The Printing and Publishing of Maps in Ontario Before Confederation

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Introduction

The completion of a major bibliography, *Mapping Upper Canada 1780–1867: An Annotated Bibliography of Manuscript and Printed Maps,* gives ample opportunities for the analysis of the work of local map printers and publishers in the eighty-some years of Ontario's settled existence as a British colony before Confederation. The bibliography includes all significant manuscript and printed maps in the period and is divided into three sections, for general, regional, and town maps; extensive appendices include listings for original township surveys, registered subdivision plans of towns, nautical charts of the Great Lakes, and boundary surveys. Of the some 7,000 maps included in the book, only about 1,500 are printed, and except for some printed items in Appendix C and D such as nautical charts, most of them are found in the main body of the work. The entries for printed maps provide reasonably detailed transcription of title and imprint information; the section on physical details provides information on format, printing methodology (e.g. engraving, lithograph, wood engraving, etc.), size, scale, and the identification of watermarks. The notes provide sources for maps in books and atlases and a description of the contents of the map, including areas covered, specific subjects, and lists of views, insets, tables, subscribers, directories, etc. Full location information is given for copies where available and generally locations are given for printed maps at least in the major collections. The maps have been compared with similar maps or later states both for content and bibliographically, so that the derivation of most maps and the re-use or revision of plates by a variety of methods have been noted. Any further information on the maps, such as newspaper advertisements and citations in secondary sources, is also listed. Finally, the bibliography includes extensive indices for subjects, titles of printed

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maps and books, and names including surveyors, map makers, printers, and publishers.

With a comprehensive data source such as this, various analyses of the maps and the circumstances of their preparation can be readily undertaken. In this paper I will survey the overall patterns of the quantity, quality, and types of maps produced by local and foreign printers and publishers for Upper Canada in the period before 1867. In addition the work of the major local map printers in Toronto, Ontario, and Montreal will be discussed in detail in terms of output, printing techniques (including revision methods), and publishing roles.

The printing and publishing of detailed maps of Upper Canada began very soon after intensive settlement by the British in the wake of the American Revolution. Although the earliest manuscript maps were somewhat crude, by the early 1790s surveyors had enough information from reconnaissance surveys throughout southern Ontario to make quite reasonable compilation maps of the province, and the earliest printed map of the province was produced by David William Smith, the first surveyor general, in 1800. These first maps were engraved, printed, and published in Britain for the most part, or sometimes in the United States, and foreign publishers virtually controlled the market until the 1830s. The Smith map was followed soon after by William Chewett's larger map of 1813, and both were initially published by William Faden, a prominent London map publisher of the late eighteenth and early nineteenth centuries. Faden's business was taken over by James Wyld, the elder, who interestingly enough continued to revise and reissue both maps over the next twenty years. This was soon followed by Joseph Bouchette's Map of the Provinces of Upper and Lower Canada, published by William Faden in 1815, and Robert Gourlay's map of 1821 for his Statistical Account of Upper Canada (1822). The most important of these early maps in terms of size and accuracy was the Canada Company map drawn by James Grant Chewett of the Surveyor-General's Office; it was completed in London and released for sale in its second state of 1826. The map was based on township and other official surveys and incorporated information from Henry Wolsey Bayfield's surveys of the Lake Huron coast to produce probably the most accurate map of the province before the large government map of 1859. The Canada Company also produced a two-volume atlas showing their lots in Upper Canada which they used for recording land sales, and several small maps on broadsides or in books.
All of the really large maps produced in the early period were published in Great Britain. American production of maps of Upper Canada, on the other hand, was slight in this early period, although the War of 1812 occasioned the publication of a piracy of the D.W. Smith map by Prior and Dunning of New York in 1813 and a few small and crudely drawn maps of the 'seat of war' such as the Thomas Kensett map of 1812. The mapping by John Melish for his books and atlases, the maps in Jedidiah Morse's *American Geography* which went through several English, German, Dutch, and Italian editions, and a few other maps produced in British and American books round out the picture of map production in the period before 1830.

The first attempt at local printing of maps

The first abortive attempt to set up a local business for the purpose of printing maps in Upper Canada was made by Samuel Oliver Tazewell in 1831. It was closely related to the increasing use of lithography for maps in the United States and other parts of Canada in the 1820s. Invented by Aloys Senefelder in 1798, the lithographic technique involved drawing the map with a special greasy crayon, to which printing ink would adhere, on a planar surface (or stone plate) rather than incising the image in copper with precision engraving tools. The merit of the process was that it was cheaper, in that it did not require the skilled craftsmen or engravers or the more costly materials and tools of the copper engraving process, and the stone 'plate' could be used to print more copies – obviously all benefits in a frontier society. When lithography was coupled with the 'transfer process,' in which a drawing made on specially treated paper with a lithographic ink could be transferred to the stone to create the plate, it must have seemed easier than ever to set up a lithographic print shop.

Although British commercial map printers were slow to take an interest in lithography, the British military was experimenting with it in the early part of the nineteenth century, and the Royal Engineers had established lithographic presses at Quebec and Fredericton in the 1820s. In the United States as well, increasing numbers of maps were being lithographed in the 1820s and this set the stage for the introduction of map lithography into Upper Canada. Mary Allodi has documented the establishment of the pictorial lithographic press in Quebec and Montreal in 1831; and although the
exact connections are not known, it is not altogether surprising that Samuel Tazewell in Kingston was also working towards the production of maps and prints by lithography in 1830 and 1831. In late 1831 or early 1832, he produced his first lithographed map, a plan of Kingston, which was also the first map printed in Upper Canada. The map was a somewhat sparse and roughly executed document and the faintness of the printing has been almost necessarily enhanced by hand colouring in the only extant copy known.

