reddyhoff, Public Programming (Toronto, 1987), pp. 4 & Table 1.

50. For example see "Museums for a New Century," A Report of the Commission on Museums for a New Century (Washington, 1984), pp. 55-56, "Education Outside Schools," OISE Orbit (April, 1991), v. 22, #2, p. 11, Des Griffin, "Does the Museum Profession Have a Future?," Museums Association of Australia (New South Wales) Occasional Lectures (November, 1989), #1, p. 1, John Shaw, "Museums an Obsolete Medium?," Museum Professionals Group News (Winter, 1985), #21, pp. 3-4, and John C. Carter, Museums as a Business: The Business of Museums (Willowdale, 1990). Similar growth was recorded in British Columbia and Alberta. See Shirley Cuthbertson, "Museum Education A British Columbia Perspective," History and Social Science Teacher (Winter, 1986), v. 21, #2, pp. 80-85, and Tyler, "Future," pp. 86-88.

51. "The Review of Standards for Community Museums in Ontario," in Past Reflections: Museum Clippings (Willowdale, 1994), p. 69. The recommendations in this report from the OHS Museums Standards Review Committee were subsequently adopted by the Ontario Museum Association. For complete statistical information, see A Report on Standards and Community Museums: 1991 Survey Results (Toronto, 1992). Another questionnaire from 1995 produced the following responses from 193 museums surveyed. School programmes were conducted by 91%, special events offered by 84%, temporary exhibits by 81%, and publications by 94%. See Gillian Watts, The Museum Survey (Toronto, 1995), p. 1.

52. A review of information derived from the Canadian Arts Consumer Profile revealed that museum visitors encompassed a wide range of various types of people. They were not just "culture buffs," as

museums played different roles for different people. A total of 70% of visitors strongly agreed that museums made a community a better place to live, while 55% indicated that their visit to museums was enjoyable. See Terry Cheney, The Ontario Museum Visitor 1991 (Ottawa, 1991), pp. 19 & 25. See also Bronwyn Drainie, "A Museum's Job is Not to Preach or Sell But to Explain," Globe & Mail (Saturday, June 15, 1991), p. C3.

53. See Judith Strand Major, Arts and the Curriculum for the 80s (Toronto, 1983), pp. 1-2. For additional information on the museum educator and links to the public education systems in Canada, see Herbert, Report, pp. 61-76.

54. Similar difficulties had been identified in the past. American museum educator Louise Connolly noted in 1914 that; "Museums have co-operated little, in the past, with other organizations and especially the schools. The general practice is to educate the child in schools by the means of words, and the adult in museums by means of things - a reversal of what would seem to be the natural order." Pointing to the abysmal state of affairs in the United States at this time, Connolly underlined her concerns by pronouncing; "Culture for culture's sake was what the Smithsonian meant to its lay visitors. Young people led through it contracted not the museum habit but museophobia, a horror of museums." Cited in Louise Connolly, The Educational Value of the Museum (Newark, N.J., 1914), pp. 39 & 5.

55. In response to an 1912 visit to the British Museum by a group of Canadian school teachers, Cecil Hallett put forward a British perspective of the topic; "This raises the question whether the cause of education would not be better served by visits to the Museum from bodies of teachers than from classes of school-children." Cited in "Museum Guides and Education," MJ (October, 1912), v. 12, p. 114.

56. The Canadian situation was influenced by actions in both the United Kingdom and the United States. It was noted that; "In certain directions the museum movement has gone much further in America than in this country, but, fundamentally, the aspirations of the curator, his problems, and his inhibitions are similar on both sides of the Atlantic." See F.J. North, "Gleanings from an American Tour: Labelling and Display in Canada and the United States," MJ (June, 1935), v. 35, #3, p. 81.

57. The stature of the use of museums by schools in Canada varied. Descriptions from the 1930's showed where no connection to the curriculum and little co-operation with education authorities took place. See Henry A. Miers, "Museums of Canada: A Talk to Canadians," (November, 1931), v. 31, #8, p. 335, and "Museums of Canada," Nature (January 21, 1933), v. 131, #3299, p. 85.

58. Situations where the frequent use of museums through collaboration in many forms with school authorities, were described in a federal government study. See results of the Canadian Dominion Bureau of Statistics 1938 survey in "Assistance to Schools From Museums and Art Galleries," Education Bulletin #1 (Ottawa, 1938), p. 1.

59. Major, Arts, p. 19.

60. Herbert, Report, p. 99. See also Peter Hayes and John Carter, "The Museum & the School Board: A Plan for Co-operative Curriculum Design," Ontario Museum Association Quarterly (Winter, 1980), v. 9, #1, pp. 5 & 26, and Peter Hayes and John Carter, "The Museum and the School Board: A Case Study in

Co-operative Curriculum Design," The History and Social Science Teacher (Winter, 1981), v. 16, #2, pp. 115-117.

61. The Hall-Dennis Report contained six recommendations that promoted inquiry learning in out of classroom field trips to museums and like institutions. See Living, pp. 181-199.

62. The Formative Years (Toronto, 1975).

63. Education in the Primary and Junior Divisions (Toronto, 1975).

64. For details see John Carter, Review of Ministry of Education Curriculum Documents with Selected References to Heritage Activities (Toronto, 1984).

65. For recommendations, see Report of the Early Primary Education Project (Toronto, 1985).

66. Report of the Secondary Education Review Project (Toronto, 1985).

67. The Renewal of Secondary Education in Ontario (Toronto, 1982).

68. Ontario Schools Intermediate and Senior Divisions (Toronto, 1984). Subject areas included history, contemporary studies, family studies and library science.

69. See John Carter, "Heritage Education," The History and Social Science Teacher (March, 1988), v. 23, #3, pp. 125-26. This volume featured a special theme issue on heritage education. See also Carol Chuhay, Built Heritage in Schools (Toronto, 1990), Discovering Your Community (Willowdale, 1992), and Michel Allard, "Le Musée Comme Lieu d'Apprentissage," Vie Pédagogique (Mai-juin, 1993), v. 84, pp. 41-43.

70. See Towards an Integrated Curriculum (Toronto, 1993), pp. 3-4.

71. "For the Love of Learning," Report of the Royal Commission on Learning (Toronto, 1994). For insight into the provincial government's response to the recommendations from this report, see New Foundations for Ontario Education - A Summary (Toronto, 1995).

72. The Common Curriculum Policies and Outcomes Grades 1-9 (Toronto, 1995).

73. George Radwanski, Ontario Study of the Relevance of Education, and the Issue of Dropouts (Toronto, 1987), pp. 123 & 139.

74. For more information on museums and the Common Curriculum, see John C. Carter, "Museums Across the Curriculum," in Second Museum Education Colloquium (Toronto, 1993), pp. 25-33, Natalie Quealey, "Museums and the Common Curriculum," Ontario Museum Annual (1994), v. 3, pp. 9-15, John C. Carter, "Building Partnerships Between Museums and Schools," Heritage Canada (September/October, 1995), v. 3, #1, pp. 9-11, and Bruce Richard, "Museum Education for the Twenty-First Century," Ontario Museum Annual (1995), pp. 40-43.

75. See Carter, "Potential," pp. 1 & 6, and John C. Carter, "Teaching Teachers to Use Museums," Heritage Canada Impact (May/June, 1993), v. 5, #3, p. 4.
76. Quoted in "Notes for an Address by the Honourable Gerard Pelletier," Ontario Museum Association Annual Conference (Hamilton, 1985), pp. 4, 7, & 10.
77. "Federal Policy Concerning Museums," A Report of the Standing Committee on Communications and Culture (Ottawa, 1987), p. 9. The Standing Committee's report was an outcome of recommendations made by the Neilson Task Force (1985) and the Withrow-Richard Task Force (1986). See Grant, "Canada's," pp. 18-24.
78. Quoted in "Notes for a Speech by the Honourable Marcel Masse, Minister of Communications," An Address to the Canadian Museums Association, Hull, Quebec, June 8, 1989 (Ottawa, 1989), pp. 9, 11 & 12.
79. Charlotte Gray, "Museum Pieces," Saturday Night (September, 1988), p. 11.
80. Louise Leclair, Access and Awareness - Bringing Museums and People Together (Ottawa, 1988), pp. 3-4. For more on the impact of technology in the cultural sector, see "Cultural Industries in the Technological Age," Federal - Provincial - Territorial Conference of Ministers Responsible for Culture and Historical Resources (Winnipeg, October 5, 1989), and Allan J. Ryan, "The Ghost in the Museum is a Machine," Computerworld (August 27, 1990), p. 17.
81. Barbara J. Soren & Robert J. Williams, "Whose Job Is It Anyway? Ontario Cultural Organizations as Educators," Ontario Museum Association Annual Meeting (Kitchener, 1991), pp. 1-3.
82. "Museums," Best's Underwriting Guide (1991), #4, rev. p. 2.
83. Sharon McKay, "Art, History and Kids," Buyer's Guide (March/April, 1994), pp. 39-40. A survey of living history sites throughout Canada, concluded that these museums were ideal locations for children to learn. See Julie Ovenell-Carter, "Past Glories," Canadian Living (July, 1996), pp. 53-57.
84. Dorothy Duncan, "Heritage as Classrooms: Teaching Teachers to Teach Using Heritage Commemoration," in Thomas H.B. Symons (ed.), The Place of History: Commemorating Canada's Past (Ottawa, 1994), p. 186. The standards also had a direct impact on the development of jointly designed curriculum programmes between schools and museums. See Birgitta MacLeod & Mark Kierstead, "Museums and Schools: Partners in Education," Museum Quarterly (August, 1990), v. 18, #3, p. 18.
85. Richard, "Museum," p. 42.
86. See also John C. Carter, "The Evolution of Museums and Education in Ontario," Ontario Museum Annual (1992), p. 34, Ian Vincent, "Who Owns Our Museums? Some Thoughts on Trusteeship," OH (June, 1994), v. 86, #2, p. 176, Marie Brûlé-Currie, "When Three-to-Five-Year-Olds and Adults Look at Modern and Abstract Art Together," in Bernard Lefebvre & Michel Allard (eds.), Le Musée, Un Projet Éducatif (Montreal, 1996), p. 109, "Le Public des Musées," in La Culture en Pantouffles et Souliers Vernis (Quebec City, 1997), p. 96, and Patrick J. Boylan, "Les Musées Face à la Décroissance," in

Michel Côté & Lisette Ferera (eds.), Perspectives Nouvelles en Muséologie (Ottawa, 1997), pp. 37-38.

87. Between 1938 and 1988, the number of Canadian museums burgeoned from 150 to nearly 2,000. During the 1960's museums were being built as fast as schools. See Gray, "Museum," p. 12. Between 1972 and 1992, the total number doubled. See Teather, "Museum," p. 28.

88. "Review," pp. 69 & 71. This Ontario Historical Society report called for an updating of the standards "to reflect the realities of the 1990's." See ibid., p. 76. Another opinion suggested that; "The Standards established by Ontario's community museums could be used as a model by other cultural organizations." See Soren & Williams, "Whose," p. 14.

89. For comments on these changes, see Jacques Dalibard, "In the New Museology: The Community is the Curator," Canadian Heritage (February-March, 1986), pp. 2-3.

90. For examples of literature see William F. Hill, Learning Thru Discussion (Beverly Hills, 1969), Jack R. Fraenkel, Helping Students Think and Value (Englewood Cliffs, N.J., 1973), W.J.H. Sprott, Human Groups (Middlesex, 1973), David W. Johnson & Frank P. Johnson, Joining Together (Englewood Cliffs, N.J. 1975), Richard A. Schmuck & Patricia A. Schmuck, Group Processes in the Classroom (Dubuque, Iowa, 1976), Barry K. Beyer, Back-to-Basics in School Studies (Boulder, Col., 1977), Edmund V. Sullivan, Piaget and the School Curriculum (Toronto, 1977), Anthony O'Hear, Education, Society and Human Nature (London, 1981), and Barry K. Beyer, Critical Theory (Bloomington, Ind., 1995).

91. Francois Lachapelle, "Can Museums Think?," in Michel Côté, Museological Trends in Quebec (Quebec City, 1992), pp. 92 & 96. See also Carter, "Evolution," p. 33, Richard, "Education," p. 42, Duncan, "Mausoleums," pp. 116-117, and "Le Rôle des Institutions Museales: Rendre le Patrimoine Accessible à la Population," in La Politique Culturelle Du Québec (Quebec City, 1992), pp. 41-43.

92. See Janet Gail Donald, "The Measurement of Learning in the Museum," Canadian Journal of Education (1991), v. 16, #3, p. 380.

Conclusion

The following appraisals provide three current perspectives about the state of museums as centres for learning. Lalage Brown, chair of the Scottish Museums Council recently wrote about the importance of museums in the learning process:

Museums are the outcome of human curiosity, of the desire to learn. It is hard to imagine anyone visiting a museum for more than a few minutes without learning something new, whatever their age and whatever their formal educational background. Museums are resources for all kinds of learning and because their stock-in-trade is composed of objects, which can be seen and sometimes handled, they can have a greater immediacy of impact than most other learning resources if used imaginatively.¹

British museum educator David Anderson, succinctly described the role of museums in the learning society that we now live in:

Museums are repositories of collections, scholarship, expertise and skills, which are rich and distinctive educational resources. These resources exist because society values museums and is prepared to support them financially. Therefore, museums have a duty to make their resources available to all potential users. The delivery of these resources in ways appropriate to the needs of all learners is the business of museum education and museum educators.²

American museologist Lynn Dierking, further explained the important connection between museums and learning:

Museums in general – and exhibits in particular – have the potential to enlarge, expand, and reshape visitors' conceptual frameworks. Visitors assimilate a great deal of new information. They must accommodate their previous ideas to fit perceived realities. They use the objects they encounter to extend their pre-existing mental constructs. This may be the very essence of learning.³

These quotations represent the results of the culmination of a process over time in the evolution of museums as centres for learning. They reflect the current importance of the learning function not only in Canadian museums, but in like institutions throughout the world. This conclusion will return to themes and concepts presented within the body of the thesis. Findings from the research and evidence offered in preceding chapters and deemed to be instrumental in the development of Canadian museums as centres for learning, will be reiterated.

Public museums had their beginnings in the 18th century. In these institutions, objects in museum collections were displayed "for the edification and entertainment of the public."⁴ This use was part of a growing trend in which progress was given expression through the application of reason, and supported by the notion that when one had knowledge, one knew how to make sense of information.⁵ What was important about these museums was that they represented a "transformation of previous 'museum' practices" to new institutions, "where knowledge is offered for passive consumption."⁶ This change was also part of new ways of looking at the world which would aid in the development of "visual understanding," and help "make sense of the ways in which knowledge has been formed and reformed."⁷ These shifts would influence the direction taken by European museums as institutions where learning occurred, and consequently in the development and use of museums in North America.

Change in museums in the United Kingdom during the 19th century, was connected to a growing awareness of the ability of works of art and objects in museum collections "to educate people's hearts and minds." Prominent mid-Victorian thinker, John Stuart Mill, reflected upon this societal shift: "Every considerable advance in material civilization has been preceded by an advance in knowledge."⁸ Such was the case with museums. By mid-century, following the success of the 1851 Great Exhibition, the museum movement in England became "a major instrument of public educational policy for the achievement of social and economic improvement." In addition, "a new and dynamic relationship between learning and culture" developed between many local communities and their public museums.⁹ The founding of the South Kensington Museum was regarded as "a significant turning-point in the growth of British museum policy," through the clear enunciation of principles "of the modern museum conceived as an instrument of public education."¹⁰ Further it has been suggested that; "museums developed approximately parallel with the advent of the nation-state in response to the recognition that the welfare of citizens was the responsibility of government."¹¹ Hence the "public museum in Britain is essentially a creation of the second half of the nineteenth century."¹² These circumstances would help to propel museums in the United Kingdom from self-help institutions into public institutions.¹³ They would become instruments for public education, related to learning and the attainment of economic and social improvement.

The development of American museums "in a tradition befitting a democratic society,"¹⁴ together with the geographic proximity of the United States to Canada, influenced the evolution of Canadian museums as centres for learning. The charters of many American museums established in the 19th century, embraced the Victorian impulse for social reform. From 1870 to 1929, American museums were "the product of the industrial and commercial expansion that took place," while the roots of museum education came from "the social and intellectual developments of this period."¹⁵ Some museums in the United States were founded on the principle of learning as their primary mission, and recent museological research has noted that American "museums had their origins as centres of learning."¹⁶ Education and learning in American museums would continue as dominant functions. Museums in the United States were regarded as expositions of a learned variety, and as centres of service and of learning. They would have impact upon the evolution of museums and their learning functions, not only in the United Kingdom and Canada, but around the world.¹⁷

The initial period of museum-making in Canada occurred during the 1830s to 1900. During this time, most English-speaking Canadians "considered themselves British as well as Canadian, both culturally and in terms of political allegiance."¹⁸ Museum growth corresponded with settlement in British North America. In this changing society on a moving frontier and in ever expanding urban centres, interest in natural history, geology, geography and botany grew. These scientific initiatives were integrally connected to the founding of early Canadian museums.¹⁹ Learning through the viewing of specimens on display in museum cases was advocated in these institutions:

Typical cases are of importance in teaching the student to trace the connecting links between the various species – and therefore ought to form a feature in all our Educational Establishments where Natural History is taught.²⁰

Such use of museum resources coincided with the growth of public education in Upper Canada. These developments were linked to a society preparing to enter the 20th century; "As late Victorian culture blended imperceptibly into modernity, this transition was marked by accelerating industrialization, urbanization, and the migration of peoples hoping to improve their material prospects."²¹ The learning function of Canadian museums would constitute part of this transition experienced by Canadians at the end of the 19th century.

The development of the public education system in Upper Canada and the involvement of educators Egerton Ryerson, John George Hodgins and David Boyle, was directly linked to the establishment of educational museums in Ontario and their use for formal learning. Throughout the 19th century, attempts were made to adapt educational practices to civil and social institutions. It was believed that the educational system could neutralize the potential for social disruption during a transformation characterized by social, economic and demographic changes. By the 1840s, public education "would provide the middle class with their main strategy for meeting the problems of their changing society."²² By the 1850s, educators like Ryerson became convinced of the value of museums as a teaching resource.

In the latter half of the century, Canadian museums like their counterparts in the United Kingdom and the United States, "were included among the agencies available to help people better themselves and to appreciate the value of modern life."²³ Gaining knowledge from objects in school museums became part of this institutional prescription for learning. This philosophy which was put into practice by the Department of Education, was described by Hodgins:

This educational Museum is founded after the example of what is being done by the Imperial Government as a part of the system of popular education – regarding the indirect, as scarcely secondary to the direct, a means of training the minds and forming the taste and character of the people.²⁴

Efforts to establish educational museums based on this philosophy, would result in the development of various institutions which became precursors to modern Canadian museums utilized as centres for learning.²⁵

The rise of agriculture in the Canadas, and its connection to emigration, fairs, exhibitions, and agricultural societies, are factors which have received scant attention in past research dealing with the development of Canadian museums. As an outcome of the 18th century Agricultural Revolution in England, ideas and influences from Britain were transposed to British North America. Advances in agriculture in conjunction with the idea of "new possibilities for material rewards through scientific applications," established science as a means for "enhancing wealth and stability." These changes encouraged support of public projects such as natural history societies, agricultural exhibitions and museums.²⁶ Several attempts were made to develop agricultural museums as adjuncts to the formal scientific agricultural system. These initiatives furthered the concept that agricultural museums could promote self-learning to the public at large.²⁷ Continued efforts to establish a provincial museum of agriculture in Ontario, constituted another important component in the evolution of Canadian museums as centres for learning.

Conservation authorities and their role in the management of historic sites and museums, also played a role in this evolution. The growth of the conservation movement and the work carried out by conservation authorities to preserve heritage and to operate museums, are circumstances which have failed to be considered in the study of the history of Canadian museums. No connection has previously been made with these initiatives, and the growth of museums and their potential for learning. The initial impulse for such action came from a concern for environmental protection and an interest in natural heritage preservation and interpretation. By 1950, public acceptance of the "Conservation Ethic" in Ontario, led to ongoing efforts by the provincial government and numerous conservation authorities to develop museums as part of their educational mandate. While these applications had their focus in Ontario, influences from the United States and the United Kingdom contributed to developments that would result in the establishment of museums and the incorporation of a philosophy for education and learning in their operation. This role continues at museums operated by Ontario conservation authorities to the present time.

During the first half of the 20th century, attempts were made by individuals, groups and governments to develop museums as educational institutions. Moving from a previous state of isolation, these institutions began to relate to their communities whether at the local level through historical societies, or at the provincial or national levels, through government agencies, ministries and departments. Individuals also had profound effects on changes in museums,²⁸ as innovative curators and directors took actions that would shape the course of Canadian museum development to mid-century. The results of these actions were reflected in the conclusion of a 1938 report commissioned by the Dominion Bureau of Statistics. Authors wrote:

We are, I feel, on the verge of great educational developments and I believe that the public museum (including the art gallery) has before it today an opportunity for educational service which, if accepted, will revolutionize its position in the community and the functions of its staff. The museum, like the public library, is a natural focal point for adult education.²⁹

The momentum of Canadian museums becoming a vital factor in the education of the public would continue to build from 1950 to the present. During these decades dramatic growth and change in Canadian museums were witnessed. The museum's educational role would increase in importance. In 1977, a Quebec museologist wrote of this expanded role for Canadian museums during the 1970s:

Modern societies are educational societies in that they lean toward equality and declare a wish to base the chances of success on competence rather than on birth. This means that education determines the chances of success and happiness...Today there is hardly a country which can afford the luxury of museums which are not fully used.³⁰

This evolution appeared to have progressed even further, according to comments made in a 1990 speech given by the then federal Minister of Communications, Marcel Masse:

Canada's first museums were created out of a desire to improve public knowledge and to provide people with the opportunity to see things that they would not otherwise have been able to see. The collections concealed riches from which museologists were able to extract the true significance. The museologists' knowledge of Canada's past and of the history of the founding peoples of Canada allowed them to establish the link between museums and the communities they served. Today eighty per cent of Canadians express pride in Canada's museums and hope that support for them continues.³¹

The characteristics of this period included growing public support for museums, increased government activity featuring a willingness to spend money and to enact museum legislation, and a furtherance of ideals associated with "the primacy of interpretation and education in museum practice".³²

Change as well as a connection to the past have been constant factors in the evolution of Canadian museums. Canadian art historian Dennis Reid has described this phenomenon:

Many of the institutions that help shape Canadian cultural life to this day were established in the Victorian era, and that both their structures, and the activities they engendered or otherwise supported in the nineteenth century have necessarily had a great influence upon Canadians' perception of themselves and, indeed upon their subsequent actions throughout this century.³³

While continuing their traditional commitment to education, Canadian museums have taken on an added role as centres for learning. This role is enhanced through the provision of interpretation and education programmes which regularly serve the needs of various sectors of the visiting public. For many Canadian museums, interpretation and education programming has become an important element, central to each museum's *raison d'être*. The educational function is now a core activity which benefits every other museum function and therefore its visitors. Through these programmes museums are able to reach audiences of all ages, interest and capabilities, and create circumstances appropriate for a learning continuum to happen.

These museums have become a tremendous force and resource in public education initiatives. Increasingly this educational role is linked to learning theory. Resulting outcomes and achievements include the further facilitation of learning, the active dissemination of knowledge, the provision for varied services to divergent audiences, the creation of powerful environments for non-coercive and informal learning, and the offering of opportunities for lifelong learning experiences. The Canadian situation is part of a broader transformation identified in today's global museum sector:

Museums, then, are only at the beginning of a process of fundamental change into proactive centres for public learning. This change will transform their image, give them a central role in cultural development and bring them, together with other cultural institutions such as libraries, to the centre of public policy.³⁴

These are salient issues that will continue to make an impact in the future. As Canadian museums enter the new millennium,³⁵ attempts to address new issues and challenges will become part of the ongoing chronology constituting future chapters in the recording of the history of Canadian museums. Such factors will remain important in the continuing evolution of Canadian museums as centres for learning.

End notes

1. Cited in Sue Mitchell (ed.), Object Lessons (Edinburgh, 1996), p. vii.
2. David Anderson, A Common Wealth (London, 1997), p. xiii. For more on the role of museums in our knowledge-based society, see Eilean Hooper-Greenhill, Museums and Their Visitors (London, 1994), p. 6, and René Rivard, "Museums and the Civilization of Knowledge," in Michel Côté and Annette Viel (eds.), Museums: Where Knowledge Is Shared (Ottawa, 1995), pp. 101-02.
3. Lynn D. Dierking, "Contemporary Theories of Learning," in Gail Durbin (ed.), Developing Museum Exhibitions for Lifelong Learning (London, 1996), p. 28.
4. George E. Hein, Learning in the Museum (London, 1998), p. 3.
5. Neil Postman, Building a Bridge to the Eighteenth Century (New York, 1999), pp. 40 & 93.
6. The concept of the 'disciplinary museum' is discussed in chapter 7 of Eilean Hooper-Greenhill's Museums and the Shaping of Knowledge (London, 1992), pp. 167-190.
7. Victoria Dickenson, Drawn From Life (Toronto, 1998), pp. 243-44.
8. Quoted in E.A. Heaman, The Inglorious Arts of Peace (Toronto, 1999), p. 19.
9. Anderson, Common (1997), p. xiii.

10. Tony Bennett, The Birth of the Museum (London, 1995), p. 71. For similar comments on the impact of the Victoria and Albert Museum, see David Anderson, "Gradgrind Driving Queen Mab's Chariot: What Museums Have (and Have Not) Learnt from Adult Education," in Alan Chadwick and Annette Stannett (eds.), Museums and the Education of Adults (Leicester, 1995), pp. 16-17, Eilean Hooper-Greenhill, "A Museum Educator's Perspective," Ibid., pp. 50-51, and Elizabeth Esteve-Coll, "A Yearning For Learning," Museums Journal (May, 1993), v. 93, #5, p. 23.
11. Hein, Learning, p. 3.
12. Gaynor Kavanagh, History Curatorship (Washington, 1990), p. 13.
13. Alan Chadwick, "Practical Aids to Nineteenth Century Self-Help-The Museums: Private Collections Into Public Institutions," in M.D. Stephens and G.W. Roderick (eds.), Samuel Smiles and Nineteenth Century Self-Help in Education (Nottingham, 1983), p. 47.
14. "Museums for a New Century," A Report of the Commission on Museums for a New Century (Washington, 1984), p. 18. It has been suggested that colonists in the United States left old patterns behind and "found in America a tabula rasa on which to sketch the character of a new society." See John W. Gardner, Excellence Can We Be Equal and Excellent Too? (New York, 1961), p. 7. Recent scholarship has extended this argument to museum education, with the conclusion that it is distinctly an American idea. See Lisa C. Roberts, From Knowledge to Narrative (Washington, 1997), p. 4.
15. Terry Zeller, "The Historical and Philosophical Foundations of Art Museum Education in America," in Nancy Berry and Susan Mayer (eds.), Museum Education History, Theory and Practice (Reston, Va., 1989), p. 11.
16. See John H. Falk and Lynn D. Dierking, The Museum Experience (Washington, 1992), p. xi.
17. The director of the City Museum and Art Gallery in Birmingham, England, reflected upon the founding principles of American museums. He wrote; "But all of them have, in tradition of ancient culture." In viewing education programmes developed in North American museums, it was noted that; "I feel there is much which might profitably be copied by museum and art galleries in democratic countries all over the world." See Trenchard Cox, "Educational Methods in the Museums of the United States and Canada," MJ (November, 1948), v. 48, #8, pp. 166 & 171.
18. Dennis Reid, Lucius R. O'Brien: Visions of Victorian Canada (Toronto, 1990), p. 1.
19. Prior to 1850, six museums of minerals and natural history specimens were identified. In the final decades of the 19th century, thirty additional museums of university or society collections were created. It was suggested that; "The establishment of museums for other definite purposes, or particularly in order to meet educational requirements, is a feature of quite recent date." Henry A. Miers and S.F. Markham, The Museums of Canada (London, 1932), p. 8.
20. G.P. Ure, The Hand-Book of Toronto (Toronto, 1858), p. 185.
21. Susanne Zeller, Land of Promise, Promised Land (Ottawa, 1996), p. 19.
22. For more information on this aspect of the origins of public education and social change in Upper

Canada and the role played by Ryerson, see Susan E. Houston, "Politics, Schools, and Social Change in Upper Canada," in Michael B. Katz and Paul H. Mattingly (eds.), Education and Social Change (New York, 1975), pp. 45 & 51.

23. Hein, Learning, p. 4. By the late 19th century; "It was assumed that people would learn, be enlightened, and be entertained by their visits to museums without any reference to the study of visitors' experiences" by educators. Cited in ibid., p. 5.

24. J. George Hodgins (ed.), Trustees' School Manual (Toronto, 1864), 4th ed., p. 151.

25. For a description of one of these school museums which was established in 1890, see Harvey M. Gayman, Rittenhouse School and Gardens (Toronto, 1911), pp. 18, 24, & 26.

