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The Early Development of Terminal Grain Elevators on Canada's Pacific Coast

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The opening up of the prairies for wheat cultivation had a major impact upon this landlocked region by transforming it from a frontier dependent upon the fur trade into a series of very well defined cultural landscapes where agriculture became the norm. But in addition, this agricultural revolution has also had a significant impact upon cultural landscapes outside the region, reflecting the location of the Prairie provinces within the country. This is particularly noticeable where terminal elevators were constructed in order to ensure the efficient overseas export of grain. This paper details the belated (when compared to the Lakehead) rise of grain terminals on Canada's Pacific Coast, from its beginnings up to the early 1930s, when the landscape was essentially complete. It discusses the changing patterns of ownership of the structures, and explains the changes in the "balance of terminal power" during the early development of this region. It concludes with a brief update on west-coast terminals in later years.

Introduction

The international wheat economy makes up one part of what Immanuel Wallerstein has called the modern world system, a model which provides a framework that describes and accounts for the extensive development of capitalist agriculture (Hugill and Everitt, 1992). Although it is meaningful to study the world as a system, it is also important to look at the constituent parts of the structure. For as Taylor (1988: 264) has pointed out, "in order to properly understand the world economy we must know the places that constitute its whole", and to understand these "places" we must see their development over time and through space, for they are formed not by relative isolation and occasional diffusion, but by a constantly changing relationship with the rest of the world.

The Canadian grain trade contains many "places" that need to be understood, ranging from the farmers' fields to the country elevator, to the city of Winnipeg, but one component of the system that deserves a new look is the part that physically connects the interior of Canada with the rest of the world, the terminal elevator system.[1] Thus, the purpose of this paper is to discuss the transformation of the West Coast landscape as a result of the construction of terminal elevators and, thus, to give us, as Wallach (2004) has suggested, a better understanding of this cultural landscape. As such, the paper will concentrate on the construction of parts of the cultural landscape rather than the economics of the trade itself, although in practice the two were, of course, largely indivisible. This aspect of the West Coast development has been largely overlooked in the literature, and this neglect reemphasises the importance of the present documentation this landscape change. Stevens did produce a useful paper on the Grain Trade in 1936, but she concentrated (as the title of the paper suggested) on the trade rather than the landscape. Robinson and Hardwick's landmark work on British Columbia's development in its first century-plus notes little more than the fact that from 1919–1946 "Grain elevators were constructed and Alberta became part of the grain hinterland of Vancouver" (1973, 36). Wynn and Oke's important volume on "Vancouver and Its Region" twenty years later contains a couple of paragraphs on the grain trade and the terminals, but gives little detail of the landscape development. Hick's recent (2003) volume on Prince Rupert is more complete for this northern city, but suffers in places by promoting viewpoints that are in conflict with more mainstream ideas in the grain trade literature.

The data for this paper was obtained from Government of Canada records, which detail the ownership, capacity and settlement location of each structure. Additional information on the grain trade was gathered from a traditional literature review, and a search of newspapers and other popular literature gave some insights into the "west coast scene'.[2]

The Early Development of the Grain Trade

Winnipeg's place as centre of the Grain Trade was assured by a series of actions by Winnipeg businessmen and politicians in the early 1880s (Everitt, 1996; Friesen, 1984). The export of the grain was enabled by the building of a railway east from Winnipeg to Lake Superior in 1883, and the development of a terminal elevator system at Port Arthur and Fort William, later to become Thunder Bay, at Canada's "Lakehead" (Everitt and Gill, 1997). The city of Winnipeg soon became "the converging point of a great wheat funnel, the spout of which [led] to the water-front of Lake Superior" (Buller 1919: 49). In fact, when the first grain cargo was exported from Fort William in 1883, the city of Vancouver had not yet been incorporated. But grain was for many years exported from Vancouver in "parcel shipments"—"bottom cargoes" in ships in liner service—and, through this means, the city managed to build up some momentum in the trade. However, although connected by rail with the Prairies since the early 1880s, the Pacific route for grain exports was not a very important one before the opening of the Panama Canal, despite the introduction of the "Crow Rate" in 1893 (Province of Saskatchewan, 1961; Ramsey and Everitt, 2001).[3] Even after the Canal was opened it remained significantly cheaper to move gain eastward rather than westward, a situation that continued until the late 1920s (Stevens 1936, 189-190), when the differential was markedly reduced.

