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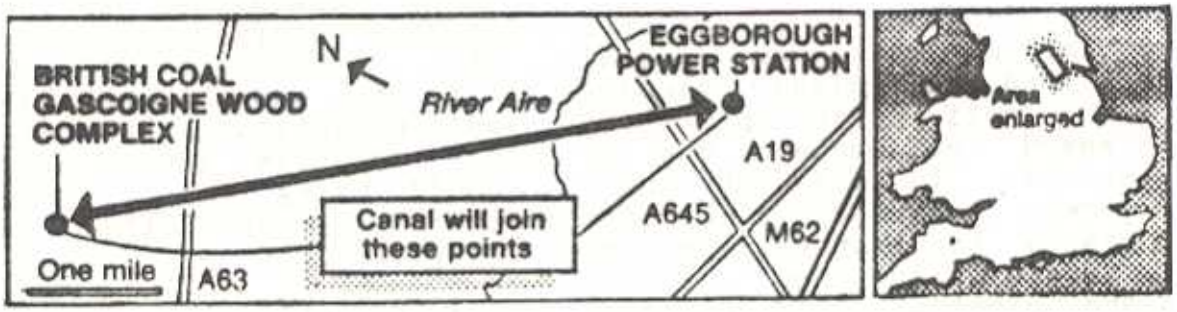
BRITAIN'S FIRST NEW BARGE CANAL SINCE 1905

by Roberta M. Styran



On 14 February 1989 The Times of London reported: "The first new barge canal for more than 80 years has been planned for South Yorkshire by National Power ... to transport coal to Eggborough Power Station. The plan comes at a time when a growing use of canals for commercial traffic is starting to emerge, particularly as it is being argued that they are more environmentally friendly than roads or rail ....The new canal would transport up to 5.5 million tonnes of coal a year by barge from British Coal's Gascoigne Wood mining complex [and] would more than double the amount of materials being delivered by canal. In the 12 months to March last year 4.08 million tonnes were transported, up from 3.89 million the year before".

The Times report referred briefly to the 1983 reopening of a 21-mile section of the Sheffield and South Yorkshire Navigation between Doncaster and Rotherham, which was hailed at the time as "The biggest redevelopment on Britain's waterways since 1905" (when the last new barge canal, the New Junction, was opened to help the movement of coal). In 1983 the British Waterways Board were "convinced that inland waterway transport in the UK has reached a turning point." In respect to the SSYN the Board noted: "From the industrial part of South Yorkshire, traffic will now have a direct and low cost alternative access to the Humber Ports, and beyond to the inland waterway system of Europe. The Don Valley encompasses the major commercial centres of Sheffield,

Rotherham and Doncaster and is one of the largest and most concentrated areas of heavy industry in the county. Considerable quantities of raw materials are imported into the region and finished goods are exported all over the world. **Barge transport is fuel efficient and environmentally acceptable** [emphasis in original].

The Inland Waterways Association has for several years had an Inland Shipping Group active in promoting increased commercial use of waterways. In April 1988 their spokesman reported: "the last 10 years have shown a gradual progression in the greater inland penetration of sea-going vessels, primarily foreign-going, with an attendant decline in barge carrying ... due to a number of factors which include a reduction in trade with the Commonwealth and other foreign countries coupled with an increase in trade with the EEC; innovative developments in coaster design enabling larger ships to move further inland; a recession in the industries which historically generated barge traffic; and changes in cargo handling methods ..."The report continued that regional variations were considerable, and that generally speaking the increase in traffic carried by sea-going vessels was likely to continue. An optimistic note, that some revival of barge traffic might be anticipated, was offered: "Petroleum products and coal are the two major commodities carried on our inland waterways today, so, with the development of new power stations and the installation of anti-pollution measures, there are definite growth areas which could bring about a significant increase in the tonnages carried."