26. For more on the heritage of Victorian science from a Canadian perspective, see Zeller, Land, pp. 2-6. Canadian historian J.E. Hodgetts saw in the development of exhibitions, museums, libraries and schools during this time, "the last full-flowering of the Age of Enlightenment." Quoted in Heaman, Inglorious, p. 13.

27. For an early reflection on "the union of scientific instruction with bodily labour," see Frederick Von Raumer, America and the American People (New York, 1854), p. 280. In 1900, agricultural exhibitions were still regarded as aids to agriculture. See William Saunders, Agriculture in Canada (Toronto, 1900), p. 25. By 1928, university museums, including agricultural museums associated with Canadian colleges and universities, played dual roles. It was noted that; "The university museum throughout the Dominion are...important as containing extremely valuable and useful collections, and they render a considerable public service, because, although primarily intended for their own students, they are liberally thrown open to the public." Miers and Markham, Museums p. 47.

28. Eileen D. Mak, "Ward of the Government, Child of the Institute: The Provincial Museums of Nova Scotia (1868-1951)," in Peter E. Rider, (ed.), Studies in History & Museums (Hull, 1994), p. 9. Historical debate continues as to whether the efforts of "great men and women" can be considered as a valid way of assessing the development of museums and other cultural institutions. See Alexander, Masters, p. 16. Without resolving this debate, it can be concluded that individuals did generally advance the cause of museums as educational institutions in Canada from 1900-1950.

29. "Museums in Canada," Educational Bulletin #4 (Ottawa, 1938), p. 2.

30. Huguette Dussault-Dumas, "The Public Voice," in Conference Proceedings for 2001: The Museum and the Canadian Public (Ottawa, 1977), p. 13.

31. Marcel Masse, "An Address to the Canadian Museums Association Conference - Edmonton, Alberta, June 22, 1990," Communications (Ottawa, 1990), p. 1.

32. Hein, Learning, p. 10.

33. Reid, Visions, p. 1. On the connection with museums, history and change, see G. Ellis Burcaw, Introduction to Museum Work (Nashville, 1975), p. 15. For more recent reflections on the connection of museum education of the present to that of the past, see Zeller, "Historical," p. 80, Hooper-Greenhill, Education, p. 193, Roberts, Knowledge, p. 3, and Hein, Learning, p. 4.

34. Anderson, Common (1999), p. 133.

35. Prognostications and descriptions of what is expected in the future, vary. In the 1990's museums will have to address issues of "a knowledge-based age that will replace the post-industrial age." See Eilean Hooper-Greenhill, Museums and their Visitors (London, 1994), p. 6. Museums as part of society, will also have to face forces associated with a "techno-scientific economy." See Eric Hobsbawn, Age of Extremes (London, 1995), p. 584. Challenges of the "information age" and an economy based on knowledge, will also have to be met. See David K. Foot, Boom, Bust & Echo (Toronto, 1996), pp. 70 & 157, and Maureen Cubberly and Stan Skrzyszewski, "Enabling a National Discussion-The Key Role of Public Authorities in Developing a Knowledge Society," Felicitier (March, 1997), v. 43, #3, pp. 24-28. Museums will also have to make efforts to fit into the "civil society," the third voice in society apart from government and business. See Bronwyn Drainie, "Museums and the Civil Society," Ontario Museum Association Annual Meeting (Burlington, 1997), pp. 2-6. Education will become the "sole central purpose" of museums in a learning society. See Anderson, Common (1997), pp. 4 & 90, and Nicholas Goodison, A New Era For Museums? (London, 1997), p. 25.

Bibliography

Theses and Unpublished Manuscripts

- Arbic, Andrea. "Community Participation in Museums: Toward an Integrated Body of Theory and Practice," M.M.S. Thesis (University of Toronto, 1991).
- Boulden, John F. "An Assessment With Comments and Suggestions of the Educational Services of the National Historic Sites Service at Its Various Locations Across Canada," unpublished paper (1972).
- Buitenhuis, Pym. "David Boyle, Dilettante or Museum Anthropologist: A Study of Victorian Museums and Historical Collections in Anthropology," M.M.S. Thesis (University of Toronto, 1989).
- Carbert, R.W. "The Ontario Agricultural Museum," unpublished paper, Ontario Agricultural Museum April, 1974).
- Carter, Dorette. "Nineteenth Century World View: Influences in Egerton Ryerson's Establishment of the Educational Museum of Upper Canada, 1857," M.Ed. Thesis (University of Toronto, 1994).
- Conservation Authority Education Programme Survey (October 19, 1995).
- "Cultural Industries in the Technological Age," Federal-Provincial-Territorial Conference of Ministers Responsible for Culture and Historical Resources (Winnipeg, October 5, 1989).
- Dickenson, Victoria, "Museums and Education: A Quotable History," Canadian Museums Association Annual Conference (Vancouver, 1979).
- Dickenson, Victoria, On the Arrangement of Museums, 1600 to 1919: An Investigation Into the Ordering of Collections (Ottawa, 1984), pt. 1.
- Drainie, Bronwyn. "Museums and the Civil Society," Ontario Museum Association Annual Meeting (Burlington, 1997).
- Griffin, Des. "The Land of the Unicorns Revisited: The Myths and Realities of Management," Council of Australian Museum Associations Annual Conference (Melbourne, 1992).
- Griffin, Janette. "Museums are educational institutions but are they always places of learning?," Museums Australia Conference (November, 1994).
- Halpin, Marjorie M. "Quality and the Post-Modern Museum," Canadian Museums Association Trainers Workshop (Ottawa, 1987).
- Henderson, Judy. "The Background and Development of the Ontario Agricultural Museum, Milton, Ontario," unpublished paper, University of Toronto (1987).

- Herbert, Tony. "Pride and Profit: The Contribution of Museums and Heritage Projects to Local Communities," Heritage Canada Annual Conference (St. Boniface, Man., 1995).
- Heywood, Samantha, "Mastering Museums," Report on a Travelling Fellowship from the Winston Churchill Trust (London, 1999).
- Hunter, James. "The Museum Tradition in Ontario 1842-1943," unpublished paper, University of Toronto (1983).
- Hunter, James R. "The Ontario Provincial Museum 1896-1933," M.M.S. Thesis (University of Toronto, 1987).
- Joliffe, Lee. A Study of the Operation and Management of Municipal Museums in Canada (Toronto: n.p., 1983).
- Kerr-Wilson, Ian, "Historical Societies and Their Museums: A Survey of the Ontario Case," M.M.S. Thesis (University of Toronto, 1987).
- "Notes for an Address by the Honourable Gerard Pelletier," Ontario Museum Association Annual Conference (Hamilton, 1985).
- Rush, Anita. "The Evolution of Federal Support to Museums and Art Galleries," unpublished paper, Carleton University, (1987).
- Sadkowski, Joan C. "Museums and Education: A Survey of Museums in Southern Ontario," M.M.S. Thesis (University of Toronto, 1973).
- Seitz, Bridget, "The History of the Museum as an Educational Institution," unpublished paper, University of Waterloo (1983).
- Selig, Gary. "Museum Resources and Educational Programmes," Canadian Museums Association Annual Conference (Halifax, 1981).
- Sheridan, Peter. Towards a Humanistic Discovery Paideia in Museums and Cultural Institutions Programmed Learning Techniques (Montreal: n.p., 1987).
- Sloan, Stephen F. "A Study of the Administration and Operation of the Conservation Authorities System in Ontario," M.Sc. Thesis (State University College of Forestry at Syracuse University, 1967).
- Soren, Barbara J. "Curriculum-Makers Across Museums Quality Planning and Values," Canadian Museums Association Annual Conference (Hamilton, 1991).
- Soren, Barbara J. and Robert J. Williams. "The Role of Cultural Institutions as Educators," International Conference on Arts Management (Montreal, 1991).
- Soren Barbara J. and Robert J. Williams, "Whose Job Is It Anyway? Ontario Cultural Organizations as Educators," Ontario Museums Association Annual Meeting (Kitchener, 1991).

- Stirling, Craig J. "The Development of Art Institutions in Quebec and Ontario (1876-1914) and the South Kensington Influence," Ph.D. Thesis (University of Edinburgh, 1988).
- Taft, Patricia. "Historical Particularism: Anthropology and the Classification of Cultures, Races, Language and Language Families," unpublished paper, University of British Columbia (1988).
- Tivy, Mary. "From Memory to History: Recreating the Past at Doon Pioneer Village," unpublished paper, University of Waterloo (1990).
- Weiler, John. "Heritage Conservation and Watershed Plans," Conservation Authorities of Ontario Conference (Mississauga, 1981).
- Weiss, Joel. "The Muse As Educator," Annual Conference of the American Educational Research Association (San Francisco, April 21, 1992).
- Wenger, Rhona. "The Influence of the Peterborough Mechanics' Institute on Museum Development in Peterborough," unpublished paper, Sir Sandford Fleming College (1993).
- Wood, David M. "An Investigation of the Objectives of the Conservation Authorities of Ontario," M.A. Thesis (University of Waterloo, 1972).
- Zavitz, E.J. "The Development of Forestry in Ontario," unpublished paper, n.d.

Primary Sources

- Act of Incorporation and By-Laws of the Natural History Society of Montreal (Montreal: A.H. Armour & Co., 1833).
- American Museum and Repository of Arts and Sciences (Washington: Seth Elliot, 1822), v.1, pt.1.
- An Act to Amend the Act to Incorporate the Mechanics' Institute of the City of Toronto (Toronto: Lovell & Gibson, 1850).
- Arrangement of the Fossils and Rock Specimens in the Galleries of the Museum of Practical Geology (London: n.p., 1853).
- Arrangement of the British Marbles, Alabasters, Serpentine, Porphyries, Granites, Building Stones, etc. in the Vestibule and Hall of the Museum of Practical Geology (London: n.p., 1851).
- David Boyle Scrapbooks-Education (December, 1859 - January, 1878), v. 1-5, Baldwin Room, Metro Toronto Reference Library, Toronto.
- Louis J. Breithaupt Diaries (1867-1908), Doris Lewis Rare Book Room, University of Waterloo Library, Waterloo.

Brunet, Ovid. Notice Sur Le Musée Botanique de L'Université Laval (Quebec: D'Augustin Cote & Co., 1867).

Catalogue: First Exhibition, Society of Arts (Toronto: n.p., 1847)

Catalogue of Books of the Farmers' Institute and Subscription Library Society (Toronto: Guardian Office, 1840).

Catalogue of Canadian Collection (Montreal: M. Longmore & Co., 1862).

Catalogue of Paintings, Engravings, Statuary and Egyptian and Assyrian Antiques in the Ontario Provincial Museum (Toronto: L.K. Cameron, 1907).

Catalogue of Plaster Casts, Paintings, Engravings in the Museum of the Education Department, Ontario (Toronto: C.Blackett Robinson, 1884).

Catalogue of Specimens in the Ontario Archaeological Museum - Toronto (Toronto: Warwick Brothers & Rutter, 1897).

Catalogue of the Library of the Canadian Institute (Toronto: Lovell & Gibson, 1858).

"Chairman, Each Conservation Authority," Correspondence from Alan W. Pope, Minister of Natural Resources (November 30, 1982).

Sir Henry Cole, Correspondence, Boxes 4-11, National Art Library, London.

Henry Cole Diaries (1875, 1867, & 1870), National Art Library, London.

"Conservation Authorities Program Review," Cabinet Submission (October 31, 1989).

Constitution and Bye-Laws of the National History Society of Montreal (Montreal: Montreal Gazette Office, 1828).

Constitution and By-Laws of the York Pioneers' Association (Toronto: Copp, Clark & Co., 1883).

Diary of William Helliwell (June 19, 1832), Todmorden Mills Museum, East York.

Horwood and White Collection - B65-0028, folders 043, 082 & 085-091, University of Toronto Archives, Toronto.

Laws For the Constitution and Government of the York Literary and Philosophical Society in Upper Canada (York: Robert Stanton, 1832).

"Letter," Toronto, January 8, 1906, R.H. Ryne, Minister of Education, to J.S. Duff Esq., Cookstown, Ontario, Collingwood Museum, Collingwood.

Logan, W.E. Catalogue of Economic Minerals of Canada - Grant Industrial Exhibition 1851 (Toronto: Lovell & Gibson, 1851).

London Post Office Annual Directory (London: B. Critchett, 1836).

Matthew Francis Diary (May 10, 1850 - November 11, 1852), private collection.

Minute Book of the Town and County of Peterborough Historical Society (December 4, 1896-November 4, 1909), Peterborough Centennial Museum and Archives, Peterborough.

Minutes of the Board of Governors King's College Council (January 1828 - 1837), v. 1, University of Toronto Archives, Toronto A70-0024.

Minutes of the Board of Governors King's College Council (June 1837 - November 1842), v. 2, University of Toronto Archives, Toronto, A70-0024.

"Paris Exhibition, 1855, Central Committee for Upper Canada," Minute Book (December 9, 1854 - February 23, 1855).

"The Petition of Charles Fothergill of the Township of Pickering, Esquire," Council Papers (July 31, 1837).

Proceedings at the Ceremony of Laying the Chief Corner Stone of the Normal and Model Schools and Education Offices for Upper Canada (Toronto: Thomas H. Bentley, 1851).

Ryerson, Egerton. Inaugural Address on the Nature and Advantages of An English and Liberal Education (Toronto: Victoria College, 1842).

Sedgewick, Robert. Amusements for Youth (Halifax: James Barnes, 1857).

Testimonials in Favour of Mr. W.E. Logan (Montreal: Lovell & Gibson, 1846).

Harlan I. Smith Collection, Boxes 26, 27, 89, 91, 92, 216R, 217R, 239 & 429, Canadian Museum of Civilization, Hull, Quebec.

"Toronto Athenaeum," (November 18, 1855).

Toronto Athenaeum, Transfer of Books and Minerals to the Canadian Institute (November 18, 1855).

The Town and County of Peterborough Historical Society-Victoria Museum-Dedicated on Jubilee Day (June 22, 1897), Peterborough Centennial Museum & Archives, Peterborough.

University of Toronto Senate Minutes (July 8, 1850-August 11, 1873), v. 2 & (September 15, 1873-May 20, 1880), v. 3, University of Toronto Archives, Toronto.

Government Documents, Publications and Reports

"An Act Respecting the Canadian Historical Exhibition," Statutes of the Province of Ontario (Toronto: L.K. Cameron, 1896).

"Agriculture Education," Ontario Agricultural Commission Report of the Commissioners (Toronto: C. Blackett Robinson, 1881), 3rd. ed.

Anderson, David. A Common Wealth-Museums and Learning in the United Kingdom (London: Department of National Heritage, 1997).

Anderson, David. A Common Wealth-Museums in the Learning Age (London: Department of Culture, Media and Sport, 1999).

Anstey, T.H. One Hundred Harvests (Ottawa: Agriculture Canada, 1986), #27.

"Annual Archaeological Report," Report of the Minister of Education-Ontario (Toronto: King's Printer, 1888-1928).

Annual Report of the Board of Regents of the Smithsonian Institution (Washington: Government Printing Office, 1846-80), v. 1-35.

Annual Report of the Commissioner of Agriculture and Arts for the Province of Ontario 1874-78 (Toronto: Hunter, Rose & Co., 1875-79).

Annual Report of the Commissioner of Agriculture and Arts for the Province of Ontario 1879-82 (Toronto: C. Blackett Robinson, 1880-83).

Annual Report of the Commissioner of Agriculture and Arts for the Province of Ontario 1883-84 (Toronto: Grip Printing, 1884-85).

Annual Report of the Commissioner of Agriculture and Arts for the Province of Ontario 1885 (Toronto: Warwick & Sons, 1886).

Annual Report of the Commissioner of Agriculture and Public Works for the Province of Ontario 1872 & 1873 (Toronto: Hunter, Rose & Co., 1873-74).

Annual Report of the Department of Agriculture for the Province of Ontario 1886-91 (Toronto: Warwick & Sons, 1887-92).

Annual Report of the Department of Agriculture for the Province of Ontario 1892-98 (Toronto: Warwick Bros. & Rutter, 1893-99).

Annual Report of the Department of Agriculture for the Province of Ontario 1889-1909 (Toronto: L.K. Cameron, 1890-1911).

Annual Report of the Minister of Agriculture 1910-11 (Toronto: L.K. Cameron, 1911-13).

- Annual Report of the Minister of Education (Toronto: C. Blackett Robinson, 1880-82).
- Annual Report of the Normal, Model, Grammar and Common Schools in Upper Canada (Toronto: Lovell & Gibson, 1855-1872).
- Annual Report of the Normal, Model, High and Public Schools of Ontario (Toronto: Hunter, Rose & Co., 1873-79).
- Annual Report of the Minister of Lands and Forests (Toronto: Department of Lands and Forests, 1963).
- Annual Report of the Minister of Lands and Forests (Toronto: Department of Lands and Forests, 1964).
- "Assistance to Schools From Museums and Art Galleries," Education Bulletin # 1 (Ottawa: Dominion Bureau of Statistics, 1938).
- Ball, Valentine. "Report on a Visit to the Museums of America and Canada," Thirty-Second Report of the Science and Art Department (1884).
- "Bibliography of Harlan I. Smith 1889-1936," Annual Report of the National Museum of Canada 1939-1947 (Ottawa: Edmond Cloutier, 1949), #112.
- Big Creek Region Conservation Report-History (Toronto: Department of Lands and Forests, 1963).
- Boyle, David. "Archaeological Report," Sessional Papers (1889), v. 21, pt. V, #42.
- Brice, Max O. A Profile of the Museum Sector in Canada (Ottawa: Secretary of State, 1979).
- Burns, Ned J. Field Manual for Museums (Washington: National Parks Service, n.d.).
- CA Revue (Toronto: Ministry of Natural Resources, 1988).
- Carter, John. Review of Ministry of Education Curriculum Documents with Selected References to Heritage Activities (Toronto: Ontario Heritage Foundation, 1984).
- Cheney, Terry. The Ontario Museum Visitor 1991 (Ottawa: Department of Canadian Heritage, 1991).
- Chuhay, Carol. Built Heritage in Schools (Toronto: Ministry of Culture & Communications, 1990).
- The Common Curriculum Policies and Outcomes Grades 1-9 (Toronto: Ministry of Education & Training, 1995).
- A Conservation Strategy For The 90's (Allanburg: Niagara Peninsula Conservation Authority, 1989).
- Collins, W.H. "The National Museum of Canada," National Museum of Canada Annual Report for 1926 (Ottawa: F.A. Acland, 1928), #50.

- Community Museums Policy for Ontario (Toronto: Ministry of Culture and Recreation, 1981).
- Community Relations Strategy Ontario Conservation Authorities (Toronto: Ministry of Natural Resources, 1983).
- Conservation (Galt: Grand Valley Conservation Authority, 1954).
- Conservation and Post-War Rehabilitation (Toronto: n.p., 1942).
- Conservation "70's" (Toronto: Department of Energy & Resources Management, 1970).
- Conservation Authorities in Ontario (Toronto: Department of Commerce and Development, 1960).
- "Conservation Authorities Program Review," Report of the ACAO/AMO/MNR Committee to the Honourable Vincent G. Kerrio Minister of Natural Resources (June, 1989).
- Conservation in Eastern Ontario (Toronto: Department of Planning and Development, 1946).
- Coventry, A.F. The Need of River Valley Development (Toronto: Department of Planning and Development, 1944).
- Cranston, Bill. "Do's and Dont's or Suggestions for Persons Interested in Starting a Local Museum," Ontario Department of Education Bulletin (October, 1950).
- Credit Valley Conservation Report (Toronto: Department of Planning and Development, 1956).
- "Developing an Interpretation and Education Policy for the Museum," Ontario Museum Notes (1985), #11.
- Dixon, Brian et al. The Museum and the Canadian Public (Ottawa: Secretary of State, 1974).
- Edlin H.L. (ed.). New Forest Forestry Commission Guide (London: HMSO, 1969).
- Education in the Primary and Junior Divisions (Toronto: Ministry of Education, 1975).
- The Educational Museum and School of Art and Design for Upper Canada (Toronto: Lovell & Gibson, 1858).
- Emigration to Canada (Toronto: Hunter, Rose & Co., 1869).
- "Federal Policy Concerning Museums," A Report of the Standing Committee on Communications and Culture (Ottawa: House of Commons, January, 1987).
- "For the Love of Learning," Report of the Royal Commission on Learning (Toronto: Queen's Printer, 1994).
- Forest Conservation (Ottawa: Department of Northern Affairs and National Resources, 1959).

- The Formative Years (Toronto: Ministry of Education, 1975).
- Framework For Resource Management Partnerships (Toronto: Ministry of Natural Resources, 1994).
- Gagan, David. Hopeful Travellers (Toronto: Ministry of Culture and Recreation, 1981).
- Geological and Natural History Survey of Canada Annual Report 1885 (Montreal: Dawson Brothers, 1886), v. 1, n.s.
- Geological and Natural History Survey of Canada Annual Report 1886 (Montreal: Dawson Brothers, 1887), v. 2, n.s.
- Geological Survey of Canada Annual Report 1887-1889 (Montreal: William Foster Brown, 1889-1890), v. 3 & 4, n.s.
- Geological Survey of Canada Annual Report 1890-1897 (Ottawa: Queen's Printer, 1893-1899), v. 5-10, n.s.
- Geological Survey of Canada Report of Progress 1843-51 (Montreal: Lovell & Gibson, 1845-1852).
- Geological Survey of Canada Report of Progress, 1850-51 (Montreal: John Lovell, 1852).
- Geological Survey of Canada Report of Progress for the Year, 1851-52 (Quebec: John Lovell, 1852).
- Geological Survey of Canada Report of Progress, 1857 (Toronto: John Lovell, 1858).
- Geological Survey of Canada Report of Progress, 1858 (Montreal: John Lovell, 1859).
- Geological Survey of Canada Report of Progress, 1863 (Montreal: Dawson Brothers, 1863).
- Geological Survey of Canada Report of Progress 1863-1866 (Ottawa: George E. Desbarats, 1866).
- Geological Survey of Canada Report of Progress 1870-71 (Ottawa: I.B. Taylor, 1872).
- Geological Survey of Canada Report of Progress, 1871-84 (Montreal: Dawson Brothers, 1872-85).
- Goode, George Brown. "Museum-History and Museums of History," Report of the U.S. National Museum (Washington: Government Printing Office, 1901), pt. 2.
- Goode, George Brown. "The Museums of the Future," Report of the National Museum (Washington: United States Congress, 1890).
- Gooding, S.J. Museums in Ontario (Toronto: Department of Travel and Publicity, 1963).
- Grand Valley Conservation Report (Toronto: Department of Planning and Development, 1954).

- Greeley, Horace. "Agriculture," The Fourth Reader (Toronto: Minister of Education, 1885).
- Guidelines for Museums (Toronto: Ministry of Culture & Recreation, 1981).
- Hayes, Cecil B. The American Lyceum Its History and Contribution to Education (Washington: Department of the Interior, 1932), #12.
- Helmsley, A.F. Manual of Interpretation (Toronto: Department of Lands & Forests, 1960).
- "Heritage Conservation," Watershed Plan Highlights (Downsview: MTRCA, 1980).
- Hodgins, J. George. Hints and Suggestions on School Architecture and Hygiene (Toronto: The Education Department, 1886).
- Hodgins, J. George. The School House (Toronto: Lovell & Gibson, 1857).
- Hodgins, J. George. The School House (Toronto: Copp, Clark, 1876).
- Hodgins, J. George (ed.), Trustees' School Manual (Toronto: Lovell & Gibson, 1864), 4th ed.
- Journal and Transactions of the Board of Agriculture of Upper Canada (Toronto: Thompson & Co., 1856), v. 1.
- Journal and Transactions of the Board of Agriculture of Upper Canada (Toronto: Thompson & Co., 1858), v. 2.
- Journal of Education for Upper Canada (Toronto: J.H. Lawrence, 1848-76), v. 1-29.
- Kay, William Kennon. Keep it Alive! (Washington: U.S. Department of the Interior, 1970).
- Living and Learning (Toronto: Ministry of Education, 1968).
- Leclair, Louise. Access and Awareness-Bringing Museums and People Together (Ottawa: Communications Canada, 1988).
- Legget, Jane. Towards a New Zealand Museums Standards Scheme (Wellington: Museum of New Zealand, 1999).
- Major, Judith Strand. Arts and the Curriculum for the 80's (Toronto: Ministry of Education, 1983).
- Memorandum of Understanding Between the Ministry of Natural Resources and the Ontario Heritage Foundation Regarding Support of the Natural Heritage League (Toronto: Government of Ontario, December 14, 1989).
- McConnell, D. Provincial Parks 1893-1954 (Toronto: Department of Lands & Forests, 1965).
- McConnell, D. Provincial Parks 1954-Present (Toronto: Department of Lands & Forests, 1965).

- Meyer, A.B. "Efforts of the American Natural History Museums to Increase Their Usefulness," Report of the U.S. National Museum (Washington: Government Printing Office, 1905).
- Miller, Marilyn and Phillip J. Wright, Proposal for the Cultural Heritage Background Study of the South Nation Basin Study (Toronto: Ministry of Culture & Recreation, 1980).
- Mississippi Valley Conservation Report (Toronto: Department of Energy & Resources Management, 1970), v. 1.
- Mitchell, Sue (ed.). Object Lessons (Edinburgh: HMSO Scotland, 1996).
- Moffat, Hazel and Vicky Woollard (eds.), Museum & Gallery Education: A Manual of Good Practice (London: The Stationary Office, 1999).
- Moira Valley Conservation Report (Toronto: Department of Planning & Development, 1950).
- Morse, Edward S. "If Public Libraries, Why Not Public Museums," Report of the U.S. National Museum (Washington: Government Printing Office, 1895).
- "The Museum as an Adjunct of the Technical School," in Report of the Royal Commission on the Mineral Resources of Ontario (Toronto: Warwick & Son, 1890).
- "Museum of Economic Geology," in Report of the Royal Commission on the Mineral Resources of Ontario (Toronto: Warwick & Sons, 1890).
- "Museums and Art Galleries 1951-1952," Reference Paper #57 (Ottawa: Dominion Bureau of Statistics, 1955).
- Museums and Art Galleries 1964 (Ottawa: Dominion Bureau of Statistics, 1966).
- "Museums in Canada," Educational Bulletin #4 (Ottawa: Dominion Bureau of Statistics, 1938).
- Napanee Valley Conservation Report (Toronto: Department of Planning and Development, 1957).
- New Foundations for Ontario Education-A Summary (Toronto: Ministry of Education & Training, 1995).
- Nicolas, F.J. General Index to Reports Geological Survey of Canada 1885-1906 (Ottawa: Government Printing Bureau, 1908).
- North Grey Region Conservation Report (Toronto: Department of Planning & Development, 1950).
- "Notes for a Speech by the Honourable Marcel Masse, Minister of Communications," An Address to the Canadian Museums Association Annual Conference, Hull, Quebec, June 8, 1989 (Ottawa: Communications Canada, 1989).

"Notes for a Speech by the Honourable Marcel Masse, Minister of Communications," An Address to the Canadian Museums Association Annual Conference, Edmonton, Alberta, June 22, 1990 (Ottawa: Communications Canada, 1990).

Ontario Conservation Authorities Tour Through Southern Ontario (Toronto: Department of Planning & Development, 1952).

Ontario Schools Intermediate and Senior Divisions (Toronto: Ministry of Education, 1984).

Ontario's Conservation Authorities and the Conservation Authorities Branch of the Provincial Government (Toronto: Department of Energy & Resources Management, 1970).

O. Reg 398/81 Regulation Governing Grants to Museums (Toronto: Ministry of Culture & Recreation, June, 1981).

Otonabee Region Conservation Authority Interim Watershed Plan (Peterborough: ORCA, 1985).

Otonabee Region Conservation Report (Toronto: Department of Energy & Resources Management, 1964).

Otter Creek Conservation Report (Toronto: Department of Planning & Development, 1957).

Otter Valley Conservation Report (Toronto: Department of Planning & Development, 1957).

Plans for Rural School Buildings (Toronto: Department of Education, 1909).

La Politique Culturelle du Quebec (Quebec City: Ministere des Affaires Culturelles, 1992).

Preliminary Provincial Policies for Conservation Authorities (Toronto: Ministry of Natural Resources, 1983).

The Renewal of Secondary Education in Ontario (Toronto: Ministry of Education, 1982).

Report and Recommendations of the Task Force Charged With Examining Federal Policy Concerning Museums (Ottawa: Department of Communications, 1980).

Report of the Early Primary Education Project (Toronto: Ministry of Education, 1985).

Report of the Commission on the Financing of Elementary and Secondary Education in Ontario (Toronto: Ministry of Education, 1985).

Report of the Commissioners Appointed to Enquire Into the Expenditure of Funds of the University of Toronto (Quebec: G.T. Gary, 1862).

Report of the Federal Cultural Policy Review Committee (Ottawa: Department of Communications, 1982).