Tazewell had emigrated from England and established himself in Kingston in the 1820s as a watchmaker and jeweller. At some point he began to experiment in lithography for pictures and maps using the transfer technique. He also discovered a source nearby for lithographic stone (which meant great savings on the cost of transporting stone from Germany) and he built his own press, which he called the 'William IV Press.' Much of his early development he documented in notes about the process in the Upper Canada Herald. Local editors, notably of the Kingston Chronicle, encouraged his experimentation in the production of maps: 'In addition to our good wish for Mr. Tazewell's success we would beg to mention that some cheap and plain maps of the Province or its Districts separately would be a very useful and agreeable present to this country and would sell, we are convinced, well.' Other newspapers commented on the cheapness of lithographed maps which, at prices as low as one shilling and threepence, put them within everyone's reach. In late 1832 Tazewell moved to York, established his press opposite the Parliament Buildings, and began an association with the Surveyor-General's Office for the purpose of making township and regional maps for administrative uses and for sale to the public.

Tazewell produced only a small number of maps; only twenty-one have been found to date, although some may not have survived. There may also be some discrepancy in his count since he claimed that he printed thirty-six small township maps, although only three of these have been located. The maps are generally small and rather crude; the inking is very light (in some cases the lettering is scarcely legible) and several of the maps even lack titles. Although small, many are interesting for other reasons. He printed maps of several towns, and those for Barrie, Oakville, Picton, and Toronto are based on manuscript plans which are still extant; these allow us to compare the printed product with the manuscript original and to examine the use of the transfer technique. His plan of lots for sale in the military reserve on the Toronto waterfront, although crude,
delighted the press because of the rapidity with which several hundred copies were printed and distributed – the more so as the lots for sale were noted as offering ‘immense advantages to capitalists who cannot fail to be highly remunerated for their outlay.’\textsuperscript{17} He had the courage also to attempt a four-sheet plan of the Bathurst District,\textsuperscript{18} and he followed this with an important three-sheet plan of Toronto in 1834 which is his last known map publication.\textsuperscript{19}

Sadly, Tazewell was caught in a political fight between James Grant Chewett, senior draftsman of the Crown Lands Department, and Samuel Hurd, the Surveyor-General, a dispute which has been well documented by H. Pearson Gundy.\textsuperscript{20} His problems in getting manuscript plans of townships from the Crown Lands Department to print, combined with his need to sue for payment for work already done, as well as problems with his press, in the end defeated him, and in 1835 he left for St. Catharines and returned to watchmaking. During his tenure there had been a plan to set up a government lithographic press, but Lt.-Governor Sir John Colborne rejected it because of the cost. There may not have been enough need for ‘government’ maps to merit such an outlay of public funds.\textsuperscript{21} And indeed in the period before Confederation the government did not see the necessity to set up a proper establishment for map printing, although there was a small government press turning out a few maps in the early 1850s. It is also clear, however, that though the printed township maps might have been useful to settlers, they may have been too small (for the insertion of names of patentees in lots for instance) and thus of questionable use for administrative purposes.

In the period between 1830 and 1850, the foreign production of maps continued to dominate the map publishing scene, although it dropped radically after that. Major maps of Upper Canada or Upper and Lower Canada together continued to be produced particularly by British publishers, and by the end of this period they had printed and/or published 185 maps or revised states of earlier maps relating to Upper Canada. American publishers on the other hand had produced only one-third of this number. The leading British map publishers were such notable names as James Wyld (both father and son), John Arrowsmith, Charles Smith, Ingrey & Madeley, Baldwin and Cradock, W. & A.K. Johnston, and Edward Stanford.

The main American contribution to Upper Canadian mapping came through the mapping of the province in atlas sheets, and there are long series of maps which were revised from year to year and reissued in later editions of American atlases. The first major atlas series to include separate maps for Upper Canada was that issued
by Henry Tanner in various editions of his *New Universal Atlas* from 1833–4 on; the atlas was eventually taken over by Samuel A. Mitchell and reissued until 1856. At the same time in the 1820s and 1830s a few maps had been prepared by local officials such as James Grant Chewett of the Surveyor-General's Office, and these had been sent for engraving and printing to such printers as Samuel Maverick, S. Stiles, and Nathaniel Currier in New York, or to printers like Hall and Mooney in Buffalo.

But by the mid-1840s many other local surveyors, engineers, and publishers were starting to prepare maps of areas such as districts and were clearly faced with the problem of where they could get them printed. Many – for example, Edward Staveley in his general map of 1844 and Joseph Bouchette in his important map of Canada of 1846 – must have been faced with the problem of getting a proper job done on what were fairly large maps. They both chose to have them engraved and printed abroad. The Staveley map was printed in Britain by A.K. Johnston and the Bouchette map in the United States by Sherman and Smith. Several surveyors opted for the cheaper lithographic process, and generally these individuals had their first few maps lithographed in the United States; a year or two later they were lithographed locally. In view of this situation, one can only conclude that the entrepreneurs who were about to launch the first successful businesses in map printing in Upper Canada in the mid-1840s must have been able to convince the local map makers that their product would be as good as that of American printers, and far superior to the work of Tazewell a decade earlier.