Significantly, the southern end of the proposed new canal-carrying barge canal will be approximately 11 miles north of Doncaster. While there has not been any hint of any further develpment, one should never forget that Britain's 4000-mile network of inland waterways developed in a piece-meal fashion, comprising many short lengths intended originally as purely local links between specific communities or areas, and for specific purposes.

THE RIDEAU WATERWAY

Editor's Note: This is the fourth installment from a paper entitled The History of Canadian Inland Navigation System which was presented to the Canadian Society of Civil Engineers Centennial Conference in Montreal during May, 1989. The authors, Society member Walter Webb, and E.Dumalo, have graciously agreed to the use of parts of the paper in Canals Canada.

The Rideau was the most extensive of the military canals and is the only one to remain in operation to this day. Present day boaters can

cruise the Rideau and at the same time examine fine examples of early 19th century engineering - the locks and dams that for the most part are changed little since they were built over a century and a half ago. Due credit must be given to those that have maintained this canal as a recreational waterway.

However the major credit must surely go to Lieutenant-Colonel John By, Royal Engineers, the builder of the system. By had the foresight to push for larger locks than were being built at Lachine and at Grenville and we have seen that this resulted in the remaining Ottawa River locks being a larger size similar to the 40 m by 10 m locks of the Rideau.

Work commenced on the Rideau system in 1826. Most of the canal construction was carried out by contractors who had recently completed the Lachine Canal in Montreal; the fine masonary structures that stand to this day being testimony to their skills. The canal route started from the Ottawa River with a flight of eight locks that led to an artificial canal that joined the Rideau river at Hog's Back some 10 km from the entrance. Hog's Back was the site of one of the high dams on the system that, despite a major failure during construction, was finally completed and remains intact today. The canal then followed the Rideau River, Rideau Lakes and Cataraqui River to Kingston - a distance of some 200 km. It had 46 locks and many bridges and dams. Perhaps one of the most impressive structures is a large masonary arched dam at Jones Falls, 19 m in height and some 107 m in length. When the canal was completed in 1832 it marked the end of the construction of the "military canals".

These canals had indeed served the military but over time their role was more a commercial one and on the Ottawa and Rideau they eventually (after rebuilding in the case of the Ottawa River canals) became part of the recreational canals that exist today.

EDITOR'S NOTEBOOK

This issue of Canals Canada marks my last as editor. I have enjoyed the experience the last five years, and appreciate the confidence and support the Board of Directors has given me every step of the way.

Thanks are also due to some very special people whose skills and efforts have contributed greatly to the production of this Newsletter. My sincere gratitude to Helen Herriott for her excellent secretarial advice and assistance, Randy Lisoy for his association with the Newsletter, and also to my wife, Nancy and son, Michael, for their encouragement - and their willingness to often help label, staple and stamp. I am

also grateful to all of you, our loyal members, for your interest and suggestions, as well as for the always welcome contributions.

The Newsletter, I feel, is a vital link with our membership and I wish it much success for the future.

Happy Canalling,

Sherman Zavitz

ANNOUNCEMENT

Discovery and Rediscovery of the Welland Canal

Vanwell Publishing Limited is pleased to announce the publication of the first book in its Niagara Heritage Series, The Four Welland Canals: A Journey of Discovery in St. Catharines and Thorold, by John N. Jackson, Professor of Applied Geography at Brock University. A journey of discovery along the present-day and historical routes of the Welland Canal, the book focuses on three distinct yet interrelated themes: the modern Canal as part of the St. Lawrence Seaway carrying ships and their cargoes to and from the inland heart of North America; the predecessor Welland Canal systems, which are now significant historical resources; and, unifying past and present, the adjacent urban circumstances and their relationship to the series of canal endeavours.

Dr. Jackson, whose studies of the Niagara Region have included recreational, industrial, and urban aspects of the landscape, intends his book for the residents of the Niagara Peninsula and the many visitors to the region. In order to facilitate a better appreciation of the Niagara heritage, the book encourages its readers to follow the canal from Lake Ontario to the crest of the Niagara escarpment.