- Report of the Minister of Education (Ontario) (Toronto: C. Blackett Robinson, 1882-84).
- Report of the Minister of Education (Ontario) (Toronto: Warwick & Sons, 1886-1890).
- Report of the Minister of Lands and Forests 1922 (Toronto: C.W. James, 1923).
- Report of the Minister of Lands, Forests and Mines 1921 (Toronto: C.W. James, 1922).
- Report of the Royal Commission on Education in Ontario (Toronto: Baptist Johnston, 1950).
- Report of the Royal Commission on the Mineral Resources of Ontario and Measures for Their Development (Toronto: Warwick & Sons, 1890).
- Report of the Secondary Education Review Project (Toronto: Ministry of Education, 1985).
- "Report of a Select Committee on the Barnett Museum," Appendix to the Seventeenth Volume of the Journals of the Legislative Assembly of the Province of Canada (1859), v. 17, Appendix #56.
- "Report of Select Committee on the Petition of Charles Fothergill," Appendix to the Journals of the House of Assembly of Upper Canada 1836-37 (Toronto: W.J. Coates, 1837), #30.
- A Report on Standards and Community Museums: 1991 Survey Results (Toronto: Ministry of Culture & Communications, 1992).
- Report of the Royal Commission on National Development in the Arts, Letters and Sciences 1949-1951 (Ottawa: Edmond Cloutier, 1951).
- Report to the Ontario Legislature from the Select Committee on Conservation (Toronto: Baptist Johnston, 1950).
- Rouge, Duffin, Highland and Petticoat Valley Conservation Report (Toronto: Department of Planning & Development, 1956).
- A Review of the Conservation Authorities Program (Toronto: Ministry of Natural Resources, 1987).
- Richardson, A.H. Conservation Authorities in Southern Ontario (Toronto: Department of Planning & Development, 1953).
- Richardson, A.H. (ed.) Programme and Tour Dufferin and Grey Counties Forestry Field Day (Toronto: Department of Planning & Development, 1939).
- Richardson, A.H. A Report on the Ganaraska Watershed (Toronto: T.E. Bowman, 1944).
- Richardson, A.H. Trees for Schools (Toronto: Department of Lands & Forests, 1933).
- Russell, Loris S. The National Museum of Canada 1910 to 1960 (Ottawa: Department of Northern Affairs & National Resources, 1961).

- Ryerson, Egerton. The Educational Museum and School of Art and Design for Upper Canada (Toronto: Lovell & Gibson, 1858).
- Ryerson, Egerton. Forms, Regulations and Instructions for the Better Organization and Government of Common Schools in Upper Canada (Toronto: J.H. Lawrence, 1847).
- Ryerson, Egerton. Report on a System of Public Elementary Instruction for Upper Canada (Montreal: Lovell & Gibson, 1846).
- Ryerson, Egerton. A Special Report-Systems and State of Popular Education on the Continent of Europe in the British Isles and the United States of America (Toronto: Steam Press, 1868).
- Saugeen Valley Conservation Report (Toronto: Department of Planning & Development, 1952).
- Smith, Harlan I. Handbook of the Rocky Mountains Park Museum (Ottawa: Department of the Interior, 1914).
- Standards for Community Museums in Ontario (Toronto: Ministry of Culture & Recreation, 1981).
- Stimulating Children's Interest in the Past (Toronto: Ministry of Culture & Recreation, 1980).
- Suggested Programme for the Development of Local Museums in Ontario (Toronto: Archives of Ontario, 1973).
- Summary Report of the Geological Survey Branch of the Department of Mines 1907-1911 (Ottawa: King's Printer, 1808-1912).
- Summary Report of the Geological Survey Department 1898-1901 (Ottawa: Queen's Printer 1899-1902).
- Summary Report of the Geological Survey Department of Canada 1902-1906 (Ottawa: King's Printer, 1903-1906).
- Summary Report of the Geological Survey Department of Mines 1912-1933 (Ottawa: King's Printer, 1914- 1934).
- Survey of How Some Schools in Five LEAS Made Use of Museum Loan Services (Stanmore: Department of Education & Science, 1987).
- A Survey of the Use of Museums in Adult and Community Education (Stanmore: Department of Education & Science, 1988).
- A Survey of the Use Schools Make of Museums Across the Curriculum (Stanmore: Department of Education & Science, 1989).
- A Survey of the Use Some Pupils and Students With Special Educational Needs Make of Museums and Historic Buildings (Stanmore: Department of Education & Science, 1988).

- Taché, J.C. Canada at the Universal Exhibition of 1855 (Toronto: John Lovell, 1856).
- Tilt, C.R. Provincial Parks in Ontario (Toronto: Department of Lands & Forests, 1959).
- Towards an Integrated Curriculum: A School Resource Guide (Toronto: Ministry of Education & Training, 1993).
- Transactions of the Board of Agriculture and the Agricultural Association of Upper Canada (Toronto: Thompson & Co., 1859), v.3.
- Transactions of the Board of Agriculture and of the Agricultural Association of Upper Canada (Toronto: Thompson & Co., 1860), v.4.
- Transactions of the Board of Agriculture and of the Agricultural Association of Upper Canada (Toronto: Guardian Book, 1864), v.5.
- Transactions of the Board of Agriculture and the Agricultural Association of Upper Canada (Toronto: Globe Printing, 1872), v.6.
- "Unveiling of the Portrait of the Late Professor James Hoyes Panton," Twenty-sixth Annual Report of the Ontario Agricultural and Experimental Union 1904 (Toronto: Ontario Department of Agriculture, 1905).
- Upper Holland Conservation Report (Toronto: Department of Planning & Development, 1953).
- Upper Thames Valley Conservation Report (Toronto: Department of Planning & Development, 1952).
- Upper Thames Valley Conservation Report-Summary (Toronto: Department of Planning & Development, 1952).
- Watershed Plan Highlights (Downsview: MTRCA, n.d.).
- Watershed Plan Informer (Allanburg: NPCA, 1983).
- Watts, Gillian. The Museum Survey (Toronto: Ministry of Citizenship, Culture & Recreation, 1995).
- Weiler, John. A Review of the Report of the Working Group on the Mandate and Role of the Conservation Authorities of Ontario (Toronto: Ministry of Culture & Recreation, July 12, 1979).

Newspapers

- "The Agricultural Museum," The Globe (February 25, 1869).
- Ash, Marinell, "Patriots Who Put Scotland's Heritage in Safe Keeping," The Weekend Scotsman (October 5, 1985).

- Barzun, Jacques, "A Glut of Art," The Globe and Mail (June 28, 1986).
- Boorstin, Daniel J. "The Historian: 'A Wrestler With the Angel'," New York Times Book Review (September 20, 1987).
- "British Museum, York, U.C.," Colonial Advocate (December 2, 1830).
- "British Museum, York, U.C.," Colonial Advocate (August 11, 1831), #377.
- Bumpus, Hermon C. "The Museum as a Factor in Education," The Independent (1906).
- Cossons, Neil. "Dangers of a Dinosaur Mentality," The Listener (April 16, 1987).
- Cossons, Neil. "When is a Museum Not a Museum," The Listener (August 2, 1984).
- Coyne, J.H. "The Value of History," Globe (January 8, 1898).
- Drainie, Bronwyn. "A museum's job is not to preach or sell but to explain," The Globe and Mail (June 15, 1991).
- Edinburgh, Arnold. "Arts support should be cost to public purse, not subsidy," The Financial Post (May 16, 1988).
- "The Educational Museum," Daily Mail & Empire (September 4, 1899).
- "Experimental Farm Buildings," Toronto Globe (April 4, 1885).
- Fernandez-Armesto, Felipe. "Let's put our past in perspective," The Sunday Times (September 3, 1995).
- "A Floating Museum," The Patriot and Farmers Monitor (August 17, 1830).
- "Formation of an Historical Society," Peterborough Examiner (December 8, 1896).
- Hewison, Robert. "Museums Are One of Our Few Growth Industries," The Listener (June 26, 1986).
- Januszczak, Waldemar. "Hung, drawn and badly quartered," The Sunday Times (September 3, 1995).
- Hill, George. "Are We Forging Our Own History?" The Times (March 12, 1992).
- Hope, Linnaeus E. "Museums and Education," Carlisle Journal (October 3, 1919).
- "Kingston Museum," Kingston Chronicle (May 1, 1830), v. 11, #44.
- Leahy, Stephen. "Poverty tarnishes paradise," The Toronto Star (March 16, 1996).
- Markham, S.F. "Treasure Houses of the Nation," The Listener (February 10, 1932), v. 7.

- Massingberd, Hugh. "Forward With the Past," Daily Telegraph (March 21, 1992).
- McBride, Stewart. "The Man Who Lives in the 18th Century," Christian Science Monitor (September 11, 1980).
- "Mechanics' Institutions and Literary Societies," The Family Economist (1848), v. 1.
- Miers, Henry. "What Museums Might Be," The Listener (February 10, 1932), v. 7.
- "Model Farms," The British American Cultivator (February, 1845), v. 1, #2, n.s.
- "Museum of Natural History at the Falls of Niagara," The Toronto Patriot (August 8, 1837).
- "A New Museum," Kingston Gazette (August 1, 1815).
- "The National School Museum," Toronto Daily Mail (September 18, 1885).
- "The Ontario Archaeological Museum," The Mail and Empire (March 20, 1933).
- Strathdee, Mike. "Group 'Fights for Ag Museum,'" Kitchener-Waterloo Record (December 22, 1995).
- "Science of Archaeology," Toronto Mail (January 18, 1883).
- "Society of Arts for Canada West," British Colonist (February 5, 1847).
- The Tatler (Tuesday, June 28, 1709), #34.
- "Thomas Barnett, Esq.," Canadian Illustrated News (June 8, 1872), v.5, #23.
- "Victoria Museum Open to the Public," Examiner (April 14, 1899).
- Wood, James, "Anarchy in retreat," The Guardian (March 3, 1989).
- Wright, Patrick. "From Mill to Mall, Museum Culture for the Masses," The Guardian (February 29, 1992).
- "The York Museum," Colonial Advocate (June 9, 1831), #368.

Secondary Sources

Books

- Abbott, Joseph. The Emigrant to North America (Montreal: Lovell & Gibson, 1843, 2nd ed.

- Abdy, E.S. Journal of a Residence and Tour in the United States of North America (London: John Murray, 1835).
- Acland, Henry W. and John Ruskin. The Oxford Museum (London: Smith, Elder & Co., 1859).
- Adam, Thomas R. The Museum and Popular Culture (New York: American Association for Adult Education, 1939).
- Adams, William. Modern Discoveries in North and South America (London: Sherwood, Jones & Co., 1824).
- Adamson, Donald. Dusty Heritage: A National Policy for Museums and Libraries (London: Bow Publications, 1971).
- Agassiz, Louis. Methods of Study in Natural History (Boston: Ticknor & Fields, 1864), 2nd ed.
- Alexander, Edward P. Museum Masters (Nashville: AASLH, 1983).
- Allard, Michel and Bernard Lefebvre (eds). The Museum as Service To People (Montreal: Université du Québec à Montréal, 1999).
- Allen, H.T. Allen's Illustrated Guide to Niagara (Buffalo: Courier Co., 1881).
- Allen, Richard L. The American Farm Book (New York: C.M. Saxton, 1853).
- Altick, Richard D. The Shows of London (London: Belknap Press, 1978).
- Altick, Richard D. Victorian People and Ideas (New York: W.W. Norton, 1973).
- Ambrose, Tim (ed.). Education in Museums Museums in Education (Edinburgh: Scottish Museums Council, 1987).
- Armstrong, Thomas. 7 Kinds of Smart (New York: Penguin Books, 1993).
- Bacon, George W. and William G. Larkins. Bacon's Descriptive Handbook of America (London: G.W. Bacon, 1866).
- Baedeker, Karl. The Dominion of Canada (London: Dylan & Co., 1984).
- Bailliere, C. E. The British American Guide-Book (New York: H. Bailliere, 1859).
- Ball, Valentine and James Brennan. Report on Certain Museums, Picture Galleries and Schools of Art in Northern and Central Europe (Dublin: Science & Art Museum, 1895).
- Banks, Gillian et al. Visitors Welcome (London: English Heritage, 1988).
- Barber, Lynn. The Heyday of Natural History (London: Jonathan Cape, 1980).

- Barclay-Allardice, Robert. Agricultural Tour in the United States and Upper Canada (Edinburgh: William Blackwood, 1842).
- Barham, William. Descriptions of Niagara (Gravesend: self-published, 1847).
- Barnard, Henry. National Education in Europe (Hartford, Conn.: Case, Tiffany & Co., 1854), 2nd ed.
- Barnard, Henry. Normal Schools and Other Institutions, Agencies, and Means Designed for the Professional Education of Teachers (Hartford, Conn.: Case & Tiffany, 1851), 2 pts.
- Barnard, Henry. School Architecture (New York: Charles B. Norton, 1854), 5th ed.
- Barnum, P.T. Struggles and Triumphs (London: Ward, Lock & Co., 1889).
- Bass, Charles. Lectures on Canada (Hamilton: Spectator Steam Press, 1863).
- Bates, Jerome P. The Imperial Highway (Chicago: National Library Association, 1888).
- Bayley, Stephen (ed.). The Garden City (Milton Keynes: Open University Press, 1975), #23.
- Beaufry, Mark. Tour Through Parts of the United States and Canada (London: Longman, Rees, Orme, Brown & Green, 1828).
- Becker, Carl L. Everyman His Own Historian (New York: F.S. Crofts, 1935).
- Beckman, Margaret et al. The Best Gift (Toronto: Dundurn Press, 1984).
- Bell, William. Hints to Emigrants (Edinburgh: Waugh & Innes, 1824).
- Bennett, Tony. The Birth of the Museum (London: Routledge, 1995).
- Berger, Carl. Science, God, And Nature in Victorian Canada (Toronto: University of Toronto Press, 1983).
- Bernhard, Karl. Travels Through North America (Philadelphia: Carey, Lea & Carey, 1828), 2v.
- Berry, Nancy and Susan Mayer (eds.). Museum Education: History, Theory and Practice (Reston, Va.: The National Art Education Association, 1989).
- Best, Geoffrey. Mid-Victorian Britain 1851-1875 (London: Weidenfeld & Nicolson, 1971).
- Bigsby, John L. The Shoe and the Canoe (London: Chapman & Hall, 1850), 2 v.
- Bingley, William. Travels in North America (London: Harvey & Darton, 1821).
- Bishop, Isabella. The Englishwoman in America (London: John Murray, 1856).

- Bishop, James. A Visit to the Zoological Gardens in Regent's Part (London: Thomas Dean, 1850), 6th ed.
- Blackwood, Beatrice. The Origin and Development of the Pitt Rivers Museum (Oxford: Pitt Rivers Museum, 1991).
- Blake, John L. The Family Encyclopedia of Useful Knowledge (Cincinnati: Barnitz, 1855).
- Blake, John L. The Farmer's Every-day Book (Auburn, N.Y.: Derby, Miller & Co., 1851).
- Blane, William N. An Excursion Through the United States and Canada (London: Baldwin, Cradock & Joy, 1824).
- Blatti, Jo (ed.). Past Meets Present (Washington: Smithsonian Institution Press, 1987).
- Blowe, Daniel. View of the United States of America (Liverpool: Henry Fisher, 1820).
- Bompas, George C. Life of Frank Buckland (London: Smith, Elder & Co. 1885), 2nd ed.
- Bonnycastle, Richard H. Canada and the Canadians in 1846 (London: Henry Colburn, 1846), 2v.
- Bonnycastle, Richard H. Canada As It Was, Is, and May Be (London: Colburn & Co., 1852), 2v.
- Bonnycastle, Richard H. The Canadas in 1844 (London: Henry Colburn, 1842), 2v.
- Bonser, Frederick and Lois Mossman. Industrial Arts for Elementary Schools (New York: Macmillan & Co., 1924).
- Bonython, Elizabeth. Index to the Henry Cole Diaries (London: National Art Library, 1992).
- Boorstin, Daniel J. The Discoverers (New York: Random House, 1983).
- Borrett, George T. Letters from Canada and the United States (London: J.E. Allard, 1865).
- Borrett, George T. Out West (London: Groombridget & Sons, 1865).
- Bouchette, Joseph. The British Dominions in North America (London: Longman, Rees, Orme, Brown, Green & Longman, 1832), 2v.
- Bourinot, John G. Canada During the Victorian Era (Ottawa: J. Durie, 1897).
- Bourinot, John G. How Canada Is Governed (Toronto: Copp, Clark Company, 1909), 7th ed.
- Bourinot, John G. Our Intellectual Strength and Weakness (Montreal: Foster Brown, 1893).
- Bourinot, John G. The Intellectual Development of the Canadian People (Toronto: Hunter, Rose, 1881).

Bourinot, John G. The National Development of Canada (London: Unwin Brothers, 1880).

Bovell, James. Outlines of Natural Theology (Toronto: Henry Rowsell, 1859).

Boyd, J.A. A Summary of Canadian History (Toronto: James Campbell, 1860).

Boyes, Valerie. London Museums and Their Education Services (London: Richmond Upon Thames,

Henry Ellis
f Curiosities and Rare Things (Leeds: Friends of the Leeds Museums, 1989).

Historian Things (London: B.T. Batsford, 1988).

R. Public Culture in the Early Republic (Washington: Smithsonian Institution Press,

Commercial Prospects of Canada (Montreal: Rollo Campbell, 1850).

↓
The British Museum, Elgin and Phigaleian Marbles (London: Charles Knight, 1833), 2v.

Bronowski, Jacob. The Ascent of Man (London: B.B.C., 1974).

Brown, J.B. Views of Canada and the Colonists (Edinburgh: Adam & Charles Black, 1844).

Brydone, James M. Narrative of a Voyage (London: Effingham Wilson, 1834).

Buckingham, James S. Canada (London: Fisher & Son, 1843).

Buckingham, James S. National Evils and Practical Remedies (London: Peter Jackson, 1849).

Buckingham, James S. New Plan of National Colonization (London: Fisher & Son, 1843).

Bullock, William. A Companion to Mr. Bullock's Museum (London: Henry Reynell, 1810), 8th ed.

Bullock, William. A Companion to the London Museum and Pantherion (London: Whittingham & Rowland, 1813).

Burke, Andrew. Burke's Descriptive Guide (Buffalo: Andrew Burke, 1850).

Burcaw, G. Ellis. Introduction to Museum Work (Nashville: AASLH, 1975).

Burrowes, Thomas H. (ed.). A Manual of Directions and Plans for Common School Houses (Harrisburg, Penn.: A. Boyd Hamilton, 1855).

Burwash, Nathanael. Egerton Ryerson (Toronto: Morang, 1906).

Burton, John H. The Emigrant's Manual (Edinburgh: William & Robert Chambers, 1851).

- Butler, Samuel. The Emigrant's Hand-Book of Facts (Glasgow: W.R. M'Phun, 1843).
- Buxton, William J. and Charles R. Acland. American Philanthropy and Canadian Libraries: The Politics of Knowledge and Information (Montreal: McGill University, 1998).
- Caine, Renate N. and Geoffrey Caine. Making Connections: Teaching and the Human Brain (Alexandria, Va.: ASCD, 1991).
- Calder, Jenni. Royal Scottish Museum: The Early Years (Edinburgh: Royal Scottish Museum, n.d.).
- Calkins, N.A. Primary Object Lessons (New York: Harper & Brothers, 1888).
- Campbell, Bruce. The Multiple Intelligence Handbook (Stanwood, WA.: Campbell & Associates, 1994).
- Campbell, Rollo. Two Lectures on Canada (Greenock: A. Mackenzie, 1857).
- Campbell, W.G. The New World or Recent Visit to America (London: Elliot & Stock, 1871).
- Canada in the Years 1832, 1833 & 1834 (Dublin: Richard Groombridge, 1835).
- The Canadian Agricultural Reader (Niagara: John Simpson, 1845).
- Canniff, William. Canadian Nationality: Its Growth and Development (Toronto: Hart & Rawlinson, 1875).
- Canniff, William. History of the Province of Ontario (Toronto: A.H. Hovey, 1872).
- Canniff, William. History of the Settlement of Upper Canada (Toronto: Dudley & Burns, 1869).
- Caron, Andre H. Children and Television (Montreal: Children's Broadcast Institute, 1980).
- Carter, John C. Museums as a Business: The Business of Museums (Willowdale: Ontario Historical Society, 1990).
- Catlin, George. Descriptive Catalogue of Catlin's Indian Gallery (London: C. Adlard, 1846).
- The Century Geographical Readers (London: Blackie & Son, 1891), v. 4.
- Chadwick, Alan and Annette Stannett (eds.). Museums and the Education of Adults (Leicester: NIACE, 1995).
- Chadwick, A.F. The Role of the Museum and Art Gallery in Community Education (Nottingham: University of Nottingham, 1980).
- Chamberlain, Henry. A New and Compleat History and Survey of the Cities of London (London: J. Cooke, 1770).

Chambers, William. Things As They Are in America (London: William & Robert Chambers, 1857), 2nd ed.

A Cheering Voice From Upper Canada (London: Alfred Robins, 1834).

Christmas, Henry (ed.). Canada in 1849 (London: Richard Bentley, 1850), v. 1.

Chubb, E.C. Museums and Art Galleries as Educational Agents (Pretoria: Carnegie Corporation Visitors' Grants Committee, 1929).

Clarke, Henry G. The Art-Union Exhibition for 1843 (London: H.G. Clarke, 1843).

Clarke, Henry G. The British Museum Its Antiquities and Natural History (London: H.G. Clarke, 1848).

Coke, E.T. A Subaltern's Furlough (New York: J. & J. Harper, 1833), v. 1 & 2.

Cole, Alan S. (ed.). Fifty Years of Public Work of Sir Henry Cole (London: George Bell, 1884), 2v.

Cole, Jean Murray. Sandford Fleming No Better Inheritance (Peterborough: Peterborough Historical Society, 1990).

Coleman, Laurence Vail. Historic House Museums (Washington: American Association of Museums, 1933).

Coleman, Herbert T.J. Public Education in Upper Canada (New York: Brandow Printing, 1907).

Colmer, Joseph G. The Dominion of Canada (London: n.p., 1884).

Colton's Traveler and Tourist's Guide-Book Through the United States of America and the Canadas (New York: J.H. Colton, 1854).

Conant, Thomas. Upper Canada Sketches (Toronto: William Briggs, 1898).

A Concise Description of Canada (London: n.p., 1836).

Conder, Josiah. The Modern Traveller (London: James Duncan, 1829), 3v.

Conference Proceedings for 2001: The Museum and the Canadian Public (Ottawa: Canadian Museums Association, 1977).

Connolly, Louise. Docentry (Newark, N.J.: Newark Museum, 1928).

Connolly, Louise. The Education Value of Museums (Newark, N.J.: The Newark Museum Association, 1914).

Connon, John R. Elora (Elora: Elora Express, 1930).

- Cook, E.T. and Alexander Wedderburn (eds.). The Works of John Ruskin (London: George Allen, 1905), v. 16.
- Cook, E.T. and Alexander Wedderburn (eds.). The Works of John Ruskin (London: George Allen, 1908), v. 24.
- Cook, E.T. and Alexander Wedderburn (eds.). The Works of John Ruskin (London: George Allen, 1907), v. 28.
- Cook, E.T. and Alexander Wedderburn (eds.). The Works of John Ruskin (London: George Allen, 1907), v. 30.
- Cook, John. The Advantages of Life Assurance to the Working Classes (Montreal: Armour & Ramsay, 1848).
- Copleston, E. Canada: Why We Live In It, and Why We Like It (London: Parker, Son & Bourne, 1861).
- Côté, Michel (ed.). Museological Trends in Quebec (Quebec City: Societe des Musée Québécois, 1992).
- Côté, Michel and Annette Viel (eds.). Museums: Where Knowledge is Shared (Ottawa: Canadian Museums Association, 1995).
- Côté, Michel and Lisette Ferera (eds.). New Trends in Museum Practice (Ottawa: ICOM Canada, 1997).
- Counsel for Emigrants (Aberdeen: John Matheson, 1835), 2nd ed.
- Cousins, Julia. The Pitt Rivers Museum (Oxford: Pitt Rivers Museum, 1993).
- Craig, Gerald. (ed.). Early Travellers in the Canadas (Toronto: Macmillan, 1955).
- Craigie, E. Horne. A History of the Department of Zoology at the University of Toronto Up To 1962 (Toronto: University of Toronto Press, 1965).
- Crook, J. Mordaunt. The British Museum (London: Penguin Press, 1972).
- Crossweller, W.T. Our Visit to Toronto, the Niagara Falls and the United States of America (Liverpool: n.p., 1898).
- Cubberley, Ellwood P. Public Education in the United States (Boston: Houghton Mifflin, 1934).
- La Culture en Pantoufles et Sourliers Vernis (Quebec City: Gouvernement du Quebec, 1997).
- Currelly, Charles T. I Brought The Ages Home (Toronto: Ryerson Press, 1956).
- Curtis, Bruce. Building the Educational State: Canada West, 1836-1871 (London: Althouse Press, 1988).

- Curtis, S.J. and M.E.A. Boulton. A Short History of Educational Ideas (London: University Tutorial Press, 1965), 4th ed.
- Dallas, Angus. The Common School System (Toronto: Thompson & Co., 1855).
- Dallas, Angus. Statistics of the Common Schools (Toronto: Catholic Citizen, 1857).
- Dalton, William. Travels in the United States of America and Part of Upper Canada (Appleby: R. Bateman, 1821).
- Dana, John C. Should Museums Be Useful? (Newark, N.J.: Newark Museum, 1927).
- Daubeney, Charles. Journal of a Tour Through the United States and Canada (Oxford: T. Combe, 1839).
- Davis, Robert. The Canadian Farmer's Travels (Buffalo: Steele's Press, 1837).
- Dawson, John W. The Duties of Educated Young Men in British America (Montreal: John Lovell, 1863).
- Dawson, John W. First Lessons in Scientific Agriculture for Schools (Montreal: John Lovell, 1864).
- Dawson, John W. A Hand Book of the Geography and Natural History of the Province of Nova Scotia (Pictou: James Dawson, 1857), 4th ed.
- Dawson, William. First Lessons in the Scientific Principles of Agriculture (Montreal: W. Drysdale, 1897).
- Day, Samuel P. English America (London: T. Cautley Newby, 1864), 2v.
- Deetz, James. In Small Things Forgotten (Garden City, N.Y.: Anchor, 1977).
- de Fleury, Charles Rohault. Muséum D'Histoire Naturelle (Paris: Didot Freres et Co., 1887).
- DeRoos, Frederick F. Personal Narrative of Travels in the United States and Canada in 1826 (London: William Harrison Ainsworth, 1827).
- Descriptive Catalogue of the Collection of the Economic Minerals of Canada (Montreal: Lovell Printing, 1876).
- Dewey, John. Art As Experience (New York: Capricorn Books, 1958).
- Dewey, John. Experience and Education (New York: Collier, 1963).
- Dexter, Edwin G. A History of Education in the United States (New York: Macmillan, 1904).
- Dick, Thomas. On the Mental Illumination and Moral Improvement of Mankind (Hartford, Conn.: Summer & Goodman, 1847).

- Dickenson, Victoria. Drawn From Life (Toronto: University of Toronto Press, 1998).
- Dickson, Lovat. The Museum Makers (Toronto: Royal Ontario Museum, 1986).
- Directory of Heritage Organizations and Institutions in Ontario (Willowdale: Ontario Historical Society, 1992), revised.
- Discovering Your Community (Willowdale: Ontario Historical Society, 1992).
- Disturnell, John. The Great Lakes or Inland Seas of America (New York: Charles Scribner, 1863).
- Disturnell, John. The Northern Traveller (New York: J. Disturnell, 1844).
- Disturnell, John. The Picturesque Tourist (New York: J. Disturnell, 1858).
- Disturnell, John. The Traveler's Guide (New York: American News Company, 1864).
- Dixon, James. Methodism in America (London: John Mason, 1849), 2nd ed.
- Doyle, Martin. Hints on Emigration to Upper Canada (Dublin: Wm. Curry, 1834), 3rd ed.
- Duggan, Stephen. A Student's Textbook in the History of Education (New York: Appleton-Century-Crofts, 1936), 3rd ed.
- Duncan, Dorothy. A Guide for Teachers Planning and Educational Tour of Pioneer Village (Toronto, MTRCA, 1963).
- Duncan, Dorothy. Black Creek Pioneer Village (Toronto: MTRCA, 1963).
- Duncan, Francis. Canada in 1871; or Our Empire in the West (London: W. Mitchell, 1872).
- Duncan, John M. Travels Through Part of the United States and Canada (Glasgow: Hurst, Robinson & Co., 1823), 2v.
- Duncombe, Charles. Report Upon the Subject of Education (Toronto: M. Reynolds, 1836).
- Duncumb, Thomas. The British Emigrant's Advocate (London: Simpkin & Marshall, 1837).
- Dunlop, E.S. (ed.). Our Forest Home (Montreal: Gazette Printing, 1907).
- Dunlop, William. Statistical Sketches of Upper Canada (London: John Murray, 1832).
- Durbin, Gail. (ed.). Developing Museum Exhibitions for Lifelong Learning (London: GEM: 1996).
- Durbin, Gail et al. Learning From Objects (London: English Heritage, 1990).