The construction of the Panama Canal and its opening in 1914 eventually did cause far-reaching changes in the flow of ocean traffic, one of which was the development of shipments of Canadian grain destined for consumption in Europe through the ocean ports of British Columbia.[4] This route gave the farmers of Alberta and western Saskatchewan an alternative route for their exports, and this competitive factor helped to keep down eastern carriage rates.[5] The shipment of grain to the Orient also boosted Vancouver as an ocean grain terminal. By 1930, which marked the end of the "golden era in Western Canadian agriculture" (Blanchard, 1987: 25; Troughton, 2003), Vancouver handled more export tonnage than

any harbour in Canada, and over two-thirds of this traffic was in wheat (Wynn and Oke, 1992: 109). One-third of the grain from Vancouver was destined for the UK, and one third for the Orient, with the balance going to a variety of other regions such as Central and South America, Australia, and New Zealand. Interestingly, much of this grain was still carried as liner cargo with the balance being carried in tramp steamers (Stevens, 1936: 191).

The Growth of the West Coast Trade

The Panama Canal would thus, in time, lead to changes in the flow of all kinds of ocean traffic, but the growth of the West Coast terminals did not come about immediately after this development. In fact, it was some eight years before Vancouver became an important grain export outlet (MacGibbon, 1932: Chapter X), nearly thirty years after the establishment of the Crow Rate. There were a number of reasons for this lag-effect. First, the canal encountered some "teething problems" with parts of the banks sliding into the water. Second, the Canal opened in the same year as the First World War began, and this conflict led to a worldwide shortage of shipping and, thus, a delay in the testing of the potential of the west coast grain trade. In addition to wartime problems, a considerable investment in eastern movement had already been made, the technical conditions of eastward movement were well known, and the organization of grain exports was centred on the eastern route. The railways also made more money out of the longer eastern haul, and there was, therefore, no real economic motive for them to develop a grain traffic to the Pacific. Lastly, there was some doubt that grain could safely be shipped, in bulk, using a tropical route, without it seriously deteriorating while in transit. There was, thus, what MacGibbon termed a natural disinclination to change (MacGibbon, 1932: 267). On the other hand, many people in Vancouver shipping circles, in addition to farmers in (at least) Alberta believed that the new route could be economically viable. They argued that the low costs of ocean transport coupled with the shorter rail haul would make the route viable not only to the countries to the west (which at this time provided a small part of the market), but more importantly to Europe (MacGibbon, 1932: 267).

Consequently, responding to pressure from the City of Vancouver,[6] the Dominion Government built a terminal elevator on the harbour front, with a capacity of 1,250,000 bushels that was completed in 1916.[7] It is noteworthy that this first of the west coast "leviathan masses of reinforced concrete" (Herbert 1933: 245), was

a government-financed structure. This may indicate that the major grain companies did not see this as a worthwhile investment risk, but also certainly reflected farmer-demands for public ownership ("nationalization") of terminal elevators (Blanchard, 1987: 59). At this time there were 26 (mostly privately-owned) terminal buildings at the Lakehead, with a total capacity of over 45 million bushels. In 1917 the Panama Canal route was tested using the "S.S. War Viceroy", and passed with flying colours, with only 160 bushels of a cargo of 100,000 bushels of Alberta wheat being damaged (MacGibbon 1932: 268).

Despite this success, however, there was little increase in Pacific port usage. Just under 600,000 bushels were shipped in 1920, for instance, mainly to the Orient. This sluggish development reflected both high ocean freight rates that favoured the shorter Atlantic route, as well as higher westward rail freight rates that favoured the Lakehead. In addition, a lack of inward cargoes and the competition of exporters in the Pacific ports of the United States for outward cargo space restricted the growth of the grain trade in this area.[8] After 1920, however, these disabilities began to fade and, by 1922, 14.5 million bushels were shipped out of Vancouver with 11 million going to Europe. From this time, trade from the West Coast steadily grew. For the crop-year 1925–26, total BC shipments were over 53 million bushels (nearly half to the UK). In 1925, the "Crow Rate" was extended to apply to export grain being shipped to the West Coast (Tebbutt and Cooksley 1978: 7). By 1928–29, the total was about 95 million bushels, with a large proportion of the total being billed to the United Kingdom: 58% in 1921–22, 79% in 1922–23, and 87% in 1932–33 (Stevens, 1936: 193-194). The ability to ship during the winter months when the Great Lakes were frozen was a particular asset to the West Coast. As McKee had boosted fifteen years earlier "The Pacific ports are not compelled to wait by nature for the coming of spring—"*their next season is tomorrow morning*" (author's emphasis) (McKee 1913:160). This growth in shipments clearly represented an impressive increase, but it must be noted that, in the same year, 376 million bushels were shipped by the Lake Shippers' Clearance Association. However, it can be safely argued that, by the early 1930s, the west coast had become established as a second route for export of Canadian grain.

