

Building a Map Collection: A Look at Transcripts and Printed Reproductions

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For map archivists, the building of a map collection is either a creative and satisfying experience or an exasperating and difficult chore. Frequently, despite the existence of guidelines for collection of maps¹ and the efforts of map archivists, the building of map collections in Canada has progressed at an uneven, often stodgy pace. Without a doubt, better funding is crucial to the pursuance of an active acquisition policy, but the availability of financial resources is often dependent upon the value the administration places on the map archivist's work. Where the administration sees merit and endorses the endeavours of the map archivist, usually the words of praise and support come with some financial backing. If both these conditions had been met in the past, the lot of Canadian map archivists would be brighter today.²

The sad state of map collecting by Canadian archives was revealed at a seminar in 1980 sponsored by the National Map Collection of the Public Archives of Canada.³ Four archivists, responsible for cartographic records at the provincial archives of Ontario, Saskatchewan, and Prince Edward Island and the archives of the Northwest Territories, stated that they had no active acquisition programme.

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- 1 On organizing and developing a map collection, see Roman Drazniowski, comp., *Map Librarianship: Readings* (Metuchen, N.J.: Scarecrow Press, 1975); Barbara Farrell and Aileen Desbarats, *Guide for a Small Map Collection* (Ottawa: Association of Canadian Map Libraries, 1981); Mary Larsgaard, *Map Librarianship: An Introduction* (Littleton, Co.: Libraries Unlimited, 1978); Harold Nichols, *Map Librarianship* (London: Clive Bingley, 1976).
 - 2 Conditions in New Zealand bear a close resemblance to those in Canada. With some bitterness and frustration, Brian Marshall, editor of the *Newsletter* of the New Zealand Mapkeepers' Circle, has stated that "as long as map collections remain low priority within library, archival and government systems, there will never be the manpower to complete even half that we wish to achieve. It could be that our number one task is to convince the policy makers that our map collections are a valuable but neglected resource, and that all the necessary tasks we are aware of can only be carried out when funding and manpower becomes adequate." "Whither the Map Keepers' Circle?" *Newsletter, New Zealand Mapkeepers' Circle*, 9 (December 1980): 2.
 - 3 "Cartographic Archivists' Newsletter," Public Archives of Canada, National Map Collection, 9 (November 1980): 8-10.

The chief deterrents here were not only lack of funding but also little time, no staff, low priority, and sometimes insufficient training. The majority of the other participants, representing twelve other Canadian repositories, stated that while they had an acquisition policy, they operated under such tight budgetary constraints that few purchases of original, pre-1900 maps were possible. Consequently, since 1977, they had purchased facsimiles published by the Association of Canadian Map Libraries at a minimal cost, sought photocopies of printed or manuscript maps, welcomed the occasional donation, and relied heavily on the maps received through the redistribution programme of the National Map Collection. The recent availability of 105 mm. microfiche of the holdings in the National Map Collection at a cost of fifty cents a card is an attractive option for some archival institutions.

In spite of budgetary constraints, a few pre-twentieth-century maps were acquired by five Canadian map repositories: the Centre for Newfoundland Studies, Memorial University of Newfoundland; the Public Archives of Nova Scotia; the Bibliothèque nationale du Québec; the Special Collections Division, University of British Columbia Library; and the Provincial Archives of British Columbia. Of these five, the Bibliothèque nationale du Québec and the Centre for Newfoundland Studies were the most active in purchasing originals.

In sharp contrast, the National Map Collection stands alone in Canada in the field of map acquisition. In recent years approximately \$30,000 has been allotted yearly from the National Map Collection's budget for the purchase of pre-twentieth-century cartographic works. In addition, the Collection has been fortunate to receive substantial additional funding from other sources within Public Archives of Canada and from the Government of Canada in connection with operation of the Cultural Properties Export and Import Act. By comparison, the collecting of original cartographic records throughout the rest of Canada is paltry. A generous estimate of the funds spent on purchasing pre-1900 maps by Canadian archives and libraries in 1980, excluding the NMC, would be only \$15,000. In short, no Canadian repository can afford the luxury of building a map collection with originals only.

Consequently, the National Map Collection and other Canadian cartographic collections in the country acquire photoreproductions in order to gain access to cartographic information in public or private hands. At the National Map Collection, the procurement of these photoreproductions is not carried out in any systematic fashion; usually a project provides the impetus for acquiring copies of maps. In the 1950s, for example, T.E. Layng, head of the Map Division of the Public Archives of Canada, actively solicited photocopies as the basis for his *Sixteenth-Century Maps Relating to Canada: A Check-List and Bibliography* (Ottawa: Public Archives of Canada, 1956), while in the 1960s much effort was expended to obtain photocopies of Canadian-related maps in France stored in the Bibliothèque nationale and the Archives nationales. Facsimiles of varying qualities, whether high grade, collectors' pieces, or inexpensive, popular works in the form of postcards, greeting cards, and posters have been acquired.

Facsimiles have found a home in Canadian archival repositories and are here to stay. However, Canadian map archivists most frequently choose Association of Canadian Map Libraries reproductions to supplement their collections and appear to overlook other facsimiles. If only because of escalating costs, map archivists

more and more will be forced to consider facsimile maps for their collections. The most comprehensive reference tool available is the fourth edition of *Facsimiles of Maps and Atlases: A List of Reproductions For Sale by Various Publishers and Distributors* (Washington: Library of Congress, 1980) compiled by Barbara R. Noe. Publishers of facsimiles also often publish their own catalogues and send notices of their most recent publications to their customers. To this category belong *Editio Totius Mundi* (A-1090) Wien, Gussenbauergasse 5/9, Austria); Avon Fine Prints Ltd. (P.O. Box 1388, Christchurch, New Zealand); *Historic Urban Plans* (Box 276, Ithaca, New York 14850); Nico Israel, A. Asher & Co., B.V., *Theatrum Orbis Terrarum* B.V. (Keizersgracht 526, Amsterdam, The Netherlands) and the Geo Center (7 Stuttgart 80 Honigwiesenstr. 25, Federal Republic of Germany), to name just a few. In Canada few facsimiles are published; the most notable of course is the ACML series, which may be purchased at the National Map Collection, but the Royal Canadian Geographical Society (488 Wilbrod Street, Ottawa K1N 6M9), Energy, Mines and Resources Canada (Map Distribution Office, 615 Booth Street, Ottawa K1A 0E9) and L'Editeur officiel du Québec (662 Bd St-Joseph, Hull J8Y 4B3) have reproduced small numbers of maps.