- Durbin, Gail (ed.). Studying the Victorians at the Victoria & Albert Museum (London: Victoria & Albert Museum, 1994).
- Dwight, Theodore. The Northern Traveller and Northern Tour (New York: J. & J. Harper, 1830).
- Dwight, Theodore. Travels in America (Glasgow: R. Griffin, 1848).
- Dymond, Jonathan. Essays on the Principles of Morality (New York: Collins, Brothers & Co., 1845).
- Eales, Walter. A Lecture on the Benefits to be Derived From Mechanics' Institutes (Toronto: James Stephens, 1851).
- Eby, Frederick. The Development of Modern Education (Englewood Cliffs, N.J.: Prentice-Hall, 1952).
- Edwards, Edward. The Fine Arts in England (London: Saunders & Otley, 1840).
- Edwards, Edward. Memoirs of Libraries (London: Trubner & Co., 1859), v. 1 & 2.
- Edwards, Edward. Memoirs of Libraries, of Museums, and of Archives (London: Brannon & Fradd, 1885), v. 1, 2nd ed.
- Edwards, Edward. A Visit to the British Museum (London: Chapman & Hall, 1838).
- Eighty Years' Progress of British North America (Toronto: L. Nichols, 1864).
- Eliot, William G. Jr. Lectures to Young Men (Boston: Crosby, Nichols & Co., 1954).
- Ellis, Annie R. (ed.). The Early Diary of Frances Burney 1768-1778 (London: George Bell, 1889), v. 2.
- Elizabeth, Charlotte. Glimpses of the Past or The Museum (New York: John S. Taylor, 1847).
- Engleheart, Gardiner D. Journal of the Progress of H.R.H. The Prince of Wales Through British North America (London: privately published, 1860).
- Evans, Francis A. The Emigrant's Directory and Guide (Dublin: William Curry Jr., 1833).
- Evans, Joan (ed.). The Lamp of Beauty (London: Phaidon Press, 1959).
- Evans, William. Agricultural Improvement (Montreal: Courier Office, 1837).
- Fairley, John. History Teaching Through Museums (London: Longman, 1977).
- Fairplay, Francis. The Canada's (London: James Duncan, 1833).
- Falk, John H. and Lynn D. Dierking. The Museum Experience (Washington: Whalesback Books, 1992).
- The Falls of Niagara (Toronto: James Campbell, 1858).

- The Falls of Niagara (Chicago: Knight, Leonard & Co., 1893).
- Fantini, Mario D. and Robert L. Sinclair (eds.). Education in School and Nonschool Settings (Chicago: National Society for the Study of Education, 1985), part 1.
- The Fashionable Tour (Saratoga Springs: G.M. Davison, 1830), 4th ed.
- Ferguson, William. America By River and Rail (London: James Nisbet, 1856).
- Fergusson, James. Notes of a Tour in North America in 1861 (Edinburgh: William Blackwood, 1861).
- Fergusson, James. Observations on the British Museum (London: John Weale, 1849).
- Fidler, Isaac. Observations on Professions, Literature, Manners and Emigration in the United States and Canada (London: Whittaker, Treacher & Co., 1833).
- Finlay, Ian. Priceless Heritage: The Future of Museums (London: Faber & Faber, 1977).
- Firth, Edith (ed.). The Town of York 1815-1834 (Toronto: University of Toronto Press, 1966).
- Flatman, Thomas. Poems and Songs (London: Jonathan Edwin, 1674).
- Fleming, Sandford. The Canadian Geological Survey and Its Director Sir William Edmund Logan (Toronto: Canadian Institute, 1856).
- Fleming, Sandford. The Canadian Institute (Toronto: Canadian Institute, 1852).
- Flower, William Henry. Essays on Museums (Freeport, N.Y.: Books for Libraries Press, 1972), reprint.
- Foley, Daniel. The People and Institutions of the United States of America (Dublin: George Herbert, 1858).
- Foot, David K. Boom, Bust & Echo (Toronto: Macfarlane Walter & Ross, 1996).
- Forbes, Edward. Literary Papers (London: Lovell Reeve, 1855).
- Fothergill, Charles. An Essay on the Philosophy, Study, and Use of Natural History (London: White, Cochrane & Co., 1813).
- Fothergill, Charles. Proposed Lyceum of Natural History and the Fine Arts (Toronto: W.J. Coates, 1835).
- Fothergill, Charles. Second Address Relative to the Proposed Lyceum of Natural History and the Fine Arts (Toronto: n.p. 1836).
- Fothergill, Charles. A Sketch of the Present State of Canada (York: Upper Canada Gazette, 1822).

- Fowke, Vernon C. Canadian Agricultural Policy (Toronto: University of Toronto Press, 1978).
- Fowler, Thomas. The Journal of a Tour Through British America to the Falls of Niagara (Aberdeen: Lewis Smith, 1832).
- Fraenkel, Jack R. Helping Students Think and Value (Englewood Cliffs, N.J.: Prentice-Hall, 1973).
- Freeman, Ruth. In the Mind's Eye-Examining Artifacts (Toronto: Royal Ontario Museum, 1987).
- French, Marianne. An Englishwoman's Experience in America (London: Richard Bentley, 1853).
- Friendly Advice to Emigrants (Montreal: James & Thomas A. Starke, 1834), 2nd ed.
- Funding of the Arts in Canada to the Year 2000 (Ottawa: n.p., 1986).
- Furneaux, W. The Out-Door World (London: Longmans, Green & Co., 1894).
- Fyfe, J.H. British Enterprise Beyond the Seas (London: T. Nelson & Sons, 1863).
- Galt, A.T. Canada: 1849 to 1859 (Quebec: Canada Gazette Office, 1860).
- Gardner, Howard. Frames of Mind (New York: Basic Books, 1993).
- Gardner, Howard. Multiple Intelligences (New York: Basic Books, 1993).
- Gardner, John W. Excellence Can We Be Equal and Excellent Too? (New York: Harper & Brothers, 1961).
- Gatty, Charles T. The Mayer Collection in the Liverpool Museum Considered as an Educational Possession (Liverpool: n.p., 1877).
- Gayman, Harvey M. Rittenhouse School and Gardens (Toronto: William Briggs, 1911).
- Geller, John (ed.). Cheadle's Journal (Toronto: Baxter Publishing, n.d.).
- Gems of the Centennial Exhibition (New York: D. Appleton & Co., 1877).
- Gesner, Abraham. Synopsis of the Contents of Gesner's Museum of Natural History (Saint John, N.B.: Henry Chubb, 1842).
- Gilman, Benjamin I. Museum Ideals of Purpose and Method (Cambridge, Mass.: Harvard University Press, 1923).
- Glazier, Willard. Peculiarities of American Cities (Philadelphia: Hubbard Brothers, 1884).
- Godley, John R. Letters from America (London: John Murray, 1844), 2v.

- Godwin, Molly O. The Museum Educates (Toledo: Toledo Museum of Art, 1936).
- Goldie, John. Diary of a Journey Through Upper Canada (Toronto: Wm. Tyrrell, 1897).
- Good, H.G. A History of Western Education (New York: Macmillan, 1960), 2nd ed.
- Goodmane, W.F. Seven Years in America (London: Robert Jones, 1845).
- Gosse, P.H. The Canadian Naturalist (London: John Van Voorst, 1840).
- Gould, Stephen Jay. Dinosaur in a Haystack (New York: Harmony Books, 1995).
- Graves, Frank Pierrepont. A History of Education in Modern Times (New York: Macmillan, 1914).
- Gray, Asa. How Plants Grow (Toronto: Copp Clarke & Co., 1858).
- Gray, Robert Q. The Labour Aristocracy in Victorian Edinburgh (Oxford: Clarendon Press, 1976).
- Grece, Charles F. Facts and Observations Respecting Canada and the United States of America (London: J. Harding, 1819).
- Greene, Jack P. Pursuits of Happiness (Chapel Hill, N.C.: University of North Carolina Press, 1988).
- Greenhill, Ralph & Thomas D. Maloney. Niagara (Toronto: University of Toronto Press, 1969).
- Greenwood, Thomas. Museums and Art Galleries (London: Simpkin, Marshall & Co., 1888).
- Greenwood, Thomas. A Tour in the States and Canada (London: L. Upcott Gill, 1883).
- Grew, Nehemiah. Musaeum Regalis Societatis (London: W. Rawlins, 1681).
- Grigoroff, Louis. The Niagara Falls Museum (Niagara Falls: Niagara Falls Museum, n.d.).
- A Guidebook for the Museum of the Edison Institute (Dearborn, Mich.: Edison Institute, 1941).
- Guillet, Edwin C. Toronto Illustrated (Toronto: Ontario Publishing, 1939).
- Guthe, Carl E. and Grace M. Guthe. The Canadian Museum Movement (Ottawa: Canadian Museums Association, 1958).
- Guthe, Carl E. So You Want a Good Museum (Washington: A.A.M., 1957).
- Haight, Canniff. Country Life in Canada (Toronto: Hunter, Rose & Co., 1885).
- Haliburton, Thomas C. An Address on the Present Condition, Resources and Prospects of British North America (Montreal: John Lovell, 1857).

- Hamilton, James C. The Georgian Bay (Toronto: James Bain, 1893).
- Hamilton, Thomas. Men and Manners in America (Edinburgh: William Blackwood, 1834), 2 vols.
- Handbook of Canada (Toronto: British Association for the Advancement of Science, 1897).
- Hardy, Dennis. Alternative Communities in Nineteenth Century England (London: Longman, 1979).
- Harris, Robin S. Quiet Evolution (Toronto: University of Toronto Press, 1967).
- Harrison, Molly. Learning Out of School (London: Educational Supply Association, 1954).
- Harrison, Richard (ed.). Manual of Heritage Management (Oxford: Butterworth Heinemann, 1994).
- Haw, William. Fifteen Years in Canada (Edinburgh: Charles Ziegler, 1850).
- Haward, Birkin. Oxford University Museum (Oxford: Oxford University Museum, 1991).
- Heaman, E.A. The Inglorious Arts of Peace: Exhibitions in Canadian Society During the Nineteenth Century (Toronto: University of Toronto Press, 1999).
- Hein, George E. Learning in the Museum (London: Routledge, 1998).
- Henry; or the Juvenile Traveller (London: Simpkin, Marshall & Co., 1836).
- Hervey, Mary F.S. The Life Correspondence and Collections of Thomas Howard (Cambridge: University Press, 1921).
- Hill, S.S. The Emigrant's Introduction (London: Parbury & Co., 1837).
- Hill, William F. Learning Thru Discussion (Beverly Hills, Calif.: Sage, 1969).
- Hobsbawn, Eric. Age of Extremes (London: Michael Joseph, 1994).
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1790-1830 (Toronto: Warwick Brothers & Rutter, 1894), v. 1.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1850, 1851 (Toronto: L.K. Cameron, 1902), v. 9.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1851-1852 (Toronto: L.K. Cameron, 1903), v. 10.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1853-1856 (Toronto: L.K. Cameron, 1904), v. 11.

- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1853-1856 (Toronto: L.K. Cameron, 1905), v. 12.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1856-1858 (Toronto: L.K. Cameron, 1906), v. 13.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1858-1860 (Toronto: L.K. Cameron, 1906), v. 14.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1860 (Toronto: L.K. Cameron, 1906), v. 15.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1860 (Toronto: L.K. Cameron, 1906), v. 16.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1861-1863 (Toronto: L.K. Cameron, 1907), v. 17.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1863-1865 (Toronto: L.K. Cameron, 1907), v. 18.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1865-1867 (Toronto: L.K. Cameron, 1907), v. 19.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1867-1869 (Toronto: L.K. Cameron, 1907), v. 20.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1868-1869 (Toronto: L.K. Cameron, 1907), v. 21.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1871-1872 (Toronto: L.K. Cameron, 1908), v. 23.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1872 (Toronto: L.K. Cameron, 1908), v. 24.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1871-1874 (Toronto: L.K. Cameron, 1908), v. 25.
- Hodgins, J. George. (ed.). Documentary History of Education in Upper Canada 1874-1875 (Toronto: L.K. Cameron, 1908), v. 26.
- Hodgins, J. George. (ed.). Dr. Ryerson: The Story of My Life (Toronto: William Briggs, 1883).
- Hodgins, J. George. The Geography and History of British America (Toronto: Maclean & Co., 1857).

- Hodgins, J. George. Historical and Other Papers and Documents Illustrative of the Educational System of Ontario, 1858-1876 (Toronto: L.K. Cameron, 1911), v. 4.
- Hodgins, J. George. Historical and Other Papers and Documents Illustrative of the Educational System of Ontario 1862-1871 (Toronto: L.K. Cameron, 1912), v. 6.
- Hodgins, J. George. A History of Canada (Montreal: John Lovell, 1866).
- Hodgins, J. George. A School History of Canada (Toronto: Adam Miller, 1865).
- Hodgins, J. George. School Room Decoration (Toronto: Warwick Brothers & Rutter, 1900).
- Hodgins, J. George. Sketch of Education in Upper and Lower Canada (Toronto: n.p., 1864).
- Hodgins, J. George. Special Report on the Ontario Educational Exhibit and the Educational Features of the International Exhibition at Philadelphia, 1876 (Toronto: Hunter, Rose, 1877).
- Hodgins, Thomas (ed.). The Canadian Educational Directory and Calendar (Toronto: Maclear, 1857).
- Hogan, J. Sheridan. Canada An Essay (Montreal: John Lovell, 1855).
- Hogden, Margaret T. Early Anthropology in the Sixteenth and Seventeenth Centuries (Philadelphia: University of Pennsylvania Press, 1964).
- Hole, James. An Essay on the History and Management of Library, Scientific and Mechanics' Institutions (London: Longman, Brown, Green & Longmans, 1853).
- Holley, O.L. (ed.). The Picturesque Tourist (New York: J. Disturnell, 1844).
- Holley, George W. The Falls of Niagara (London: Hodder & Stoughton 1883).
- Holley, George W. Niagara Its History and Geology (New York: Sheldon & Co., 1872).
- Hooker, William Jackson. Flora Boreali-Americana (London: n.p., 1840), v. 1.
- Hoole, Charles. A New Discovery of the Old Art of Teaching Schoole (London: Andrew Crook, 1660).
- Hooper-Greenhill, Eilean (ed.). Improving Museum Learning (Nottingham: East Midlands Museums Service, 1996).
- Hooper-Greenhill, Eilean (ed.). Initiatives in Museum Education (Leicester: University of Leicester, 1989).
- Hooper-Greenhill, Eilean. Museum and Gallery Education (Leicester: Leicester University Press, 1991).
- Hooper-Greenhill, Eilean. Museums and the Shaping of Knowledge (London: Routledge, 1992).

- Hooper-Greenhill, Eilean. Museums and their Visitors (London: Routledge, 1994).
- Hooper-Greenhill, Eilean (ed.). Writing A Museum Education Policy (Leicester: University of Leicester, 1991).
- Hopkins, J. Castell. Progress of Canada in the Nineteenth Century (Toronto: Progress of Canada, 1900).
- Houston, Susan and Alison Prentice. Schooling and Scholars in Nineteenth-Century Ontario (Toronto: University of Toronto Press, 1988).
- Howard, Ebenezer. Garden Cities of Tomorrow (London: Faber & Faber, 1974).
- Howard, James. A Trip to America (Bedford: Mercury Press, 1867).
- Howarth, E. and H.M. Platnauer. Directory of Museums (London: Museums Association, 1911).
- Howie, Cyril O. The Literature of Adult Education (San Francisco: Jossey Bass, 1992).
- Howison, John. Sketches of Upper Canada (London: G. & W.B. Whittaker, 1821).
- Hudson, James W. The History of Adult Education (London: Longman, Brown, Green & Longmans, 1851).
- Hudson, Kenneth. A Special History of Museums (New York: Macmillan Press, 1975).
- Hughes, James L. Froebel's Educational Laws For All Teachers (New York: D. Appleton, 1897).
- Hughes, Robert. The Fatal Shore (New York: Alfred A. Knopf, 1987).
- Hume, George H. The Emigrant's Guide or Canada As It Is (Quebec: William Gray, n.d.).
- Hunter, Michael. Elias Ashmole and His World (Oxford: Ashmolean Museum, 1983).
- Hutton, William. Canada: Its Present Condition, Prospects and Resources (London: Edward Stanford, 1854).
- Hutton, William. Canada: Its Present Contitions, Prospects and Resources (London: Edward Stanford, 1857), 2nd ed.
- Hutton, William. Emigration to Canada (Quebec: John Lovell, 1860), 2nd ed.
- Hutton, William. The Life of William Hutton (London: Charles Knight, 1841), 2nd ed.
- Iley, Sarah. Befriending Museums: A Handbook (Toronto: Council of Business and the Arts in Canada, 1991).
- The Illustrated Exhibitor (London: John Cassell, 1851).

Industries of Canada Historical and Commercial Sketches of Toronto and Environs (Toronto: M.G. Bixby & Co., 1886).

James, Charles, C. Agriculture (Toronto: Morang, 1900).

James, Robert L. History of Agriculture in Ontario 1613-1880 (Toronto: University of Toronto Press, 1977).

Jefferson, Caleb. Life and History of P.T. Barnum (Plymouth: W.H. Luke, 1889).

Jevons, W. Stanley. Methods of Social Reform (London: Macmillan, 1883).

Johns, C.A. A Week at the Lizard (London: Society for Promoting Christian Knowledge, 1894).

Johnson, David W. and Frank P. Johnson. Joining Together (Englewood Cliffs, N.J.: Prentice Hall, 1975).

Johnson, F.H. Every Man His Own Guide at Niagara Falls (Rochester, N.Y.: D.M. Dewey, 1852).

Johnston, James F.W. Notes on North America (London: William Blackwood, 1851), 2v.

Canadian Bank of Commerce, 1918).

17), pt. 1 & 2.

York: E.P. Dutton, 1977).

). Education and Social Change (New York: New York

Washington: Smithsonian Institution Press, 1990).

inburgh: Adam & Charles Black, 1858).

Life (Oxford: Clarendon Press, 1927).

----- Canada (Toronto: McClelland & Stewart, 1967).

Key, Archibald and Marjorie Key (eds.). Canadian Museums and Related Institutions (Ottawa: Canadian Museums Association, 1968).

Key, Archie F. Beyond Four Walls (Toronto: McClelland & Stewart, 1973).


Killan, Gerald. David Boyle From Artisan to Archaeologist (Toronto: University of Toronto Press, 1983).

Killan, Gerald. Preserving Ontario's Heritage (Ottawa: Ontario Historical Society, 1976).

add Robert
Jones, Hist of
Ag in Ontario
by b.b.

- Killan, Gerald. Protected Places (Toronto: Dundurn Press, 1993).
- King, Elspeth. The People's Palace and Glasgow Green (Glasgow: Richard Prew, 1988).
- Kingsont, William H.G. Western Wanderings or a Pleasure Tour in the Canada's (London: Chapman and Hall, 1856), 2v.
- Knudson, Douglas M. et al. Interpretation of Cultural and Natural Resources (State College, P.A.: Venture Publishing, 1995).
- Kortright, F.H. This Conservation Business, Are We Progressing? (Toronto: Toronto Anglers' & Hunters' Association, 1951).
- Kortright, F.H. Ontario's Future? Conservation or Else (Toronto: Conservation Council of Ontario, 1940).
- Krusi, Herman. The Life and Works of Pestalozzi (Oswego, N.Y.: self published, 1875).
- Lachlan, Robert. Remarks on the State of Education in the Province of Canada (Montreal: J.C. Becket, 1848).
- Lachlan, Robert. A Retrospective Glance at the Progressive State of the Natural History Society of Montreal (Montreal: J.C. Becket, 1852).
- Lambert, John. Travels Through Canada and the United States of North America (London: Balwin, Cradock & Joy, 1816), 3rd ed., 2v.
- Lambert, Richard S. Renewing Nature's Wealth (Toronto: Hunter Rose, 1967).
- Lancaster, Joseph. Improvements in Education (New York: Collins & Perkins, 1807).
- Lancaster, Joseph. Report of Results of Lancaster's Discoveries in Education (Montreal: n.p., 1833).
- Lazear, David. Seven Ways of Teaching (Palatine, Ill.: IRI/Skylight Publishing, 1991).
- Leach, William. Land of Desire (New York: Vintage Books, 1993).
- Lefebvre, Bernard and Michel Allard (eds.). Le Musée un Projet Éducative (Montreal: Les Editions Logiques, 1996).
- Lefroy, J. Henry. The British Association in Canada (London: Unwin Brothers, 1885).
- Leith-Ross, Prudence. The John Tradescants (London: Peter Owen, 1984).
- Leslie, Emma. The Life and Reign of Queen Victoria (London: Religious Tract Society, 1887).
- Lepinasse, R. The Great Cataract Illustrated (Chicago: R. Lepinasse, 1884).

- Lillie, A. Canada: Physical, Economic and Social (Toronto: Maclean & Co., 1855).
- Lindsay, James. Canada: Its Commerce, Its Colleges, and Its Churches (London: Athenaeum Press, 1900).
- Logan, W.E. and T. Sterry Hunt. A Sketch of the Geology of Canada (Paris: Hector Bossange, 1855).
- Low, Shirley Payne. Historic Site Interpretation: The Human Approach (Nashville: AASLH, 1965), #32
- Lowe, E.E. A Report on American Museum Work (Edinburgh: T & A Constable, 1928).
- Lowenthal, David. The Heritage Crusade and the Spoils of History (London: Viking, 1997).
- Lowenthal, David. The Past is a Foreign Country (Cambridge: University of Cambridge Press, 1988).
- Lucas, Daniel V. Australia and Homeward (Toronto: William Briggs, 1888).
- Lucas, E.V. A Wanderer in London (London: Methuen, 1911), 11th ed.
- Lumley, Robert (ed.). The Museum Time-Machine (London: Routledge, 1988).
- Lumsden, James. American Memoranda (Glasgow: Bell & Bain, 1844).
- Lyell, Charles. Travels in North America (London: John Murray, 1855), 2nd ed., 2 v.
- Lynch, John. Canada: Its Progress and Its Prospects (Brampton: George Tye, 1876).
- Macallum, Archibald. Synopsis of Natural History (Toronto: Christian Guardian, 1857).
- MacGregor, Arthur. Ark to Ashmolean (Oxford: Ashmolean Museum, 1988), 2nd ed.
- MacKay, Charles. Life and Liberty in America (New York: Harper & Brothers, 1859).
- Mackenzie, Eneas. An Historical, Topographical, and Descriptive View of the United States of America, and of Upper and Lower Canada (Newcastle Upon Tyne: Mackenzie & Dent, 1819).
- Mackenzie, William L. Sketches of Canada and the United States (London: Effingham Wilson, 1833).
- MacTaggart, Hazel I. Publications of the Government of Ontario 1901-1955 (Toronto: University of Toronto Press, 1964).
- Madill, A.J. History of Agricultural Education in Ontario (Toronto: University of Toronto Press, 1930).
- Malik, Anand (ed.). Social Foundations of Canadian Education (Scarborough: Prentice-Hall, 1969).
- Manly, John G. Canada (London: Ward & Co., 1860).

- Manton, Walter P. Insects How to Catch and How to Prepare Them For the Cabinet (Boston: Lee & Shepard, 1881).
- Marchioness of Dufferin and Ava. My Canadian Journal 1872-1878 (New York: D. Appleton & Co., 1891).
- Marcousé, Renée. Using Objects (New York: Van Nostrand Reinhold Co., 1974).
- Markham, S.F. A Report on the Museums and Art Galleries of the British Isles (Edinburgh: T & A. Constable, 1938).
- Markham, S.F. and H.C. Richards. A Report on the Museums and Art Galleries of Australia and New Zealand (London: The Museums Association, 1933).
- Marks, Lynne. Revivals and Roller Rinks (Toronto: University of Toronto Press, 1996).
- Marryat, Frederick. A Diary in America (London: Longman, Orme, Brown, Green & Longmans, 1839), 3 v. 
- Marryat, Frederick. Second Series of a Diary in America (Philadelphia: T.K. & P.G. Collins).
- Martin, William. The Early Educator (London: Darton & Co., 1856).
- Martin, William. The Parlour Book (London: William Darton, 1835).
- Martin, William (ed.). Peter Parley's Annual (London: Darton & Co., 1859).
- Marty, Sid. A Grand and Fabulous Notion (Toronto: NC Press, 1984).
- Mayo, Charles. Memoirs of Pestalozzi (London: J.A. Hessey, 1826).
- Mayo, Charles. Observations on the Establishment and Direction of Infants' Schools (London: L.B. Seeley, 1827).
- Mayo, Elizabeth. Lessons On Objects (London: Seeley & Burnside, 1831).
- McArthur, Glenn and Annie Szamosi. William Thomas Architect 1799-1860 (Ottawa: Carleton University Press, 1996).
- McCabe, James D. The Illustrated History of the Centennial Exhibiton (Philadelphia: National Publishing, 1876).
- McDaniel, Nello and George Thorn. Defining a New Arts Era (Brooklyn: Arts Action Issues, 1997).
- McDaniel, Nello and George Thorn. Learning Audiences (Washington: Arts Action Issues, 1997).

- Melish, John. Travels in the United States of America (Philadelphia: Thomas & George Palmer, 1812), 2v.
- Menzies, George (ed.). Album of the Table Rock (Niagara: Chronicle Office, 1846).
- Merrill, Lynn L. The Romance of Victorian Natural History (New York: Oxford University Press, 1989).
- The Metropolitan Fourth Reader (New York: D. & J. Sadler, 1863).
- Miers, Henry A. and S.F. Markham. The Museums of Canada (London: The Museums Association, 1932).
- Miers, Henry A. and S.F. Markham. A Report on the Museums and Art Galleries of British Africa (Edinburgh: T.& A. Constable, 1932).
- Moffat, Hazel and Vicky Woollard (eds.), Museum and Gallery Education (London: The Stationary Office, 1999).
- Moodie, Susanna. Life in the Clearings (New York: De Witt & Davenport, 1853).
- Monk, Henry W. How to Do It; or Canada to the Front (Ottawa: C.W. Mitchell, 1890).
- Moore, Andrew W. Norfolk and the Grand Tour (Norfolk: Norfolk Museum Service, 1985).
- Moore, George. Journal of a Voyage Across the Atlantic (London: Palmer & Clayton, 1845).
- Morgan, J.C. The Emigrant's Note Book and Guide (London: Longman, Hurst, Rees, Orme & Browne, 1824).
- Morris, Alexander. Canada and Her Resources: An Essay (Montreal: John Lovell, 1855).
- Morris, Alexander. Nova Britannia; or British North America, Its Extent and Future (Montreal: John Lovell, 1858).
- Morris, William. Hopes and Fears For Art (London: Longmans, Green, 1903).
- Mowat, R.B. The Victorian Age (London: Senate, 1995).
- Muller, Herbert J. The Uses of the Past (New York: Mentor Books, 1954).
- Murray, David. Museums, Their History and Their Use (Glasgow: James MacLehose & Sons, 1904), 3v.
- Murray, Henry A. Lands of the Slave and the Free (London: John W. Parker & Son, 1855), 2v.
- Murray, Hugh. Historical Account of Discoveries and Travels in North America (London: Longman, Rees, Orme, Brown & Green, 1829), 2v.

A Museum for Young Gentlemen and Ladies or a Private Tutor for Little Masters and Misses (London: J. Newbery, 1763), 4th ed.

A Museum Policy for the Province of Ontario (Toronto: Ontario Museum Association, 1974).

Museums and Galleries Report (Richmond, Surrey: Harris Qualitative, 1997).

Museums and the Public (Fife: The Carnegie United Kingdom Trust, 1938).

Museums and Teachers (Paris: ICOM, 1956).

"Museums for a New Century," A Report of the Commission on Museums for a New Century (Washington: AAM, 1984).

Naisbitt, John and Patricia Aburdene. Megatrends 2000 (New York: William Morrow, 1984).

Nash, Chris. The Learning Environment (Toronto: Collier Macmillan, 1979).

Negroponte, Nicholas. Being Digital (New York: Alfred A. Knopf, 1995).

Nelson, J.G. et al (eds.). Landscape Planning: Implications of the Proposed New Ontario Heritage Act (Waterloo: University of Waterloo, 1994), #25.

Neilson, Joseph. Observations Upon Emigration to Upper Canada (Kingston: Chronicle & Gazette, 1837).

The New World or the United States and Canada (London: H.Bailliere, 1859).

Newcombe, Samuel P. (ed.). Little Henry's Holiday at the Great Exhibition (London: Houlston & Stoneman, 1851).

Newcombe, Samuel P. (ed.). Little Henry's Records of His Life-Time Old Eighteen Fifty-One (London: Houlston & Stoneman, 1852).

Newcombe, Samuel P. (ed.). Little Henry's Records of His Life-Time Old Eighteen Fifty-Two (London: Houlston & Stoneman, 1853).

