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References:

Gehlbach J., Gabriola's sandstone quarry—the earliest days, *SHALE* 21, pp.36–42, July 2009

Gehlbach J., Gabriola's dimension-stone quarry, *SHALE* 19, pp.11–24, Nov. 2008

Gehlbach J., Gabriola's millstone quarry, *SHALE* 19, pp.25–41, Nov. 2008

Gehlbach J., Gabriolans and the sandstone quarries, *SHALE* 19, pp.42–52, Nov. 2008

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49°10.58'N 123°51.58'W

Finding the old sandstone quarry—there were two operations at different times, one for building stone (ca.1890–1905) and one for millstones (ca.1932–1936), but they took sandstone from the same outcrop.

From the ferry terminal at Descanso Bay, turn immediately right on to Easthom Road. A small parking lot is located up the hill almost immediately after the turn. From the parking lot, walk a short distance up along Easthom Road and at the narrow bend take the trail that rises up from the landward side of the road. Take care, as there are some sheer 70-foot cliffs in this area.

The origins of quarrying for sandstone on Gabriola

by Jenni Gehlbach

I should like at the outset to acknowledge contributions to these articles by:

*Lynda Poulton and Barrie Humphrey (archival research);
June Harrison (reminiscences in her invaluable book, “The People of Gabriola”);
Carey Ditmars and Denise Izzard (records of personal reminiscences);
Hazel Windecker (details of the Hoggan family history);
Millie Canessa (stories of the Canessa pioneers);
Sheila Bradley (stories and photographs of the Easthom family);
Clyde Coats (his family’s history and involvement in the millstone quarry); and
Teedie Kagume of Powell River Museum (photographs and explanations of the use of
grinding stones in pulpmills).*

I am very grateful to them all.

The evidence that a sandstone quarry operated on Gabriola Island in the 1930s producing millstones¹ that grind wood to fibre in pulpmills is still there for all to see. A short walk from the Descanso Bay ferry terminal, and a perilous scramble up from Easthom Road, leads to a serene and curious greening area where faulty and discarded stones lie in jumbled heaps, and cylindrical holes, now filled with rainwater, have been cut deep into the bedrock. Behind the *White Hart* pub (as it was when I wrote this) lie assorted pieces of rusting machinery and cables, and in front of the Gabriola Museum, a large cylinder of sandstone is prominently displayed next to a rusty industrial circular saw. More of these millstones form the impressive entrance to Clyde Coats’ driveway off South Road, near the golf course.

Less conspicuous is the evidence that thirty years earlier, the same sandstone had been used for several beautiful and historically significant buildings in Victoria and

Vancouver. The only sign of this enterprise now is the heap of partially squared-off blocks and rubble—best seen from the ferry shortly before it docks. It is this rubble that supports the present-day Easthom Road just beyond the sharp and mirrored bend at the top of the rise from the terminal.

So how was it that these industrial operations came to be established on rural Gabriola?

The early colonial history

The quarrying story is rooted both in the 19th-century gold rushes and the development of coalfields by the Hudson’s Bay Company (HBC). Both brought miners and their families to the local area in the 1850s and early ‘60s, and both ultimately led to a resource-based economy, and to the wealth that required impressive government and commercial buildings in growing cities.

The gold rushes on the west coast of North America began with the finding of gold in 1848 in California, a find that led to the famous rush of ‘49. The rush brought tens of thousands of newcomers to the Pacific

¹ The stones are commonly known as “millstones”, but within the industry, they are called “pulpstones”.

coast. The gold-seekers first headed for San Francisco, but, later, some worked their way methodically northward through the Oregon and Washington territories, exploring the Columbia River and its tributaries.

The HBC may have known of the gold in the Thompson, a tributary of the Fraser, as early as 1852, but the company, still then run by fur traders, was uncertain as to what to do with their knowledge. By 1858 however, the Fraser River gold rush was on, either because the company indiscreetly sold gold in, of all places, San Francisco, or because American prospectors had crossed the border into the Thompson valley.