*Local map printers*

The first significant map-printing business in Upper Canada was set up by Hugh Scobie. Scobie, a Scots emigrant who arrived in Canada in 1832, was involved in many aspects of the publishing and bookselling business in Toronto from the late 1830s until his death in 1853. In October 1843 he announced in the *Canadian Mercantile Almanack* that he was setting up a lithographic press and advertised his ability to handle transfer lithography, including the execution of plans of properties. However, before 1846 he appears to have made only two small plans and both are rather primitive printing jobs. From 1846 to 1850 he was in partnership with John Balfour and together they printed about twenty maps of districts and towns,
most of which are fairly large and generally well executed. Although we have at present no information about his press or contacts, it is clear that by 1846 he had acquired a larger press than he had before; but – even more importantly – he appears to have acquired a skilled lithographic draftsman in Jacob Hauer, and the work of the latter largely accounts for his superior product in the late 1840s. Certainly Hauer’s skill was evident in the two maps he exhibited at the first exhibition of the Toronto Society of Arts in 1847, and which received very favourable comments. Scobie & Balfour also took first prize for lithographic engraving in the Upper Canada Provincial Exhibitions of 1846 and 1847. A comparison of the maps that Hauer produced with some of the American printed maps in the early 1840s shows both finer line work and clearer printing in the former. In looking at lithographed maps from the 1840s on one can see that the earlier crude transfer method in lithography had given way to superior techniques, and it is likely that Hauer was using the ‘engraving’ or needle technique to create a product that would look almost as if it were engraved. This involved actually incising fine lines into the stone plate with a steel needle which would produce much finer linework but was apparently much harder to print.

After Balfour left the business in 1850, Hugh Scobie continued by himself and produced the first detailed general maps of Upper Canada to be drawn and printed locally. This project initially consisted of a four-part map produced between 1850 and 1853 for successive issues of the Canadian Almanac and a revised and redrawn version in two sheets in 1852–53. Unfortunately the fact that none of these was executed as well as the earlier district maps suggests that he lacked skilled lithographers in his later period of operations. Nevertheless, production increased. In conjunction with the boom in urban subdivision and real estate sales in the early 1850s, Scobie began to print plans of towns and produced over thirty of these in the period before his death in 1853.

On Hugh Scobie’s death his widow Justina Scobie sold his retail business and the map-printing venture to Thomas Maclear. Maclear had come to Canada in the late 1840s as a book agent for Blackie & Sons and had many other publishing interests besides maps. He ran his map-printing business from 1854 to 1861 under the name Maclear & Co. Lith., when that part of his business was taken over by W.C. Chewett who had worked for him, possibly from about 1854 on. In the seven-year period of Maclear’s business he produced the largest number of maps of any map printer prior to 1867. [See Table 1]. The boom years for map printing in Ontario before Confederation
were the 1850s. As Table 1 indicates, it is apparent that Scobie's business was just beginning to increase in 1853, and there was a steady build-up in production to a peak of output for Maclear in 1856 and 1857. A decline set in, however, with the business depression in 1857. Map production in the 1860s was generally considerably less, although Chewett produced the largest number of maps in that decade and in a sense continued Maclear's domination of the field.

Maclear printed general maps, including railway plans, and small maps for books. He issued a revision of Scobie's large map of Canada West in 1854 and followed this with a new version of the map in 1860. He also took over the stones of Barr & Corss's post-office map of 1858 and published a revised edition in 1860. In addition he produced some maps for the Crown Lands department, including two editions each of plans of the north shores of Lakes Huron and Superior both in 1858 and 1860. He also produced a few district and county maps compiled by local surveyors. Proportionately, however, Maclear produced far more subdivision plans of towns, obviously in conjunction with the boom in land sales and urban subdivision that accompanied the surge in the economy in the mid-1850s. These maps were generally fairly simple plans of parts of towns showing subdivided lots, but also from time to time including views, notes on the advantages of the town, and general location maps. Most of these plans were similar to broadsides, ephemeral in nature, and largely produced to advertise lots for sale.

From the technical point of view, although Scobie may have been the first to introduce colour printing for maps on a map he printed of Stratford in 1853, Maclear was the first to use colour printing for maps in a major way. Beginning in 1854 and 1855, about one-third of his town plans were produced with two- and sometimes three-colour printing. Often the colour was used to show lots for sale, and some plans are found both with and without colour. In other cases he also used colour to enhance the edge of lakes and to outline rivers.

Maclear had the advantage of working in a period in which the economy was flourishing and there was a great demand for printed subdivision plans. His production is significant simply for the number of maps he published and for the introduction in a major way of colour printing for maps. But he was more of a job printer than Scobie before him, or than his contemporary John Ellis or Chewett after him.

John Ellis (1795-1877) was also a prominent map printer in the 1850s and 1860s, but as a skilled engraver and lithographer, he was
more involved in the creative and technical side of the work than either Scobie or Maclear. He started an engraving business in Toronto in 1843, the same year that Scobie announced his lithographic press, but Ellis did not immediately go into the production of maps. In October 1846 he advertised in the *British Colonist* for subscriptions for 'Engraved District maps,' but none appears to have been produced before the 1850s. He engraved and printed two maps of towns before 1850, one a plan of Atherley (possibly printed as early as 1843) and the other a plan of Belleville exhibited at the second exhibition of the Toronto Society of Arts in 1848. He continued to produce some very finely engraved maps in the early 1850s, including two important regional maps for the York county area.

By about 1854 Ellis began to work in lithography and most of his maps from that period on were lithographed. Although Maclear had used colour for lots and to enhance shorelines and rivers on maps, Ellis generally was more ambitious and experimented in different ways in the use of colour to enhance his maps. Since colour printing involves the use of more than one plate in the printing process, printers often had difficulties with registration on their maps. Proper registration in the production of colour maps means making the blocks or lines of colour line up properly with the areas or lines outlined and printed in black on the main plate. With some maps the colour was used in a minor way for county or town names and did not require careful registration. In other cases, as in the Guelph map of 1855, Ellis used colour for lines such as streets or boundaries of wards and with excellent results. With a large regional map he produced in 1861, however, he attempted two-colour printing with disastrous results and had to print a note to the reader: 'Where the paper has stretched in the Blue or Red Ink the black dots indicate the true course.' It would appear from this note that either the paper was of such poor quality that it stretched unevenly in the printing process, or his draftsmen or press men lacked sufficient expertise in handling the separate colour stones.