Newnham, W.T. and A.S. Nease. The Professional Teacher in Ontario (Toronto: Ryerson Press, 1970), 3rd ed.

Newton, Richard. The Giants and How to Fight Them (London: James Nisbett, 1861).

Niagara Falls A Guide and Souvenir (Buffalo: Sage, Sons & Co., 1866).

Niagara Falls, Canada (Niagara Falls: Kiwanis Club of Stanford, 1967).

The Niagara Falls Guide (Buffalo: J. Faxon, 1850).

Nichols, Susan K. (ed.). Museum Education Anthology (Washington: Museum Education Roundtable, 1984).

Ninth Biennial Conservation Authorities Conference Proceedings (Vineland: n.p., 1964).

The North American Tourist (New York: A.T. Goodrich, 1839).

Nuttall, Thomas. A Manual of the Ornithology of the United States and of Canada (Boston: Hilliard, Gray & Co., 1840), 2nd ed.

Official Descriptive and Illustrated Catalogue of the Great Exhibition 1851 (London: Spicer Brothers, 1851), v. 2.

O'Hara Mill (Belleville: Moira River Conservation Authority, 1955).

O'Hear, Anthony. Education, Society and Human Nature (London: Routledge & Kegan Paul, 1981).

Oleson, Alexandra and Sanborn C. Brown (eds.). The Pursuit of Knowledge in the Early American Republic (Baltimore: John Hopkins University Press, 1976).

Olofsson, Ulla (ed.). Museums and Children (Paris: UNESCO, 1979).

O'Rell, Max. A Frenchman in America (Bristol: J.W. Arrowsmith, 1891).

Orr, J.W. Pictorial Guide to the Falls of Niagara (Buffalo: Salisbury & Clapp, 1842).

Osborn, Henry F. Creative Education in School, College, University and Museum (New York: Charles Scribner's, 1927).

Osgood, Thaddeus. The Canadian Visitor (London: Hamilton & Adams, 1830).

Overmyer, Grace. Government and the Arts (New York: W.W. Northon, 1939).

Owen, Robert. Introductory Statement on the Opinions and Arrangements at New Lanark (Dublin: J. Carrick, 1823).

Papworth, John W. and Wyatt Papworth. Museums, Libraries and Picture Galleries (London: Chapman & Hall, 1853).

Past Reflections: Museum Clippings (Willowdale: Ontario Historical Society, 1994).

Patten, Edmund. A Glimpse at the United States and the Northern States of America With the Canadas (London: Effingham, Wilson, 1853).

Peck's Tourist's Companion to Niagara Falls, Saratoga Springs, the Lakes, Canada (Buffalo: William B. & Charles E. Peck, 1845).

- Pegler, Alfred. A Visit to Canada and the United States (Southampton: Hampshire Independent, 1884).
- Perl, Lila. America Goes to the Fair (New York: William Morrow, 1974).
- Phillips, Charles E. The Development of Education in Canada (Toronto: W.J. Gage, 1957).
- Pidgeon, Henry. Memorials of Shrewsbury (Shrewsbury: John Eddowes, 1837).
- Pioneer Museum Dalziel Conservation Area (Woodbridge: MTRCA, n.d.).
- Pillans, James. Contributions to the Cause of Education (London: Longman, Brown, Green & Longmans, 1856).
- Playfair, Robert. Recollections of a Visit to the United States and British Provinces of North America (Edinburgh: Thomas Constable, 1856).
- Porter, G.R. The Progress of the Nation (London: Methuen, 1912).
- Postman, Neil. Building a Bridge to the Eighteenth Century (New York: Alfred A. Knopf, 1999).
- Pope, William J. (ed.). The Object-Lesson Readers (London: Smith, Elder & Co., 1891), v. 2.
- Programs for Schools Education Department (Montreal: The Montreal Museum of Fine Arts, 1984).
- Proposed New Plan of a General Emigration Society (London: C. Dolman, 1842).
- Pterodactyls and Old Lace: Museums in Education (London: Evans Methuen, 1972).
- The Public School Geography (Toronto: Canada Publishing, 1887).
- Pye, John. Patronage of British Art (London: Longman, Brown, Green & Longmans, 1845).
- Quick, Robert H. Essays on Educational Reformers (Toronto: Copp, Clark, 1890).
- Quimby, Ian M.G. (ed.). Material Culture and the Study of American Life (New York: W.W. Northon, 1978).
- Rafinesque, C.S. Medical Flora; or Manual of the Medical Botany of the United States (Philadelphia: Atkinson & Alexander, 1828), v. 1.
- Rafinesque, C.S. Medical Flora; or Manual of the Medical Botany of the United States (Philadelphia: Samuel C. Atkinson, 1830), v. 2.
- Ramsey, Hew. The Canadian Tourist (Montreal: H. Ramsay, 1856).
- Ramsey, Grace F. Educational Work in Museums of the United States (New York: H.M. Wilson, 1938).

- Ravitch, Diane. The Schools We Deserve (New York: Basic Books, 1985).
- Reaman, G. Elmore. A History of Agriculture in Ontario (Toronto: Saunders, 1970), 2.v.
- Rebetez, Pierre. How to Visit a Museum (Strasbourg: Council for Cultural Co-operation of the Council of Europe, 1970).
- Reid, Dennis. Lucius R. O'Brien Visions of Victorian Canada (Toronto: Art Gallery of Ontario, 1990).
- Reid, Hugo. Sketches in North America (London: Longman, Green, Longman & Roberts, 1861).
- Restructuring Resources Management Delivery in Ontario - "Documenting the Opportunity" (Peterborough: A.C.A.O., 1993).
- Rhees, William J. Manual of Public Libraries, Institutions, and Societies in the United States and British Provinces of North America (Philadelphia: J.B. Lippincott, 1859).
- Richards, Charles R. The Industrial Museum (New York: Macmillan, 1925).
- Richards, T. Addison (ed.). Appleton's Companion Hand-Book of Travel (New York: D. Appleton, 1860).
- Richardson, Alexander. Middle Class Education (Glasgow: Richard Griffin, 1858).
- Richardson, Arthur H. Conservation by the People (Toronto: University of Toronto Press, 1974).
- Richardson, Arthur H. School Forestry Clubs (Toronto: Ontario Conservation & Reforestation Association, 1942).
- Richardson, Douglas. A Not Unsightly Building (Toronto: Mosaic Press, 1990).
- Rider, Peter E. (ed.). Studies in History & Museums (Ottawa: Canadian Museum of Civilization, 1994).
- The River St. Lawrence (New York: Alex Harthill, 1859).
- Roberts, Lisa C. From Knowledge to Narrative (Washington: Smithsonian Institution Press, 1997).
- Robertson, Thomas Jaffray. An Easy Mode of Teaching the Rudiments of Latin Grammar (Montreal: John Lovell, 1861).
- Robertson, Thomas Jaffray. The General Principles of Language; or the Philosophy of Grammar (Montreal: John Lovell, 1864), 3rd ed.
- Robson, Edward R. School Architecture (London: John Murray, 1874).
- Rolph, Thomas. Comparative Advantages Between The United States and Canada For British Settlers (London: Smith, Elder & Co., 1842).

- Rolph, Thomas. A Statistical Account of Upper Canada (Dundas: G. Heyworth Hackstaff, 1836).
- Rolph, Thomas. Observations Made During a Visit in the West Indies, and a Tour Through the United States of America Together With a Statistical Account of Upper Canada (Dundas: G. Heyworth Hackstaff, 1836).
- Russell, Robert. North America Its Agriculture and Climate (Edinburgh: Adam & Charles Black, 1857).
- Saddlemyer, Ann (ed.). Early Stages Theatre in Ontario 1800-1914 (Toronto: University of Toronto Press, 1990).
- Saint-Ford, B. Faujas. Travels in England, Scotland and the Hebrides (London: James Ridgeway, 1799), v. 1.
- Samuel, Raphael. Island Stories: Unravelling Britain (London: Verso, 1998).
- Saul, John Ralston. The Doubter's Companion (Toronto: Penguin Books, 1995).
- Saul, John Ralston. The Unconscious Civilization (Concord, Ont.: Anansi Press, 1996).
- Saunders, William. Agriculture in Canada (Toronto: Canadian Commissioners for the Exhibition, 1900).
- Savage, Charles C. The World Geographical, Historical and Statistical (New York: Ensign, Bridgeman & Fanning, 1861).
- Scadding, Henry. Memoirs of the Four Decades of York, Upper Canada (Toronto: Hunter, Rose & Co., 1884).
- Scadding, Henry. Toronto of Old (Toronto: Adam, Stevenson & Co., 1873).
- Scharff, R. F. The Aims and Scope of a Provincial Museum (Belfast: John Adams, 1912).
- Schlereth, Thomas J. Artifacts and the American Past (Nashville: AASLH, 1980).
- Schmuck, Richard A. and Patricia A. Schmuck. Group Processes in the Classroom (Dubuque, Iowa: Wm. C. Brown, 1976).
- Sears, Robert (ed.). A Treasury of Knowledge (New York: Robert Sears, 1849).
- Schroeder, Fred E.H. (ed.). Twentieth-Century Popular Culture in Museums and Libraries (Bowling Green, Ohio: Bowling Green University Popular Press, 1981).
- Shea, Albert A. (ed.). Culture in Canada (Toronto: Associated Printers, 1952).
- Sheets-Pyenson, Susan. Cathedrals of Science (Montreal: McGill-Queen's University Press, 1988).

- Shortt, Adam and Arthur Doughty. Canada and Its Provinces (Toronto: Glasgow, Brook, 1914) v. 9, 12, & 18.
- Siebel, George. The Niagara Portage Road (Niagara Falls: City of Niagara Falls, 1990).
- Silverman, Deborah. Selling Culture (New York: Pantheon Books, 1986).
- Simand, Louis. Journal of a Tour and Residence in Great Britain During the Years 1810 and 1811 (Edinburgh: George Ramsay, 1815), v. 1.
- Sir Daniel Wilson (Toronto: University of Toronto, 1984).
- Sisler, Rebecca. Art for Enlightenment (Toronto: Fitzhenry & Whiteside, 1993).
- Sketches of Niagara Falls and River (Buffalo: Wm. B. & Chas. E. Peck, 1846).
- Small, H. Beaumont. The Animals of North America (Montreal: John Lovell, 1864), series 1.
- Small, H. Beaumont. The Animals of North America, Fresh-Water Fish (Montreal: N. Longmore, 1865), series 11.
- Smiles, Samuel. Self-Help With Illustrations of Character and Conduct (Boston: Ticknor & Fields, 1861).
- Smith, W.H. Canada Past, Present and Future (Toronto: Thomas Maclean, 1851), v. 1 & 2.
- Smith, William. A Yorkshireman's Trip to the United States and Canada (London: Longmans, Green & Co., 1892).
- Spence, Thomas. The Settler's Guide (New York: Davies & Kent, 1862).
- Spencer, Gillian. Charles Waterton 1782-1865 (Waterfield: Wakefield Art Gallery and Museums, 1982).
- Spencer, Herbert. Education: intellectual, moral and physical (New York: Hurst & Co., 1914).
- Sprott, W.J.H. Human Groups (Middlesex: Penguin, 1973).
- Squires, W. Austin. The History and Development of the New Brunswick Museum (St. John, N.B.: New Brunswick Museum, 1945), #2.
- Stamp, Robert M. The Schools of Ontario, 1876-1976 (Toronto: University of Toronto Press, 1982).
- Stewart, W.A.C. and W.P. McCann. The Educational Innovators 1750-1880 (New York: St. Martin's Press, 1967).
- Strange, Carolyn. Toronto's Girl Problem (Toronto: University of Toronto Press, 1995).
- Strong, Roy. Museums Two Contributions Towards the Debate (London: Art Documents, 1985).

- Sullivan, Edmund V. Piaget and the School Curriculum (Toronto: OISE, 1977).
- Summary of the Ganaraska Report (Toronto: Ontario Conservation & Reforestation Association, 1944).
- Sutherland, Neil. Children in English-Canadian Society: Framing the 20th Century Consensus (Toronto: University of Toronto Press, 1978).
- Swainson, William. A Preliminary Discourse on the Study of Natural History (London: Longman, Rees, Orme, Brown, Green & Longman, 1834).
- Sylvester, Alfred. Sketches of Toronto (Toronto: Charles E. Holiwell, 1858).
- Symons, Thomas H.B. (ed.). The Place of History: Commemorating Canada's Past (Ottawa: Royal Society of Canada, 1994).
- Talbot, Edward Allen. Five Years' Residence in the Canada's (London: Longman, Hurst, Rees, Orme, Brown & Green, 1824), v. 1 & 2.
- Tallis, John. History and Description of the Crystal Palace (London: Lodon Publishing, 1851), v. 1-3.
- Tanner, H.S. The Travellers' Hand Book (New York: T.R. Tanner, 1844).
- Taylor, Conyngham C. Toronto Called Back and Emigration (Toronto: Wm. Briggs, 1890).
- Taylor, C.J. Negotiating the Past (Montreal: McGill-Queen's University Press, 1990).
- Taylor, Francis H. Babel's Tower, the Dilemma of the Modern Museum (New York: Columbia University Press, 1945).
- Taylor, John. The Canadian Handbook and Tourist's Guide (Montreal: M. Longmoore & Co., 1867).
- Taylor, S.M. An Essay Suggestive of a Scheme of Colonisation (Montreal: John Lovell, 1859).
- Temple, Nigel. Seen And Not Heard (London: Hutchinson, 1970).
- Thirty Second Annual Report - The Metropolitan Toronto and Region Conservation Authority (Downsview: MTRCA, 1988).
- Thompson, Samuel. Reminiscences of A Canadian Pioneer For the Last Fifty Years (Toronto: Hunter, Rose & Co., 1884).
- Thompson, Zadock. Geography and History of Lower Canada (Stanstead: Walfont Gaylord, 1835).
- Tilden, Freeman. Interpreting Our Heritage (Chapel Hill: University of North Carolina Press, 1957).
- Timperlake, J. Illustrated Toronto: Past and Present (Toronto: Peter A. Gross, 1877).

- Todd, Henry Cook. Notes Upon Canada and the United States (Toronto: Rogers & Thompson, 1840).
- Tomlinson, Charles (ed.). Cyclopaedia of Useful Arts and Manufactures (London: George Virtue, 1854), 2v.
- Tomorrow's Customers (Toronto: Woods Gordon, 1986).
- Toronto: A City of Attractions (Toronto: Hunter, Rose Co., 1899).
- Toronto Guide for the Provincial Fair of 1866 (Toronto: R.S. Thomson, 1866).
- Toronto Meeting 1897-Preliminary Programme (Toronto: British Association for the Advancement of Science, 1896).
- Toronto Normal School 1847-1947 (Toronto: n.p., 1947).
- A Tour Through Canada (London: Canadian Gazette, 1884).
- The Tourist or Pocket Manual for Travellers (New York: Harper & Brothers, 1834), 3rd ed.
- The Tourist's Guide to Bridgnorth (Madeley: J. Randall, 1875).
- Tremenheere, Hugh S. Notes on Public Subjects (London: John Murray, 1852).
- Trigger, Bruce G. Natives and Newcomers (Kingston: McGill-Queen's University Press, 1986).
- Trimmer, Sarah. An Easy Introduction to the Knowledge of Nature (Philadelphia: M. Carey & Son, 1821).
- Trollope, Anthony. North America (New York: Harper & Brothers, 1862).
- Tuthill, Louisa C. The Young Lady's Home (Boston: William J. Reynolds, 1847).
- Tyler, Edward Burnett. Religion in Primitive Culture (Gloucester, Mass.: Peter Smith, 1970).
- Ulich, Robert. Education in Western Culture (New York: Harcourt, Brace & World, 1965).
- Ulich, Robert. History of Educational Thought (New York: American Book Company, 1950).
- The United States and Canada (London: Edward Stanford, 1862).
- Ure, G.P. The Hand-Book of Toronto (Toronto: Lovell & Gibson, 1858).
- Vandewater, R.J. The Tourist or Pocket Manual for Travellers (New York: Harper & Brothers, 1834) 3rd ed.
- Van Loon, Hendrik Willem. The Arts (New York: Simon & Schuster, 1937).

- Van Rymdsdy, John and Andrew. Museum Britannicum (London: I. Moore, 1778).
- Vigne, Godfrey T. Six Months in America (London: Whittaker, Treacher & Co., 1832), 2 v.
- Vigne, Godfrey T. Six Months in America (Philadelphia: Thomas T. Ash, 1833).
- Von Raumer, Frederick. America and the American People (New York: J. & H.G. Langley, 1845).
- Wallace, W. Stewart. The Growth of Canadian National Feeling (Toronto: Macmillan Company, 1927).
- Walden, Keith. Becoming Modern in Toronto: The Industrial Exhibition and the Shaping of a Late Victorian Culture (Toronto: University of Toronto Press, 1997).
- Walters, John. First Impressions of America (London: n.p., 1867).
- Walton, George (ed.). The City of Toronto and the Home District Commercial Directory and Register (Toronto: T. Dalton, 1837).
- Walton, George (ed.). York Commercial Directory (York: Thomas Dalton, 1833).
- Warburton, Eliot (ed.). Hochelaga; or England in the New World (London: Henry Colburn, 1847), 2.v.
- Waters, Brian (ed.). Mr. Vessey of England (New York: G.P. Putnam's Sons, 1956).
- Waterton, Charles. Wanderings in South America, the North-west of the United States, and the Antilles (London: J. Mawman, 1825).
- Watkin, Edward W. A Trip to the United States and Canada (London: W.H. Smith, 1852).
- Way, Ronald L. Ontario's Niagara Parks A History (Niagara Falls: Niagara Parks Commission, 1946).
- Werner, M.R. Barnum (New York: Harcourt, Brace & Co., 1924).
- Weld, Charles R. A Vacation Tour in the United States and Canada (London: Longman, Brown, Green & Lonmans, 1855).
- Whitehall, Walter Muir et al. A Cabinet of Curiosities (Charlottesville, Va.: University Press of Virginia, 1967).
- Wilkie, David. Sketches of a Summer Trip to New York and The Canadas (Edinburgh: Sherwood, Gilbert & Piper, 1837).
- Williams, Wellington. Appleton's Northern and Eastern Traveller's Guide (New York: Appleton & Co., 1850).
- Williams, Wellington. The Traveller's and Tourist's Guide (Philadelphia: J.B. Lippincott & Co., 1854).

- Willis, N.P. American Scenery (London: J.S. Virtue, 1840), 2v.
- Willis, N.P. Canadian Scenery (London: George Virtue, 1840), 6 pts.
- Wilson, Charles H. The Wanderer in America (Thrisk: Henry Masterman, 1824).
- Wilson, Daniel. Synopsis of the Museum of the Society of Antiquities of Scotland (Edinburgh: S.A.S., 1849).
- Winstanley, Barbara R. Children and Museums (Oxford: Basil Blackwell, 1967).
- Wittlin, Alma S. The Museum: Its History and Its Tasks in Education (London: Routledge & Kegan Paul, 1949).
- Wittlin, Alma S. Museums: In Search of a Useful Future (Cambridge, Mass.: MIT Press, 1970).
- Wohler, J. Patrick. The History Museum as an Effective Educational Institution (Ottawa: National Museums Corporation, 1976).
- Wood, Anthony A. Athenae Oxonienses (Oxford: J. Parker, 1820), new ed.
- Wood, Henry T. A History of the Royal Society of Arts (London: John Murray, 1913).
- Wood, J.G. Illustrated Natural History (Philadelphia: Henry Altemus, 1897).
- Wood, J.G. Wood's Bible Animals (Guelph, Ont.: J.W. Lyon & Co., 1877).
- Wortley, Emmeline Stuart. Travels in the United States (London: Richard Bentley, 1851), 3v.
- Wright, J.R. Urban Parks in Ontario: Origins to 1860 (Ottawa: University of Ottawa, 1983).
- Wright, J.R. Urban Parks in Ontario: The Public Park Movement 1860-1914 (Ottawa: University of Ottawa, 1984).
- Wright, Louis B. Culture on the Moving Frontier (Bloomington: Indiana University Press, 1953).
- Yeo, Eileen and E.P. Thompson. The Unknown Mayhew (New York: Pantheon Books, 1971).
- Young, John. Our Deportment (Detroit: F.B. Dickenson, 1881).
- The Young Man's Guide (Boston: Lilly, Wait, Colman & Holden, 1833).
- Zaslow, Morris. Reading the Rocks (Toronto: Macmillan, 1975).
- Zukin, Sharon. Landscapes of Power: From Detroit to Disney World (Berkeley: University of California Press, 1991).

Periodicals, Pamphlets, Published Articles and Reports

Abel, Frederick. "The Work of the Imperial Institute," Nature (April 28, 1887), v. 35 & (May 5, 1887), v. 36.

"Abstract of the Rules Relating to the British Museum," Gentleman's Magazine Supplement (1758), v. 28.

Ackerman, Rudolph. The Repository of Arts, Literature, Commerce, Manufactures, Fashions, and Politics (April, 1809), #4 & (June, 1809), supplement, v. 1.

Adams, Gene. "Museums and School Links in London-Past and Future," Museums Journal (1984), v. 84, #2.

Adamson, Anthony. "Preserving Ontario's History," in Past Reflections: Museum Clippings (Toronto: Ontario Historical Society, 1994).

"Agricultural Museum Faces Closure," Ontario Museum Association Currently (March/April, 1996), v. 19, #2.

"Agriculture Museum to be Privatized," Ontario Museum Association Currently (March/April, 1997), v. 20, #2.

The Agriculturist and Canadian Journal (1848-1850), v. 1 - v. 3.

Alexander, Edward P. "Artistic and Historical Period Rooms," Curator (1964), v. 7, #4.

Alexander, Edward P. "Interpretation," History News (January, 1964), v. 19, #3.

Alexander, Edward P. "The American Museum Chooses Education," Curator (March, 1988), v. 31, #1.

Alison, Archibald. "The Historical Romance," Blackwood's Edinburgh Magazine (September, 1845), v. 58, #359.

Allan, D.A. "The Function of the Museum in Zoology," Report of the Meeting of the British Association for the Advancement of Science (1936), v. 106.

Allan, Douglas A. "Museums and the Modern World," Diogenes (Summer, 1961), v. 34.

Allard, Michel. "Le musée comme lieu d'apprentissage", Vie pédagogique (Mai-juin, 1993), v. 84.

Allen, D.A. "Museums and Education," in Museums in Modern Times (London: Royal Society of Arts, 1949).

Allen, D.A. "Museums and Education," Museums Journal (July, 1949), v. 49, #4.

Altmeyer, George. "Three Ideas of Nature in Canada, 1893-1914", Journal of Canadian Studies (August, 1976), v. 11, #3.

- Alway, Richard M. "Twice Told Tales: Researching and Teaching History in the 1990's," in Thomas H.B. Symons (ed.), The Place of History: Commemorating Canada's Past (Ottawa: Royal Society of Canada, 1997).
- Ambach, Gordon M. "Museums as Places of Learning," Museum News (December, 1986), v. 65, #2.
- "American Education Week," Museums Journal (April, 1924), v. 23, #10.
- American Journal of Education (1855-1882), v. 1-32.
- The American Monthly Magazine and Critical Review (May, 1817-April, 1819), v. 1-4.
- Ames, Michael M. "De-schooling the Museum: a Proposal to Increase Public Access to Museums and Their Resources," Museum (1985), v. 37, #1.
- Ames, Peter J. "Effective Education for Everyone," Museums Journal (May, 1993), v. 93, #5.
- Ames, Peter J. "To Realize Museums' Educational Potential," Curator (March, 1988), v. 31, #1.
- Ami, Henry M. "The National Museum," Ottawa Naturalist (1896/97), v. 10.
- Ami, Henry M. "Report on the State of the Principal Museums in Canada and Newfoundland," Report of the British Association for the Advancement of Science (1898), v. 67.
- Ami, Henry M. "Some Colonial Museums," Ottawa Naturalist (1896/97), v. 10.
- "An Account of the Prince and Princess of Wales Visiting Sir Hans Sloane," The Gentleman's Magazine (July, 1748), v. 18.
- Anderson, David. "Cinderella Gets to the Ball," Museums Journal (May, 1993), v. 93, #5.
- Anderson, David. "Gradgrind Driving Queen Mab's Chariot: What Museums Have (and Have Not) Learnt from Adult Education," in Alan Chadwick and Annette Stannett (eds.), Museums and the Education of Adults (Leicester: NIACE, 1995).
- Anderson, David, "Learning History in Museums," The International Journal of Museum Management and Curatorship (1989), v. 8.
- Anderson, Joseph and George F. Black, "Reports on Local Museums in Scotland," Proceedings of the Society of Antiquaries of Scotland (April 23, 1888), v.10, n.s.
- Andrews, Benjamin R. "Museums of Education Their History and Use," Teachers College Record (September, 1908), v. 9, #4.
- The Anglo-American Magazine (1852-1855), v. 1-7.
- Annual Report of the Ontario Historical Society 1898 (Toronto: Warwick Brothers & Rutter, 1898).

- Annual Report of the Ontario Historical Society 1899-1900 (Toronto: William Briggs, 1899-1900).
- Annual Report of the Ontario Historical Society 1901-1931 (Toronto: Ontario Historical Society, 1903-1931).
- Ansbacher, Ted. "John Dewey's Experience and Education: Lessons for Museums," Curator (March, 1998), v. 41, #1.
- "Appendix on Natural History and the Arrangement of a Museum," Encyclopaedia Perthensis (Edinburgh: John Brown, 1816), 2nd ed., v. 15.
- The Arion Canadian Journal of Art (October, 1880-September, 1881), v. 1, #1-12.
- Arnold, Isabel S. "The Herbarium," Harper's Young People (April 24, 1888), v. 9.
- "Arts, Letters and Science in Canada," Museums Journal (December, 1951), v. 51, #9.
- Ash, Marinell. "New Frontiers: George and Daniel Wilson," in Jenni Calder (ed.), The Enterprising Scot (Edinburgh: Royal Museum of Scotland, 1986).
- Aston, Oliver. Learning Beyond the Classroom (London: English Heritage, 1997).
- Atwood, A.E. "The Educational Value of Nature Study," Ottawa Naturalist (January, 1903), v. 16, #10.
- Avinoff, Andrey. "Museums and the People," The American Magazine of Art (November, 1928), v. 19.
- Bach, Richard F. "A Museum on the March," Journal of Adult Education (January, 1939).
- Baeker, Greg. "Focus-Raising the Titanic," Ontario Museum Quarterly (Winter, 1985), v. 13, #4.
- Baillie, James L. "Charles Fothergill, 1782-1846," Canadian Historical Review (December, 1944), v. 25.
- Bain, David. "The Early Pleasure Grounds of Toronto," Ontario History (Autumn, 1999), v. 91, #2.
- Bain, James Jr. "The Public Libraries of Canada," in J. Castell Hopkins (ed.), Canada an Encyclopaedia of the Country (Toronto: Linscott Publishing, 1899), v. 5.
- Baker, Frank C. "The Educational Value of Natural History Museums," Review of Education (November, 1901).
- Baker, Frank C. "The Museum and the Public School," Museums Journal (August, 1905), v. 5, #2.
- Balfour, Henry. "The Relationship of Museums to the Study of Anthropology," Journal of the Royal Anthropological Institute of Great Britain (1904), v. 34.

- Ballard, Harlan H. "Museums and Movies," Museum Work (May, 1920), v. 2, #8.
- Barnard, Henry. "Pestalozzianism in the United States," The American Journal of Education (July, 1880), v. 30.
- Barnes, A.S.L. "1967-2067: man the conservator," Watersheds (Spring, 1968), v. 3, #1.
- Barzun, Jaques. "A Surfeit of Art," Harper's Magazine (July, 1986).
- Bather, F.A. "The Functions of Museums: A Re-Survey," Popular Science Monthly (January, 1904), v. 64.
- Bather, F.A. "How May Museums Best Retard the Advance of Science?," Science (April 30, 1897), v. 5, #122, n.s.
- Bather, F.A. "Museums and the Advancement of Learning," Museums Journal (May, 1918), v. 17, #11.
- Bather, F.A. "Museums and the Ancient," Museums Journal (July, 1919), v. 19, #1.
- Bather, F.A. "Natural Science at the Chicago Exhibition," Natural Science (November, 1893), v. 3.
- Bather, F.A. "Some Colonial Museums," Report of Proceedings of the Museums Association (1895).
- Beatty, John W. "The Museum of Art in Its Relation to the Public Schools," Museum Work (November, 1919), v. 2, #2.
- Beer, Valorie and David March. "A Non-School Curriculum Model Illustrated in a Museum Setting," Journal of Curriculum and Supervision (Spring, 1988), v. 3, 33.
- Beer, Valorie. "Great Expectations: Do Museums Know What Visitors Are Doing?," Curator (1987), v. 30, #3.
- Beer, Valorie. "The Problem and Promise of Museum Goals," Curator (1990), v. 33, #1.
- Bell, J. Jones. "In Canada's National Park," The Canadian Magazine (1893-94), v. 2.
- Berlyne, D.E. "A Theory of Human Curiosity," British Journal of Psychology (1954), v. 45.
- Bestall, M.M. "What Can Museums Offer?," Adult Education (January, 1970), v. 42, #5.
- Betts, John R. "P.T. Barnum and the Popularization of Natural History," Journal of the History of Ideas (1959), v. 20, #3.
- Bettelheim, Bruno. "Children, Curiosity and Museums," Children Today (January-February, 1980).
- Biggar, C.R.W. "The Reverend William Hincks," University of Toronto Monthly (June, 1902), v. 2, #4.

