— ONCE UPON A MINE: — Story of Pre-Confederation Mines on the Island of Newfoundland

by Wendy Martin



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> This Book is dedicated to Paul Leslie Dean, Once and Future Newfoundlander.

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Introduction

NCE UPON A MINE

This is book about people, about dreamers and rogues, about shysters and heroes, about travellers and settlers, about governed and governors, about adults and children, about dogs and mosquitoes and black flies, and about their links through mining, the second-oldest profession. It documents triumphs and failures of people, and the glory and gloom of places, it crystallizes names such as Betts Cove, La Manche, Terra Nova and Sleepy Cove, and it recreates the towns that are no more. It is about the time and history, showing the intimate relations between Newfoundland mining and world events, from the Treaty of Versailles to the Second World War.

"Once Upon a Mine" has lessons of import. For Newfoundland, it shows the incredible variety of mining ventures ("Sure the country is pregnant all over, with metal they call the Proprieties"), and factors, political, entrepreneurial and practical, which led to their success or failure. Their repetition clearly illustrates the maxim that those who neglect history are doomed to repeat it, a risk which this book greatly lessens. You, the general reader, will see that "mines are where you find them", and can be mined only there, unlike any other natural resources. You will see that mineral deposits are finite and become depleted, so that mine and mining towns have a finite life. You will see that mines have to be made, as well as found, requiring determination and skill.

This book is a mine of information, but it is no dry history book, nor a guide for geologists and miners. It is more like the sagas. It's a distillation of romance and adventure, blood, sweat and tears, disaster and ship-wreck. Wendy shares with you her love of Newfoundland, its people and its places and its rocks, in a style that's crisp and clear and colourful. Dig in. You are guaranteed rich veins of insight, humour and information.

Dr. David Strong,

Memorial University of Newfoundland

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Preface and Acknowledgments

CE UPON A MINE

Once Upon a Mine could be said to have begun one morning coffee break in 1975 when fellow worker Doug Vanderveer of the Newfoundland and Labrador Department of Mines and Energy happened to show me a box of Newfoundland mining photographs. Hidden among the mostly modern prints was one of an old prospector sporting rock and hammer, and looking rather forlorne beside an unidentified shaft. Somehow the face and setting remained with me. A few minutes' investigation two days later revealed that no comprehensive account existed of Newfoundland mining history. It took a few more minutes during the next week to persuade John Fleming (now Assistant Deputy Minister with the department) that, for the sake of posterity, if nothing else, a collection of Old Newfoundland mining photos should be made. John unhesitatingly approved the collection scheme with an abandon for which I am very grateful.

Once the photos (and, in many cases, stories) had been amassed from individuals and institutes across Newfoundland, it remained to research and write the history. Easing the task was my (by then) unemployed status. Hindering it was my minimal experience in writing and historical research. Nonetheless, after five years the manuscript was completed.

That the completion actually happened was due largely to the moral, academic and financial support of many. The Newfoundland and Labrador Department of Mines and Energy, in providing the initial impetus, deserves great thanks. The Explorations Division of The Canada Council gave a year's generous assistance and, by extrapolation, confidence that the job was worth doing. Thank you Al Pittman. The Iron Ore Company of Canada and the Reid Newfoundland Company Limited also donated monetary support.

Historical material came from the stacks of several libraries. Anne Hart, Nancy Grenville and Marion Burnett of the Memorial University of Newfoundland Centre for Newfoundland Studies; A.P. Murphy, Ian Garland, David J. Davis, Margaret Chang and Howard Brown of the Provincial Archives of Newfoundland and Labrador; Catherine Power and others of the St. John's Arts and Culture Centre Hunter Library - all these individuals gave patient and inspired help.

Rounding out the library-based data were stories or information related by people from across Newfoundland. Following is as complete a list of such contributors as memory permits. To those who have inadvertently been omitted, I plead poor recollection and ask that they accept 'unnamed' as theirs.