The Welland Canal has been in the past and continues today an ongoing resource of substantial benefit to the cities of St. Catharines and Thorold and the Niagara Region. The Niagara Peninsula was first crossed by the Welland Canal in 1829. Previously, apart from Niagara (now Niagara-on-the-Lake), settlement was rural and sparse. The canal changed these pioneer circumstances. It promoted St. Catharines from a village to a manufacturing centre, it created new communities along the line of the waterway, and it encouraged industrial achievement and regional expansion. The waterway and its neighbouring communities are inextricably interlocked, each contributing to the evolution of the other.

The Four Welland Canals: A Journey of Discovery in St. Catharines and Thorold is a self-guiding format with a series of instructional maps, diagrams, and photographs. The first of three titles sponsored by Avondale Food Stores, it is available in a paperback 8 3/4" x 8 1/4", 76 page format for $5.95 from: Vanwell Publishing Limited, 1 Northrup Crescent, P.O.Box 2131, Stn.B., St. Catharines, Ont. L2M 6P5.

THE BOOKSHELF

Legget, Robert, Ottawa River Canals and the Defence of British North America. Toronto, University of Toronto Press, 1988, pp.308, illus., App., cloth.

As Dr. Legget's Rideau Waterway (reviewed Dec. 1986) was in many ways a tribute to the engineering skills and integrity of Lt.-Col.John By., R.E., so is the present volume a tribute to Lt.-Col.Henry A. DuVernet, of the Royal Staff Corps, to whom it is dedicated.

In a relatively short space (308 pages, incl.213 of text, 61 of appendices), Dr. Legget has covered, in his inimitable style, succinct yet easily readable, the historical background, construction, operation and reconstruction of the Ottawa River Canals: the 6-mi. Grenville (begun 1819), the 2-mi. Carillon (begun 1830) and the short stretch at the Chute a Blondeau (started 1829) - all built by the short-lived (1800-1839) and hence often ignored, Royal Staff Corps. All were fully operational by 1834, and all submerged with construction of the Carillon Dam and power station in 1962. The stretch at Ste. Anne-de-Bellevue was built by the Board of Works of Lower Canada from 1839 to 1843.

From the earliest explorations by the French (including Jesuits), through the exciting years of the fur trade, to the pioneering settlements of the 19th century, we are carried by the procession of canoes, bateaux, York and Durham boats, and finally steamboats, along this vitally important inland waterway. Imperial military authorities were all too aware of the vulnerability of the St. Lawrence to attack from the Americans, hence the importance of the Ottawa River route, and the provision of British military units to construct its canals. Rivalry between the two was settled only in the 20th century.

While we are never long allowed to forget the broad context of military, political and economic influences which shaped events in the British North American colonies, this is a story of the canals and those who built them: officers and men of the royal Staff Corps, augmented by local workmen (for the Carillon and Chute a Blondeau sections, under contract). Dr. Legget's concern is to bring to life those men, their difficult and dangerous working conditions, and the role the canals and their construction played in settlement of the area. This he does with a wealth of meticulously researched detail (some relegated to Appendices). Especially, he pays homage to Lt.-Col. DuVernet, a man whose painstaking engineering skills are lovingly recounted, and who is variously described as "kindly", "courteous", "considerate", and "an officer and gentleman".

The various elements of scholarly apparatus are to be appreciated by both armchair traveller and serious canal

continued...

buff: excellent maps and choice of illustrations; descriptive picture captions which help one to locate features referred to in the text; the relegation to Appendices of material which, while fascinating in itself, would interrupt the narrative flow of the text ("statistics do not make for easy reading," p. 157); an index of Names and one of Subjects. As one would expect of the University of Toronto Press, the book has been well produced. The only possible caveat is that the detailed sequential approach taken does lead to some (difficult, if not impossible, to avoid) overlap between text and Appendices, particularly in regard to the Georgian Bay Ship Canal.