- Bitgood, Stephen. "A Comparison of Formal and Informal Learning," Center for Social Design Technical Report (1988), #10.
- Bitgood, Stephen. "School Field Trips: An Overview," Visitor Behaviour (Summer, 1989), v. 4, #2.
- Blackwell, Raymond. "The Visual Arts in General Education in Ontario: Whither and Especially Whence," Journal of the Ontario Society for Education Through Art (1989).
- Blais, Jean-Marc. "Creating Exhibition For Learning," in Hazel Moffat and Vicky Woollard (eds.), Museums & Gallery Education (London: The Stationary Office, 1999).
- Blakeney, A.E. "Tools for Voluntary Education," Ontario History (September, 1961), v. 53, #3.
- Bliss, Michael. "Privatizing the Mind: The Sundering of Canadian History, the Sundering of Canada," Journal of Canadian Studies (Winter, 1991-92), v. 26, #4.
- Boas, Franz. "Arrangement of Museums," Science (June 24, 1887), v. 9, #229.
- Boas, Franz. "Fourth Annual Report of the Bureau of Ethnology," Science (June 17, 1887), v. 9, #228.
- Boas, Franz. "Museums of Ethnology and Their Classification," Science (June 17, 1887), v. 9, #228.
- Boas, Franz. "The Occurrence of Similar Inventions in Areas Widely Apart," Science (May 20, 1887), v. 9, #224.
- Boas, Franz. "The Study of Geography," Science (February 11, 1887), v. 9, #210.
- Bolton, H. "The Future of Museums," Museums Journal (February, 1906), v. 5, #8.
- Borun, Mina et al. "Families Are Learning in Science Museums," Curator (June, 1996), v. 39, #2.
- Bourinot, J.G. "The Royal Society of Canada: Its History and Work," The Canadian Magazine (1897), v. 9.
- Bow, Eric C. "The Public Library Movement in Nineteenth-Century Ontario," Ontario Library Review (March, 1982), v. 66, #1.
- Boyle, David. "A Museum or a Musee?," in Annual Archaeological Report (Toronto: L.K. Cameron, 1905).
- Boyle, David. "History Taught by Museums," Niagara Historical Society Journal (1898), #4.
- Boyle, David. "School Museums," The Canada Educational Monthly (February, 1879), v. 1.
- Boyle, David. "School Work," The Canada Educational Monthly (January, 1883), v. 3.

- Boyle, David. "Teach Children to Observe," The Canada Educational Monthly and School Magazine (May-June, 1883), v. 5.
- Boyle, Edward. "Museums and Education," Museums Journal (December, 1963), v. 63, #3.
- Boys, William F.A. "Early Days of the University," Supplement to the University of Toronto Monthly (December, 1901), v. 2, #3.
- Bradbury, Edward. "A Visit to Ruskin's Museum," The Magazine of Art (December, 1879), v. 3.
- Bragg, Laura M. "Culture Museums and the Use of Culture Material," Museum Work (September-October, 1925), v. 8, #3.
- Brears, Peter C.O. "Temples of the Museums: The Yorkshire Philosophical Museums, 1820-50," Museums Journal (June/July, 1984).
- The British Colonial Magazine (1853), v. 1, # 1-12.
- "The British Museum," Picture Post (January 28, 1939).
- Brochner, George. "Open-Air Museums For London: A Suggestion," The Studio Magazine (1901), v. 21.
- Brockman, C. Frank. "Park Naturalists and the Evolution of National Park Service Interpretation Through World War II," Journal of Forest History (January, 1978), v. 22, #1.
- Brown, Eric. "The National Gallery of Canada," The School (September, 1915), v. 4, #1.
- Brown, John. "Education Through the Senses," in Horae Subsecivae (London: Oxford University Press, 1907).
- Browne, Edward N. "Notes and Illustrations From the Museums of Italy," The Art-Union (March 1, 1848), v. 10.
- Bruce, Lorne. "Public Libraries in Ontario 1882-1920," Ontario History (June, 1985), v. 77, #2.
- Brûlé-Currie, Marie. "When three-to-five-year olds and adults look at modern and abstract art together," in Bernard Lefebvre and Michel Allard (eds.), Le Musée Un Projet Educatif (Montreal: Les Editions Logiques, 1996).
- Bryant, Margaret E. "The Museum and the School," Teaching of History Leaflet (London: Historical Association, 1961), #6.
- Buchanan, Donald W. "The Loan Exhibition System of the National Gallery of Canada," The Museums Journal (April, 1935), v. 35, #1.
- Buckley, Alfred. "Canada's National Parks," The Canadian Magazine (1924-25), v. 63.
- Burchett, Richard. "Instruction in Drawing," American Journal of Education (1882), v. 32.

- Burgess, A.M. "Lands Reserved for Parks," in Handbook of Canada (Toronto: British Association for the Advancement of Science, 1897).
- Burman, Lionel A. "Museums and Visual Education," Visual Education (March, 1971).
- Burwash, Nathaniel. "Egerton Ryerson," The Makers of Canada Series (London: Oxford University Press, 1928).
- Busse, F. "Object Teaching-Principles and Methods," The American Journal of Education (July, 1880), v. 30.
- "By Our College Reporter," The O.A.C. Review (December, 1898), v. 10, #3.
- "By Our College Reporter," The O.A.C. Review (April, 1899), v. 10, #7.
- Byrne, Oliver (ed.). "Animal Matter Used in the Arts," in Dictionary of Machines, Mechanics, Engine- Work and Engineering (New York: D. Appleton, 1850).
- Cabot, Ella L. "The Museum as a Centre for Americanization and Nation Study," Museums Work (June, 1918), v. 1, #1.
- Caddie, A.C. "The Board of Education and Provincial Museums," Museums Journal (November, 1910), v. 10, #5.
- The Calliopean (November 23, 1847-October 9, 1848), v. 1, #1-24.
- Cameron, Duncan F. "The Royal Ontario Museum 1912-1962," Ontario History (September, 1961), v. 3, #3.
- Campbell, S. Lynn. "An Ontario Hybrid: The Ontario Agricultural Museum," Proceedings for the 1988 Annual Meeting of the Association for Living Historical Farms and Agricultural Museums (1991), v. 11.
- The Canada Farmer (1847), v. 1, #1-17.
- The Canada Farmer (1864-1868), v. 1-5.
- The Canada Farmer (1869-1872), v. 1-4, n.s.
- The Canadian Agriculturist (1849-63), v. 1-15.
- "The Canadian Fisheries Museum," Ottawa Naturalist (November, 1915), v. 29, #8.
- The Canadian Garland (September 15, 1832-August 31, 1833), v. 1, #1-26.
- The Canadian Illustrated News-Hamilton (November 8, 1862-February 13, 1864), v. 1-3.
- Canadian Illustrated News (January 1, 1870-December 14, 1872), v. 1-6.
- The Canadian Journal (1852-55), v. 1-3.

The Canadian Journal (1856-78), v. 1-15, n.s.

The Canadian Magazine (January & March, 1833), v. 1, #1 & 3.

Carlton, Frank T. "Art in Industry," Popular Science Monthly (September, 1904), v. 65.

Carman, Albert D. "The Sabbath-School As A Centre," Canadian Methodist Magazine (January, 1887), v. 25.

Carman, Francis A. "Our Archives and the National Spirit," The Canadian Magazine (1912-13), v. 40.

The Carnegie United Kingdom Trust Annual Report (1917-1975), #3-62.

Carr, Allen Terry. "The Metropolitan Toronto and Region Conservation Authority's Conservation Education Programmes-A Forty Year Retrospective 1950-1990," Pathways (July/August, 1996), v. 8, #4.

Carter, Huntly. "Sketch Plan of a Civic Museum for London," Social Papers (1907), v. 3.

Carter, John C. "Building Partnerships Between Museums and Schools," Heritage Canada (September/October, 1995), v. 3, #1.

Carter, John C. "Community Museums and Schools: An Annotated Bibliography of Resource and Reference Materials," History and Social Science Teacher (December, 1985), v. 21, #2.

Carter, John C. "Developing an Interpretation and Education Policy for the Community Museum," The Journal of Museum Education (Winter, 1985), v. 10, #1.

Carter, John C. "The Evolution of Agriculture, Education and Museums in Ontario," in Proceedings of the 1998 ALHFAM Conference (Waterloo, 1999), v. 21.

Carter, John C. "Museums as a Delightful Instrument of Self-Instruction in 19th Century Ontario," in Michel Allard and Bernard Lefebvre (eds.), The Museum As Service To People (Montreal: UQUA, 1999).

Carter, John and Ann Boyer. "Early Childhood Education From the Museum Perspective," Ontario Museum Quarterly (Fall, 1982).

Carter, John C. "The Evolution of Museums and Education in Ontario," Ontario Museum Annual (1992).

Carter, John C. "The Future of Ontario Museums," Ontario Museum Association Currently (July-August, 1988), v. 16, #1.

Carter, John C. "Historic Sites: Their Place in Conservation Authorities," Proceedings of the Ontario Conservation Authorities' Conservation Education and Community Relations Conference (Burlington: n.p., 1980).

Carter, John C. "Museums Across the Curriculum," in Second Museum Education Colloquium (Toronto: Ontario Museum Association, 1993).

- Carter, John C. "Ryerson, Hodgins and Boyle: Early Innovators in Ontario School Museums," Ontario History (June, 1994), v. 86, #2.
- Carter, John C. "Teaching Teachers to Use Museums," Heritage Canada Impact (May/June, 1993), v. 5, #3.
- Carter, John C. "Writing a Museum Education Policy," Journal of Education in Museums (1990), v. 11.
- "The Central School Fair at Chatham," The Educational Monthly of Canada (December, 1905), v. 28, #10.
- Chadwick, Alan. "Practical Aids to Nineteenth Century Self-Help-The Museums: Private Collections Into Public Institutions," in M.D. Stephens and G.W. Roderick (eds.), Samuel Smiles and Nineteenth Century Self-Help in Education (Nottingham: University of Nottingham, 1983).
- "Challenges for Museums: Howard Gardner's Theory of Multiple Intelligences," Children's Museum Network Hand to Hand (Fall, 1988), v. 2, #4.
- Chalmers, Graeme. "Who is to do this Great Work for Canada? South Kensington in Ontario," Journal of Art & Design Education (1993), v. 12, #2.
- Chamberlain, Alexander F. "David Boyle," American Anthropologist (1911), v. 13, n.s.
- "The Children's Room in the Smithsonian Institute," Public Libraries (1903), v. 8.
- Chilton, D. "Museums and the Eighteenth Century-Scientific Instruments," Museums Journal (May, 1959), v. 59, #2.
- Christensen, Erwin O. "Art Museums for the Public," Museum Work (July-August, 1922), v.5, #2.
- Clubb, Joseph A. "The Educational Use of Museums," Report of the British Association for the Advancement of Science (1914).
- Coen, Leigh H. and A. Gilbert Wright, "The Interpretive Function in Museum Work," Curator (1973), v. 18, #4.
- Cohen, Daniel. "The Place Where Shangri-la and New Jersey Meet," Smithsonian (June, 1991), v. 22, #3.
- Colbert, Russell. "The High School History Museum," The Historical Outlook (November, 1927), v. 18.
- Colbert, Russell. "One Year With a History Museum in a Small High School," The Historical Outlook (April, 1925), v. 16.
- Cole, Douglas. "The Origins of Canadian Anthropology, 1850-1910," Journal of Canadian Studies (February, 1973), v. 8, #1.

- Cole, Henry. "Science and Art Department, and the South Kensington Museum," American Journal of Education (1882), v. 32.
- Cole, Peggy Ruth. "Dewey and the Galleries: Educational Theorists Talk to Museum Educators," The Museologist (Spring, 1985), v. 48, #170.
- Cole, Peggy Ruth. "The EcoTarium Story - Past, Present and Future", Curator (December, 1998), v. 41, #4.
- Coleman, D.C. "Museums and the Eighteenth Century-The Economic Background," Museums Journal (May, 1959), v. 59, 32.
- Coleman, Laurence V. "The Museum in America: A Critical Study," The Museologist (Winter, 1989), v. 52, #180.
- "Columbia (South Carolina) Athenaeum," American Journal of Education (December, 1856), v. 2, #7.
- Conaty, Gerald T. "Public Archaeology and the Saskatchewan Museum of Natural History," Curator (1990), v. 33, #1.
- Conaway, Edmund M. "A Historical Society and Museum For The Public School," School and Society (1930), v. 31, #796.
- "Conservation and the Child," The Man of the Trees (April, 1950).
- Constable, W.G. "Museum Ethics," Museums Journal (October, 1941), v. 41, #7.
- "Conversations on Objects," American Journal of Education (March, 1862), v. 11, #26.
- Cooper, John A. "Canada's Progress in the Victorian Era," The Canadian Magazine (1897), v. 9.
- Cornforth, John. "London's Lost Galleries," Country Life (June 13, 1968).
- The Cottager's Friend and Guide of the Young (February, 1854-December, 1855), v. 1-2.
- Cox, Trenchard. "Educational Methods in the Museums of the United States and Canada," Museums Journal (November, 1948), v. 48, #8.
- Crane, Agnes. "Notes on the Eastern Cities and Museums of the United States," The Leisure Hour (1882), parts 1-4.
- Crowdis, Don. "Interpretation: To What End?," Intercom (November/December, 1986).
- Crowdis, Donald. "Development of Canadian Museums," in Conference Proceedings for 2001: The Museum and the Canadian Public (Ottawa: Canadian Museums Association, 1977).
- Cubberley, Maureen and Stan Skrzyszewski. "Enabling a National Discussion-The Key Role of Public Authorities in Developing a Knowledge Society," Feliciter (March, 1997), v. 43, #3.

- Currelly, Charles T. "The Royal Museum of Archaeology," The University of Toronto Monthly (May, 1927), v. 27, #8.
- Currie, James. "Subjects and Methods of Early Education," American Journal of Education (September, 1860), v. 9, #22.
- Cust, Lionel. "Notes on the Collections formed by Thomas Howard, Earl of Arundel and Surrey," Burlington Magazine (April-September 1911), v. 19, (October 1911-March 1912), v. 20, & (April-September, 1912), v. 21.
- Cuthbertson, Shirley. "Museum Education: A British Columbia Perspective," The History and Social Science Teacher (Winter, 1986), v. 21, #2.
- Dadson, D.F. "Local History in the Schools," Ontario History (Spring, 1952), v. 45, #2.
- Dale, J.A. "Teacher and Community," The Canadian Magazine (1923-24), v. 62.
- Dalibard, Jacques. "In the New Museology: the Community is the Curator," Canadian Heritage (February-March, 1986).
- Dall, William H. "Museums of Ethnology and Their Classification," Science (June 17, 1887), v. 9, #228.
- "Dalziel Pioneer Museum," The York Pioneer (1959).
- Dana, John Cotton. "Schools and Museums," Public Libraries (February, 1918).
- Dana, John C. "A Small American Museum Its Efforts Toward Public Utility," Museum Work (November-December, 1921/January-February, 1922), v. 4, #3 & 4.
- Davidson, Alice. "Museums of Ontario," Ontario History (September, 1961), v. 53, #3.
- Davidson, Thomas. "Mechanics' Institutes and the Best Means of Improving Them-1," The Canadian Monthly and National Review (1876), v. 10.
- Davin, Anna. "Class, and Children's Work and Play in London in the 1890's and 1900's," Social History Curators Group Journal (1988-89), v. 16.
- Dawkins, W. Boyd. "The Museum Question," Museums Association Report of Proceedings (1892), v. 3.
- Dawkins, W. Boyd. "The Need For Museum Reform," Nature (May 31, 1877), v. 16.
- Dawkins, W. Boyd. "The Place of Museums in General Education," Report of the Meeting of the British Association for the Advancement of Science (1915), v. 85.
- Dawkins, W. Boyd. "The Position of Museums in Britain," Manchester Literary and Philosophical Society (1876-77), v. 16.

- Dawson, J.W. "Natural History in its Educational Aspects," American Journal of Education (June, 1857), v. 3, #9.
- Day, Lewis F. "How to Make the Most of a Museum," Journal of the Society of Arts (January 10, 1908), v. 56, pt. 2877.
- Dean, Mary. "Childhood-A Voluntary," Putnam's Magazine (October, 1869), v. 4, #22, n.s.
- Dearnness, John. "The Sphere of the Historical Societies," Annual Report of the Ontario Historical Society 1914 (Toronto: Ontario Historical Society, 1914).
- Dearnness, John. "The Teaching of History," The Annual Report of the Ontario Historical Society 1913 (Toronto: Ontario Historical Society, 1913).
- DeBoe, David C. "Texas Programs Use Local History as a Teaching Tool," History News (January/February, 1991), v. 46, #1.
- de Madariaga, Salvador. "Museums and Education," Museums Journal (November, 1945), v. 45, #8.
- Descartes. "A Scheme for Raising A Large Sum of Money for the Use of Government, by Laying a Tax on Message-Cards and Notes," The Museum or the Literary and Historical Registrar (April 12, 1746), v. 1.
- "Destruction of Barnum's Museum," The Scientific American (July 22, 1865), v. 13, #4, n.s.
- Dimaggio, Paul and Michael Useem, "Social Class and Arts Consumption," Theory and Society (1978), v. 5.
- Dodge, W.C. "Exhibition Hall at the Patent Office-Important to Manufacturers," The Scientific American (November 25, 1865), v. 13, #22, n.s.
- Doherty, Ken. "The Common Thread: One Hundred and Fifty Years of Museums in Peterborough," Ontario History (June, 1994), v. 86, #2.
- Donald, Janet Gail. "The Measurement of Learning in the Museum," Canadian Journal of Education (1991), v. 16, #3.
- Drever, Dorothy. "The Museums Section An Account of Its Beginning," Ontario History (September, 1961), v. 53, #3.
- Duncan, Dorothy. "Docents and Classroom Teachers: Responsibilities," C.M.A. Gazette (Spring, 1975).
- Duncan, Dorothy. "From Mausoleums to Malls: What Next," Ontario History (June, 1994), v. 86, #2.
- Duncan, Dorothy. "Heritage as Classroom: Teaching Teachers to Teach Using Heritage Commemoration," in Thomas H.B. Symons (ed.), The Place of History: Commemorating Canada's Past (Ottawa: Royal Society of Canada, 1997).

- Dunlop, Brett. "Museum Education and Public Programs," Newsletter of the Education Group Museums Australia (1998), #1.
- Durbin, Gail. "Getting Started: Educational Activities For Children," Social History Curators Group Journal (1988-89), v. 16.
- "Early Days," The Australian Museum Magazine (July-September, 1927), v. 3, #3.
- Eagleson, Janet. "Come to the Fair," The Beaver (August/September, 1996).
- "Education," The Family Economist (1848), v. 1.
- "Education Outside Schools," OISE Orbit (April, 1991), v. 22, #2.
- "Educational Uses of Museums of Natural History," American Journal of Education (March, 1858), v. 4, #12.
- "The Educational Value of Museums," Museums Journal (November, 1913), v. 13, #5.
- Edwards, R.Y. "What is a Park?," Canadian Audubon (November-December, 1965).
- Edwards, Yorke. "What is Interpretation?," Park News (Spring, 1985), v. 21, #1.
- "Egerton Ryerson," American Journal of Education (April, 1868), v. 17, #3.
- Egleston, T. "Some Thoughts and Suggestions on Technical Education," Transactions of the American Institute of Mining Engineers (1888), v. 16.
- Elgin, Lord. "The Canada System of Public Schools," American Journal of Education (March, 1856), v. 1, #3.
- Ellis, W. Hodgson. "Edward John Chapman," University of Toronto Monthly (June, 1902), v. 2, #9.
- Ellis, W. Hodgson. "Henry Holmes Croft," University of Toronto Monthly (November, 1901), v. 2, #2.
- Ellis, W. Hodgson. "The Late Professor E.J. Chapman," University of Toronto Monthly (March, 1904), v. 4, #6.
- "Emigration to Canada and Other British American Possessions," Chambers's Information for the People (1842), #17.
- Esteve-Coll, Elizabeth. "A Yearning for Learning," Museums Journal (May, 1993), v. 93, #5.
- Etterna, Michael J. "History Museums and the Culture of Materialism," in Jo Blatti (ed.), Past Meets Present (Washington: Smithsonian Institution Press, 1987).
- Evermann, Barton W. "Model Natural History Museums and Their Relation to Public Education," The Scientific Monthly (January, 1918), v. 6, #1.

- "Excellence and Equity," A Report From the American Association of Museums (Washington: AAM, 1992).
- "Exhibition of Woodwork at Carpenters' Hall," Building World (October 31, 1896), v. 3, #55.
- "Exploration of the Ways, Means and Values of Museum Communication With the Viewing Public," A Seminar (New York: Museum of the City of New York, 1969).
- Fairclough, H.R. "Sir Daniel Wilson," University of Toronto Monthly (February, 1902), v. 2, #5.
- Falconer, Robert. "Irish Influences on Higher Education in Canada," Transactions of the Royal Society of Canada (1936), v. 29, series 3.
- Falconer, Robert. "Scottish Influence in the Higher Education of Canada," Transactions of the Royal Society of Canada (1927), v. 20.
- Falk, John H. et al. "The Effect of Visitors' Agendas on Museum Learning," Curator (June, 1998), v. 41, #2.
- Falk, John H. "Public Institutions for Personal Learning," The Museologist (Summer/Fall, 1984), v. 46, #168.
- Falk, John H. and Lynn D. Dierking. "School Field Trips: Assessing Their Long-Term Impact," Curator (September, 1997), v. 40, #3.
- Fara, Patricia. "The Appliance of Science the Georgian British Museums," History Today (August, 1997), v. 47, #8.
- The Farmer's Magazine (1858), v. 48, #1-6.
- Farrington, Oliver C. "The Museum as an Educational Institution," Education (April, 1897), v. 17.
- Farrington, Oliver C. "Notes on European Museums," The American Naturalist (October, 1899), v. 33, #394.
- Feist, Andrew and Robert Hutchinson (eds.), "Museums," Cultural Trends (December, 199), #4.
- Fertig, Barbara C. "Historians/Artifacts/Learners-The History Museum as Educator," Museum News (July/August, 1982), v. 10, #6.
- F.G.S. "The Oxford University Museum," Macmillan's Magazine (April, 1862), v. 5, #30.
- Field, Thomas. "An Educational Museum," Journal of Education (May, 1890), v. 22, n.s.
- Files, James. "Smocks and Jocks: The Establishment of the Ontario Ministry of Culture and Recreation, 1974," Ontario History (September, 1991), v. 83, #3.
- Fillmore, Stanley. "The Miracle of Upper Canada Village," Canadian Homes (June, 1961).
- Fillmore, Stanley. "Upper Canada Village," Canadian Homes (June, 1961).

- Finley, Gregg. "Material History and Museums: A Curatorial Perspective in Doctoral Research," Material History Bulletin (Autumn, 1984), v. 20.
- Finn, David. "How to Visit a Museum," Cosmopolitan (October, 1985).
- "Fish Culture in Canada," Canadian Illustrated News (March 24, 1877), v. 15.
- Fitzjohn, Audrie E. "The Museum and the Child," Museums Journal (January, 1941), v. 40, #10, pt. 1 & (February, 1941), v. 40, #11, pt. 2.
- Fleming, Roy F. "The National Gallery and Its Possible Relation to Education in Our Schools," The School (December, 1914), v. 3, #4.
- Fletcher, James. "School Exhibits of Pressed Plants," Ottawa Naturalist (November, 1906), v. 20, #8.
- Flower, William H. "Natural History as a Vocation," Chambers's Journal (April 10, 1897), v. 14, #693.
- Flower, William H. "Modern Museums," Museums Association Report of Proceedings (1893), v. 4.
- Flower, William. "Museum Specimens for Teaching Purposes," Nature (December 14, 1876), v. 15.
- Forbes, Edward. "Educational Uses of Museums of Natural History," American Journal of Education (March, 1858), v. 4, #12.
- Forbes, Edward. "On the Educational Uses of Museums," American Journal of Science (November, 1854), v. 68.
- Forbes, Edward. "The Vegetable World," in The Art Journal Illustrated Catalogue The Industry of All Nations (London: George Virtue, 1851).
- Foreman, Lewis Day. "How To Make the Most of a Museum," Journal of the Society of Arts (January 10, 1908), v. 56, #2877.
- Fraser, A.D.R. "A Museum as a School Project," The School (September, 1923), v. 22, #1.
- "The Free Exhibition," The Art-Union (January 1, 1848), v. 10.
- Fredette, Barbara. "Creating bridges between schools and museums," School Arts (April, 1982).
- French, Donald G. "Teaching the Farmer How to Farm," The Canadian Magazine (1910-11), v. 36.
- Friedman, Joan M. and Doris Master. "School and Museum: A Partnership for Learning," Gifted Child Quarterly (Winter, 1981), v. 25, #1.
- Frostick, Elizabeth. "Museums in education: a neglected role?," Museums Journal (September, 1985), v. 85, #2.

- "Frugal Field Trips," Instructor (September, 1983).
- Fry, Heather. "Worksheets as Museum Learning Devices," Museums Journal (1987), v. 86, #4.
- Gagen, Robert F. "History of Art Societies in Ontario," in J. Castell Hopkins (ed.), Canada an Encyclopaedia of the Country (Toronto: Linscott Publishing, 1898), v. 4.
- Gaillard, Edwin W. "The Beginning of Museum Work in Libraries," Public Libraries (1903), v. 8.
- Geddes, Patrick. "A Suggested Plan for a Civic Museum (or Civic Exhibition) and Its Associated Studies," Social Papers (London) (1907), v. 3.
- "General Notes," Museums Journal (November, 1906), v. 6.
- George, Gerald. "The Perils of 'Public' History: An Imaginary Excursion into the Real World," in Barbara J. Howe and Emory J. Kemp (eds.), Public History: An Introduction (Malabar, Florida: Robert E. Krieger, 1986).
- Gibson, Thomas W. "Provincial Lands Reserved for Parks and Game Purposes," in Handbook of Canada (Toronto: British Association for the Advancement of Science, 1897).
- Gilbert, C.G. "Observations on the Use of Models in the Educational Work of Museums," Museum Work (December, 1919), v. 2, #3.
- Gilbey, Walter. "Educative Value of the Modern Museum," The Nineteenth Century and After (July, 1909), v. 66, #389.
- Gilman, Benjamin I. "Basilica or Temple," Museum Work (December, 1920).
- Gilman, Benjamin I. "Docent Service at the Museum of Fine Arts, Boston," Museums Journal (September, 1910), v. 10, #3.
- Gilman, Benjamin I. "Museum Fatigue," The Scientific Monthly (January, 1916).
- Gilman, Benjamin I. "Museum Publicity," American Magazine of Art (February, 1917).
- Gillespie, Rob. "Interpretation and the Community Museum," Dawson & Hind (1981), v. 10, #4.
- Glassberg, David. "Presenting History to the Public," CRM (1988), v. 21, #11.
- Goldstein, Marcus S. "The Museum as a Potential Force for Social Enlightenment," Science (August 30, 1940), v. 92, #2383.
- Goode, G. Brown. "The Principles of Museum Administration," Report of Proceedings of the Museums Association (1895).
- Goodison, Nicholas. A New Era For Museums (London: The British Museum, 1997).
- Goodman, Nelson. "The End of the Museum?," Journal of Aesthetic Education (1985), v. 19, #2.

- Gopnik, Adam. "The Death of an Audience," The New Yorker (October 5, 1992).
- Gordon, Margery. "Shared Family Learning in Museums," The Museologist (Winter, 1987), v. 50, #175.
- Gould, Nancy Dana. "Pageants, Programming and the Public," The Museologist (Fall, 1983).
- Grant, Jean. "Art at the Industrial Exhibition," Toronto Saturday Night (September 3, 1898).
- Grant, Laurence. "Canada's Federal Museum Policy: Delectation, Democratization, Deliberation and Denouement," in The Working Papers Services the Centre for Research on Culture and Society Carleton University (Ottawa, March 1991), #1.
- Gray, Charlotte. "Museum Pieces," Saturday Night (September, 1988).
- Gray, John Edward. "Free Admission of the Public to Museums," The Penny Magazine (February 4, 1837), v. 6, #311.
- Gray, John Edward. "Public Museums," Report of the British Association for the Advancement of Science (1865).
- Gray, John. "Local Museums, What They Are, and What They Ought to Be," Good Words (1882).
- Greene, S.S. "Object Teaching: Its General Principles and the Oswego System," American Journal of Education (September, 1866), v. 16, #4.
- Greenglass, David I. "Learning From Objects in a Museum," Curator (1986), v. 29, #1.
- Greenhalgh, Paul. "Education, Entertainment and Politics: Lessons from the Great International Exhibitions", in Peter Vergo (ed.), The New Museology (London: Reaktion Books, 1989).
- Greenwood, Thomas. "The Place of Museums in Education," Science (November 3, 1893), v. 22, #561.
- Greig, Edward R. "The Art Museum of Toronto," Museum Work (March, 1919), v. 1, #6.
- Griffin, Des. "Does the Museum Profession Have a Future?," Museum Association of Australia Occasional Lectures (November, 1989), #1.
- Grinnell, Joseph. "The Methods and Uses of a Research Museum," The Popular Science Monthly (August, 1910), v. 77, #2.
- Gritton, John. "Sunday Opening of Museums," Transactions of the National Association for the Promotion of Social Science (1883).
- Gunn, D. Andrew. "Educational Resource Kits," Interpretation Canada Journal (Fall, 1984), v. 12, #4.