Ellis's biggest project – which was a major part of his output in 1858 (see Table 1, hatched lines) – was the printing of the 30-sheet map or atlas of the City of Toronto by W.S. & H.C. Boulton. The sheets showed all buildings, and each was colour-keyed for construction materials (red for brick, yellow for frame, and grey patterning for stone). This detailed set of maps (which may have been produced for fire insurance purposes) was certainly an impressively large printing job for the period.
It is interesting to note that Ellis produced considerable numbers of regional maps and town plans but few general maps. This situation was reversed with Chewett, who produced important general and regional maps in the period but few town plans. Chewett’s emphasis in production is in part a result of his continuation of many of Maclear’s government contracts for the major maps, but there were also generally fewer town plans being produced in the 1860s because of a decline in urban land speculation. The quality of local map printing in the period before Confederation seems to have reached its greatest height in the work of Chewett and the Tremaine family. Chewett probably produced the first chromolithographed map in Upper Canada in his plan of the Mackay estate, Ottawa (1864), a beautifully designed and printed map, and he won prizes for the best coloured lithographic drawing in both 1863 and 1865 at the Upper Canada Provincial Exhibition. The Tremaine family, on the other hand, printed only a few maps, but all of these were multi-sheet works: the detailed county land ownership maps published in the late 1850s and early 1860s, with tables, views, and an enormous amount of cultural information to be carefully engraved. The Tremaines’ work culminated in the massive general map of the province printed in two states in 1862, the largest general map printed in Canada West before Confederation.

Other map printers

It is evident from Table 1 that each of the Toronto map printers discussed here produced far more maps than even the leading printers in a few other centres. Certainly the Spectator newspaper’s lithographic establishment and Hardy Gregory’s production put Hamilton ahead of other places, while George Matthew’s publications led the way for Montreal. A glance at Table 11, which shows the total number of map printers in each place, emphasizes the pattern even further. Eighteen map printers alone were working in Toronto in the period; Montreal (and Quebec) are well represented by seven printers. Hamilton and London each shared three printers, and in all other towns in Upper Canada the known total number of map printers in the period amounts to three newspaper printers in Guelph, Kemptville, and Woodstock, and three other printers.

There were other interesting printers working in Toronto, but lack of space means that I can only mention them briefly here. Both Barr & Corss and Fuller and Bencke had short but notable careers in the
map-printing field, the former best known for their railway ride and postal maps\(^4\) and the latter for several large city maps, including a major one for Toronto in 1862.\(^4\) It has also been noted that Charles Fuller went to work for Chewett and may have been greatly responsible for the high quality of the Chewett maps.\(^5\) Blackburn's City Steam Press was producing a few simple town plans by typeset and even advertising this method as 'a process which is far cheaper and yet fully equal to Lithography.'\(^6\) Henry Castle printed a few maps in Toronto in the mid-1830s, possibly on a lithographic press left behind by Samuel Tazewell. In the period of eighty-seven years represented in the bibliography there are also seventy-five maps for which the printer has not been determined. This is a fairly high number and more printers may be identified from future research. A good proportion of these maps are from books, however, and in the case of wood engravings, the map printer was probably the same as that for the book. One interesting case is that of W.H. Smith's map of 1846 produced for his *Canadian Gazetteer*\(^7\) which was published by Henry Rowsell. Since this is the first general map of Upper Canada printed locally, it would be interesting to know if Henry Rowsell actually did print the map or if he in fact used someone like Hugh Scobie. The first version of the map was rather crude but the redrawn and 're-engraved' version of 1847 is a very fine map. There are also a number of lithographed maps whose printer is not known. Since the imprint has been trimmed off many of these and since the bulk are town plans made in the 1850s, it is probable that Maclear was responsible for quite a number of them; if true, this would increase his output even more.

### Map publishing activity

Unfortunately there is little evidence for us on the publishing roles assumed by these map printers, and few papers and records have survived to help us to understand the relationship among the various parties responsible for the production of a map. At this point, however, one or two patterns are evident in the sources that we do have available.

From the 1840s on there were many district, county, and regional maps being produced by local surveyors and engineers such as Charles Rankin, William Gibbard, and E.H. Kertland. From the information present on the maps and our knowledge of publishing processes for books at the time,\(^8\) these surveyors were probably
frequently involved in publishing by subscription – that is, preparing a manuscript draft, soliciting subscriptions for purchase, having it lithographed and printed by a local printer or one in the United States, and then distributing it themselves to subscribers and collecting payments.54

Sir Sandford Fleming, the prominent Canadian railway engineer, was one of these early surveyors, and considerable evidence on his varying relationship with the printer/publishers Scobie & Balfour and later Hugh Scobie has survived in his papers.55 Established in Peterborough in 1845 and with a background in drafting and surveying, Fleming first turned his hand to map making and drawing to make a living. In 1846 he drew a map of Peterborough and apparently contracted to have it printed by Scobie & Balfour. The statement on the map, 'on stone by S. Fleming,' indicates that he also assumed the role of lithographic draftsman, although a small part of this latter work was done in Scobie & Balfour’s office, as they charged him in their invoice for ‘transferring names of streets’ as well as printing and supplying the paper.56 Two hundred and thirty-five copies were delivered to Fleming and he sold them himself in Peterborough. Fleming later asked Scobie & Balfour for printing estimates for maps of Hamilton and Cobourg, to which they replied that it would depend on sheet size and whether he wanted the streets ‘filled up.’57 The Hamilton map was apparently not published; but the Cobourg plan of 184758 was probably produced under the same arrangement as that for Peterborough, except that Jacob Hauer did the lithographic work. With the Map of the Newcastle and Colborne Districts [1848] Scobie & Balfour initiated the project and at the beginning only asked Fleming to sell it. They later approached him to add information to their draft, which he did, returning it with instructions to the lithographer on the placement and sizing of details. Later on Fleming was asked to supervise the ‘engraving’ as Scobie & Balfour had difficulty ‘in getting good steady lithographers.’59 Upon publication he coloured by hand, mounted, and sold the maps himself, receiving cash at twenty shillings each for only fourteen; eighteen were traded and forty supplied on subscription were apparently left unpaid.60