Facsimiles exist and are produced because there is a market for them. However, both the map archivist and researcher should approach these works with a degree of caution. Facsimiles come with a set of limitations. First, the type of cartographic record, such as a naval battle plan or a hydrographic survey, determines the research potential of the facsimile. Second, the method and material used to transfer the cartographic information from the original impose limits on the document's usefulness for research purposes.⁴ The reproduction can never be a totally adequate substitute for the original. Map archivists have perhaps not given enough thought to the functions reproductions can and cannot fulfill. Their attention is first directed to both the price and appearance of the reproduction (certainly the ACML facsimiles are a bargain at \$3 each). Subsequently they are concerned with making the cartographic reproduction available to the researcher. This achieved, some archivists innocently believe that their obligation to themselves and the public has been fulfilled. Nothing, however, could be further from the truth.

One cannot assess the value of cartographic facsimiles in a map collection without coming to a conclusion about the role of the archivist as educator. While map archivists generally agree that many map users know little about maps and require assistance in all aspects of their study, there is no agreement among members of the profession about the quality of reference services they should provide. There are, in effect, two views on the matter. Some archivists do not feel that they can or should assume the role of educator vis-à-vis the researcher to any great degree, principally because of time constraints. Questions should be answered when asked and the resources should be made available, but a certain distance should be maintained between the archivist and the patron. As one reference librarian stated succinctly, "a librarian may not think the user has chosen the right map, but in the end it is their decision." The reference officer should not impose his

4 David Woodward has suggested a preliminary classification framework for the elements of physical form of maps. See his "The Form of Maps: An Introductory Framework," *The 1976 Bookman's Yearbook*, pp. 11-20.

personal views on the researcher.⁵ Others contend that the central function of any map collection is to make the material accessible; that is, the archivist should ensure the availability of the material and possess both the knowledge and the reference works about it.⁶ It has been said that "the map curator's role is that of an interface or link-pin between the cartographer and the map user."⁷ Only through dialogue can the archivist and researcher learn and share.

In fact, the question about the role of the archivist in reference work is part of a larger debate about the role of the archivist in the exercise of his duties.⁸ While reproductions do extend the accessibility of maps, researchers often unknowingly attempt to extract more data from the reproduction than is there. In this situation the proponents of the archivist as either custodian or teacher would agree that the archivist should be aware of the limitations of various cartographic reproductions, from the earliest efforts to the most recent products, and thus be able to pass his knowledge on to the researcher. Whatever view one takes of the larger role of archivists, some kind of dialogue between the archivist and the researcher is clearly necessary in dealing with facsimile maps. It is all too easy to misuse or misunderstand facsimiles. The archivist will be of greater service to researchers and derive more satisfaction from his work if he possesses a knowledge of the method of production of facsimiles and their potential for misuse. This is particularly true of printed cartographic reproductions and transcriptions of maps, which will be the main focus in this article.

Originally, reproductions of cartographic works were born of the need to disperse inaccessible or not easily accessible information. Before the advent of another photographic means of copying, maps were often transcribed by hand. Other copies were then often made from a copy of the original. Seventeenth and eighteenth-century cartographic transcriptions, for example, were most often required for various current military activities such as defence, settlement, and law enforcement. They were the only record available and were accepted as correct.

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- 5 Joan Winearls, "Reference Work in a Current Map Collection," *Association of Canadian Map Libraries, Proceedings* (June 1974): 15-16. Felix Hull speaks of the "impartiality of the record" and allowing the researcher "to interpret it as he will." See his "The Archivist and Society," *Journal of the Society of Archivists*, 6 (April 1979): 130.
 - 6 Harold Nichols, *Map Librarianship* (London: Clive Bingley, 1976), p. 99; Tom Knight, "Our World, One World," *Proceedings of the Australian Map Curators' Circle Seminar and Workshop* (February 1974): 2; Edward H. Dahl, "Reference Services in an Archival Map Collection," *Association of Canadian Map Libraries, Proceedings* (June 1974): 7-10; Betty Kidd and Louis Cardinal, "The Map User in Libraries and Archives," *Association of Canadian Map Libraries Bulletin*, 23 (January 1977): 15.
 - 7 Kidd and Cardinal, "The Map User," p. 15.
 - 8 On this subject, see, for example, R.H. Ellis, "The British Archivist and History," *Journal of the Society of Archivists* 3 (October 1966): 155-16; F. Hull, "The Archivist should not be an Historian," *Journal of the Society of Archivists* 6 (April 1980): 253-59; H.A. Taylor, "The Discipline of History and the Education of the Archivist," *The American Archivist* 40 (October 1977): 395-402.

Transcriptions, however, introduced error and omission which could then be proliferated through further copying or through their use as the basis for a printed map. Far too often supporting documentation giving the transcript's complete history has been lost. A myriad of questions may remain unanswered. Why was the map transcribed? For whom was it intended? Who was the transcriber?

These considerations are well illustrated by several versions of a map titled "Québec. Ville de l'Amérique Septentrionale, dans la Nouvelle France. . ." in the National Map Collection. This plan shows Sir William Phips's attack on Québec from October 16 to 22, 1690. We start with two hand-drawn plans which originally belonged to the Board of Ordnance and formed a part of the War Office Records (identification: Z 29/1 and B:16:F73). Are both hand-drawn plans transcripts? If so, are both transcriptions of a manuscript or of a printed plan, or is only one? One of the plans (National Map Collection H3/349/Québec/[1693-94] MNC 2710) (see Figure 1) bears a hand-written, pencil notation stating "Entered in Old Index as copies From a Print in a Book of the Master Gen^{ls} 1670." The date at a later point has been changed to 1690. Figure 1 also bears the name of the drawer, C. Terrant. Figure 2 (number H3/349/Québec/[1693-94] NMC 2711) lacks both of these elements. But the most evident difference between the two maps appears to be in the spelling, which could be the result of carelessness and the use of a thick nib. The two maps are characterized by several differences and omissions. A few examples, shown on portions of these maps (Figures 3 and 4 show portions of Figures 1 and 2 respectively), will suffice:

Figure 3	Figure 4
Vilage de Beauport	Vilage de Beaufort
Pierre Parenel le Pere	Pierre Parenel le Pere
la Veuve Martin Chorel	la Veuve Martin Choret
Michal Huppa	Micael Hupape
Joseph Rancourt	Joseph Rancout
Andre Condray	Andre Conoray
Normand	

Both titles have the year 1690 written incorrectly as 1670.