Lawrence Adams Joan Barry Elizabeth Benoit Gerald Carroll Cecil Childs Lenora Coles Manual Currie Anne Doyle Jean Duffy Ron Dunphy Ena Edwards Harold England Augustus Etchegary Aubrey Farrell Alan Frew Henry Gillard Aubrey Goodyear William Goodyear Rubeni Goosney Alexander Hickman Bruce Hookey Edgar House Leonard House Sadie House Martin Ivany Bill Knight

John Loveridge John McKillop Theresa Makinson George Neary James ParsonS Archibald Pittman H.R. Peters Norman Peters **Bobbie Robertson** Martin Saunders Seibert Family Lester Short Sr. Frederick J. Stewart (N.B.) Lorna Stuckless Eric Swanson J.G. Thurlow Reuben Vardy Randall Verran Bill Walsh Heather Wareham Bill Warren Augustus Wells Ches Whalen Rupert Wiseman Mary Woodruff Unnamed

Dr. J.K. Hiller of Memorial University of Newfoundland and Dr. P.J. Mackey of Noranda Research Centre kindly took time to critically review the manuscript and made helpful and instructive suggestions. Ed Stander also offered useful comments. Proofing of the manuscript was quickened by aid from my family and Brian Asbury. Paul Pulford helped with last-minute bibliographic checks. Dr. David F. Strong of Memorial University was responsible for interesting The Canadian Institute of Mining and Metallurgy in publishing the book long after I had resigned myself to distributing it as a photocopied present to friends.

Reproduction of the photographs was ably performed by Denys Short and Bora Merdsoy; Bora created prints from the negatives.

Throughout the writing of the book, moral and residential support came from several sources, the most notable of whom were: Mirium and the revered late H.T. Renouf; Hildegard Pesch and David Skevington; Priscilla Patch; The Lakeview Arms; Jacqueline and Richard Fortey; and Deane and Bora Merdsoy.

My greatest debt goes to the one person who encompasses all of the above and more - prospector, critic, story teller and friend -Paul Leslie Dean.

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Chapter I: Dawn of Mining Days

Story of Pre-Confederation Mines on the Island

A MINE



LE UPON

of Newfoundland by Wendy Martin

Young men and boys hand-cobbing ore in Tilt Cove with what likely is the East Mine 'rabbit warren' in the background, c. 1900. (I/7.) Larger Version (31 kb)

Mark Twain once maintained that 'a mine is a hole in the ground with a liar on top', an unflattering view which supports the common belief that mines are prospective derelicts owned by derelict prospectors. The Newfoundland mining industry has, even so, survived for over 100 years and currently holds a lucrative position in the Newfoundland economy.

The mining history of Newfoundland extends further in time and space than is generally recognised. Nearly every major bay around the Island contains at least one abandoned mine that still lives within the memories of adjacent communities; and although the first recorded mining attempt happened only two centuries ago, a knowledge of Newfoundland minerals has existed for twice that time span.

Sixteenth-century English explorers made the earliest documented references to Newfoundland minerals. When Sir Martin Frobisher examined the shores of what is assumed to have been Newfoundland's Trinity Bay in 1576, he found a shiny heavy stone⁽¹⁾ - probably pyrite, a mineral now known locally as 'Catalina stone' after the Trinity Bay town of Catalina. Anthony Parkhurst returned to England in 1578 with pieces of copper and iron ore from the St. John's and Bell Island areas. On the strength of the Frobisher and Parkhurst discoveries, Sir Humphrey Gilbert took a Saxon ore refiner named Daniel of Buda with him to Newfoundland in 1583. Daniel, an energetic individual, retrieved an array of copper, iron, lead and silver ores from the Avalon Peninsula. Unfortunately, both Daniel and the samples disappeared a few months later in a shipwreck off Sable Island. A contemporary expedition member hinted that Gilbert lamented the loss of the ores more than that of the ship and men.⁽²⁾ Be that as it may, the hapless Sir Gilbert mourned but a scant 11 days before his own vessel sank north of the Azores on the voyage back to England.