Terminal Variations

Apart from differences in shipment-size at this time, there were other differences between the two regions of terminals (the Eastern

and Pacific routes). Although the terminals of Fort William and Port Arthur were principally assembly points where grain was put into a condition for export (cleaning, drying, mixing, etc.), Vancouver had the added function of being a gateway through which grain moved directly to foreign markets. In fact, its government elevator was first classified as a "Transfer Elevator" as it received grain from other terminals inland (Blanchard, 1987: 60), and was later reclassified as a Terminal Elevator. It thus combined the functions traditionally divided between the Lakehead and Montreal. Although there was initially a pressure to have only publicly owned terminals at Vancouver (and elsewhere), this did not occur, and soon the public terminals had been leased to private companies, in addition to other structures that were built by the private concerns. Because the grain trade in Vancouver developed relatively late, the terminal elevators were located in the eastern part of the south shore of Burrard Inlet, as the CPR already had control of lands to the west (Stevens, 1936: 191)

The Vancouver Elevator (Figure 1) was "turned over to the Harbour Commissioners" in 1923 (Blanchard, 1987: 60).[9] It was, however, plagued (like the other government-owned structures) by underutilization, probably because the government owned no "lines" of country elevators to feed their facilities, and lacked grain trade experience. It was unlicensed at least once as a result, immediately after a competitor was constructed. However, the Harbour Commission, encouraged by the increase in trade that was by then taking place, had built two more elevators by 1926 and leased them out for other companies to operate.

The Vancouver Terminal Grain Company built the first privately owned terminal elevator in Vancouver in 1925. This was a subsidiary of Spillers Milling Company (the second largest British milling company), which also owned Alberta Pacific Grain at this time—giving it access to this company's line of country elevators. Spillers wanted to be able to control every stage of production of their product, and used the phrase 'From Producer to Consumer' in their advertising (Anderson 1991: 88). This terminal (and the country elevators) changed hands several times over the years as companies amalgamated or were sold. For instance it was sold to The Alberta Pacific Grain Company Limited in 1925.

From 1927, the first Harbour Commission elevator was being operated by the Pacific Terminal Elevator Co. Ltd. In 1925 the United Grain Growers (UGG), along with some other interests, acquired a controlling interest in the Burrard Elevator Company terminal (also leased from the Harbour Commission). By 1930

Figure 1: Vancouver Harbour Commission Elevator No. 1 (Credit: Vancouver Public Library Photo N. 22725

UGG had full control over this lease, and in 1931 or 1932 enlarged and modernised this facility (Colquette, 1957: 197; *The Grain Growers Record* 1944). In addition, by 1927 the Alberta Wheat Pool (AWP) had leased the third Harbour Commission elevator, and from 1928 the AWP was operating an additional terminal structure. Lastly, by 1928 Midland and Pacific (another private company) had

built the first terminal on the north shore of Burrard Inlet, and the Columbia Grain Elevator Co. Ltd. had also built a small terminal at Vancouver (Tables 1-6).[10] The latter was the only one with its shipping gallery built over the CPR right of way (Stevens, 1936: 191).

Table 1: Pacific Coast Terminal Elevator Storage Capacity

Date	# of Bushels	# of structures
1916	1,250,000	1
1924	3,850,000	2
1925	7,100,000	4
1928	13,605,000	10
1930	20,000,000	10
1935	20,873,000	10
1945	21,724,500	9
1965	24,846,500	9
1976	26,818,500	6
1987	1,138,800 (tonnes)	6
2002	1,163,800 (tonnes)	7

Table 2: Pacific Coast Terminal Elevators, 1916–17

Vancouver	
Owner	*Capacity (bushels)*
Canadian Government Elevator	1,250,000

Source: *1916–1917 List of Licensed Elevators and Warehouses in the Western Grain Inspection Division.* Ottawa: Department of Trade and Commerce.