Again the question arises as to the source of these plans. If the "Old Index to the Book of the Master General" were close at hand perhaps we would not need to look any further, but that is not the case. Some digging in the National Map Collection revealed a photograph of a manuscript by Robert de Vileneuve, Ingénieur du Roy, titled "Plan de Québec En la Nouvelle France, Assiegé par les Anglois. . ." (Ph/349/Québec/1690 C 15814), found in France, Archives nationales, Dépôt des Fortifications de Colonies, Amérique Septentrionale 354C. This map has been reproduced here for the purposes of comparison (see Figure 5). In 1694 a dated engraved map by Nicholas de Fer appeared with the same title as for the plans in Figures 1 and 2 (see Figure 6). This map was published several times in the ensuing years with slight alterations. For our purposes let us look at a section of this work (H3/349/Québec/1694 NMC 7103) (see Figure 7) and compare it with Figures 3, 4, and 5.



Figure 2.

Figure 2. Handwriting is not always easily deciphered. This is the case with this manuscript plan. An enlargement of the left portion of this plan is reproduced in Figure 4 to enable a comparison of spelling of surnames in Figure 3.



Figure 4.

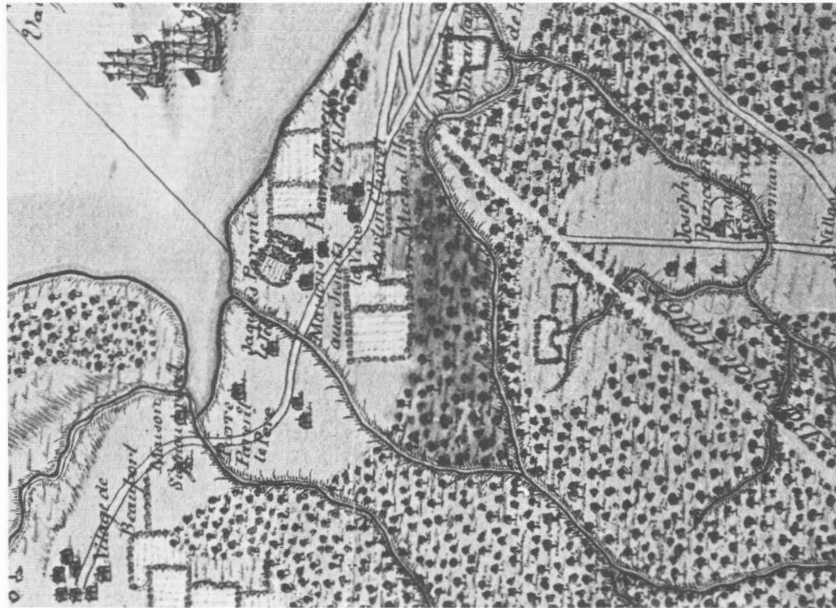


Figure 3.

Figures 3 and 4. The lines drawn by the point of a nib, placing ink directly on paper, cannot be as clear as those engraved by a burin. The lack of clarity, the difficulty of correcting errors and omissions produce the discrepancies in these two manuscript maps, "Québec Ville de l'Amérique Septentrionale la Nouvelle France---"

Figure 3
 Village de Beauport
 Pierre Parenel le Pere
 la Veuve Martin Chorel
 Michal Huppa
 Joseph Rancourt
 Andre Condray
 Normand

Figure 4
 Village de Beaufort
 Pierre Parenel le Pere
 la Veuve Martin Choret
 Micael Hupape
 Joseph Rancout
 Andre Conoray
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Figure 5
 Beauport Village
 (2) pierre parent, le Perre
 (6) la véfue de Mathieu choret
 (7) Michel huppé
 (17) Joseph rancourt
 (18) andré Coudray
 (19) Jean le normand

Figure 7
 Village de Beauport
 Pierre Parent le Pere
 la Veuve Martin Choret
 Michel Huppé
 Joseph Rancourt
 André Coudray
 Jean le Normand

How are all of these plans interrelated? At this point, the plans might be linked in the following manner. It is likely that Villeneuve and de Fer knew each other's work; Villeneuve was the royal engineer of New France and sent his maps to the Ministry of the Marine in Paris, while de Fer, highly regarded by Louis XIV, had numerous works at his disposal; de Fer adapted Villeneuve's map to a copperplate engraving which could not, because of its dimensions and format, include the detail in Villeneuve's manuscript (Figure 5). The intentional omissions in de Fer's work produce a distorted image of Québec City and surrounding area making it appear less populated and built-up than it actually was. The other two manuscripts (Figures 1 and 2), on the other hand, may be transcripts of de Fer's engraved map (Figure 6) and not of Villeneuve's piece since they follow so closely de Fer's placement of symbols, names and configurations. It is at this point that our exercise ends. If nothing more, this set of examples should have alerted the reader to question the accuracy of information in both transcripts and printed material and to realize that the sequence of map production and the relationship between copies is not always clear.

Another problem surfaces with transcripts. Frequently the copyist intentionally omitted information, re-arranged data or provided only an excerpt of the whole. In most instances no explanation accompanied the transcripts to explain the methodology employed. These are some of the peculiarities found in the work of Pierre-Louis Morin, who was authorized by the government of the Province of Canada to copy maps, among other documents, in the Archives nationales in Paris, following the destruction of the Canadian parliamentary library by fire on 1 February 1853.⁹ The manuscript, in atlas format, is presently stored in the National Map Collection. Several copies of this work were reproduced photolithographically in the 1920s.

⁹ Canada, *Journals of the Legislative Assembly of the Province of Canada*, Session 1854-44, 7 December 1854, pp. 471-74.