King James I became curious about these earliest mineral indications and listened carefully to occasional court rumours of English fishing boats arriving from Newfoundland ballasted by metallic ores. The idea of mineral riches stirred him; when Sir John Guy and others of the London and Bristol Company left England in 1610 to form a fishing colony in Newfoundland, the king ordered them specifically to search for minerals.

This was more easily said than done, as the company expended much energy in coping with roving pirates and fractious West Country Settlers. Between interruptions, members of the company found time to write enthusiastic reports about iron ore on Bell Island.⁽³⁾ The reports had a two-fold effect: they made one member, Sir Percival Willoughby, determined to obtain a grant for all of Bell Island; they also led the company to draw up regulations whereby it could demand one-fifth or one-sixth of the profits from minerals mined in Newfoundland, could forbid leasing of land to aliens without consent and could repossess land left vacant for over three years.⁽⁴⁾ Although the company used its powers to deny the disappointed Sir Percy a grant for Bell Island, it did not enforce the three regulations seriously or long enough for them to become mining law.

Except for a titled few, mining laws and mining did not concern the several thousand people who populated Newfoundland by the end of the seventeenth century. They concentrated instead on fishing - a safer livelihood, considering the Island's incessant French-English skirmishes and Britain's inconsistent policy regarding permanent Newfoundland settlements. Not until the late eighteenth century was Newfoundland sufficiently stable for its inhabitants to take more than a passing interest in their geological environment. By then the most heavily settled area of the Island was the Avalon Peninsula, where English, Irish and Scottish immigrants lived in an uneasy truce, bound together by a common antagonism toward the reigning British government. It was here, at Shoal Bay just south of St. John's, that the first mining attempt in Newfoundland took place.

The deserted shoreline of Shoal Bay, in the eighteenth century no less than today, was visually delightful, but virtually devoid of economic mineral deposits or sheltered coves. The area became a mine site primarily because the nearby town of St. John's harboured homesick Britons, some wealthy enough to relieve their boredom by involvement in a mining venture.

One particularly frustrated man was Alexander Dunn of Scotland, who enlivened his job as the St. John's Customs Collector by imposing stiff fines upon honest men and accepting bribes from rogues.⁽⁵⁾ Around 1773, Dunn learned of a small copper deposit in Shoal Bay and asked two influential British friends, John Agnew and George Stewart, to approach King George III for a mining grant. The resulting decree surpassed Dunn's wildest expectations: on 22 February 1775 he, Agnew and Stewart received the mineral rights to the whole of Newfoundland and the coast of Labrador for 999 years!⁽⁶⁾ Had they made a concentrated effort to locate and develop worth-while orebodies, they might have lived in splendour for the rest of their days. Foolishly, they dabbled in mining, neglected the terms of the grant and so forfeited its privileges.

The three men attempted to work their Shoal Bay copper showing by hiring a dozen Cornishmen and a Cornish mine captain, Thomas Halse, to come to Newfoundland in May 1776. (Cornwall, with its lengthy mining tradition, was a natural source of experienced miners.) Whatever misgivings Halse may have had about the Shoal Bay ore and harbour facilities, he gamely ordered the miners to sink a shaft, drive out a level and remove some ore. Before long, the men had to stop; the best veins extended beneath the sea and could not be mined without risk of severe flooding. The little ore that did reach England provided barely enough returns to cover the venture's operating costs, let alone pay the 10 per cent mining royalty imposed by the Crown. Thomas Halse suspended mining in the fall of 1778 and, with relief, closed down the mine after French sailors kidnapped Alexander Dunn in late 1778 or early 1779.



Sir Humphrey Gilbert. (I/1.) Larger Version (24 kb) The Shoal Bay mine lay flooded and all but forgotten for another 60 years. Indeed, it might have remained so had not Britain's chronic troubles with American privateers and French warships impelled the Crown to encourage valour in its navy by presenting Crown land to victorious officers. One such man, Captain James Pearl, especially fancied the idea of mining and on 16 October 1839 received a grant covering the Shoal Bay site. Although Pearl had little time to enjoy his mine property - he died on 13 February 1840 - he is remembered today by the town of

Mount Pearl that lies on the outskirts of St. John's.