Fleming’s greatest cartographic work was undoubtedly the Topographical Plan of Toronto published in 1851.61 This plan originated from surveys by J. Stoughton Dennis and John Howard and was first advertised by Scobie & Balfour in 1848. The work languished for one reason or another and Fleming was finally asked by Scobie to finish it. Further compilation work was involved and the engraving of the
whole map on stone took about a year. Again in his diary he noted a distressing reason for some of the delays: ‘This forenoon after heating the Stone of City Plans as usual over the Stove and commencing to engrave on it, heard a sweet musical Sound and discovered a crack nearly through the centre of it. Alack Alack.’62 The hiring of Fleming, known also for his artistic abilities and drafting skills, for the ‘engraving’ suggests both the artistic craft which was needed to produce such a finely detailed map and the lack of skilled lithographic draftsman at the time. The map was later described by Charles Unwin, a noted surveyor in the last half of the nineteenth century who assisted Fleming in the survey, as a very beautiful work but hopelessly impractical for use because of its small scale!63

With many of Scobie or Scobie & Balfour’s other maps there seems to be evidence in the titles and imprints that they were assuming the role of publisher as well as printer. Other maps prepared to accompany books or reports on railways were probably only printed by them under contract. W.C. Chewett, the Tremaines, and Maclear appeared to be publishing many of their general and regional maps as did John Ellis with his oil lands maps of the 1860s. The subdivision plans for towns, however, were probably only printed under contract for the owner selling the town lots, or for those acting on the owner’s behalf such as the surveyor, auctioneer, or land agent.

Other book publishers in the Canadas were involved in a small way with the publishing of maps. Despite the fact that there was no major government map-printing venture in the period and that many maps were being printed abroad, government departments such as the Crown Lands Department and the Geological Survey of Canada did publish a lot of maps in the period after 1850, in the sense of financing map production and distributing or selling the maps. Some of these maps were being issued in conjunction with reports printed by government printers such as John Lovell, Thompson & Co., Derbishire and Desbarats, and Rollo and Campbell. Commercial publishers dealing with maps are represented by Armour and Ramsay and Benjamin Dawson of Montreal, Henry Rowsell and James Bain in Toronto, and Mackenzie Bowell and R.M. Tackabury elsewhere in Canada West.

The revision process for maps

Although the foreign engraved maps were frequently being revised in the first half of the century, neither the general maps nor the large district maps produced locally went through many revisions. This
was probably in large part because of the small market that was being served and also because of the high cost of making changes to plates. In the case of the larger maps, even those that were reissued regularly, such as the large Tackabury map of 1862, which went through 5 states to 1866, only minor changes were being made to the views and the date in the titles and no changes were made to the map itself.

Smaller maps, such as those in American atlases, did go through many changes and there is evidence that these were sometimes being made by the lithographic transfer process. This process usually begins with the engraving of the map on a hard durable surface such as a copper or steel plate. A copy of the map is then pulled from the plate and transferred to a stone or zinc plate to create a 'new plate,' or in carto-bibliographical parlance the first lithographic transfer. This derived plate can be further revised or changed and bibliographically analysis becomes very complicated, as maps can be printed from both plates at the same time. Sometimes the original plate is updated and then a second lithographic transfer is made; but a transfer can also be made from another lithographic plate or transfer. The process was important to map printers as it helped them to preserve their investment in their original plate; it also allowed them to produce different versions of the map and to print more copies from the lithographic plate. Frequently the process was also used to create a base of all or part of a map from which a new map could be constructed. For instance, John Ellis used it several times in the 1860s to produce different versions of his oil lands maps for areas of southwestern Ontario, and it was used in successive editions of the large government map of Canada of 1859.

The lithographic transfer process was used sometimes in the production of maps for books. In the early part of the century maps were being engraved for books and later the wood engraving process was also being used for book maps; but by the late 1830s in the United States and late 1840s in Upper Canada most maps for books were being lithographed. In the early period when maps were being engraved for books there is much evidence of the re-use of plates by other publishers and the redrawing and virtual copying of maps from earlier books. In the later period, if the publisher or printer already had a general map on hand, he could use the lithographic transfer method to create, for instance, a map of a smaller area to which he could add further information. Probably the best example of its use in Upper Canada was that of the reworking by Maclear and
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later Chewett of the *Map of Canada West or Upper Canada* first published in W.H. Smith's *Canada: Past, Present and Future* of 1852. The map went through fourteen states before Confederation, many for issue as separates and many for use with books. The map was revised from the original plate in the first five states, but then a lithographic transfer was made to produce the slightly smaller *Railway Map of Canada West* for the *Canadian Almanac*. Later on, the 'railway map' form and the original map form were used interchangeably to produce several different maps and revised editions. Some of these maps appeared in books, such as a version of 'the railway map' made for Catherine Parr Traill's *The Canadian Settlers' Guide* (7th ed. of 1857) or the 'emigration map' which appeared in A.C. Buchanan's *Canada for the Information of Intending Emigrants* of 1864. The most dramatic version of the map had red overprinting added to produce the *Geological Map of Canada West* for Henry White's *Geology, Oil Fields and Minerals of Canada West* (1865). It should be noted that although the lithographic transfer process allowed these maps in some ways to be changed radically, the base map information for both forms was nearly always also being revised, which makes them extremely complex for bibliographical analysis.