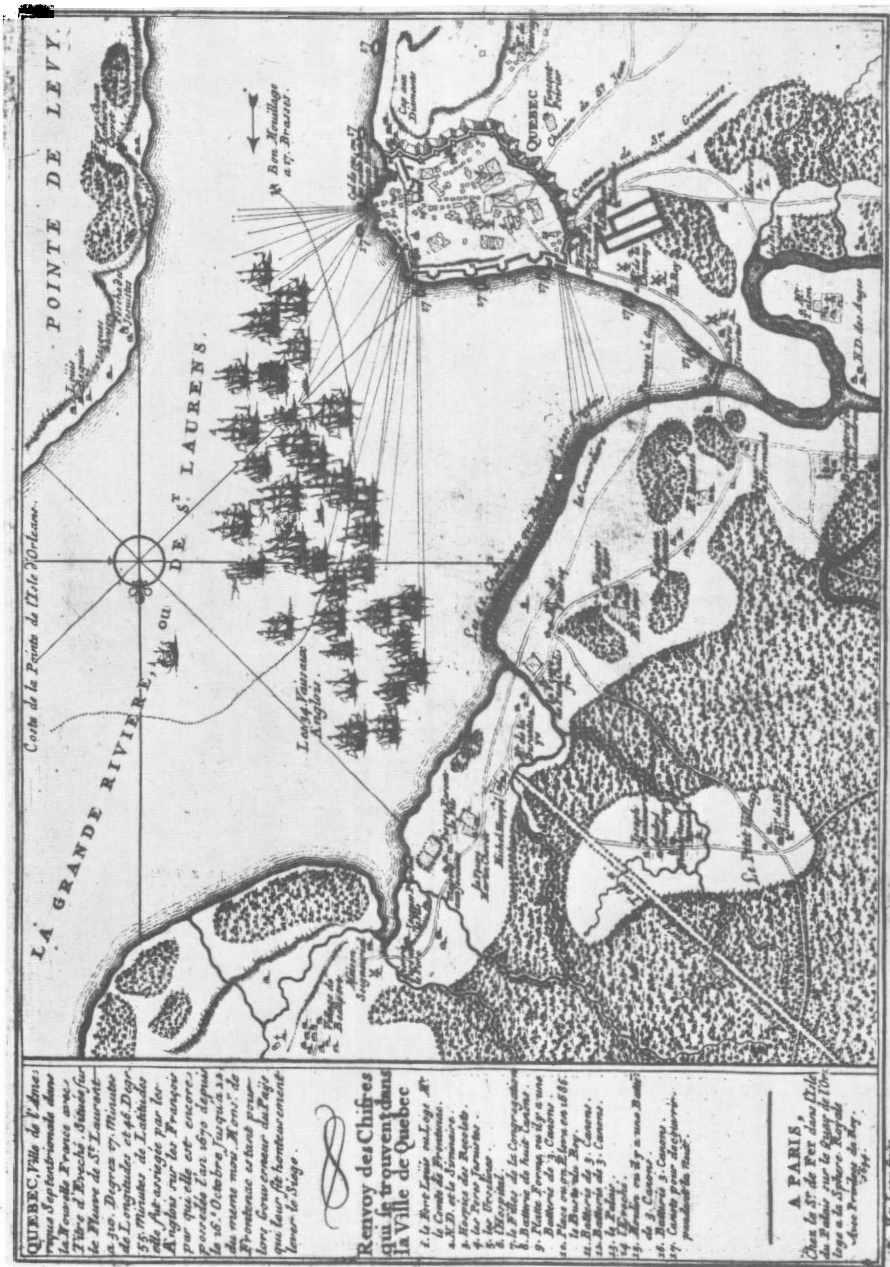


Figure 6.

Figure 6. It is possible that this 1694 map of Québec and environs by Nicholas de Fer is based on Robert de Villeneuve's 1690 manuscript "Plan de Québec En la Nouvelle France, Assiégué par les Anglois—" reproduced in Figure 5. De Fer incorrectly copied the year of the siege as 1670 whereas Villeneuve wrote 1690. He did not wholly reproduce Villeneuve's data, thus making the City of Québec and outlying area appear less populated and less built-up than it was.



Figure 7.

Figure 7. The blade of a burin, cutting through a copperplate produced sharp, clean lines. The impressions pulled from the engraved copperplate are known for their clarity. One can easily read the names of settlers on this enlargement of Nicholas de Fer's "Québec, Ville de l'Amérique Septentrionale dans la Nouvelle France---" (1694) copperplate engraving.

Figure 9 (A/550/Fort Prince of Wales/1783 (1852-53) C 17347) is Morin's transcription of Figure 8, "Plan du Fort du Prince de Wales..." (Ph/550/Fort Prince of Wales/1783). The National Map Collection has a photographic negative of the original, which is found in France, Archives nationales, Dépôt des Fortifications de Colonies, 560. One's attention is drawn to the loss of several elements in Morin's transcription: colour (graduation of dark tone), scale, the stamp of the creator, and the numerical references on the fort's profile. Researchers often request this work for consultation at the NMC without knowledge of its history. One might argue that the map archivist should know the history of this work and warn the researcher of its shortcomings. In this fashion the archivist would be truly assisting the researcher and in a very small way would be furthering the study of the history of cartography.

Needless to say, Morin's work was time-consuming and costly, and above all, inaccurate. Morin's efforts did little to satisfy the needs of the tiny research community in mid-nineteenth-century Canada. Canadians did not have access to their historical records in Europe but their situation was not unique. Scholars in the United States and Europe faced similar problems. The inaccessibility of records hampered the study of various aspects of cartography. Growing concern among European cartophiles to encourage the study of early maps thereby bringing them "out of dust and oblivion" and "to save them from early ruin" together with the discovery of lithography in 1796 by Alois Senefelder gave the necessary impetus to launch cartographic reproductions.¹⁰ Many of these printed reproductions are now rare and appear infrequently on the market; nevertheless, archivists should be acquainted with the history of map printing to appreciate the evolution of the trade, its problems and successes.¹¹ Printed facsimiles carry with them specific characteristics to which map archivists and users should be alerted.

Several facsimile collections were published in the mid-nineteenth century. Of these, Edme François Jomard's *Les monuments de la géographie* (1842-62) stands out for the relatively fine quality of its lithographic reproductions, in terms of clarity, sharpness, colour and content. Jomard, who became the first map curator of the Bibliothèque nationale in France and was a founder of the French Société de géographie, was a strong advocate of high quality lithographic reproductions. The content of his *Les monuments de la géographie* was not reproduced directly from the original but was re-drawn, and the image was transferred by chemical means to

10 R.A. Skelton, *Maps: A Historical Survey of Their Study and Collecting* (Chicago: University of Chicago Press, 1972), pp. 76-79. Skelton is quoting Edme François Jomard.