Table 3: Pacific Coast Terminal Elevators, 1924–25

Vancouver	
Owner	*Capacity (bushels)*
Canadian Government Elevator	1,850,000*
Vancouver Terminal Grain Co. Ltd	2,000,000

*Not licensed

Source: *1924-1925 List of Licensed Elevators and Warehouses in the Western Grain Inspection Division.* Ottawa: Department of Trade and Commerce.

Table 4: Pacific Coast Terminal Elevators, 1925–26

Vancouver	
Owner	*Capacity (bushels)*
Vancouver Harbour Commission No.1	2,100,000
Vancouver Harbour Commission No.2	1,500,000
Vancouver Terminal Grain Co. Ltd	2,250,000
Prince Rupert	
Owner	*Capacity (bushels)*
Canadian Government Elevator	1,250,000

Source: *1925–1926 List of Licensed Elevators and Warehouses in the Western Grain Inspection Division.* Ottawa: Department of Trade and Commerce.

Table 5: Pacific Coast Terminal Elevators, 1928–29

Vancouver	
Owner	*Capacity (bushels)*
Midland Pacific Terminal Ltd.	500,000*
Alberta Pool Elevators Ltd. No. 1	2,400,000*
Alberta Pool Elevators Ltd. No. 2	1,650,000*
Vancouver Terminal Grain Co. Ltd	2,250,000*
Burrard Elevator Co. Ltd.	1,630,000*
Pacific Terminal Elevator Co. Ltd.	2,100,000
Columbia Grain Elevator Co. Ltd.	125,000*
Prince Rupert	
Owner	*Capacity (bushels)*
Alberta Pool Elevators Ltd.	1,250,000*
New Westminster	
Owner	*Capacity (bushels)*
Fraser River Elevator Co.	700,000*
Victoria	
Owner	*Capacity (bushels)*
Panama Pacific Grain Terminals Ltd.	1,000,000

*Licensed as a Private Elevator. Private Elevators could only receive grain belonging to the company that owned them.

Source: *1928–1929 List of Licensed Elevators and Warehouses in the Western Grain Inspection Division.* Ottawa: Department of Trade and Commerce.

Table 6: Pacific Coast Terminal Elevators, 1930–31

Vancouver	
Owner	*Capacity (bushels)*
Midland Pacific Terminal Ltd.	1,500,000*
Alberta Pool Elevators Ltd. No. 1	5,150,000*
Alberta Pool Elevators Ltd. No. 2	1,650,000*
Vancouver Terminal Grain Co. Ltd	4,870,000*
UGG Terminals Ltd.	1,630,000*
Pacific Terminal Elevator Co. Ltd.	2,100,000
Columbia Grain Elevator Co. Ltd.	150,000*
Prince Rupert	
Owner	*Capacity (bushels)*
Alberta Wheat Pool	1,250,000*
New Westminster	
Owner	*Capacity (bushels)*
Fraser River Elevator Co.	700,000
Victoria	
Owner	*Capacity (bushels)*
Alberta Wheat Pool	1,000,000*

*Licensed as a Semi-Public Terminal Elevator. Semi-Public Terminal Elevators had some licensing restrictions regarding the grain that could be binned.

Source: *1930–1931 List of Licensed Elevators and Warehouses in the Western and Eastern Divisions.* Ottawa: Department of Trade and Commerce.

As a consequence of these processes, in terms of elevator type, Vancouver soon began to resemble the Lakehead, having mostly private terminals. In 1930, there were seven terminals in Vancouver, owned or operated by six different companies (the Alberta Pool had two). It also resembled the Lakehead (rather than Montreal) in being the point where grain could be cleaned, dried, and mixed and "put into condition to receive a final certificate of grade from the inspection department for export" (MacGibbon 1932: 270).

In other ways, however, the terminals of the Lakehead and Vancouver differed. For instance, as Vancouver is an ocean port and requires the use of the foreshore of the harbour for other pur-

poses, the elevators are mostly built further back, with the grain being carried to the ocean vessels by belt conveyors carried over galleries. In addition, as storage capacity is relatively limited in Vancouver, a different permit-delivery system had to be devised to maximise efficiency.