To get some sense of the overall patterns of map preparation for locally published books, I have sampled the general and regional sections of the bibliography and have come up with a count of maps produced for books. British printers dominated in the period before 1850, producing about 150 maps for books, while American printers produced fewer than seventy and local printers fewer than thirty. After 1850, although the total numbers remained at the same modest level, seventy-five percent of the preparation of maps for books was occurring locally while British and American publishers evenly divided the other twenty-five percent. Although the total number of maps produced was not high, there is a fairly significant transfer of production from foreign sources to the local scene after 1850, and proportionately the local printing of maps for books in the Canadas appears to have been reasonably thriving in this period.

To conclude, it is apparent that although the first attempt at the establishment of a local map-printing industry in Upper Canada in the 1830s was abortive, by the late 1840s and early 1850s a local industry based on the use of lithography with some reasonable skill was well established. Technical improvements to the maps, such as the introduction of colour printing, were made in the late 1850s and 1860s. The production of maps for books permitted companies to
produce an even greater range of products based on the versatility of the lithographic transfer method, which allowed for the re-use of all or part of the same base map. Other formats such as the issuing of maps in parts were also developed. Publishing roles are not as clear, and although many maps were being published by individuals in the 1840s, there appears to have been some transfer of the publishing responsibility to the printers or government bodies by the end of the period. By 1867 the local map-printing and in some cases publishing business in Ontario was firmly established at least in Toronto by several prominent companies. The most dominant companies in the period were linked 'genealogically' in a business sense, and this connection points to the transfer of flourishing businesses, each successive owner adding a new aspect to the business. Hugh Scobie originated the business by establishing a high technical standard. His map-printing interests were bought by Maclear who increased output and firmly established a market for the printing of subdivision plans, while also adding colour printing and lithographic transfer techniques. He sold out to W.C. Chewett who introduced new colour-printing techniques and strengthened the business connections with government. Other printers such as John Ellis experimented with techniques — engraving and colour printing — or with the form of maps, such as the creation of different versions of maps through use of the lithographic transfer method. Although the total local output of printed maps was not enormous, these early commercial map printers, particularly in the quarter-century before Confederation, firmly established and dominated the local business in the printing and publishing of maps to meet the various needs of the public for map information. This paved the way for an increase in output, in greater numbers of government printing contracts, and of the eventual assumption of the responsibility for a larger percentage of the preparation and the publishing of maps by government departments in the final third of the century.

NOTES

1 Joan Winearls, Mapping Upper Canada 1780–1867: An Annotated Bibliography of Manuscript and Printed Maps [Toronto: University of Toronto Press, 1991]. References to maps will be cited by author's name and entry number.

2 A Map of the Province of Upper Canada . . . (London: W. Faden, 1800). Winearls 30.
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3 *A Map of the Located Districts in the Province of Upper Canada* [London: W. Faden, 1813]. Winearls 43.

4 Winearls 50 and 58.

5 *A Map of the Province of Upper Canada* . . . [London: Published for the Canada Company by C. Smith & Son [1826]]. Winearls 69.

6 *Government Map of Canada from Red River to the Gulf of St. Lawrence* Compiled by Thomas Devine . . . Crown Lands Department. November 1859 . . . [Winearls 253]. The comparative accuracy of the two maps is discussed in Marilyn Olsen, 'Aspects of the Mapping of Southern Ontario, 1783–1867' [M. Phil Thesis, University of London, 1968].

7 *Diagrams of the Townships in Upper Canada shewing the Lots Purchased from His Majesty's Government by the Canada Company* . . . [1827–8]. Winearls 77.

8 Winearls 46.

9 *To the Officers of the Army and the Citizens of the United States This Map of Upper and Lower Canada . . . November 4th 1812*. Winearls 38.

10 Helen M. Wallis and Arthur H. Robinson, eds., *Cartographical Innovations* [Tring, Herts.: Map Collector Publications [and] International Cartographic Association, 1987], 299.

11 Mary Allodi, *Printmaking in Canada: The Earliest Views and Portraits / Les debuts de l'estampe imprimee au Canada: vues et portraits* [Toronto: Royal Ontario Museum, 1980], xiii.

12 Walter W. Ristow, *American Maps and Mapmakers: Commercial Cartography in the Nineteenth Century* [Detroit: Wayne State University Press, 1985], 286–301.

13 Allodi, *Printmaking in Canada*, xiii, 91–2; H. Pearson Gundy, 'Samuel Oliver Tazewell: First Lithographer of Upper Canada,' *Humanities Association Review* 27 [Fall 1976]: 466–83; *Kingston Chronicle*, 2 Aug. 1831.

14 *Town of Kingston . . .* [Archives of Ontario] Winearls 1523; *The Kingston Chronicle* of 5 Nov. 1831 indicated the map would be ready in a week, but publication was not announced in this newspaper until 14 Jan. 1832. It is interesting to note that H. Pearson Gundy, writing in 1974 a few years before he published his research on Tazewell, and documenting the firsts for Kingston among imprints such as the first book of poetry and first cookbook, actually missed this first printing of a map in Upper Canada. See A *Tercennial Contribution to a Checklist of Kingston Imprints to 1867* [Kingston: Special Collections, Douglas Library, Queens University, 1978], [vii].

15 *Upper Canada Herald* [Kingston], 24 Nov. 1830.

16 *Kingston Chronicle*, 2 Aug. 1831.

17 One of a series of plans for the development of the military reserve at the west end of York in 1833–4 [Winearls 2064(2)] and discussed in the *Patriot* [York], 26 Nov. 1833.