11 Walter W. Ristow, "New Maps from Old/Trends in Cartographic Facsimile Publishing," *Canadian Cartographer* 5 (1968): 1-17; M.J. Blakemore and J.B. Harley, *Concepts in the History of Cartography: A Review and Perspective*, in *Cartographica*, 17 (Winter 1980): 42-53; David Woodward, ed., *Five Centuries of Map Printing* (Chicago: University of Chicago Press, 1975); Skelton, *Maps*, pp. 62-91; Don W. Thomson, "Map Production and Reproduction in Canada," *The Centennial Year Symposium on Cartography, The Ontario Institute of Chartered Cartographers*, 3 (June 1967): 37-48.

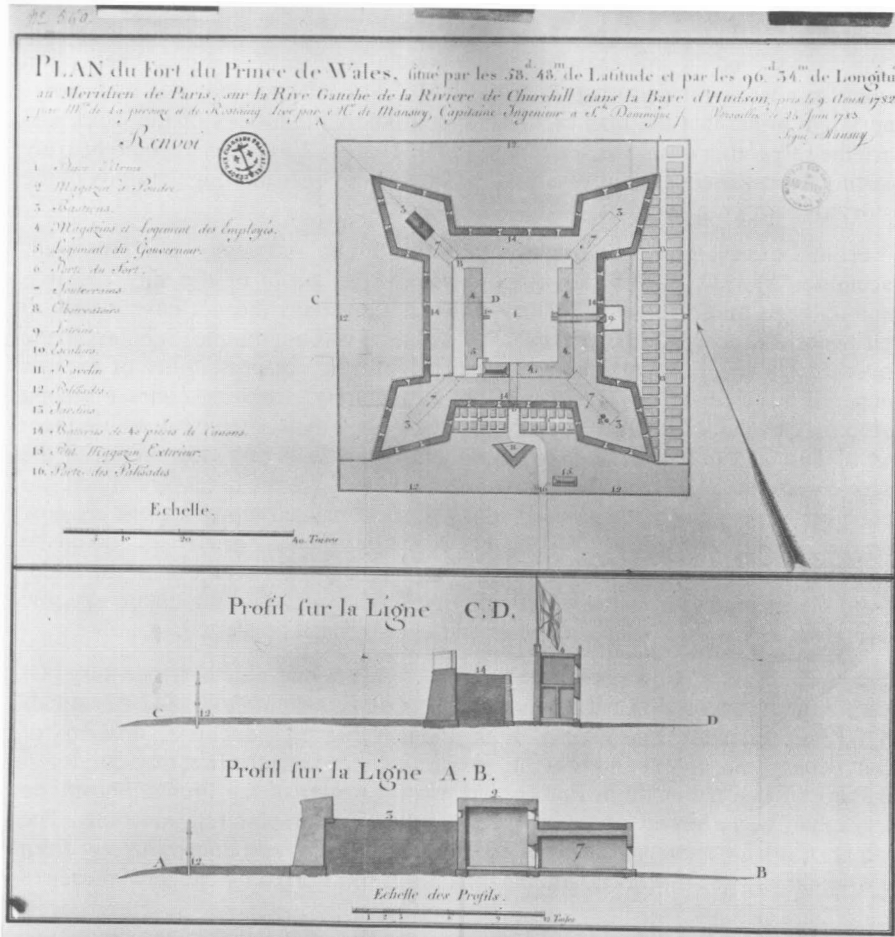


Figure 8.