The initial use of "parcel shipments" had discouraged the growth of grain terminals in New Westminster, which had no extensive liner traffic. But a small terminal (700,000 bushels) was eventually built there in 1928 by the Fraser River Elevator Company on Canadian National (CN) trackage. This followed the production of a report commissioned by CN and written by J.W. Porter and the soon-to-be famous grain and transportation man C.D. Howe in 1923 (Howe and Porter 1923). This report lauded the possibilities of grain exports from points along the Fraser River and suggested that this area would be much better for CN than sites along the shores of Burrard Inlet. This location was suggested as a lower cost site, as well as offering fresh water shipping that could kill marine growths on the hulls of ships. In time it became clear that Howe and Porter were over-enthusiastic in their praise of the Fraser River route which was a "far from ideal channel" (North and Hardwick 1992: 214). It needed constant dredging, being idled for two months or more in some years until silt was dredged (Lister 1970: 7), and became less and less suitable for ocean-going traffic as the size of vessels increased. The New Westminster terminal had its heydays, but never rivalled Burrard Inlet as a site for terminal elevators, and its landscape never developed further. The elevator was leased from the New Westminster Harbour Commission in 1933 by Searle Grain (a family-owned company that had its own line of country elevators across the Prairies) which became part of Federal Grain in 1967. Searle assigned the lease to Pacific Elevators of Vancouver in 1956, which then used the terminal as an overflow facility for its Vancouver operations.[11] But the wood piles on which it stood became rotten, and the last cargo was loaded there for shipment to China in 1961 (Lister 1970: 7). The elevator was demolished in 1970 and the site is now part of Fraser Surrey Docks development.

Victoria also built up a trade and constructed a small (1,000,000 bushel) private company terminal (Panama Pacific Grain Terminals Limited) in 1928.[12] However, the island location precluded extensive growth in the grain trade, despite the fact that it had the same rail export ("Crow") rates as Vancouver, and no other terminals were built in BC's capital. Alberta Wheat Pool (AWP) operated this terminal by 1932, and later a number of other companies including

the United Grain Growers (UGG) and the Victoria Elevator Company held the lease. Actual ownership of this structure is less clear, but it seems to have been at least partly owned by the Alberta Wheat Pool for some time, and the records of this terminal are in the AWP fonds in the Glenbow Archives. The structure was closed by the Alberta Wheat Pool in 1976 (Hick, 2003: 94), and as was the case with New Westminster, Victoria's terminal landscape soon disappeared.

Prince Rupert grew after it was chosen in 1906 as the western terminal of the Grand Trunk Pacific Railway (GTP). However, it was some time before it became a grain trade outlet, and its successes and failures were closely tied to political policies and events (Hick: 2003). The Dominion Government build a terminal there, which was subsequently leased to the Alberta Wheat Pool, in 1926.[13] This proved particularly useful to the Pool when pressures on shipments through Vancouver, such as grain "blockades",[14] threatened its contracts. However, the terminal only operated sporadically from 1926–31 before being closed for the next six years, and Prince Rupert remained for a long time an only "overload" port used when southern terminals could not cope with export volumes (Hick, 2003: 34).

Although 805 km (500 miles) from Vancouver by the inside passage, the export trade route of Prince Rupert via Panama is only 450 km (280 miles) longer than that of Vancouver, a small percentage of the total distance to Europe. Its more northerly location is somewhat offset by a better connection to the ocean, an excellent harbour, and a shorter distance to the Orient. In addition, although nearly 322 km (200 miles) further from the wheatlands, CN (the successor company to the GTP) traditionally maintained a freight-rate parity between Vancouver and Prince Rupert. However, predictions by GTP President Charles M. Hays that 100,000,000 bushels of wheat would move annually through Prince Rupert proved to be overly optimistic (the largest amount shipped up to 1930 being 7.6 million bushels, in 1927-28). The Depression and a decline in the Orient trade after the Japanese invasion of Manchuria reinforced the port's difficulties, as did the desire of the major grain companies to ship to their newly built terminals in Vancouver, rather than the government-owned structure far to the north. Although the port boomed during the Second World War, grain handling did not. From "1937–51 the grain terminal loaded a total of nine ships with 63,382 tonnes of grain" (Hick, 2003: 35).