The human and humane elements are never far from the surface in Dr. Legget's writing, whether it be DuVernet's concern for his men, military or civilian; or the tables in Appendix B, where land grants, weddings, and births and baptisms of Royal Staff Corps personnel while serving in British North America, are detailed. Throughout the book, the author's own courtesy and humanity are apparent; these, added to his wide knowledge of both engineering and transportation history, and his love of canals, make for a thoroughly enjoyable, as well as instructive, reading experience.

Available from bookstores. Published by the University of Toronto Press, 63A St. George St., Toronto, M5S 1A6. Price in Canada: $35.00.

Roberta M. Styran

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James T. Angus. A Respectable Ditch. A History of the Trent-Severn Waterway, 1833-1920. Kingston and Montreal, McGill-Queen's University Press, 1988. pp. xiv, 455.

Most canal buffs will have at least heard of the Trent-Severn Waterway which runs from eastern Lake Ontario to Georgian Bay on Lake Huron. This canal system is perhaps the most popular recreational corridor in Canada. It began, however, simply as an attempt to bolster traditional local industries and agriculture, and became almost by default a profitable tourist mecca. In fact, in his new book about the Trent-Severn, Prof. James T. Angus maintains that it was "pork-barrel politics" (171) which sustained the project, a point of view which he conclusively proves. His tale of "one of the most expensive political boondoggles in Canadian history" (34) is told with narrative skill, humour, and scholarly precision, clearly showing how influences from the "grass roots" affected national and provincial policies and how major economic and political changes affected one small part of the country.

Local pressure locks, dams, log slides, etc. saw committees and associations sending huge delegations to Ottawa to lobby their M.P.s. Especially the Trent Valley Canal Association (formed 1879) exerted "ceaseless pressure" (150). Promoters of the waterway maintained that among other advantages, it would offer a safer and cheaper avenue for wheat and timber to St. Lawrence ports than the Lake

Erie-Welland canal route. Governments were reluctant, however, to invest in the waterway. Yet when an election approached, the party in power would suddenly sponsor surveys, set aside monies, begin projects -- which were usually abandoned when they were no longer politically useful. Ottawa indulged in "promises, stalling devices, pressure tactics, and election-eve decisions" (213). For example, contractors and engineers who were not supporters of the ruling party rarely got contracts or appointments; but even for loyal supporters, funds were slow to appear. Both Macdonald and Laurier extended construction work over many years, to assure their continuance in power.

The canal's initial purposes were imperfectly realized because the forests were soon harvested and not "one kernel of wheat" ever passed down it (239). Eventually, whereas hydro-power led to the completion of the waterway after 1907, the tourist trade became the most lucrative 20th century source of local canal-based profit.

Although A Respectable Ditch offers much that is fascinating about the construction and maintenance of a waterway, this is basically "a book about politics..." (xi) -- and an engrossing one! Prof. Angus' research has been painstaking and very productive. He has worked in the National Archives, Ontario Archives, Toronto and Peterborough public libraries, and Trent-Severn Waterway headquarters, examining government records, public accounts, House of Commons debates, newspaper stories, letters and private papers. His bibliography also contains many relevant secondary sources. Not only is his style clear and readable, but Prof.Angus' narrative and descriptive skills are also evident in vivid pictures of the Trent's timber booms and jams, of the remarkable brawling among contractors and engineers, and of the opening and first operation of the Peterborough lift lock. He offers a convincing appreciation of the work of Nichol Hugh Baird, who "created the canal" (94). The characters of Baird and his fellow engineer Hamilton Hartley Killaly are strongly recreated as is that of superintendent Richard B. Rogers. He also presents a good clear description of the technology involved in the operation of a hydraulic lift lock. The many illustrations are placed conveniently at suitable spots throughout the book so that one is not constantly referring back or ahead.