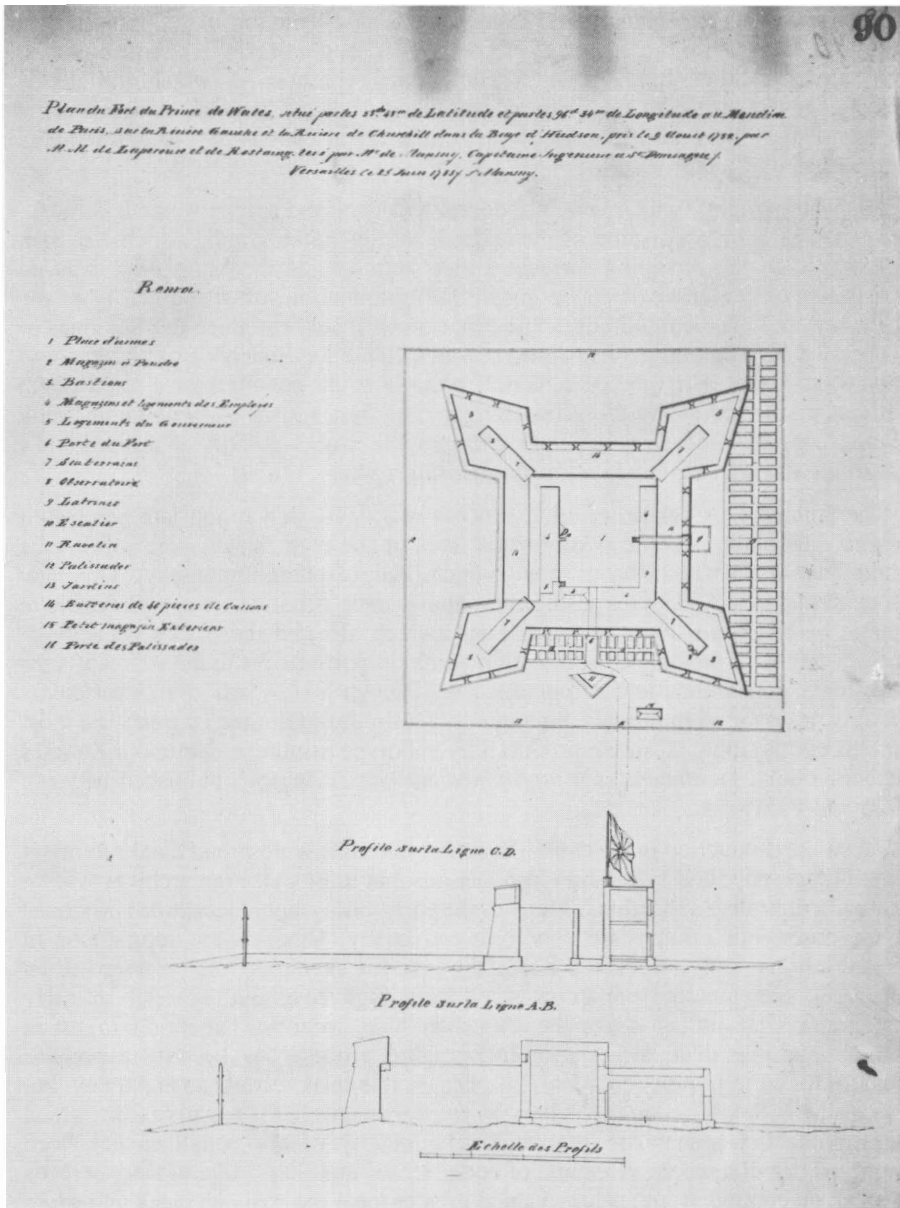


Figure 9.

Figures 8 and 9. Note the degree of artistic license in Pierre-Louis Morin's rendering of Figure 8. Morin did not pay attention to detail; he omitted as well as added symbols and letters. The title is incorrect and colour is lacking.

a receptive surface. Lithography enabled a wider circulation of the hand-drawn copy; however, this method of reproduction could easily introduce error. Furthermore, lithography, being a planographic process in which the ink is transferred chemically to a prepared plate or stone, cannot show the contrasts in the tones of the lines and characters of the original wood-cuts or copperplate engravings being reproduced.

Photolithography, which was introduced widely in the early twentieth century, enabled a direct reproduction of the original through photography which was then transferred to the receiving surface, either stone or metal. While there was no possibility of human error appearing in the reproduction, often the clarity of the work suffered. The photolithographic process could not reproduce the fine lines of a copperplate engraving. The lines had a softer edge and became thicker and somewhat fuzzy. This photomechanical process could not reproduce tonal depth without the use of a fine cross-line screen. The best known early example using photolithography to reproduce rare cartographic works is N.A. Nordenskiöld's *Facsimile-Atlas to the Early History of Cartography*. . . (1889).

The collotype or gelatin printing process was developed in the late nineteenth century. Its main attribute was that the lines of the map image were continuous rather than a dot sequence, as was characteristic of photolithography. This new process was achieved by exposing the photographic negative on a light-sensitive gelatin coating on a glass or metal plate (which affected the plate's capacity to absorb ink). This acceptance or rejection of ink proportionately to the action of light gave tonal graduations to the reproduction. Though a slow and somewhat costly process, it was used to produce high quality facsimiles in limited edition. The most famous cartographic facsimile produced by collotype printing is Youssouf Kamal's sixteen-volume *Monumenta Cartographica Africae et Aegypti*, published between 1926 and 1951.

Facsimile production in the twentieth century became widespread thanks to offset photolithography, and it is these reproductions that most Canadian archives will be adding to their map collections. Many of the early cartographic facsimiles produced in the nineteenth century are now rare and costly. Others were reproduced in limited editions only. Youssouf Kamal's work, for example, was produced in an edition of one hundred copies or so.¹² Both high costs and scarcity of early cartographic facsimiles direct the Canadian map archivists' attention to offset photolithography. The offset photolithographic process has become a popular medium for cartographic reproductions because it is relatively cheap and quick, but above all it is flexible enough to allow for improvements in the negative from which the reproduction plates are prepared. The quality of the negatives has been improved through the development of better lenses and films. Use of finer screens to break up continuous tones has enabled greater tonal contrasts on black and white and coloured maps.

12 Ristow, "New Maps from Old," p. 8.

Technological advancement has provided the facsimile industry with the means to produce a product free of flaws. To put it another way, the various photographic films, lenses, and filming techniques applied to map reproductions allow for “doctoring”. For example, by enhancing the faded colour or by sharpening the faint letters, erasures, and symbols of the original, the printer may produce a facsimile which surpasses the original in appearance and legibility.¹³ Furthermore, information on a map can be re-arranged, added or subtracted so skilfully that most people could be caught unaware.

The facsimiles produced by the Association of Canadian Map Libraries are not faithful to the original in the strictest sense. The photographic negative is opaqued in areas where physical flaws, such as stains, tears, and “housekeeping” notations appear on the original. In one instance this practice was carried one step further. Facsimile no. 59 of the *Parish Montréal* from H.W. Hopkins’ *Atlas of the City and Island of Montréal* (1879) has the page numbers 102 and 103, located in the upper left and right corners of the map, removed. The continuity of the contents of the atlas has been destroyed, not only by the printing of one map out of context but also by the removal of the pagination, further breaking down the link of the work to the atlas.

Tinkering with photographic negatives taken of original maps and altering the content of the reproduction of the original actually creates a new map and not a facsimile of the original. In May 1967, Imray, Laurie, Norie & Wilson, Ltd., direct successors of Sayer & Bennett publishers, published twelve copies of James Cook’s *A Chart of the West Coast of Newfoundland*. . . “from an original copperplate, hand engraved in 1770.”¹⁴ This facsimile (H2/100/[1770-c. 1864] (1967) is shown here as Figure 10. In effect, the Cook facsimile seems to be either a re-strike of the tampered copperplate or a product of a photonegative collage. The magnetic declination on the 1770 original copperplate engraving in the National Map Collection (V13/100/1770) reads Var 22°30^{wt} (see Figure 11) while on the facsimile this information does not appear. Rather, the magnetic declination on the facsimile, although not written in, is the same as that on a later state of this map in the National Map Collection (vault/100/[1864 or later]). In all probability, the publication date was removed from the plate or opaqued on the negative and then added below the neat line to the later state. There are discrepancies in geographic information as well; Vesuvius Rock and Awash do not appear on the 1770 edition.