The following decades saw little improvement. Thus, Prince Rupert has had varied fortunes as a grain port over the years, but

has never reached the heights predicted by its more optimistic boosters. Currently one terminal owned by the Prince Rupert Grain Company operates in the city. It was opened in 1985 and was funded by a consortium of the three prairie wheat pools, the UGG, Cargill Grain, and the Pioneer Grain Company, which group had taken over the old Dominion Government Terminal structure in 1970 (it was demolished in 1987). Prince Rupert's position as a "residual" port for grain appears to have ended, although the large grain companies still appear to prefer their grains to be shipped through their Vancouver terminals (Hick, 2003: 118).[15] Although well located with respect to grain exports to the Orient, the new state-of-the-art high speed terminal was built in Prince Rupert in part because the Vancouver region could not longer cope with the increased traffic (Wynn and Oke 1992, 232). This city's terminal landscape thus continues to have a somewhat fortuitous element to it.

Post 1930 developments in Vancouver

The pattern of terminal development on the west coast was largely in place by 1930, with later changes being essentially variations on the same theme, or upon other themes that pervaded the industry (Figure 2). From half a million bushels in 1921, shipments had increased to 95.4 million bushels in 1928-29 and 96.9 million bushels during the 1932-33 crop year Grain made up 73% of Vancouver's total export tonnage in1932 (Stevens, 1936: 185-186). After this time there was consolidation of the trade and of the companies involved in the trade, and variations in profitability as well as in throughput as a result of variable harvests and fluctuations in the world trade. In time the terminals grew in size reflecting the growth in structures throughout the industry, with some being demolished, as they became outdated or surplus to requirements after company amalgamations. This led to few landscape differences but some complicated variations in ownership and operation (see Tables 6-9).

Figure 2: The Vancouver harbour landscape, looking east
Credit: Vancouver Public Library Photo No. 16535

Table 7: Pacific Coast Terminal Elevators, 1935–36

Vancouver	
Owner	*Capacity (bushels)*
Midland Pacific Terminal Ltd.	1,500,000*
Alberta Wheat Pool No. 1	5,150,000*
Alberta Wheat Pool No. 2	1,650,000*
Pacific Elevators Ltd.	4,870,000*
UGG Terminals Ltd.	2,630,000*
Pacific Elevators Ltd.	1,715,000
Columbia Grain Elevator Co. Ltd.	350,000*
Prince Rupert	
Owner	*Capacity (bushels)*
Alberta Wheat Pool	1,250,000*
New Westminster	
Owner	*Capacity (bushels)*
Searle Terminal Limited	750,000*
Victoria	
Owner	*Capacity (bushels)*
Panama Pacific Grain Terminal Ltd.	1,008,000*

*Licensed as a Semi-Public Terminal Elevator. Semi-Public Terminal Elevators had some licensing restrictions regarding the grain that could be binned.

Source: *1935-1936 List of Licensed Elevators and Warehouses in the Western and Eastern Divisions.* Ottawa: Department of Trade and Commerce.

Table 8: Pacific Coast Terminal Elevators, 1945–46

North Vancouver	
Owner	*Capacity (bushels)*
Midland Pacific Terminal Ltd.	1,500,000*
Vancouver	
Owner	*Capacity (bushels)*
Alberta Wheat Pool No. 1	5,150,000*
Alberta Wheat Pool No. 2	1,650,000*
UGG Terminals Ltd.	2,705,000*
Pacific Elevators Ltd.	7,111,500*
James Richardson & Sons Limited	600,000*
Prince Rupert	
Owner	*Capacity (bushels)*
Canadian Government Elevators	1,250,000*
New Westminster	
Owner	*Capacity (bushels)*
Searle Terminal Co. Ltd.	750,000*
Victoria	
Owner	*Capacity (bushels)*
United Grain Growers Terminals Ltd.	1,008,000*

*Licensed as a Semi-Public Terminal Elevator. Semi-Public Terminal Elevators had some licensing restrictions regarding the grain that could be binned.

Source: *1945-46 List of Licensed Elevators and Warehouses in the Western and Eastern Divisions.* Ottawa: Department of Trade and Commerce.

Table 9: Pacific Coast Terminal Elevators, 1966–67

North Vancouver	
Owner	*Capacity (bushels)*
Burrard Terminals Ltd.	1,500,000*
Vancouver	
Owner	*Capacity (bushels)*
Alberta Wheat Pool	7,300,000*
Saskatchewan Wheat Pool	1,650,000*
UGG Terminals Ltd.	3,645,000*
Pacific Elevators Ltd.	7,111,500*
Pacific Elevators Ltd.	600,000*
Prince Rupert	
Owner	*Capacity (bushels)*
Canadian Government Elevators	1,250,000*
New Westminster	
Owner	*Capacity (bushels)*
Pacific Elevators Ltd.	750,000*
Victoria	
Owner	*Capacity (bushels)*
Victoria Elevator Limited	1,040,000*

*Licensed as a Semi-Public Terminal Elevator. Semi-Public Terminal Elevators had some licensing restrictions regarding the grain that could be binned.