18 Winearls 522.

19 *City of Toronto The Capital of Upper Canada 1834 . . .* by H.W.J. Bonnycastle and Lithographed by S.O. Tazewell [Winearls 2066]. The only known copy is in the Canadiana Department, Royal Ontario Museum.
20 Gundy, 'Samuel Oliver Tazewell,' 468–78.
21 Estry to Hurd, Hurd to Colborne, Colborne to Hurd, Jan. 1834, Archives of Ontario, Crown Lands Papers, RG 1 A—1–7, Box 9.
22 Winearls 140.
23 *Map of the Provinces of Canada, New Brunswick, Nova Scotia, Newfoundland and Prince Edward Island* . . . by Joseph Bouchette Depy Survr Genl L.C. 1846. Winearls 152.
24 Charles Rankin, for instance, had a map of the Home and Simcoe District lithographed by Millers Lith. in New York in 1841 and one of Niagara, Gore and Wellington Districts lithographed by Hall & Mooney in 1845; but by 1846 he had his map of the Talbot, Brock and London Districts printed in Toronto by Scobie & Balfour. Winearls 371, 799, 975.
25 *Canadian Mercantile Almanack for 1844*, 7; Elizabeth Hulse, *A Dictionary of Toronto Printers, Publishers, Booksellers and the Allied Trades, 1798–1900* [Toronto: Anson-Cartwright Editions, 1982], 231.
26 *Plan of Park Lots for Sale Near the Town of Guelph* [1843–6?], Winearls 1397, and *Sketch of Part of the Western and London Districts Canada West* [1843], Winearls 970.
27 Noted as 'one of the best specimens we have seen not inferior to copper' in the catalogue of the Toronto Society of Arts First Exhibition ([s.l.: s.n.], 1847).
28 Reported in *British American Cultivator* (1846–7), n.s. 2, 343, and n.s. 3, 341.
29 Wallis and Robinson, 302. See also below the information on Sandford Fleming's technique.
30 Winearls 177 and 188.
31 Donald McLeod, 'William Cameron Chewett and W.C. Chewett & Company of Toronto, Printers and Publishers,' *Papers of the Bibliographical Society of Canada* xxx (1982): 12.
32 J.M.S. Careless, *The Union of the Canadas* [Toronto: McClelland & Stewart, 1967, 1972], 132–49.
33 The 1854 map [Winearls 188 [4]] was revised by Donald Macdonald and the 1860 map [Winearls 266] was redrawn from it, but no compiler is listed.
34 Winearls 245.
35 Winearls 885, 886. The plates for both of these maps were later taken over by W.C. Chewett & Co.
36 Winearls 1991. Both the Stratford map and Maclear's output of coloured maps in 1854–5 considerably predate the first coloured lithograph, noted as produced by Fuller & Bencke in 1856 in George L. Parker, *The Beginnings of the Book Trade in Canada* [Toronto: University of Toronto Press, 1985], 155.
37 *The Plan of Part of the Ordnance Reserve, Toronto* [1856] was produced with and without colour [Winearls 2122[2]].
38 Maclear & Co.'s large collection of lithographic printing was recommended however for a special prize at the Upper Canada Provincial Exhibition of 1855 [*Canadian Agriculturalist* 7 (1855): 342].
39 *British Colonist* [Toronto], 5 Jan 1847: 4. The advertisement was dated 1 Oct. 1846.
40 [*Catalogue of the Toronto Society of Arts Second Exhibition* [s.l.: s.n.], 1848].
Map of the Counties of Northumberland, Durham, Peterborough and Victoria
Compiled by . . . E.C. Caddy . . . 1861 [Winearls 405].

It should be made clear, however, that it is sometimes difficult to determine whether or not a map has been colour printed, since stencils could be used to allow hand-colouring of areas such as blocks. The Cobourg map of 1858 lithographed by Ellis [Winearls 1264] is in four different colours which would have required four different colour stones. Since the registration is off and there are register points clearly identifiable, it appears to have been colour printed; however, it could have been hand-coloured by stencil and further research needs to be done on colour printing of maps in the mid-nineteenth century.

Winearls 2133.

Topographical Map of the Mackay Estate Shewing the Divisions Into Park, Villa and Village Lots . . . 1864 . . . Thos. C. Keefer [Winearls 1773]. Chewett advertised that he was using chromolithography in the Canadian Almanac for 1864.

Found in the Journal of the Board of Arts and Manufactures for Upper Canada 3 (1863): 364, and 5 (1865): 286.

See my introductory article to and the list of the maps in Heather Maddick, comp., County Maps: Land Ownership Maps of Canada in the 19th Century (Ottawa: National Map Collection, 1976).

Tremaine's Map of Upper Canada, Compiled & drawn by Geo R. Tremaine . . . 1862 [Winearls 282]. There was a rival map being published by R.M. Tackabury in London, Canada West from 1862–6 [Winearls 280], but although Tackabury claimed it was printed locally it was almost certainly lithographed and printed in New York, possibly at H.F. Walling's establishment. Tremaine also accused the Tackaburys of copying from their map. See Canadian Almanac for 1863, 293.

The only known copy of Barr & Cors's Railway Ride . . ., a strip map showing railway lines and stations between major cities in Ontario, is the copyright registration copy in the National Archives of Canada, although the map was advertised for sale in the Daily Colonist on 22 Sept. 1857 [Winearls 239].

Plan of the City of Toronto Showing the Government Survey and the Registered Subdivision into Lots . . . by H.J. Browne . . . J.O. Browne . . . Fuller & Bencke Lith. Toronto [Winearls 2139].

Elizabeth Hulse, 'The Life and Times of William Walter Copp,' in Sticks and Stones: Some Aspects of Canadian Printing History (Toronto: Toronto Typographic Association, 1980), 69–72. It is also interesting to note that L. Ennecker, who worked for W.C. Chewett in 1863, went on to become a printer in Hamilton and produced at least one map, a plan for Hamilton in 1866 [Winearls 1449].