The Fraser River's fame as a source of gold ended quickly with the discovery that much of the gold had been brought down the river from the Cariboo. By 1860, thousands of miners and prospectors were passing through Victoria on their way to Lillooet and the country of the upper Fraser beyond. On a global scale, the only discoveries to match the scale of the California to Cariboo rushes were in Australia in 1851, the Transvaal in 1886, and the Klondike in 1898. All were short-lived events, but all irreversibly changed the course of history. It was as a direct result of the Fraser River rush by mostly Americans that the Crown Colony of British Columbia was hastily founded.

The early history of the Crown Colony of Vancouver Island was tied more closely to the fortunes of the HBC. In 1843, the company established Fort Victoria in shrewd anticipation of the need to move its Pacific base from Fort Vancouver on the Columbia River as a consequence of the fixing of the US-Canadian continental border west of the Rockies as the 49th parallel, as happened in 1846. By then, the former fur-trading company was trying to diversify its interests

into "anything that made a buck",² and in 1849, Queen Victoria granted the HBC:

...the island called Vancouver Island together with all royalties of the seas upon the coast thereof and all mines royal there to belonging.

This trading licence was to expire in ten years. The Company had to survey the land, and settle it, build roads, bridges, churches, schools, and other amenities for settlers, but could keep for itself up to ten percent of the revenue it received from the sale of lands, coal, minerals, and other resources.

Coal had been discovered on the north end of Vancouver Island in 1835, but serious commercial operations only began there with the arrival of coalminers from Scotland in 1849. The HBC operations at Fort Rupert however quickly ran into difficulties, and when coal was found in what is now downtown Nanaimo in 1852, the HBC closed their mine in the north and brought employees, including French-Canadians and Métis, up from Victoria to Nanaimo.³ Much of the initial mining was done by the Snunéymux^w, and these were later joined by some of the Fort Rupert men, and by miners from California's goldfields, and, beginning with the arrival of the *Princess Royal* in 1854, coal-mining areas in Britain. By 1860, "Fort Coleville",⁴ as Nanaimo was

² Richard Mackie, *Beyond the Mere Traffic in Peltries*, pp. 218–243, in *Trading Beyond the Mountains*, UBC Press, 1997.

³ Magnus Edgar was employed by the HBC as an "assistant miner" and arrived in Nanaimo from Victoria in April 1853. He was possibly the first European settler on Gabriola.

⁴ The harbour was called "Winthuysen" by the Spanish, but the fort was named "Colville" (not "Colville") in 1854 after Andrew Colville, the HBC Governor. Joseph Pemberton, the HBC's surveyor, however preferred "Nanaimo" (for Snunéymux^w) and this name came into general use when Pemberton became the surveyor general of the colony in 1859.

initially called, had expanded from a small assembly of log cabins and bunkhouses for mostly single men into a settlement with families and the now-familiar fan-shaped streets on the slope of Mount Benson.

When its lease expired in 1859, the HBC purchased from the Crown, the 6193 acres [25 km²] that made up its Nanaimo operation, and, in September 1862, sold it to a new company, the Vancouver Coal Mining and Land Company for \$200,000.⁵ The sale included all mines, machinery, buildings, sawmill, wharves, land, and all of Newcastle and Douglas (now Protection) Islands. In 1864, the new company began selling building lots as well as mining.

Wealth accumulated, and lumber and mining camps gave way to moneyed settlements, particularly after the completion of the Canadian Pacific Railway line to the coast in 1886–7. Grand public buildings of stone and brick were planned for Nanaimo, Victoria, and the newly incorporated city of Vancouver, and so the business of quarrying for building stone began in earnest.