Source: *1966-67 Grain Elevators in Canada.* Ottawa: Department of Agriculture.

In 1954, the Midland and Pacific Elevator, reflecting changes taking place elsewhere in the Canadian Grain Trade (Everitt, 1996; Everitt and Gill, 1997), was purchased by a partnership made up of Searle Grain, Federal Grain, and James Richardson and Sons. The terminal was incorporated as Burrard Terminals Ltd. In 1972 Richardson became the sole owner of this structure after Federal (which had merged with Searle in 1967) was sold to the three Pools. It was rebuilt and substantially expanded after an explosion and fire in 1975 with the name being changed to Pioneer Grain Terminal Limited. Interestingly, the Richardson interests opposed an expansion of terminal facilities in Prince Rupert, while rebuilding their structure on Burrard Inlet (Hick, 2003: 94). It is now named the James Richardson International Limited terminal (Anderson, 1991: 79).

In the mid-1950s, the Alberta Pool No. 2 began to be operated by the Saskatchewan Wheat Pool (SWP) (Fairbairn, 1984: 193-95).[16] This company built its own terminal in North Vancouver in the late 1960s. Pacific Elevators Limited is owned 70/30 by Agricore United and the Saskatchewan Wheat Pool (the terminal was obtained from Federal Grain in 1972).[17] Agricore United was formed by the amalgamation of Agricore (itself the result of a union of the Manitoba and Alberta Pools) and United Grain Growers. By 2001, the UGG terminal was officially a UGG/DBA Agricore United operation (Table 10). Vancouver Wharves Limited Partnership has a small elevator in North Vancouver that was previously operated by Pacific Elevators and James Richardson and Sons.[18] Vancouver Wharves was owned by BC Rail and with this company changing hands (to CN Rail in late 2003) its future is unclear. The only other recent change has been the change of name of the Alberta Wheat Pool structure to Cascadia Terminal (Cascadia is owned 50/50 by Agricore United and Cargill).

Conclusion

Although one of the major features of Canadian Pacific Coast is its trade in grain, the landscapes that have resulted from this trade have been largely neglected in the literature to date. The elevator landscape in the Vancouver region, for instance, is one of the most striking features of the built environment and yet its historical and spatial growth has been essentially undocumented. This aspect of the cultural landscape was begun much later than that at the Lakehead, but reached a steady state by the early 1930s, and in many ways has not changed significantly since that time. This

paper fills this hole in the literature by detailing the growth of this landscape, and the changing ownership of the constituent parts of this landscape.

Table 10: Pacific Coast Terminal Elevators, 2002–03

Vancouver	
Owner	*Capacity (bushels)*
Cascadia Terminal	282,830
James Richardson International Limited	108,000
United Grain Growers Limited DBA Agricore United	102,070
Pacific Elevators Ltd.	199,150
Saskatchewan Wheat Pool	237,240
Vancouver Wharves Limited Partnership	25,000
Prince Rupert	
Owner	*Capacity (bushels)*
Prince Rupert Grain Ltd.	209,510

Source: *2002-03 Grain Elevators in Canada* (Adobe PDF format) Downloaded from Canadian Grain Commission Website (www.cgc.ca).

The development of the grain trade in Canada has been spectacular and exciting, and the growth of the terminal elevator system on the Pacific Coast of Canada—the "Castles of the New World" for Wheat Pool booster Walter Herbert (1933: 241), is characteristic of this progress. It had a lasting and positive influence, helping to transform west coast settlements into major cities, or develop major cities into even larger urban centres (Robinson and Hardwick, 1973; Wynn and Oke, 1992). It is likely that this influence will continue to be felt, although as with agriculture in general, changes continue to occur, and predictions of the future are always conditional (Ramsey and Everitt, 2001). In the past decade, the Lakehead has begun to lose some of its pre-eminence (Kusch, 1991; *Brandon Sun* 11-06-93), with closures likely to increase if changing patterns of North American trade lead to the shipping of grain down the Mississippi (Cook, 1995). In addition, the grain trade has increasingly used the Pacific Coast ports to export more grain, and the dominance of this region is likely to continue to grow. But this remains the topic of another study.