'Blackburn's City Steam Press . . . Land Surveyors and Proprietors of Estates are solicited to inspect J. Blackburn's style of executing Plans of Town and Village Lots, Park Lots, etc. in Typography, a process which is far cheaper and yet fully equal to Lithography. For Maps executed by this process he took
Extra Premiums at the Provincial Shows at Kingston, 1856 and Brantford 1857,' as advertised in the *Canadian Almanac for 1858*.

52 Smith's *Commercial and Travelling Map of Canada West Compiled expressly for Smith's Canadian Gazetteer 1846* [Winearls 154].

53 Parker, 78.

54 The maps of course were also being advertised for sale at the offices of the printer and sometimes at other booksellers.

55 National Archives of Canada, MG 29 [B1], Sir Sandford Fleming Papers, and Archives of Ontario, MU 1050, Sir Sandford Fleming Papers.

56 Invoice dated 16 Sept. 1846, from Scobie to Fleming, NAC, MG 29 [B1], vol. 45, folder 312.

57 Letter from Scobie & Balfour to Fleming, 12 Oct. 1846, NAC, MG 29 [B1], vol. 45, folder 312.

58 *Plan of the Town of Cobourg* . . . by Sandford Fleming, was advertised for sale in the *Cobourg Star*, 17 Nov. 1847, but the only known copy so far discovered has been that found in the Fleming Papers [Winearls 1261].

59 A note in his diary elaborates: 'little Mr. Stackhouse Scobie & Balfour's engraver had been drunk last night and can't work today.' Fleming Diary, 12 Jan. 1848, NAC, MG 29 [B1].

60 Archives of Ontario, MU 1050, Enveloppe 41.

61 *Topographical Plan of the City of Toronto* . . . Drawn and Compiled by Sandford A. Fleming, Provin'1 Land Surveyor. 1851 . . . Engraved on Stone by Sandford A. Fleming. [Winearls 2090]. The work involved the engraving of pictures around the margin as well as the map.

62 Fleming Diary, 10 Jan. 1851, NAC, MG 45 [B1].

63 *Proceedings of the Association of Ontario Land Surveyors* 25 [1910]: 17.

64 This was a later type of transfer process than that used in the 1830s and intended mainly to save the original plate from excessive wear (Wallis and Robinson, 305). Scobie & Balfour exhibited an example of a transfer of an engraving to stone at the Toronto Society of Arts Second Exhibition in 1848.

65 Winearls 1005, 1011, 1013–14, and 253.

66 In this case the original 'plate' may have been the lithographic stone. A complete list of states of this map is in Winearls 185.

67 Winearls 185[6] and [11].

68 The geological information and title is overprinted on a late state of the original map [Winearls 185[14], 297].
An attractive example of an urban subdivision plan printed by John Ellis in 1855. [Winearls 1621]. Reproduced from an original in the National Archives of Canada [NMC 52345].
TABLE I
Major local map printers 1843–67

| Year | Scoble | Maclean | W.C. Chewett & Co. | John Ellis | Government Lith | Spectator Lith | Gregory | Matthews | S. Peters | Tremaine |
|------|--------|---------|-------------------|------------|----------------|----------------|---------|---------|----------|----------|
| 50   |        |         |                   |            |                |                |         |         |          |          |
| 55   |        |         |                   |            |                |                |         |         |          |          |
| 60   |        |         |                   |            |                |                |         |         |          |          |
| 65   |        |         |                   |            |                |                |         |         |          |          |
| 70   |        |         |                   |            |                |                |         |         |          |          |
| 75   |        |         |                   |            |                |                |         |         |          |          |
| 80   |        |         |                   |            |                |                |         |         |          |          |
| 85   |        |         |                   |            |                |                |         |         |          |          |
| 90   |        |         |                   |            |                |                |         |         |          |          |
| 95   |        |         |                   |            |                |                |         |         |          |          |
| 100  |        |         |                   |            |                |                |         |         |          |          |

(50 = 1 inch)
TABLE II

*Local map printers by place 1831–67*

| TORONTO                      | HAMILTON                     | LONDON                      |
|-----------------------------|------------------------------|-----------------------------|
| Barr & Corss                | Brown & Bautz                | Cloak Lith                  |
| Blackburn’s City Steam Press| Ennecker, L.                 | Peters, Samuel              |
| British Canadian            | Gregory, H.                  | Phillips, Evans             |
| Brown’s Printing Establishment| *Spectator Lith*             | Talbot, Siddons             |
| Castle, H.J.                |                              |                             |
| Chewett, W.C.               |                              |                             |
| Derbishiire & Desbarats     |                              |                             |
| Ellis, John                 |                              |                             |
| Ellis, John, Jr.            |                              |                             |
| Maclear & Co. Lith          |                              |                             |
| *Patriot* Office            |                              |                             |
| Rordans & Carter            |                              |                             |
| Scobie, Hugh                |                              |                             |
| Scobie & Balfour            |                              |                             |
| Tazewell, S.O.              |                              |                             |
| Tremaine’s Map Establishment|                              |                             |
| Ware, G.B.                  |                              |                             |

| OTHER ONTARIO                | MONTREAL & QUEBEC            |
|-----------------------------|------------------------------|
| Government Lith Press       | Duncan & Co.                 |
| Guelph *Advertiser*         | Ireland, T.                  |
| Kemptville Printing Office  | Little, W.A.                 |
| Knayer, J.                  | Matthews, George             |
| Laycock, George             | Montreal P. & P. Co.         |
| Woodstock *Gazetteer* Office| Roberts & Reinhold           |
|                            | Royal Engineers Press        |
|                            | Smillie, David (Quebec)      |