The dimension-stone business

Stone blocks quarried and “dressed” (trimmed and finished) for building are often referred to in the trade as “dimension stone” or “measurement stone”. The Gulf Islands were rich sources of dimension stone suitable for the new public buildings. Up in the mouth of Jervis Inlet, a cluster of islands including Nelson Island was found to have

⁵ Vancouver Coal Mining and Land Company was registered and incorporated in England under the Imperial Joint Stock Companies Acts (1856-7). In 1889, it was reorganized as the New Vancouver Coal Mining and Land Company. In 1902 it was purchased by the Western Fuel Corporation of California, which was registered as an extra-provincial company in December 1902.

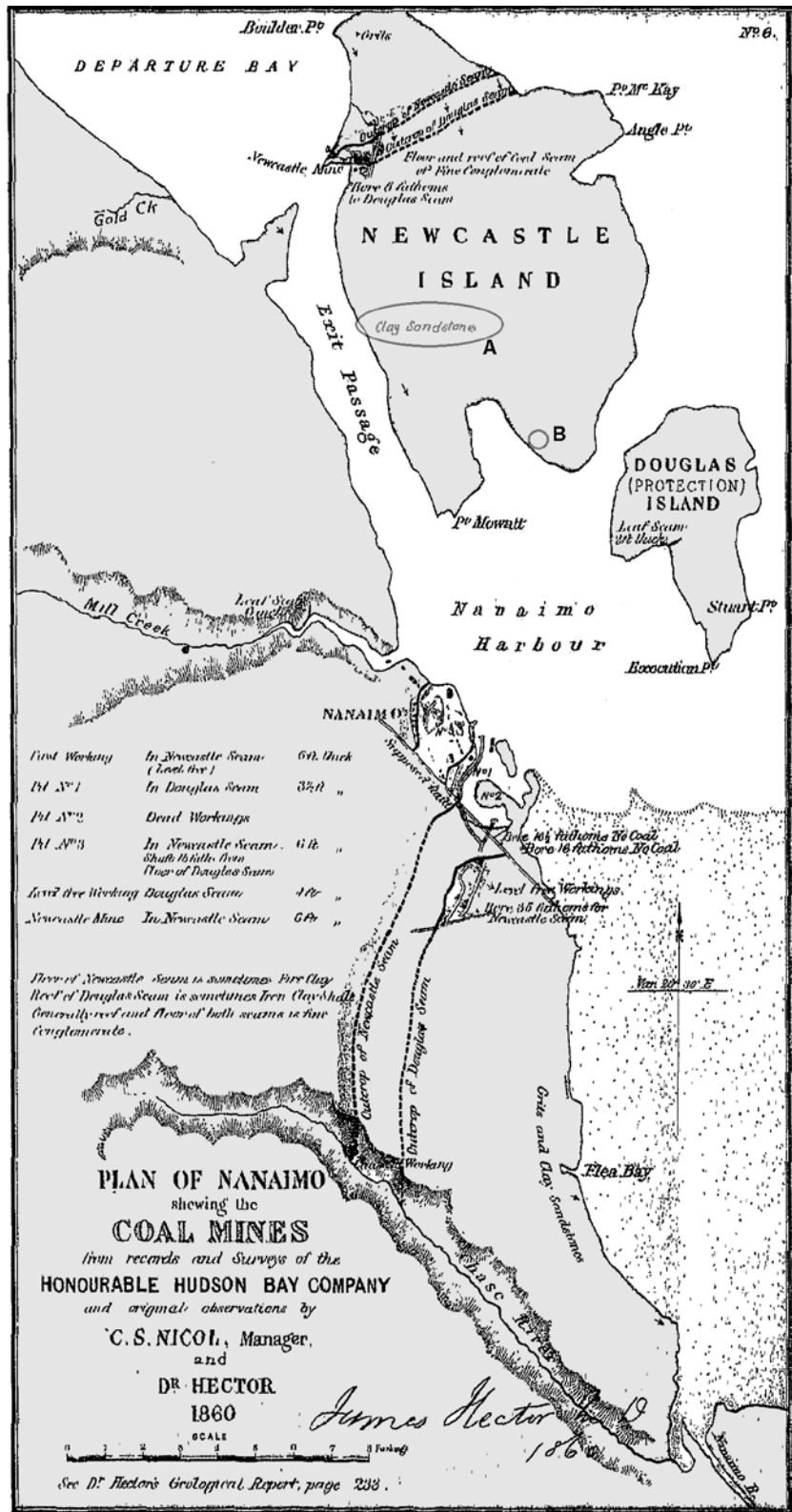
fine quality *granite*; Haddington Island near Alert Bay had the hard volcanic rock called *andesite*; and Newcastle and Gabriola Islands were found to have superb *sandstone*. Carey Ditmars, whose grandfather William Carey Ditmars was the President of the Vancouver Granite Company writes that the most durable and best-looking sandstone in BC came from Newcastle Island.⁶