Manuscript additions to a copperplate engraving or a woodcut, skilfully executed, are frequently difficult to detect, particularly if the original information is missing and the addition in manuscript appears in its place. These additions would be further camouflaged if the map were reproduced by offset photolithography. Only through close examination of the map with a magnifying glass could these

13 Ralph E. Ehrenberg, “Photocopying Rare Maps and Atlases,” *The 1976 Bookman’s Yearbook*, 31.

14 Notice from Imray, Laurie, Norie & Wilson Ltd., pasted on verso of facsimile.

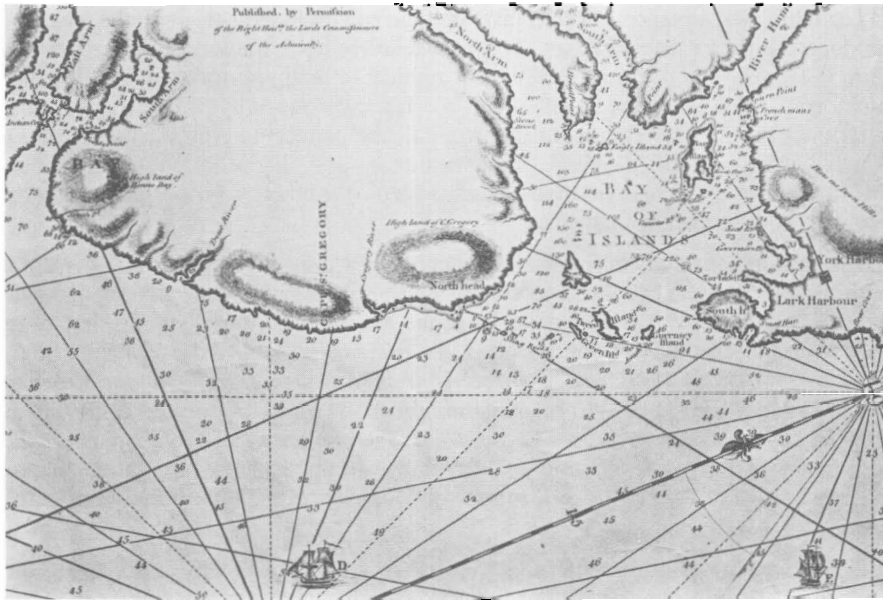


Figure 10.

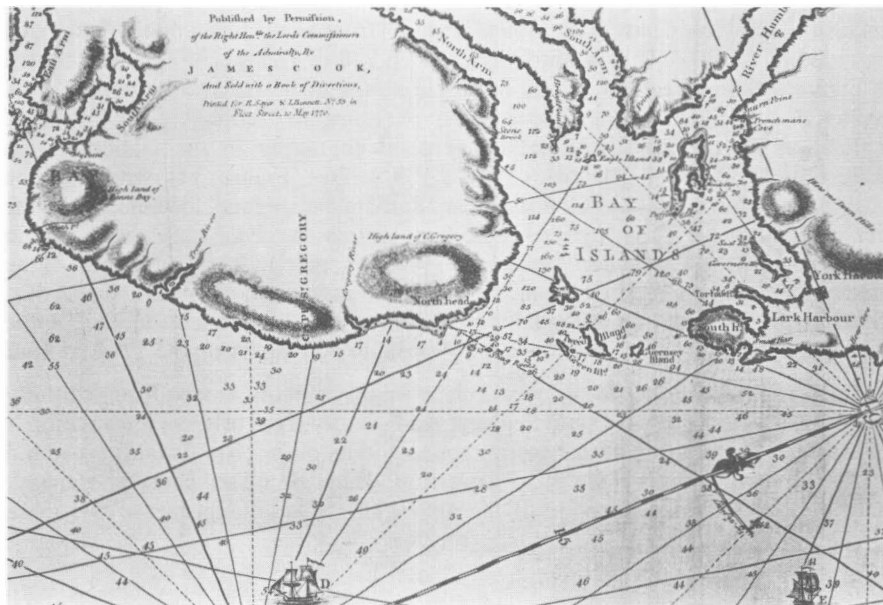


Figure 11.

Figures 10 and 11. By comparing various editions of James Cook's "A Chart of the West Coast of Newfoundland---" it is unlikely that the facsimile (Figure 10) is a reproduction of the 1770 edition (Figure 11). For example, Vesuvius Rock to the right of the preposition "of" in the Bay of Islands and Awash beneath Guernsey Island do not appear in the 1770 edition. Note the discrepancy in the magnetic declination as well.

manuscript additions be detected. Two copies of the second edition of Giacomo Gastaldi's *La Nuova Francia* (call number H12/900[1565]) (portion shown as Figure 12) and one found in the A.E. MacDonald Collection, PAC (portion shown as Figure 13) illustrate this point. These maps were intended for inclusion in the third volume of Giovanni B. Ramusio's *Delle navigationi et viaggi*, Venice, 1565. It is Figure 12 which has part of the male figure hand-drawn making it appear female-like and the phrase "C' de breton." written as "C' de nieton."

It is true that offset photolithography has opened many doors for the map facsimile industry, but the process has many limitations.¹⁵ The facsimile cannot reproduce all the elements of the original. There are certain properties which come into being with the creation of the map and they will always remain integral to that map and to it alone. These aspects of the map's identity, referred to by David Woodward as "the elements of physical form," cannot be reproduced. Somewhat oversimplified, these elements include the following: physical format such as the size or shape, the fabric on which the map was made, the characteristics of the impression left on the fabric, the medium used to mark the fabric such as ink or colour and finally the style of the map in totality showing the relationship between the arrangements of the lines, tones, symbols, and colour on it.¹⁶ It is these elements of physical form and their interrelationship which the facsimile cannot reproduce.

The basic format of the original, both its size and shape, brings much grief to the publisher of facsimile maps. Frequently it is impossible to reproduce the map at scale. Reducing the map distorts its content. Depending on the photographic medium and fabric used, some of which are unstable, this distortion may be increased. For example, reproductions of large maps are illegible towards the borders because the film resolution decreases as the distance from the axis of the camera lens increases. Additional problems in format appear when the map has been removed from an atlas. The handwritten number on the verso of the map and the paper guards used to secure it to the atlas's binding are never reproduced in facsimile. The atlas as a unit provided a context for a map and this is lost when only a single map is reproduced.

The reproduction does not and cannot use the exact fabric of the original map. The characteristic of the fabric, such as the structure of the paper, or the watermark, cannot be reproduced. Yet the fabric of the original can provide us with clues as to its use and its owner. For example, a few copies of Lewis Evans' *A General Map of the Middle British Colonies* . . . (1755) were printed on silk; one speculates that they were produced for wealthy patrons. Frequently nineteenth-century road maps were cut up, pasted on linen, and then folded into a pouch-sized shape for easy transportation. The watermark is no less important and is a useful tool in determining the history of the map's publication, such as the name of the publisher and the date of publication.¹⁷

15 For one individual's involvement in facsimile reproductions see Harry Margary, "The Facsimile Reproduction of Early Engraved Maps," *The Bulletin of the Society of University Cartographers* (Liverpool) 7 (March 1973): 1-7.