Several points are especially interesting. Water pollution on the Trent (by sawdust from mills) was a problem in the mid 19th century, but legislative efforts were made to eliminate it. The ravaging of the landscape also began then, too, for the canal caused severe environmental damage in the flooding of forested areas such as in the Simcoe-Balsam lake division.

Prof.Angus, without actually stressing the point, reminds us that good engineers and architects were in short supply in the mid-1800s and even in the early 20th century. Nichol Hugh Baird worked with the engineer Hamilton Killaly, surveying the Welland Canal in the late 1830s. Killaly, who later as Public Works Commissioner for the Province of Canada had a great influence on the progress - or non-progress! - of the Trent, was also in charge of the Welland Canal improvements. Kivas Tully, who designed Victoria Hall in Cobourg, a town vitally interested in the Trent-Severn waterway, also designed the town hall of St. Catharines, another of Ontario's canal cities. As well, he surveyed the route for a proposed Toronto and Georgian Bay ship canal in 1856 and later became architect and chief engineer for the Ontario Department of Public Works. Alex J. Grant, who was superintending engineer on the Trent, was later chief engineer on the construction of the Welland Ship Canal.

It is, however, the political circus which astonishes. For example, Sir William Mulock, a minister in one of Laurier's governments, conceived a plan to build a canal along the shallow Holland River to serve his Newmarket constituents. "Mulock's Madness" wasted a million dollars of public money. In this "grossest and most expensive boondoggle of them all" (293), the locks were finished, but the channel itself was never build. Then there is the paradox of the federal Liberal party championing provate develpment of hydro-electric power on the Trent, while provincial Conservatives favored public ownership.

The book has some weaknesses. Some technical terms, undefined, will have you reaching for a dictionary. There are typographical errors, especially toward the end of the book. The well-reproduced illustrations do not include portraits of the "little-known Canadians who,... promoted the scheme..." (xii). There must be pictures available of, for example, Thomas S. Rubidge (canal superintendent), Alex Grant (superintending engineer), or J.G.G. Kerry (sponsor of the Trent hydro-power system).

The maps could be larger and more detailed. Some have very fine print, but do not fill the whole page. This book deserves to be widely read, but even long-time Ontario natives will not know some of the sites where Prof. Angus' saga occurs. References are made in the text to places not shown on the maps. For example, frequent mention is made in Chapter 28 of Ragged Rapids and the Nottawasaga River, neither of which appear on any of the maps. More maps of small areas set into the text or into the larger maps would help.

Important figures, when they first appear in the narrative, are not always described adequately. For example, when a man identified simply as Rogers,

an engineer (99), first appears, no hint is given that R.B. Rogers will turn out to be an extremely important individual. Less important figures such as contractors J.B. Fuller and J.A. Aylmer are introduced into the narrative without being identified, thus when they reappear in the story, the reader does not recall their previous roles.

This, however, is nit-picking. There is one serious weakness. The fascinating narrative comes to an abrupt halt without a comparison of the Trent project to other canal-building projects and public works, or to the develpment of tourism or of hydro power in Canada. A more satisfying conclusion, for example, would tell us about what has happened to the Trent since 1920. The author writes, "Given the millions of dollars it has poured into the economy, to say nothing of the thousands of man-hours of pleasure it has given to its users, the canal is worth every cent the politicians reluctantly spent on it" (406). Readers outside Ontario may not understand this point at all.

These flaws aside, Prof. Angus' book, because of its lively style, attention to detail, and narrative power, will be savoured by most canal enthusiasts.

Robert R. Taylor

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Douglas and McIntyre, Publishers, wish to announce that Robert Legget's Canals of Canada is now available at a special sale price of $4.99. The book may be purchased from good bookstores across Canada, or by writing directly to the publisher and including the price plus $1.00 per copy to cover shipping and handling. Order from: Douglas and McIntyre Ltd., 1615 Venables St., Vancouver, B.C., Canada V5L 2H1.

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