Mark Bate, who joined the HBC as a clerk in 1857, remembered “flawless” Newcastle Island sandstone being sent down to Victoria for use in the HBC offices for hearthstones, and certainly the HBC began using sandstone for chimneys, cottages, and other local projects almost from the day they arrived in Nanaimo. A reference to the Victorian fireplaces is also made in Bill Merilees' excellent book on the history of Newcastle Island;⁷ however, Bill's apparently impeccable source was not Mark Bate, but a BC Parks Report,⁸ which in turn cites, *Nanaimo Correspondence*, James Douglas to Joseph William McKay, April 13, and July 20, 1853. Interestingly, neither of these letters makes any reference to hearthstones. What they record instead is a request from James Douglas for a sandstone pedestal on which to display in his office a large lump of coal from the Nanaimo mines. That the sandstone may have subsequently attracted the attention of visiting buyers of coal thus provided a commercial opportunity that was entirely unforeseen by the HBC.

⁶ Times Colonist, Islander, June 22, 1997.

⁷ Bill Merilees, *Newcastle Island—a Place of Discovery*, Heritage House, 1998, p.53.

⁸ BC Parks (author unknown), *A History of Newcastle Island Provincial Park*, 1976. This 82-page report is written in academic style and may have been a draft for a thesis. It is now hard to find and I'm grateful to Bill for letting me have a copy.



A map of the Nanaimo coalfields drawn in 1860 by geologist James Hector with the help of Charles Nicol of the HBC.

My circle and annotation "A" on Newcastle Island is where dimension stone was subsequently quarried. Hector has marked this exact spot "Clay Sandstones", which likely indicates Nicol showed it to him.

My circle and annotation "B" on Newcastle Island indicates the location of the sandstone outcrop that in the 20th century was quarried for millstones. It is now part of the park, and the site of an informative display.

Whether the designers and builders of the San Francisco Mint heard about the Newcastle Island sandstone via HBC coal-trade connections, or through the British geological and US architectural communities is an open question.

The dimension-stone quarry and the later millstone quarry on Newcastle Island are both closely linked historically with the Gabriola sandstone quarries.

John Palliser, *British North America: The Journals...*, p.333, London: G.E. Eyre and W. Spottiswoode, 1863.

A second possible way that information about the sandstone in the Nanaimo area was brought to the outside world's attention was through the British government-sponsored Palliser Expedition that explored vast areas of western Canada between 1857 and 1860. James Hector, the geologist of the expedition, had been instructed by the President of the Royal Geographical Society to examine the coal strata of Vancouver Island and also to make note of the various stones he observed, and to collect specimens. Travelling out of Victoria in a canoe with four Indians in January 1860, Hector reported:⁹

On passing to the north through the Canal de Haro, the islands of the archipelago between Vancouver Island and the mainland [the Gulf Islands] are...seen to be composed of strata of sandstone and conglomerate, which form lofty cliffs.... At Nanaimo, the sandstone country occupies a broader belt along the shore of Vancouver Island than further to the south.