16 Woodward, "The Form of Maps," 11-20; Blakemore and Harley, *Concepts*, pp. 45-53.

17 David Woodward, "A New Objective Method of Analyzing Watermarks on Sixteenth-Century Italian Printed Maps," paper read at the IXth International Conference on the History of Cartography, 1981.



Figure 13.

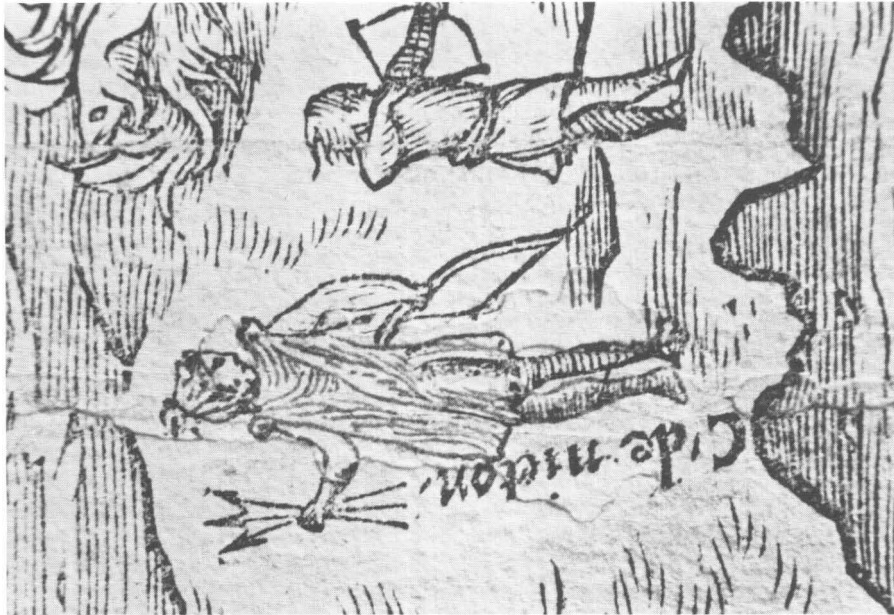


Figure 12

Figures 12 and 13. "C de breton." and the male hunter in Figure 13, enlarged from Giacomo Gastaldi's "La Nuova Francia [1565]" were partially missing in another copy (Figure 12). This information had been added by hand as "C de nieton." and a female-like figure was drawn in. The enlargement of Figure 12 clearly shows a paper patch, visible above the letter "i" in "nieton.," which at scale is not as easily discernible.

Possession of the original map gives its holder the luxury of having the evidence in hand to begin understanding its total composition. Facsimile maps cannot serve as the material for a critical analytical study of cartographic form and therefore should not be expected to fulfill this function. Elements of the map's composition such as size or shape, fabric, inks, colours, watermarks, and platemarks cannot be exactly reproduced. Furthermore, recent advancements in photography have enabled the production of a facsimile superior in quality to that of the original. Certainly occasions have arisen where the publisher has altered the map's content and the map archivist should be aware of this ever-present possibility. What, then, can map reproductions be used for?

The reproduction introduces the reader to the contents of the map. Most frequently maps are used for their geographic information. With the recent surge of interest in genealogy, many individuals are looking for the birth-places of ancestors, evidence of land ownership, and the location of forgotten cemeteries on various cadastral and topographic maps of North America and Europe. It is no wonder that current reproductions of nineteenth-century Canadian county atlases are in demand, as are the reproductions of the few extant eighteenth-century maps which show land tenure in New France.¹⁸ People are always interested in reconstructing the details of past historical events and so they look to maps for the location and for the physical details of battles and fortifications; this type of information can be found on reproductions. As a result of changes in high school curricula and university courses, students of geography and other related fields, such as urban studies, require maps to study such aspects of urban growth and decline as land use, street patterns, business development, expansion of utilities and distribution of schools; reproductions would satisfy these needs.

Facsimiles of separate map sheets, atlases and navigational guides enable students of cartography to obtain a preliminary, general overview of how geographic information was recorded and to examine the evolution of its recording. They become familiarized with the symbols used, then altered and changed over time. The shape of the New World, first appearing as a small land mass, takes on a more recognizable form; empty spaces are replaced with data as the area is explored. Navigational directions, various scales of distance, projections, and soundings, for example, take on meaning. Facsimile maps, therefore, can provide general information as to the gathering and dispersal of geographic knowledge by man; they show how man's ideas in the world change. And there are others who turn to cartographic reproductions for less scholarly reasons. Frequently those working in the television and film industries or advertising agencies want to look at the way Canadian geography was represented on early maps just to get ideas for their own

18 Mika Silk Screening Ltd., of Belleville, Ontario has published facsimiles of numerous nineteenth-century Canadian county atlases. L'éditeur officiel du Québec has published a colour reproduction of Jean-Baptiste Decouagne's manuscript, "Carte du gouvernement de Québec levée en l'année 1709 . . ." which gives the names of land occupants. This map is of such interest to genealogists that a 1974 re-drawing of this work was published by the Société de généalogie de Québec.

productions; they want to duplicate the "antique look" in the hopes of making their creation appear authentic and accurate.

Cartographic reproductions can be valuable components of a map collection but their acquisition and use require that the archivist collect them knowledgeably, that the user use them with discretion, and that their evidence should not be accepted without posing a few probing questions. The facsimile's greatest attribute is that it enables the non-specialist to become familiar with maps which would otherwise remain available only to the privileged few. And, surely, the interest and concern of the map archivist is to see that old maps, reproduced in facsimile, move from the picture frame on the wall to the desk of the student and to the hands of the general public, so that they may learn about the world around them. It is, then, the responsibility of the archivist to know his material and encourage its use with care.

Résumé

L'auteur parle de l'emploi des copies de cartes dans les préparatifs d'une collection et aussi de leurs limitations. Pour expliquer ces limitations, elle cite des exemples de cartes dans La Collection nationale de cartes et plans des Archives publiques du Canada.