- Gunther, A.C.L. "Objects and Uses of Museums," Report of the 50th Meeting of the British Association for the Advancement of Science (1880).
- Gunther, A.C.L. "Presidential Address," Report of the British Association for the Advancement of Science (1880).
- Guthe, Carl E. "The Museum as a Social Instrument," Ontario History (September, 1961), v. 53, #3.
- Hagarty, Edward. "Culture as an Element in Education," The Canadian Educational Monthly (January, 1891), v. 13, #1.
- Hagen, H.A. "The History of the Origin and Development of Museum," American Naturalist (February, 1876), v. 10, #2 & (March, 1876), v. 10, #3.
- Hamilton, W.B. "Structuring Program in Local History," History and Social Science Teacher (Winter, 1974), v. 10, #2.
- Hans, Nichola. "The Rosicrucians of the Seventeenth Century and John Theophilus Desaguliers, the Pioneer of Adult Education," Adult Education (April, 1935), v. 7, #3.
- Hardwick, D.F. "The History and Objectives of the Biosystematics Research Institute," Entomological Society of Canada Bulletin (1976), v. 8, #2.
- Harris, Julie and Jennifer Mueller. "Making Science Beautiful: The Central Experimental Farm, 1886-1939," Ontario History (June, 1997), v. 89, #2.
- Harrison, Molly. "Some Thoughts on the Function of Museums in the Education of Children," Museums Journal (June, 1942), v. 42, #3.
- Hart, William G. "A Low-Cost School Museum," The Educational Screen (May, 1942).
- Hartman, Lawrence A. and John W. Hanna. "Interpretive Education in North America," Interpretation Canada Journal (Fall, 1984), v. 12, #4.
- Haskill, Francis. "Museums and Their Enemies," Journal of Aesthetic Education (1985), v. 19, #2.
- "The Haslemere Educational Museum," Museums Journal (October, 1926), v. 26, #4.
- Hayes, Peter and John Carter. "The Museum and the School Board: A Case Study in Cooperative Curriculum Design," The History and Social Science Teacher (Winter, 1981), v. 16, #2.
- Hayes, Peter and John Carter. "The Museum and the School Board: A Plan for Co-operative Curriculum Design," Ontario Museum Association Quarterly (Winter, 1980), v. 9, #1.
- Hayward, John. "Museums and the Eighteen Century-Collectors," Museums Journal (May, 1959), v. 59, #2.
- Haward, Birkin. "Oxford University Museum," Architectural Journal (September, 1989).

- Hein, George E. "Museum Education: Part 1," Choice Magazine (July/August, 1993), v. 30, #11.
- Heinrich, T.A. "Standards in a Small Museum," in Past Reflections: Museum Clippings (Willowdale: Ontario Historical Society, 1994).
- Hekking, William M. "Getting the Public to Exhibit," Museum Work (July-August, 1924), v. 7, #2.
- Hendrickson, Walter B. "The Western Museum Society of Cincinnati," Scientific Monthly (1946), v. 63.
- Henry, Joseph. "Thoughts on Education," American Journal of Education (August, 1855), v. 1, #1.
- Herbert, Mary. "The Museum Educator and School-Related Museum Education," Ontario Museum Quarterly (Fall/October, 1982).
- Herbert, Mary. "Please Touch! The Time is Now for Museum Education," Canadian Museum Association Gazette (Summer/Fall, 1980).
- Herbert, Tony. "Pride and Profit: The Contribution of Museums and Heritage Projects to Local Communities," Heritage Canada (November/December, 1995).
- Hicks, Ellen C. "Museums and Schools As Partners," ERIC Digest (September, 1986).
- Higgins, Henry H. "Circulating Museum for Educational Purposes," Journal of Science (March, 1884), 3rd. series.
- Higgins, Henry H. "President's Address," Museums Association Report of Proceedings (1890), v. 1.
- Hilke, D.D. "Museums as Resources for Family Learning," The Museologist (Winter, 1987), v. 50, #175.
- Hill, Thomas. "The True Order of Studies," American Journal of Education (December, 1859), v. 7, #9.
- Hindshaw, B. "The Museum in Relation to the School," Museums Journal (May, 1919), v. 18, #1.
- Hodge, M.B. "Museums in North America," Museums Journal (May, 1938), v. 38, #2.
- Hodgins, J. George. "History and System of Popular Education in Upper Canada," American Journal of Education (January, 1856), v. 1, #2.
- Hodgson, Judith. "Teaching Teachers: Museums Team Up With Schools and Universities," Museum News (June, 1986), v. 64, #5.
- The Home Journal (June 1, 1861-August 17, 1861), v. 1, #1-12.
- Home, Ruth M. "The Museum and the Schools," The School (February, 1936), v. 24, #6.

- Home, Ruth M. "Museum Photographs and Your School," The School (November, 1935), v. 24, #3.
- Home, Ruth M. "The Object of the Museum," Ontario History (September, 1961), v. 53, #3.
- Hood, Marilyn G. "Getting Started in Audience Research," Museum News (February, 1986), v. 64.
- Hood, Marilyn G. "Staying Away, Why People Choose Not to Visit Museums," Museum News (April, 1983), v. 61.
- Hooper-Greenhill, Eilean. "A Museum Educator's Perspective," in Alan Chadwick and Annette Stannett (eds.), Museums and the Education of Adults (Leicester: NIACE, 1995).
- Hooper-Greenhill, Eilean. "Some Basic Principles and Issues Relating to Museum Education," Museums Journal (September-December, 1983), v. 83, #2 & 3.
- Hopkins, Anderson H. "The Link Between Library and Museum," Public Libraries (1903), v. 8.
- Hornsby, Stephen and Graeme Wynn, "Walking Through the Past," Acadiensis (Spring, 1987).
- Horwood, A.R. "The School and the Museum," Report of the British Association for the Advancement of Science (1914).
- Hotson, J.W. "Nature Study and Rural Education," Ottawa Naturalist (March, 1904), v. 17, #12.
- Houston, Susan E. "Politics, Schools, and Social Change in Upper Canada," in Michael B. Katz and Paul Mattingly (eds.), Education and Social Change (New York: New York University Press, 1975).
- Hovey, Edmund O. "Notes on Some European Museums," The American Naturalist (September, 1891), v. 32, pt. 381.
- "How To Skin and Stuff Birds," The Scientific American (August 5, 1865), v. 13, #6, n.s.
- Howard Rossiter. "Principles of Museum Education," Museum Work (November-December, 1923).
- Howarth, Elijah. "Museums," Nature (January 25, 1877), v. 15.
- Howe, Winifred E. "The Museum Story-Its Preparation and Its Place in Educational Work," Museum Work (November, 1919), v. 2, #2.
- Howland, O.A. "The Canadian Historical Exhibition, 1897," The Canadian Magazine (1896), v. 7.
- Howorth, Henry H. "Casual Thoughts on Museums," Natural Science pt. 1 (August, 1895), v. 7, #42, pt. 2 (November, 1895), v. 7, #45, pt. 3 (February, 1896), v. 8, # 48 & pt. 4. (June, 1896), v. 8, #52.
- Hoyle, W.E. "Children's Museums," Museums Journal (June, 1908), v. 7, #12.

- Hoyle, W.E. "Local Museums," Report of the Meeting of the British Association for the Advancement of Science (1915), v. 85.
- Hoyle, William E. "Museums-Interesting and Otherwise," Museums Journal (July, 1917), v. 12, #1.
- Hoyle, William E. "The Use of Museums in Teaching," Museums Journal (February, 1903), v. 2.
- Hughes, Paul and Marie. "Museums of Ontario," Waterloo Historical Society Journal (1956), v. 44.
- Hults, George D. "Hints on Insects," Harper's Young People (June 5, 1898), v. 9.
- Hunt, Robert. "The Applications of Science to the Fine and Useful Arts," The Art-Union (January, 1848), v. 10.
- Hurley, Daniel. "Getting History on the Evening News," History News (September-October, 1987), v. 42, #5.
- "The Huron Institute," Historical Bulletin of the Collingwood Museum (May, 1996).
- "The Huron Institute," Mer Douce (June, 1921).
- Hutchison, Jonathan. "Educational Museums as Schools-A Proposal," Museums Journal (April, 1905), v. 4, #10.
- Hyde, Keith. "Ancient Egypt and the ROM Connection," Leisureways (October, 1994).
- Iley, Sarah J.E. "Befriending Museums," Recreation Canada (1993), v. 51, #3.
- Iliffe, J.H. "The Museum Situation in Canada, With Especial Reference to the Royal Ontario Museum," Museums Journal (October, 1931), v. 31, #7.
- "International Exhibitions and Technical Instruction," American Journal of Education (January, 1870), v. 21.
- "International Exhibitions and Technical Instruction," American Journal of Education (January, 1871), v. 22, #66.
- Jackson, Donald Dale. "One Man's Soaring, Stately Pleasure Dome For The People," The Smithsonian (February, 1993), v. 23, #11.
- Jarrell, Richard. "Science Education at the University of New Brunswick," Acadiensis (Spring, 1973), v. 2.
- Jenkins, J. Geraint. "Interpreting the Heritage of Wales," Folklife (1987), v. 25.
- Jenson, Nina (ed.). "Children, Teenagers and Adults in Museums," Museum News (May/June, 1982).

- "John Ruskin and Museums," Museums Journal (January, 1927), v. 26, #7.
- Johnson, Dana. "For the Privileged Few: The Private and Specialist Schools of Ontario, 1800-1930," Parks Canada Research Bulletin (February, 1984), #215.
- Johnson, Dana. "Going to School in Ontario: The Urban Primary School 1850-1930," Parks Canada Research Bulletin (February, 1984), #213.
- Johnson, Dana. "Going to School in Rural Ontario," Parks Canada Research Bulletin (December, 1983), #212.
- Johnson, Dana. "Pursuing Higher Education: Going to Secondary School in Ontario 1800-1930," Parks Canada Research Bulletin (February, 1984), #214.
- Johnson, F. Henry. "A Colonial Canadian in Search of a Museum," Queen's Quarterly (1970), v. 77, #2.
- Johnson, F. Henry. "The Fate of Canada's First Art Museum," Queen's Quarterly (Summer, 1971), v. 78.
- Johnson, James. "A Dominion Exhibition," The Canadian Magazine (1903), v. 21.
- Johnson, Richard. "Educational Policy and Social Control in Early Victorian England," Past and Present (1970), v. 49.
- Jones, Joyce. "Museum and Art Gallery Buildings in England 1845-1914," Museums Journal (December, 1965), v. 65, #3 & (March, 1966), v. 65, #4.
- Jones, Lewis H. "Dr. E.A. Sheldon," Educational Review (December, 1897), v. 14.
- "Josiah Holbrook," American Journal of Education (March, 1860), v. 8, #20.
- Judge, Mark H. "Sunday Opening of Museums," Transactions of the National Association for the Promotion of Social Science (1883).
- Kaman, Lucy Jayne. "Out of Harmony-Indiana Histories," History Today (August, 1997), v. 47, #8.
- Kanes, Lelage G. and Deborah I. Prosser. "The Changing Role of Museums in the Community," The Museologist (Winter, 1987), v. 50, #175.
- Kapches, Mima. "Antiquarians to Archaeologists in Nineteenth-Century Toronto," Northeast Anthropology (Spring, 1994), #47.
- Kavanagh, Gaynor. "The First World War and Its Implications for Education in British Museums," History of Education (1988), v. 17, #2.
- Kemp, Helen G. "Children at the Art Gallery of Toronto," The School (September, 1937), v. 26, #1.

- Kent, Henry W. "Cooperation Between Libraries, Schools and Museums," The Library Journal (November, 1911), v. 36.
- Key, Archie F. "Canada's Museum Explosion, The First One Hundred Years," Museums Journal (June, 1967), v. 67, #1.
- Kidd, Gwendolen M. "Historical Museums in Canada," The Canadian Historical Review (1940), v. 21.
- Killan, Gerald. "The Canadian Institute and the Origins of the Ontario Archaeological Tradition 1851-1884," Ontario Archaeology (1980), #34.
- Kimberly, Adele. "The History of Education in Museums," Ontario Museum Association Newsletter (Summer, 1977), v. 6, #3.
- Kingston, E.F. "Material in the Royal Ontario Museum of Archaeology for the Teaching of Egyptian History," The School (September, 1938), v. 27, #1.
- Kivert, Corey. "Local Museums Preserve History," Canadian Antiques Collector (November/December, 1971), v. 6, #8.
- "A Knowledge of Natural History Practically Useful," The Leisure Hour (November 4, 1858), #358.
- Kohlstedt, Sally G. "Australian Museums of Natural History: Public Priorities and Scientific Initiatives in the 19th Century," Historical Records of Australian Science (1983), v. 5, #4.
- Kohlstedt, Sally Gregory. "Curiosities and Cabinets: Natural History Museums and Education on the Antebellum Campus," Isis (Fall, 1988), v. 79.
- Kohlstedt, Sally Gregory. "Henry Augustus Ward and American Museum Development," University of Rochester Library Bulletin (1985), v. 38.
- Kohlstedt, Sally Gregory. "History in a Natural History Museum: George Brown Goode and the Smithsonian Institution," The Public Historian (Spring, 1988), v. 10, #2.
- Kohlstedt, Sally Gregory. "Museums on Campus: A Tradition of Inquiry and Teaching," in Ronald Rainger et al (eds.), The American Development of Biology (Philadelphia: University of Philadelphia Press, 1988).
- Krause, Flora H. "Live Lessons in Civics," Teachers Magazine (September, 1907).
- Krefft, Gerard. "Australian Vertebrata-Fossil and Recent," Australian Museum Zoological Writings (February 17, 1871).
- Krefft, Gerard. "On Australian Entozoa, With Description of New Species," Transactions of the Entomological Society of New South Wales (July 3, 1871).
- Krefft, Gerard. "The Improvements Effected in Modern Museums in Europe and Australia," Transactions of the Royal Society of New South Wales for the Year 1867 (1868), v. 1.

- Kreff, Gerrard. "The Improvements Effected in Modern Museums in Europe and Australia," Journal and Proceedings of the Royal Society of New South Wales (1869), v. 3.
- Kunz, George F. "Industrial Museums and Efficiency," Science (March 30, 1917), v. 45, #1161, n.s.
- Kurylo, Lynne. "Living With the Standards: An Opinion," Journal of Museum Education (Winter, 1985), v. 10, #1.
- Kurylo, Lynne. "The Ministry of Citizenship and Culture's Standards: Better Museums for Ontario or Rearranging the Deck Chairs on the Titanic?," Ontario Museum Quarterly (Fall, 1984), v. 13, #3.
- Kusamitsu, Toshio. "Mechanics' Institutes and Working Class Culture: Exhibition Movements, 1830-1840s," in Ian Inskter (ed.), The Steam Intellect Societies (Nottingham: University of Nottingham, 1985).
- Lapp, Diane and James Flood. "Integrating the Curriculum: First Steps," The Reading Teacher (February, 1994), v. 47, #5.
- "The Launching of a Decade-World Decade for Cultural Development," Canadian Commission for UNESCO Bulletin (June, 1987), #7.
- Leechman, Douglas. "Harlan Ingersoll Smith 1872-1940," The Canadian Field-Naturalist (October, 1942), v. 56, #7.
- Lefroy, J.A. "Museums and Educational Institutions," Museums Journal (September, 1967), v. 67, #2.
- Lemieux, Louis. "The Function of Museums," Canadian Museums Association Gazette (Winter-Spring, 1981), v. 14, #1-2.
- Le Moine, J.M. "Thomas McIlwraith, The Canadian Ornithologist," The Canadian Magazine (1894), v. 3.
- Levi, Leoni. "The Educational and Economic Value of Museums and Exhibitions," Journal of the Society of Arts (October 16, 1874).
- Lewis, Brian N. "The Museum as an Educational Facility," Museums Journal (December, 1980), v. 80, #3.
- Lewis, Geoffrey D. "Museums," The New Encyclopaedia Britannica (1987), v. 24.
- Lewis, Richard. "Mechanics' Institutes, and the Best Means of Improving Them-II," The Canadian Monthly and National Review (1876), v. 10.
- Life Exhibition Number (September, 1888).
- The Literary Garland (December, 1838-November, 1842), v. 1-4, & (January, 1843-December, 1851), v.1-9, n.s.

- "Local Museums and Education," Nature (February 10, 1945), v. 155.
- Locke, George H. "Co-operation Between Libraries and Museums," Museums Journal (February, 1930), v. 29, #8.
- "London Museums of the Seventeenth Century," Chambers' Edinburgh Journal (Saturday, May 3, 1851), v. 15, #383, n.s.
- London, James and W.H. Fraser. "History of the University of Toronto," in J. Castell Hopkins (ed.), Canada an Encyclopaedia of the Country (Toronto: Linscott Publishing, 1898), v. 4.
- Love, James H. "Cultural Survival and Social Control: The Development of a Curriculum for Upper Canada's Common Schools in 1846," Social History (November, 1982), v. 15, #30.
- Low, Theodore L. "A Course for Training School Teachers in the Use of Museums," College Art Journal (Winter, 1948-49).
- Lowe, E.E. "The Transfer of Museums to the Educational Authorities," Museums Journal (January, 1920), v. 19, #7.
- Lowrey, Carol. "The Toronto Society of Arts, 1847-48: Patriotism and the Pursuit of Culture in Canada West," RACAR (1985), v. 12.
- Lucas, Frederic A. "Some Features of Museum Progress During the Past Fifty Years," Natural History (January-February, 1922), v. 22, pt.1.
- Lyons, Henry G. "Scientific Societies and Museums," Report of the Meeting of the British Association for the Advancement of Science (1934), v. 104.
- MacDonald, Sally. "For Swine of Discretion: Design for Living: 1884," Museums Journal (December, 1986), v. 86, #3.
- MacFarlane, John M. "Our Own Interpretation Heritage," Interpscan (Summer, 1994), v. 22, #1.
- MacLagan, Eric. "The Future of Museums," Museums Journal (August, 1935), v. 35, #5.
- MacLean, Terry. "Historical Research at Louisbourg: A Case Study in Museum Research and Development," in Kenneth Donovan (ed.), Cape Breton at 200 (Sydney; N.S.: University College of Cape Breton Press, 1985)
- MacLeod, Birgitta and Marc Keirstead. "Museums and Schools: Partners in Education," Museum Quarterly (August, 1990), v. 18, #3.
- Macoun, John. "President's Address," Ottawa Naturalist (1887/88), v. 1.
- MacTavish, Newton. "Sir Edmund Walker's Collection of Art," The Canadian Magazine (1918-19) v. 52.
- Mainstone, Madeleine. "The Place of the Museum in Education," Athene (Spring, 1967), v. 12, #4.

- Maginnis, James P. "The Educational Value of Models," Museums Journal (January, 1916), v. 15, #7.
- Malcolm, L.W.G. "The Word Museum and Its Precursors," Museums Journal (July, 1935), v. 35, #4.
- Mann, Paul B. "The Museum as an Educational Interpreter," Natural History (July-August, 1927), v. 27.
- Manny, Frank A. "A Positive Function for School Museums," Elementary School Teachers (November, 1907).
- The Maple Leaf (July, 1852-May, 1853), v. 1 & 2.
- Marcouse, Renee. "The Role of Education in Museums," Museums Journal (December, 1968), v. 68, #3.
- Marenholtz-Bulow, Baroness. "Froebel's Educational Views," American Journal of Education (July, 1880), v. 30.
- Markham, S.F. "Impressions of American Museums," Museums Journal (October, 1931), v. 31, #7.
- Mather, Frank J. "A Question of Museum Policy," The Burlington Magazine (October, 1906), v. 9.
- Mather, Frank J. "An Art Museum for the People," The Atlantic Monthly (July-December, 1907), v. 100.
- Matherson, Colin. "Dickens-Outside the Museum," Museums Journal (October, 1948), v. 48, #7.
- Matthai, Robert A. and Neil E. Deaver, "Child Centred Learning," Museums News (March/April, 1976).
- McCain, Diana Ross. "The Myth of the One-Room Schoolhouse," Early American Life (October, 1991).
- McCombs, Charles F. Report on Canadian Libraries (New York: Rockefeller Foundation, 1944).
- McCrimmon, H.R. "Once We Had A Salmon Hatchery," Ontario Department of Lands and Forests Sylva (August, 1955).
- McDonald, Terry. "Come to Canada While You Have a Chance: A Cautionary Tale of English Emigrant Letters in Upper Canada," Ontario History (Autumn, 1999), v. 91, #2.
- McEvoy, Bernard. "Technical Education in Canada," The Canadian Magazine (1899-1900), v. 14.
- McKay, Sharon. "Art, History and Kids," Buyer's Guide (March/April, 1994).

- McQueen, Jennifer R. "Bringing Canadian Museums to People," Museums Journal (1978), v. 77, #4.
- McRaine, D. Lynn. "Interpreting History Through Interactive Experiences," Smithsonian Institution Centre for Museum Studies Bulletin (April, 1996), v. 4, #1.
- Mercer, G. Adam. "Toronto and Vicinity," in G.M. Grant (ed.), Picturesque Canada (Toronto: James Clarke, 1882).
- Meredith, E.A. "The Queen Victoria Niagara Falls Park," The Canadian Magazine (1897), v. 9.
- Merrill, Frederick J.H. "Natural History Museums of the United States and Canada," Bulletin of the New York State Museum (1903), #62.
- "Metropolitan Toronto and Region Conservation Authority," Our Valley (Summer, 1960), v. 6, #2.
- Mickle, Sara. "Colborne Lodge," Transactions of the Women's Canadian Historical Society (1927-28), v. #26.
- Mickle, Sara. "The Owner of Colborne Lodge," Transactions of the Women's Canadian Historical Society (1927-28), #26.
- Miers, Henry A. "The Educational Aspects of Museums and Art Galleries," The Journal of Adult Education (April, 1930), v. 4.
- Miers, Henry A. "Museums and Education," Journal of the Royal Society of Arts (February 22, 1929), v. 77, pt. 3979.
- Miers, Henry A. "Museums of Canada: A Talk to Canadians," Museums Journal (November, 1931), v. 31, #8.
- Miers, H.A. "President's Address, 1931," Museums Journal (August, 1931), v. 31, #5.
- Miles, Roger. "Exhibiting Learning," Museums Journal (May, 1993), v. 93, #5.
- Miles, Ron. "Two Decades of Evolving Practice: The School Visits Program," Ontario Museum Annual (1992), v. 1.
- "Milestone in Conservation," The Men of the Trees (April, 1950).
- Mills, James. "Notes on Agricultural Education in the Dominion of Canada," in Handbook of Canada (Toronto: British Association for the Advancement of Science, 1897).
- Mills, James. "Agricultural Education in Ontario," in J. Castell Hopkins (ed.), Canada an Encyclopaedia of the Country (Toronto: Linscott Publishing, 1899), v. 5.
- Miner, Roy W. "Educational Training of Museums Instructors," Museum Work (January, 1919), v. 1, #4.

- Minto, John. "The Relation of Provincial Museums to National Institutions," Museums Journal (January, 1906), v. 5, #7.
- Moffatt, Hazel. "Museums and Schools," Museums Bulletin (August, 1988).
- Moir, John. "Methodism and Higher Education, 1843-1849 a Qualification," Ontario History (July, 1952), v. 44, #3.
- Monhardt, Rebecca M. and Leigh Monhardt. "Kids as Curators," Science and Children (September, 1997).
- Monson, Robert J. and Michele Pahl Monson. "Literacy as inquiry: An interview with Jerome C. Harste," The Reading Teacher (April, 1994), v. 47, #7.
- Mooney-Melvin, Patricia. "Harnessing the Romance of the Past: Preservation, Tourism, and History," The Public Historian (Spring, 1991), v. 13, #2.
- Morris, William. "The Exhibition of the Royal Academy," Today (July, 1884), v. 2, #7, n.s.
- Morse, Edward S. "The Museum of Art; A Necessity of Municipal Life," Bulletin of the Detroit Museum of Art (August, 1905), #7.
- Muldrew, W.H. and S.B. McCready. "Hints on Making Nature Collections in Public and High Schools," Journal of Education (April, 1907), v. 5, #5, 3rd series.
- Mortenson, Peter A. "Contribution of Museums to Public School Education," Museum Work (May, 1920), v. 2, #8.
- Morton, W.L. "Historical Societies and Museums," in Royal Commission Studies (Ottawa: Edmond Cloutier, 1951).
- Mullen, Ben H. "Household Vessels of Many Lands and Many Periods," A Lantern Lecture (January 28, 1920), sixth session.
- Mullen, Ben H. "Museums and Ratepayers," Museums Association Report of Proceedings (1895), v. 5.
- Mullin, John R. "Henry Ford and Field and Factory," Journal of the American Planning Association (Autumn, 1982), v. 48, #2.
- Mumford, Lewis. "The Marriage of Museums," The Scientific Monthly (September, 1918), v. 7, #3.
- Murray, Elsie M. "Local History For Your School," The School (January, 1945), v. 33, #5.
- "Museum," in Encyclopaedia Perthensis (Edinburgh: John Brown, 1816), 2nd ed., v. 15.
- "Museum Guides and Education," Museums Journal (October, 1912), v. 12.
- "The Museum and the School," Nature (July 15, 1939), v. 144, #3637.

- "Museum of Art," Putnam's Magazine (February, 1870), v. 5, #26, n.s.
- "Museum of Comparative Zoology," American Journal of Education (December, 1860), v. 9, #23.
- "Museums," Best's Underwriting Guide (1991), #4, rev.
- "Museums," The Burlington Magazine (September 15, 19087), v. 13, #66.
- "Museums and Adult Education," The Australian Museum Magazine (June-August, 1944), v. 8, #8.
- "Museums and Adult Education," The Report of A Working Party Appointed by the National Institute of Adult Education (London: Unwin Brothers, 1956).
- "Museums and Education," AGMANZ Journal (1989), v. 20, #3.
- "Museums and Education," Ontario Museum Association Newsletter (January, 1976), v. 5, #1.
- "Museums and the Nation," Museums Journal (March, 1924), v. 23, #9.
- "Museums and the Public," Museums Journal (March, 1903), v. 2.
- "Museums and the Schools," Museums Journal (February, 1932), v. 31, #11.
- "The Museums Association and Its Journal," Museums Journal (July, 1901-June, 1902), v. 1.
- Museums Association Report of Proceedings (1890-1900), v. 1-11.
- "Museums in Ontario," Ontario History (Summer, 1954), v. 46, #3.
- "Museums in the Commonwealth," Museums Journal (September, 1957), v. 57, #6.
- "Museums in the Commonwealth and Overseas," Museums Journal (September, 1958), v. 58, #6.
- "Museums in Relation to Education," Report of the Meeting of the British Association for the Advancement of Science (1920), v. 88.
- "Museums of Canada," Nature (January 21, 1933), v. 131, #3299.
- "The National Gallery," The Burlington Magazine (October, 1910), v. 18, #41.
- Nevinson, J.L. "Museums and the Eighteenth Century-Antiquarians," Museums Journal (May, 1959), v. 59, #2.
- "New Educational Museum," American Journal of Education (March, 1857), v. 3, #8.
- Newsom, Barbara Y. "The Museum As Educator and the Education of Teachers," Teachers College Record (February, 1978), v. 79, #3.
- Newton, Alfred. "Notes on Some Old Museums," Report of Proceedings of the Museums Association (1891).