He may have particularly noted the sandstone on Newcastle Island because he took the trouble to mark it on his 1860 map of the island, along with the coal seams. Bill Merilees, *Newcastle Island...*, p.53, goes so far as to say that James Hector "formally noted the flawless nature, unusual strength, and weather-resistant properties of Newcastle sandstone". This quote he took from the BC Parks Report cited above, which gives as the source papers of the Palliser expedition.¹⁰ However, it has not been possible to track down this seemingly precise reference, and the words ascribed to

⁹ James Hector, *On the geology of the country between Lake Superior and the Pacific Ocean...*, Quarterly Journal of the Geological Society of London, 17, 1, pp. 388–445, 1861.

¹⁰ Captain John Palliser, *Papers Relative to the Exploration of British North America, 1859–1865*, London, 1867, pp.233–7.



The old San Francisco Mint built in 1874 using sandstone from Newcastle Island.

Hector do not appear in any of the public records of the Palliser expedition. It is, notwithstanding this difficulty, conceivable that Charles Nicol, a mining engineer and the HBC's representative in Nanaimo at the time, told Hector about the desirable properties of the sandstone. The HBC Daybook in the Nanaimo Community Archives records frequent quarrying for sandstone in the early days of the establishment, for example, on July 18, 1853, the entry includes "...building stone cottage...John Isbister & Malcolm quarrying...".

The San Francisco connection

Joseph S. Emery (1820-1909) had arrived in California from New Hampshire in 1850 looking for gold, but after a brief foray into the goldfields, moved to the San Francisco Bay Area and found his success in more mundane pursuits in that booming town. He was a stone-cutter, and started a stonework-contracting business, quarrying rock, which included sandstone, on Angel and Goat Islands in San Francisco Bay. In 1859, Emery purchased a 185-acre tract of land north of Oakland for \$8000 and began to develop projects in the area, which by 1896 became the city of Emeryville.

In the 1860s, Emery went in search of fine-quality sandstone on behalf of the United States Mint, which was designing a grand new treasury building in San Francisco.^{11 12} Newcastle Island sandstone was found to be exactly what he wanted, so after visiting the island in 1869 with the Mint Building Superintendent, Mr. Stebbins, he signed a five-year lease with the Vancouver Coal Mining and Land Company to cut stone there for the new Mint building.¹³ The lease was signed on behalf of the coal company by their by-then manager, Mark Bate, who later became Nanaimo's first mayor.¹⁴

The quarry site was prepared at Perriman, a little settlement beside Newcastle Island Passage, right where Hector had noted "Clay Sandstones" on his map. From 1870 to 1874, 8000 tons of sandstone were cut, at \$3 per ton and double that for big blocks, says Bate's granddaughter.¹⁵ It was shipped by



Sandstone column destined for San Francisco retrieved from the three-masted schooner *Zephyr*, shipwrecked in 1872.

schooners to San Francisco. The shipments included 30-ton columns of sandstone to be formed into 27-foot Doric columns for the portico. One loaded schooner, the *Zephyr*, sank off Mayne Island *en route*, but some of its cargo was salvaged in 1992, and one of those columns has been placed at the old dimension-stone quarry site on Newcastle Island. Nearby at the site, you can also still find in the ground amongst the grass an iron pin used to anchor the large derricks that lifted the sandstone blocks down to the shore for loading.

The Mint was completed in 1874 and was in use until 1937, surviving the 1906 earthquake:

No ornamentation has been attempted, but dependence placed on the magnitude and proportion of the building for its architectural effect. No pains have been spared to make it, when complete, not only the finest and best constructed building on the Pacific coast, but the best arranged mint in the world.

Alfred B. Mullett, Supervising Architect

Although the sandstone for the Mint was not from Gabriola, there was a Gabriola connection. Alexander Hoggan went to work at the quarry on Newcastle Island

¹¹ E. Joyce White, *Newcastle Island's turbulent past*, *SHALE* 4, pp.19–22, June 2002.