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Notes

1. Different terminology for these structures has been used, including "Transfer Elevators", "Private Terminal Elevators", "Public Terminal Elevators", and "Semi-Public Terminal Elevators". These differences have little impact on the thrust of this paper and will not be discussed in detail. Five Interior Terminals were built by the Dominion Government from 1914-1917, at Moose Jaw, Saskatoon, Calgary, Edmonton, and Lethbridge (Vervoort 1991). One was also built at Churchill in 1930. These will not be considered in this paper. This paper will only consider the major terminals on the West Coast, those at the Lakehead having been discussed in detail elsewhere (Everitt and Gill, 1997). At various times other very small elevators were designated as terminals for short periods of time, but these did not significantly affect the overall pattern.

2. We would like to thank Tannis Lee Dagert for collection of some of the data used in this paper.

3. In addition, a relatively small amount of grain was shipped to Duluth, for instance via the Great Northern-owned Brandon

Saskatchewan and Hudson's Bay Railway. In the fall of 1928 this amounted to less than 1,000 cars (MacGibbon, 1932: 120).

4. The world's largest market for wheat was England, whose food deficit continued to increase during the nineteenth century. By 1900 British farmers could supply domestic requirements for only two months out of every year (Everitt, 1991).

5. The exact location of the "grainshed" between the West Coast and the Great Lakes varies with the cost of shipping. In the early 1930s, "a calculable difference in shipping costs of one-eighth of a cent per bushel…[would] deflect shipments from the Atlantic to the Pacific Coast." (MacGibbon, 1932: 273)

6. See, for instance "Prairie Wheat vs. British Columbia Elevators" an anonymous story taken from the Vancouver Board of Trade Annual and published in *Industrial Progress* in 1913 that forcefully presented the case for the "construction of grain elevators at British Columbia ports" (page 8).

7. Bushels are used a measure of capacity in this paper for two reasons. First it was the measure of the time period being discussed. Second the number of bushels of (for instance) wheat per tonne varies from the number of bushels of barley per tonne and this can cause confusion in conversion rates. There was one small (65,000 bushel) Public Elevator at Vancouver prior to the construction of the Dominion terminal.

8. *Wheat Studies of the Food Research Institute* (Stamford University) 1 (8), July 1925: 258. Some tramp steamers did, though, travel the 35 days from the UK in ballast in order to pick up a cargo of wheat (MacGibbon, 1932: 272).

9. This "public" operation appears to have been a compromise between government ownership and private ownership, while relieving the Board of Grain Commissioners of a major time input on elevator administration that had been "to the detriment of their other work", and removing the perceived conflict of interest of enforcing Board regulations on Board-owned elevators (Blanchard, 1987: 60).

10. Capacities are indicated in these tables as these reflect the size of, and thus the cultural landscape impact of, these structures.

11. This company was operated by the Alberta Wheat Pool and owned by the Alberta and Saskatchewan Wheat Pools (Wilson, 1979: 27).

12. Anderson (1991: 142) reports this as being built by the Fraser Elevator Company, but he may have confused it with the structure in New Westminster. He also credits the terminal in Victoria with having been operated by Searle Grain at one time. We can find no record of this, and it may be another example of confusion with the New Westminster Terminal.

13. It was leased to the Alberta Pool from the time it opened until the mid-1930s (Blanchard, 1987: 60). This "farmer-owned" operation appears to have been another compromise between government ownership and private ownership.

14. A grain "blockade" occurs when there is more grain at a shipping point than can be moved by the transportation system.

15. The story of the Prince Rupert terminals can be followed in detail in Hick (2003).

16. The No. 2 Harbours Board terminal was leased for a time to the Alberta Pool (Anderson says UGG, but this appears to be incorrect) and later to the Saskatchewan Wheat Pool. It was closed in 1968 (Anderson, 1991: 140).

17. Part of this structure consists of the Vancouver Harbour Commission/National Harbours Board No. 1. The No. 3 Harbours Board elevator is now part of the UGG terminal (Anderson,1991: 140).

18. This is probably the terminal that was previously owned by the Columbia Grain Elevator Co. Ltd.

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