- Nicks, Trudy. "Dr. Oronhytekh's History Lessons: Reading Museum Collections as Texts," in Jennifer S.H. Brown and Elizabeth Vibert (eds.), Reading Beyond Words: Contexts for Native History (Peterborough: Broadview Press, 1996).
- Noble, W.C. "One Hundred and Twenty-Five Years of Archaeology in the Canadian Provinces," Canadian Archaeological Association Bulletin (1972), v. 4.
- "Normal and Model Schools of Upper Canada at Toronto," American Journal of Education (September, 1864), v. 14, #36.
- North, F.J. "On Learning How to Run a Museum," Museums Journal (April, 1951), v. 51, #1, (May, 1951), v. 51, #2, (June, 1951), v. 51, #3, & (January, 1952), v. 51, #10.
- North, F.J. "Gleanings from an American Tour: Labelling and Display in Canada and the United States," Museums Journal (June, 1935), v. 35, #3.
- "Notes," Nature (December 7, 1876), v. 15.
- Oakeley, Hilda D. "Progress of Higher Education for Women," The Canadian Magazine (1904), v. 23.
- O'Brien, Lucius R. "Art Education-A Plea for the Artizan," Rose-Belford's Canadian Monthly and National Review (May, 1879) v. 2.
- "Of the Excellency and Usefulness of Coffee-Houses and News Letters," A Collection of Miscellany Letters Selected Out of Mists Weekly Journal (London, 1723), v. 2.
- "On Bequests to Public Galleries," The Burlington Magazine (February 11, 1911), v. 18, #45.
- O'Neil, John. "Schools Tap into Power of Museums," Update (February 1994), v. 36, #2.
- Onn, David. "Egerton Ryerson's Philosophy of Education: Something Borrowed or Something New?," Ontario History (June, 1969), v. 61, #2.
- The Ontario Farmer (1869-1871), v. 1-3.
- "Organization and Development of Museums," Nature (Saturday, March 18, 1939), v. 143, #3620.
- Osbaldeston, Mark V. "The Origins of Heritage Preservation Law in Ontario," Law Society of Upper Canada Gazette (1995), v. 24.
- Osborne, Harold. "Museums and Their Functions," Journal of Aesthetic Education (1985), v. 19, #2.
- Osborne, Ken. "Citizenship, Heritage and the Community: The Place of History in Canadian Schools-Part 1," Heritage Canada (January/February, 1996), v. 3, #3.
- Osborne, Ken. "Citizenship, Heritage and Community: The Place of History in Canadian Schools-Part 2," Canadian Historical Association Bulletin (Summer, 1996), v. 22, #2.

- Osborne, Ken. "Teaching Heritage in the Classroom," in Thomas H.B. Symons (ed.), The Place of History: Commemorating Canada's Past (Ottawa: Royal Society of Canada, 1997).
- "Oswego Normal and Training School," American Journal of Education (June, 1866), v. 16, #43.
- Ott, Robert W. "Museums and Schools as Universal Partners in Art Education," Art Education (January, 1980).
- Ottawa Field-Naturalists' Club Transactions (1879-86), v. 1-2, #1-7.
- The Ottawa Naturalist (1887-1919), v. 1-32.
- Ovenell-Carter, Julie. "Past Glories," Canadian Living (July, 1996).
- Page, Edward C. "How the Working Museum of History Works," The History Teachers' Magazine (December, 1915), v. 6, #10.
- Panton, J.H. "Museum Evolution," O.A.C. Review (May, 1890), v. 1, #7.
- Panton, J.H. "Natural History Department of the O.A.C.," O.A.C. Review (December, 1893), v. 5, #3.
- "Parents and Children," The Family Economist (1848), v. 1.
- Parker, Helen Cameron. "Technical Schools For Women," Canadian Magazine of Politics, Science & Literature (October, 1893), v. 8.
- Parks, W.A. "The Need of a Provincial Museum in Ontario," Journal of the Canadian Mining Institute (1905), v. 8.
- Parr, A.E. "Habitat Group and Period Room," Curator (1963), v. 6, #4.
- "Particulars of an Agreement Between the King of Spain and the Royal Society for an Exchange of Natural Curiosities," Gentleman's Magazine (April, 1781), v. 51.
- Patterson, Norman. "The Exhibition Habit," The Canadian Magazine (1906), v. 27.
- Paviere, Sydney H. "Art Education in Relation to the Museum and Art Galleries," Museums Journal (November, 1926), v. 26, #5.
- Pecquet, Claude and Patrick O'Byrne. "Programming - a tool at the service of the curator, the commissioning authority and the architect," Museum (1979), v. 31, #2.
- Peek, Cuthbert. "Methods of Registration and Cataloguing," Report of the Meeting of the British Association for the Advancement of Science (1894), v. 64.
- Perrot, Paul N. "Children, Museums and Changing Societies: The Growing Interdependence of Cultures," Children Today (January-February, 1980).
- Peter Parley's Annual (1840-1863).

- Petrie, Flinders. "On a Federal Staff for Local Museums," Report of the Meeting of the British Association for the Advancement of Science (1896), v. 66.
- Phillips, Charles. "Greenfield's Changing Past," History News (November, 1982), v. 37, #11.
- Phillips, J. "Notice of the Ordnance Geological Museum," Report of the Meeting of the British Association for the Advancement of Science (1843), v. 13.
- Picton, J.A. "Notes on the Free Library and Museum of the Borough of Liverpool," Transactions of the National Association for the Promotion of Social Science (1858).
- Pioneer and Historical Association of the Province of Ontario - Report of Special Meeting Held in Toronto on March 30th, 1898 (Toronto: Warwick Brothers & Rutter, 1898).
- Pioneers' Cabin, Industrial Exhibition Park, Toronto, 1896 (Toronto: n.p., 1896).
- Pitman-Gelles, Bonnie. "Museums and Schools: A Meaningful Partnership," in Mario D. Fantini and Robert L. Sinclair (eds.), Education in School and Nonschool Settings (Chicago: National Society for the Study of Education, 1985).
- Pitt-Rivers, A.H.L. "Presidential Address to Section H-Anthropology," Report of the British Association for the Advancement of Science (1889).
- Pitt-Rivers, Augustus. "Typological Museums," Journal of the Royal Society of the Arts (December 18, 1891), v. 40.
- Plantnauer, H.M. "What Is A Museum?," Museums Journal (July, 1911), v. 11, #1.
- Pleasant Pages (1850-1855) v. 1-6.
- Postman, Neil. "Museum As Dialogue," Museum News (September/October, 1990).
- Prakash, Madhu S. and Sanford S. Shaman. "Museum Programs: Public Escapism or Education for Public Responsibility?," Art Education (July, 1988), v. 41, #4.
- "Preface and Introduction," The Art-Union (February 15, 1839), v. 1, #1.
- "Prescott's Cabinet for the Ohio Wesleyan University," The Ladies' Repository (March, 1859), v. 19.
- Price, Sabra and George Hein. "More than a field trip: science programmes for elementary school groups at museums," International Journal of Science Education (1991), v. 13, #5.
- Prichard, M.S. "The Museum and the Public School," The Burlington Magazine (March, 1907), v. 10.
- "Primary Instruction by Object Lessons," American Journal of Education (December, 1862), v.22, #29.
- "Private Collectors," English Heritage Magazine (1989), v. 3, #5.

- "Prizes Offered by the Society for Encouraging Arts," Gentleman's Magazine (July, 1755), v. 25.
- Proceedings and Transactions of the Royal Society of Canada (1897), v. 15.
- "Progress of Science and Art," Harper's Weekly (April 23, 1859), v. 3.
- "Provincial Rural Life Museum," Annual Report of the Waterloo Historical Society (1953), v. 41.
- P.S.H. "Forest Destruction," Rose-Belford's Canadian Monthly and National Review (1879), v. 3.
- "Public Museum Needed," Putnam's Magazine (March, 1869), v. 3, #15, n.s.
- "The Public Utility of Museums," Museums Journal (August, 1913), v. 13, #2.
- Purdy, J.D. "John Strachan's Educational Policies," Ontario History (March, 1972), v. 54, #1.
- "The Purpose and Policy of National Museums," The Burlington Magazine (October, 1906), v. 9.
- Pybus, Henry. "The Museum of Vancouver, British Columbia," Museums Journal (July, 1925), v. 25, #1.
- Pyenson, Lewis. "The Incomplete Transition of a European Image: Physics at Greater Buenos Aires and Montreal, 1890-1920," Proceedings of the American Philosophical Society (April, 1978), v. 122, #2.
- Quealey, Natalie. "Museums and the Common Curriculum," Ontario Museum Annual (1994), v. 3.
- Radcliffe, Isabel. "Colborne Lodge," Transactions of the Women's Canadian Historical Society (1928-30), #27.
- Radford, J.A. "Art At The World's Fair," The Canadian Magazine (1893-94), v. 2.
- Rath Jr., Frederick L. "The Challenge and a Plan; and Interpretation," History News (January, 1964), v. 19, #3.
- Rath Jr. Frederick L. "Interpretation in our Museums," Ontario Historical Society Museums Section Report (1959).
- Rayner, Sue S. and Judith D. Speidel, "Learning Theories and History Museums," History News (July-August, 1987).
- Rea, Paul M. "A Directory of American Museums of Art, History and Science," Bulletin of the Buffalo Society of Natural Sciences (October, 1910), v. 10, #1.
- Rea, Paul M. "Educational Work of American Museums," Museums Journal (May, 1915), v. 14, #11.
- Rea, Paul M. "The Future of Museums in the Life of the People," Museum Work (November, 1920), v. 3, #2.

- Rea, Paul M. "One Hundred and Fifty Years of Museum History," Science (June 15, 1923), v. 57, #1485.
- Rea, Paul M. "Our First American Museum," Museum Work (January-February, 1923), v. 5, #5.
- Rea, Paul M. "What Are Museums For?," Journal of Adult Education (June, 1930), v. 2.
- Reeve, John. "Education in Glass Case Museums," Journal of Education in Museums (December, 1981), #2.
- Reeve, John. "Museums and Galleries," in Roy Prentice (ed.), Teaching Art and Design (London: Cassell, 1994).
- Reid, Katherine. "Encouraging Native Handicrafts," The Canadian Magazine (1908), v. 31.
- Reid, Ron. "Ontario's Conservation Authorities Coming of Age at 40," Seasons (Summer, 1986).
- "The Reopening of the Royal Ontario Museum, Toronto," Museums Journal (May, 1934), v. 34, #2.
- Report of the Meeting of the British Association for the Advancement of Science (1839-1936), v. 9-106.
- Reque, Barbara. "From Object to Idea," Museum News (January/February, 1978).
- "The Review of Standards for Community Museums in Ontario," in Past Reflections; Museum Clippings (Willowdale: Ontario Historical Society, 1994).
- Richard, Bruce. "Museum Education for the Twenty-First Century," Ontario Museum Annual (1995).
- Richardson, A.H. "Looking Back," Watersheds (December, 1966), v. 1, #4.
- Richardson, A.H. "Ontario Conservation Authority Program," Journal of Soil and Water Conservation (1960), v. 15.
- Ringereide, Mabel. "Bringing the Community to the Museum," in Vrenia Ivonoffski and Sandra Campbell eds.), Exploring Our Heritage: The Ottawa Valley Experience (Arnprior: Arnprior and District Historical Society, 1980).
- Rivard, René. "Museums and the Civilization of Knowledge, in Michel Côté and Annette Viel (eds.), Museums Where Knowledge is Shared (Ottawa: Canadian Museums Association, 1995).
- Riviere, Georges Henri. "Editorial," Museum (1979), v. 31, #3.
- Robinson, Edward S. "Psychological Studies of the Public Museum," School and Society (January 24, 1931), v. 33, #839.
- Robinson, J.C. "Our National Art Collections and Provincial Art Museums," The Nineteenth Century (January-June, 1880), v. 7, #40.

- Robinson, Hattie N. "The Manifestations of the Diety, as Revealed in the Beautiful," Proceedings of the First Annual Commencement of the Buffalo Female Academy (Buffalo: George Reese, 1852).
- Rogers, Howard J. "Educational Exhibit at St. Louis World's Fair," The Educational Monthly of Canada (June, 1904), v. 27, #6.
- Roome, Pat. "The Darwin Debate in Canada: 1860-1880," in Louis A. Knafla et al (eds.), Science, Technology, and Culture in Historical Perspective (Calgary: University of Calgary, 1976).
- Rothschild, Ferdinand. "The Expansion of Art," Fortnightly Review (January, 1885), v. 37, n.s.
- "The Royal Ontario Museum," Museums Journal (May, 1931), v. 31, #2.
- Ruskin, John. "A Museum or Picture Gallery: Its Function and Formation," The Art Journal (June, 1880).
- Ryan, Alan J. "The Ghost in the Museum is a Machine," Computerworld (August 27, 1990).
- Sanday, G.H. "Report on the Exhibition of Implements at Kilburn," The Journal of the Royal Agricultural Society of England (1879), v. 15, 2nd series.
- Scadding, Henry. "On Museums and Other Classified Collections, Temporary or Permanent as Instruments of Education in Natural Science," The Canadian Journal (May, 1871), v. 73, n.s.
- Schlereth, Thomas J. "It Wasn't That Simple," Museum News (February, 1984).
- The School (1912-1945), v. 1-33.
- "School Circulating Collections at the Ottawa Museums," Museums Journal (November, 1917), v. 17, #5.
- "School Exhibitions," The School (November, 1919), v. 8, #3.
- Scientific American (August 28, 1845-April 28, 1866), v. 1-14.
- Sclater, P.L. "On Certain Principles to be Observed in the Establishment of a National Museum of Natural History," Report of the Meeting of the British Association for the Advancement of Science (1870), v. 40.
- Seling, Helmut. "The Genesis of the Museum," Architectural Review (1967), v. 141.
- "Shall The British Museum Be Opened On Sunday?," The Sunday At Home (October, 1855), pt. 18.
- Sharp, William. "On the Formation of Local Museums," Report of the Meeting of the British Association for the Advancement of Science (1839), v. 9.

- Shaw, John. "Museums an Obsolete Medium?," Museum Professionals Group News (Winter, 1985), #21.
- Sheldon, E.A. "Object Teaching," American Journal of Education (March, 1864), v. 14, #34.
- Shepstone, H.J. "A Children's Museum," The Quiver (1901).
- Sherwood, George H. "Public Education in the Museum and in the Schools," in The American Museum School Service (New York: American Museum of Natural History, 1927).
- "The Sights of Our Great Cities-London Museums," The Boys Own Annual (1887-88), v. 10.
- Silverstone, Roger. "Museums and the Media," The International Journal of Museum Management and Curatorship (1988), v. 7.
- Small, H. Beaumont. "Museum Education," Ottawa Field-Naturalists' Club Transactions (1880), v. 1, #1.
- Smith, Arthur. "Educational Relations Between Museums and Libraries," Museums Journal (June, 1929), v. 28, #12.
- Smith, Francis Drake. "Miss Janet Carnochan," The Canadian Magazine (January, 1912).
- Smith, Harlan I. "A Cheap Case For Small Museums," The Ottawa Naturalist (May-June-July, 1915), v. 29.
- Smith, Harlan I. "Archaeological Museum Work and the War," Museums Journal (August, 1918), v. 18, #2.
- Smith, Harlan I. "Archaeology and Ethnology in the National Museum of Canada," Museums Journal (March, 1933), v. 32, #12.
- Smith, Harlan I. "The Development of Museums and Their Relation to Education," Scientific Monthly (August, 1917), v. 7, #7.
- Smith, Harlan I. "Distinctive Canadian Designs," Industrial Canada (September, 1917), v. 7.
- Smith, Harlan I. "The Educational Work of a Great Museum," Science (November 15, 1912), v. 36, #933, n.s.
- Smith, Harlan I. "The Educational Work of a Great Museum," Scientific American Supplement (February 8, 1913), v. 75.
- Smith, Harlan I. "The Fire and the Museum at Ottawa," Ottawa Naturalist (March, 1916), v. 29, #12.
- Smith, Harlan I. "The Fire and the Museum at Ottawa," Science (March 24, 1916), v. 43, #1108, n.s.
- Smith, Harlan I. "Interrogatory Labels for Certain Kinds of Museums," Science (January 11, 1907), v. 25, #628, n.s.

- Smith, Harlan I. "The Labelling of Fair Exhibits as an Aid to Agricultural Production," Science (June 21, 1918), v. 47, #1225, n.s.
- Smith, Harlan I. "Making Museums Useful," Scientific American Supplement (May 29, 1915), v. 79, #2056.
- Smith, Harlan I. "Methods of Collecting Anthropological Material," Museums Journal (October, 1902), v. 2.
- Smith, Harlan I. "A Museum Becomes the Seat of Government," Scientific American Supplement (April 8, 1916), v. 81.
- Smith, Harlan I. "Museums of Sounds," Science (August 21, 1914), v. 40, #1025, n.s.
- Smith, Harlan I. "The Natural History Museums of British Columbia," Science (November 4, 1898), v. 8, #201, n.s.
- Smith, Harlan I. "Popular Museum Exhibits," Museum Association Report of Proceedings (1897), v. 8.
- Smith, Harlan I. "The Preservation of Local Archaeological Evidences," Museums Association Report of Proceedings (1899), v. 10.
- Smith, Harlan I. "Primitive Industries as a Normal College Course," in Putnam Anniversary Volume Anthropological Essays (New York: G.E. Stechert & Co, 1909).
- Smith, Harlan I. "The Provincial Museum and the Halifax Disaster," Ottawa Naturalist (November, 1917), v. 31, #8.
- Smith, Harlan I. "Weather-Proof Labels for Out-Door Use," Museums Journal (August, 1931) v. 31, #5.
- Smith, Harlan I. "The Widespread Influence of the Children's Museum," Ottawa Naturalist (August-September, 1917), v. 31, #5 & 6.
- Smith, Harlan I. "The Work of Museums in War Time," The Scientific Monthly (April, 1918), v. 6, pt. 4 & (May, 1918), v. 6, pt. 5.
- Smith, Herbert H. "The Museum as an Educator," Alabama Geological Survey Museum Paper (May, 1912), #2.
- "Some Papers on the Role of Museums in Education," Occasional Papers in Education (Paris: UNESCO, 1952), #13.
- "Special Instruction in Great Britain," American Journal of Education (January, 1871), v. 22, #66.
- "Specimen Notes of Lessons for Collective or Gallery Teaching," American Journal of Education (June, 1861), v. 10, #25.
- Spencer, Gillian. "Museums in Education," Trends in Education (October, 1971), #24.

- Sprigg, Alfred "The Ruskin Museum and Its Treasures," Windsor Magazine (1895) v. 1.
- Stamp, Robert M. "Educational Leadership in Ontario, 1867-1967," in Profiles of a Province (Toronto: Ontario Historical Society, 1967).
- Stearns, F.H. "The Place of the Museum in Our Modern Life," The Scientific Monthly (December, 1918), v. 7, #6.
- Stewart, Elihu. "The Conservation of Natural Resources," The Canadian Magazine (1909-10), v. 34.
- Stewart, Milo V. "The Museum and the School: Avenues to Collaboration," The Museologist (March, 1969), #110.
- Stewart, W.R. "Canada at the Paris Exposition," The Canadian Magazine (1900), v. 15.
- Stow, David. "Gallery Training Lessons, Orally Conducted in Natural Science and Common Things," American Journal of Education (December, 1860), v. 9, #23.
- Stowe, Noel J. "The Promises and Challenges for Public History," The Public Historian (Winter, 1987), v. 9, #1.
- Strickland, H.E. "Ornithological Museums," Report of the Meeting of the British Association for the Advancement of Science (1844), v. 14.
- Styrmo, V.N. "Provincial Assistance to Community Museums in Ontario," Ontario Library Review (March, 1975), v. 59.
- Sudeley, Lord. "The Public Utility of Museums," The Nineteenth Century and After (July, 1921), v. 90, #1032.
- "Suggestions For The Establishment of An Australian Museum," Australian Quarterly Journal of Theology, Literature and Science (January, 1828), #1.
- Sullivan, James. "The Historical Museum as an Educational Force," Museum Work (January-February, 1923), v. 5, #5.
- Swauger, James L. "Museums and the Teaching of Teachers," Museum Studies Journal (Fall, 1985), v. 2, #1.
- Taggart, James R. "Botany in the Country Schools," The Canada Educational Monthly (December, 1888), v. 10.
- Tattersall, W.M. "Overseas Museums," Report of the Meeting of the British Association for the Advancement of Science (1919), v. 87.
- Taverner, P.A. "Geological Survey Museum Work on Point Pelee, Ont.," Ottawa Naturalist (November, 1914), v. 28, #8.
- Taylor, Francis H. "Museums in a Changing World," The Atlantic Monthly (December, 1939).

- Taylor, W. Cooke. "Museum of Economic Geology," The Art-Union (June 1, 1847), v. 9.
- Taylor, W. Cooke. "The Mutual Interests of Artists and Manufacturers," The Art-Union (March 1, 1848), v. 10.
- Teather, J. Lynne. "Museum-Making in Canada to 1972," Muse (Summer/Fall, 1992).
- Thackery, Arnold. "Natural Knowledge in Cultural Context: The Manchester Model," American Historical Review (1974), v. 79.
- Thayer, W.M. "A Great Naturalist," in The Fourth Golden Rule Book (Toronto: Macmillan, 1916).
- Theberge, Elaine. "Fothergill," The Beaver (February/March, 1988), v. 68, #1.
- Thoman, Ron. "Where Do We Go From Here," Journal of Interpretation (1988), v. 12, #1.
- Thomas, Robert B. The Old Farmer's Almanac (Boston: Hickling, Swan & Brewer, 1860), #68.
- Thomas, Wendy A. "Museums and Learning: Current Directions," in Michel Côté and Annette Viel (eds.), Museums: Where Knowledge Is Shared (Ottawa: Canadian Museums Association, 1995).
- Thompson, H.A. "Aids for the History of Babylonia in the Royal Ontario Museum," The School (September, 1915), v. 4, #1.
- Thompson, H.A. "Material for the Study of the Early History of Italy in the Royal Ontario Museum of Archaeology," The School (January, 1945), v. 33, #5.
- Tivy, Mary. "Ministering to the Community: The Province of Ontario and the Managing of the Past in Community History Museums," Ontario History (June, 1994), v. 86, #2.
- Tooley, Sarah A. "Women's Work at the Franco-British Exhibition," The Woman at Home Annual (London: Hodder & Stoughton, 1908), v. 25.
- Toothaker, Charles R. "The Educational Work of the Philadelphia Commercial Museum," Museums Journal (September, 1915), v. 15, #3.
- Tovell, Walter M. "Royal Ontario Museum-the New Geology Galleries," Museums Journal (March, 1963), v. 62, #4.
- "Training of Museum Workers," Museum Work (May, 1919), v. 1, #8.
- Transactions of the Society for the Encouragement of Arts, Manufactures and Commerce (1793), v. 1.
- Traquair, R.H. "President's Address," Proceedings of the Royal Physical Society (1893), v. 11.
- Transactions of the Woman's Canadian Historical Society of Toronto (1896-1970), #1-29.

- Traub, James. "Shake Them Bones," The New Yorker (March 13, 1995).
- "Treasures of Art in Great Britain," The Quarterly Review (1854), v. 94, #188.
- Trigger, Bruce G. "Sir Daniel Wilson: Canada's First Anthropologist," Anthropologica (1966), v. 8, #1, n.s.
- Trott, Elizabeth H. "The Business of Running a Museum," The Monetary Times (September, 1955), v. 123, #9.
- Tubbs, Mrs. "The Relation of Museums to Elementary Education," Report of the Proceedings of the Museums Association (1897).
- Turnham, Alice J. "Survey of Canadian Museums," Museum News (December, 1959), v. 38, #4.
- Tyler, Barbara "The Future for Museum Education Programs," The History and Social Science Teachers (Winter, 186), v 21, #2.
- "Typical Objects in Natural History Museums," Report of the Meeting of the British Association for the Advancement of Science (1855), v. 28.
- Tyrer, Frank. "What the Teacher Requires of the Museum," Museums Journal (August, 1947), v. 47, #5.
- "Upper Canada Educational Statistics," American Journal of Education (December, 1856), v. 2, #7.
- van Keuren, David K. "Museums and Ideology: Augustus Pitt-Rivers, Anthropological Museums, and Social Change in Later Victorian Britain," Victorian Studies (Autumn, 1984), v. 28, #1.
- Van Rensselaer, M.G. "The Art Museum and the Public," North American Review (January, 1917), v. 205, #734.
- van Wengen, Ger. "Introduction," Museum (1979), v 31, #3.
- Vaughan, Alice L. "A Suggestion on Correlating the Instruction Given in the Museum of a Community," Bulletin of the Metropolitan Museum of Art (September, 1917), v. 12.
- The Victoria Magazine (September, 1847-August, 1848), v. 1, #1-12.
- Vincent, Ian. "Who Owns Museums? Some Thoughts on Trusteeship," Ontario History (June, 1994), v. 86, #2.
- "A Visit to the East India Museum," The Leisure Hour (July 22, 1858), #343.
- The Visitor or Monthly Instructor for 1847 (London: Religious Tract Society, 1847).
- Walkom, A.B. "Museums and Adult Education," The Australian Museum Magazine (June-August, 1944), v. 8, #8.

- Walker, B.E. "Canadian Surveys and Museums and the Need of Increased Expenditure Thereon," Proceedings of the Canadian Institute (1904), v. 2, n.s.
- Wallace, Alfred R. "American Museums," Fortnightly Review (1887), v. 42, n.s.
- Wallace, Alfred R. "Museums for the People," Macmillan's Magazine (November, 1868), v. 19.
- Wallace, Greg. "Educational Programmes," Museums Association of Australia Information Sheet (October, 1982).
- Wallace, W.S. "Among Relics of the Past," The Canadian Magazine (1907), v. 29.
- Ward, James. "The Relation of Schools of Art to Museums," Museums Journal (February, 1913), v. 12, #8.
- Warner, Clarence M. "The Growth of Canadian National Feeling," Annual Report of the Ontario Historical Society 1914 (Toronto: Ontario Historical Society, 1914).
- Warner, Clarence M. "The Growth of Canadian National Feeling," The Canadian Magazine (1915), v. 45.
- Watts, Isaac. "An Imperial Museum for India and the Colonies," Transactions of the National Association for the Promotion of Social Science (1876).
- Weaver, Emily P. "What Art Has Done for Canadian History," The Canadian Magazine (1918), v. 51.
- Webb, Wilfred M. "Museums and Education," Knowledge (March, 1914), v 11, n.s.
- Webster, Thomas. "On Museums for Technical Instruction in the Industrial Arts and Manufactures of the United Kingdom," Journal of the Society of Arts (January 16, 1874), v. 22.
- Weitzman, David. "What Schools Don't Teach," Historic Preservation (September/October, 1988).
- Weltzl-Fairchild, Andrea et al. "The Effect of Different Factors on Adults' Cognitive Dissonances in a Fine Arts Museum," in Michel Allard and Bernard Lefebvre (eds.), The Museum As Service To People (Montreal: UQAM, 1919).
- Wheatley, A.B. "Ontario Provincial Park Museums," Ontario History (September, 1961), v. 53, #3.
- White, William. "The Function of Museums as Considered by Mr. Ruskin," Museums Association Report of Proceedings (1893), v. 4.
- Whitely, Gilbert P. "Gerard Krefft and His Bibliography," Proceedings of the Royal Society of New South Wales 1967-68 (1969).
- Whitely, Gilbert P. "The Life and Work of Gerard Krefft," Proceedings of the Royal Zoological Society of New South Wales 1958/59 (1961).

- Whitmore, J. "The Wax Fruits in the O.A.C. Museum," The O.A.C. Review (May, 1925), v. 37, #9.
- Widgery, W.H. "The History of Education Museums," Journal of Education (June, 1890), v. 22, n.s.
- Wigmore, Shirley. "Education Archives and Archival Materials Related to Education in Canada," Canadian History of Education Association Bulletin (1988), v. 6.
- Wigmore, Shirley. "School Museums and Historic School Buildings in Canada," Canadian History of Education Association Bulletin (1988), v. 5.
- Wilbur, H.B. "Object System of Instruction as Pursued in the Schools of Oswego," American Journal of Education (March, 1865), v. 15, #38.
- Wilson, K. "Museums and Education," The Amateur Historian (Winter, 1959-60), v. 4, #6.
- Wissler, Clark. "The Museum Exhibition Problem," Museum Work (March-April, 1925), v. 7, #6.
- Witt, Robert. "The Public and the Museums," Museums Journal (October, 1926), v. 26, #4.
- Wood, J.G. "The Dulness of Museums," The Nineteenth Century (March, 1887), v. 21, #121.
- Woodward, Bernard H. "The Aims and Objects of Museums," Museums Journal (October, 1907), v. 7, #4.
- Woodward, C.J. "A Sketch of a Museum," Transactions of the National Association for the Promotion of Social Science (1868).
- "Working Party-Museums in Education," Museums Journal (March, 1982), v. 81, #4.
- Wright, Ramsay. "On Recent Additions to the University Biological Museum," University of Toronto Monthly (October, 1900), v. 1, #2, (November, 1900), v. 1, #3, & (December, 1900), v. 1, #4.
- Zeller, Suzanne. Land of Promise, Promised Land: The Culture of Victorian Science in Canada (Ottawa: Canadian Historical Association, 1996), #56.
- Zeller, Terry. "The Historical and Philosophical Foundations of Art Museum Education in America," in Nancy Berry and Susan Mayer (eds.), Museum Education History, Theory and Practice (Reston, Va.: National Art Education Association, 1989).
- Zellers, Robert W. "Antiques as an Instructional Resource," The History and Social Science Teacher (Summer, 1979), v. 14, #4.