¹² The architect was Alfred B. Mullett who lived in the eastern United States, but married Pacific Perl Myrick, the daughter of a sea captain and ship-owner of San Francisco. Mullett never met his wife's father, Joseph Myrick, who died two years before he had been in San Francisco, and so he can be ruled out as extolling the virtues of Gulf Island sandstone.

¹³ Exactly why the sandstone from Angel Island was judged unsuitable is not clear beyond the fact that it is highly fractured. "When it was first proposed to use Newcastle sandstone for so important a purpose, it aroused a certain amount of jealousy and some international prejudice. Consequently the stone went through more severe tests than otherwise had been the case. The United State Inspector gave his final report that the stone was of the highest character." (personal communication), Kristin Morris, San Francisco Museum and Historical Society.

¹⁴ Bill Merilees, *Newcastle Island...*, pp.53–63.

¹⁵ Bate's granddaughter Arabella May Bate Gillespie Owen (1893-1984) much later lived in San Francisco and was instrumental in the Mint building being designated a National Historic Site.

while it was shipping stone to San Francisco and so became Gabriola's first quarrier.

Newcastle Island sandstone was used to construct the BC Penitentiary (1875), the Esquimalt Graving Dock (1880), the Nanaimo Courthouse (1896), plus several other buildings in the 20th century. In 1890, the Newcastle Island Quarry Company also leased the quarry to provide stone for the W. Marshall Building and the Post & Edwards Building in Seattle.¹⁶

The Nanaimo area was booming and a brisk trade was developing between California and Vancouver Island. In 1884, Vancouver Island collieries produced 394,070 tons of coal and exported 306,478 tons (about 78%), principally to California, and by 1887 the Annual Report of the Provincial Ministry of Mines could say:

...even at a moderate estimate the State of California alone is a customer for coal to the extent of about a million and a quarter tons per annum.

In 1901, California imported nearly two million tons of coal, 710,330 tons (38.7%) of it from BC—clearly it was time to invest in Canada. In 1902, the Western Fuel Corporation of California, registered in BC as an extra-provincial company, purchased all the holdings of the New Vancouver Coal Mining and Land Company, including Newcastle Island.

The Western Fuel Corporation's interest was in coal, not stone, but good building stone was still in demand. On May 5, 1903, Victoria's *Times Colonist* announced that "Emery of Emeryville, California" at the age of 83 was again leasing the quarry on Newcastle Island. The report says:

Vigorous still, in spite of his great age, he is laying large plans for the future, and expects

to have a large force of men cutting out the stone before many days have elapsed. Sailing vessels will take it away to Seattle, Portland, and San Francisco, and later he expects to have so far developed the industry as to require the service of steamers. The news that employment is assured for idle miners in town has caused a mild sensation of a very pleasant kind.

That year, the BC Ministry of Mines reported that the North-Western Construction Company of San Francisco was operating the Newcastle Island dimension-stone quarry and that the resident representative of the company was John G. Davis.

The Gabriola connection

As with the later millstone quarry, the history of Gabriola's dimension-stone quarry is inextricably linked to the history and origins of quarrying on Newcastle Island.

Provincial Ministry of Mines Reports do not mention quarrying on Gabriola in the 1880s; however, Gabriola's sandstone cliffs are clearly visible from downtown-Nanaimo and must have attracted the attention of those seeking dimension stone. When first noted in official documents in 1904, it was recorded that building stone had been worked for "a number of years"¹⁷ on the north end of Gabriola and certainly, by the end of the 19th century, Gabriola's sandstone had already acquired a good reputation, and was being used for very large buildings in Victoria and Vancouver.¹⁸

Descanso Bay was, in those days, the site of a busy and thriving stone-cutting industry. ◇

¹⁷ June-Lewis Harrison, *The People of Gabriola*, p.241, 1982, plausibly suggests since 1887.

¹⁸ H. Carmichael, *Stone Quarries of the Coast*, 1904.

¹⁶ Bill Merilees, *Newcastle Island...*, p.61.