

The Double-Front Era Township Surveying in Upper Canada (1812 - 1829)

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Surveying, or the determination and depiction of the shape and size of parcels of land by members of a recognized profession, arrived in Upper Canada in 1783 with the first British settlers. Drawing upon their American experiences, Governor Haldimand and Surveyor-General Holland revolutionized surveying by reversing its standard procedures. Rather than surveying parcels of land after the settlers had cleared homesteads, Haldimand and Holland created a grid-iron pattern of lots which surveyors laid out before the Crown allocated any land to the settlers. Recognizing its potential to create more orderly settlement and to reduce property litigation, Lieutenant-Governor Simcoe confirmed this system of surveying when Upper Canada became a separate colony in 1791. Unfortunately, the meagre resources available to the colony limited the system's operation to rudimentary surveying techniques.

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A need for reform in the land surveying system emerged about 1815. Immigration from the British Isles had increased beyond the rate at which Crown surveyors created new lots. In addition, Robert Gourlay's questionnaire and subsequent petitions revealed the burdensome road maintenance duties shouldered by the settlers. In 1818, Surveyor-General Thomas Ridout responded by amending the pattern of township lots and their monumentation which facilitated the patenting of half-

lots and the redistribution of settlers along both sides of concession roads. These reforms doubled the number of parcels available for settlement in each township and eased road maintenance burdens for those who immigrated to Upper Canada. The Surveyor-General's office used this system, which became known as the Double-Front township, for over ten years.

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To lay out these townships in the field, the Surveyor-General contracted licensed surveyors and paid them a percentage of the land which they surveyed. When surveyors obtained such contracts and the financial backing of land speculators, they marched into the wilderness with their crews, equipment and provisions without the benefit of pack animals. Although their field notes did not accurately record the progression of their surveys, surveyors and their crew typically blazed 100 to 150 miles of road allowances per township using a compass for direction and a chain for distance. Settlers, once awarded location tickets, later traced these blazed lines to their plots of land.

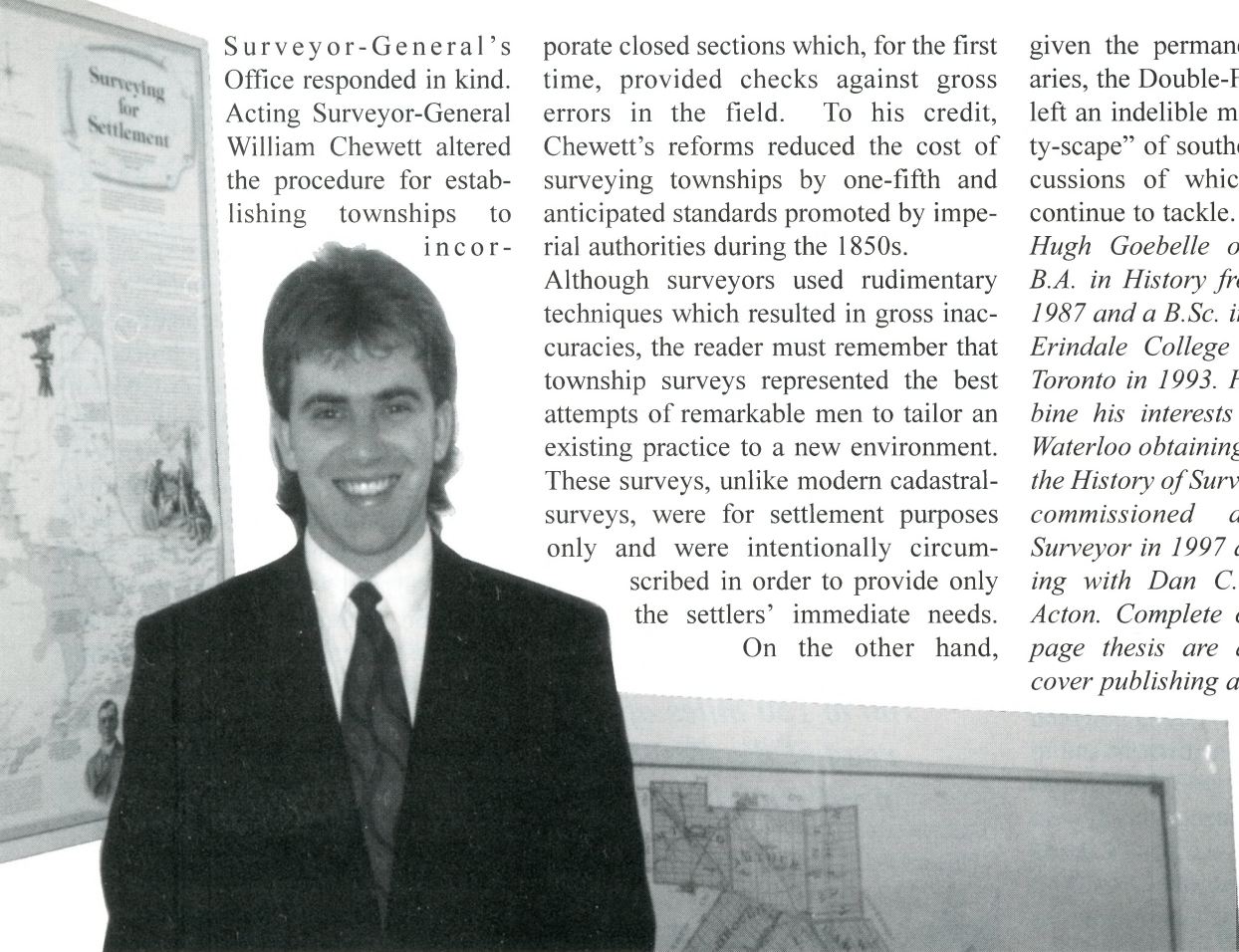
Between 1818 and 1829, surveyors established over 100 Double-Front townships which encompass about 18% of the total area of modern southern Ontario. This feat represented a major achievement for the young colony; however, flaws within the system left a legacy of title and boundary problems which modern surveyors continue to face. The equipment with which surveyors chose

to work, albeit suited for bush surveying, was prone to cause distortions in field measurements. Building upon this problem, the township's layout procedures failed to incorporate any sort of systematic checks in the field thereby leaving any mistakes unnoticed. Furthermore, rough working conditions including remote sites, dense forestation, numerous swamps, countless flies, deep snow and unruly crews frequently wreaked havoc on accuracy. Typically, these problems translated into jogs along sideroads of three to 429 feet and more at the centreline of concessions and uncertain title to the beaches of this province.

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By the mid-1820s, the need for reform became apparent again but, on this occasion, more than the Surveyor-General's Office responded. To begin, the Colonial Office relieved Upper Canada of some of its settlement responsibilities and orchestrated the sale of 1.1 million acres of wild lands to the Canada Company for development in 1826. The Colonial Office also terminated the practice of paying for surveys with land because many believed that this system of rewarding surveyors contributed to the gross errors found in township surveys. In order to return to paying for surveys with cash, the Colonial Office discontinued the gratuitous land grant and created a new department in 1827, the Crown Lands Office, to manage the land granting system. For its part, the



Surveyor-General's Office responded in kind. Acting Surveyor-General William Chewett altered the procedure for establishing townships to incor-

porate closed sections which, for the first time, provided checks against gross errors in the field. To his credit, Chewett's reforms reduced the cost of surveying townships by one-fifth and anticipated standards promoted by imperial authorities during the 1850s.

Although surveyors used rudimentary techniques which resulted in gross inaccuracies, the reader must remember that township surveys represented the best attempts of remarkable men to tailor an existing practice to a new environment. These surveys, unlike modern cadastral-surveys, were for settlement purposes only and were intentionally circumscribed in order to provide only the settlers' immediate needs.

On the other hand,

given the permanent nature of boundaries, the Double-Front township system left an indelible mark upon the "property-scape" of southern Ontario the repercussions of which modern surveyors continue to tackle.

Hugh Goebelle obtained an Honours B.A. in History from Huron College in 1987 and a B.Sc. in Survey Science from Erindale College of the University of Toronto in 1993. Hugh went on to combine his interests at the University of Waterloo obtaining a Master's Degree in the History of Surveying in 1996. He was commissioned as an Ontario Land Surveyor in 1997 and is currently working with Dan C. Dolliver, O.L.S., in Acton. Complete copies of Hugh's 232 page thesis are available for \$20 to cover publishing and postage.