Newfoundland, around the time of Pearl's death, differed vastly from Newfoundland in the days of Alexander Dunn. By the mid-1850s, the Island was a well-established British colony with its own resident governor, House of Assembly and Supreme Court. The economy survived on fishing, agriculture and political dealings, all three of which lay close to the heart of a man named Charles Fox Bennett.

Charles Bennett was born in Dorset, England in 1793 and moved to St. John's around 1800. Over the next 40 years he established a brewery, distillery, shipyard, fishing fleet, sawmill and foundry and worked as a member of the House of Assembly and the Agriculture Society.⁽⁷⁾ He also became the first proponent of a Newfoundland mining industry.

Bennett gave an early indication of his future obsession with minerals by volunteering to walk across Newfoundland with explorer William E. Cormack in 1822.⁽⁸⁾ His position as a stipendiary magistrate prevented him from taking the trip, but he bided his time and nurtured assorted businesses until, in the 1840s, finances allowed him to begin exploiting the Island's mineral resources in earnest. While pursuing practical aspects of mining he also fostered political ones: between 1851 and 1853 Governor Hamilton granted him exclusive mineral rights to one million acres of land in Fortune and Placentia bays. The grant waived mining royalties for the first ten years and was renewable at the end of its thirty-year term.

Unluckily for Bennet, the grant's delivery coincided with the climax of the debate over responsible government for Newfoundland, a concept that he opposed with volatile speeches. When responsible government arrived in 1855 he paid for his convictions. In 1856, a mob ignited his foundry and tried to prevent firemen from extinguishing the blaze.⁽⁹⁾ Two years later, the Liberal government revenged itself upon Bennett by nullifying the entire one-million-acre grant.

Bennett refused to forfeit the mineral lands. On 7 October 1858, he informed Governor Bannerman:

"...for a period little short of twenty years...my attention had been given to the search for valuable minerals...I imported miners from Wales and Cornwall...and subsequently engaged in England a person of higher scientific attainments who in company with myself made an exploration of a large tract of country in Placentia, Bonavista and Green Bays; ...I engaged the requisite vessels for said survey, provided the necessary appliances for mining purposes and furnished everything at my sole expense...."⁽¹⁰⁾

In the end, the government allowed Bennett to keep ten mining locations of five square miles each, less than one-fifth the acreage of his original claim.

For all its detractors, the Bennett grant was at least nominally intended to encourage mining enterprise in Newfoundland, something to which even the most disdainful politician could not object. Bennett himself became a walking advertisement for Newfoundland minerals. Exaggerated tales delivered during his annual excursions home spurred five English merchants to establish the Newfoundland Mining Association in 1857 with the expressed intention of profitably developing Newfoundland mineral resources. The five men did little more than publish a prospectus, but their managing director in Newfoundland, Frederick Newton Gisbourne, became deeply involved in mining on the Island.



Frederick Gisbourne, pioneer proponent of Newfoundland mining industry. (I/3.) Larger Version (25 kb)

Frederick Gisbourne was born in England in 1824, emigrated to Canada at the age of 21 and is best known for his work in telegraphy. Fortunately for Newfoundland mining, he went bankrupt in 1853 while laying the first cable across Newfoundland: his backers betrayed him by dishonouring the bills of his Newfoundland Electric Telegraph Company.⁽¹¹⁾ Rather than succumb to misfortune, he took advantage of mineralogical knowledge gleaned during his months of surveying the cable route and went prospecting.

Between 1853 and 1860, Gisbourne

intermittently explored the coasts of Placentia, Exploits, Bonavista and Notre Dame bays in a whaler, and tried to mine copper ore in Conception Bay. Neither his travels nor his mines made him rich, but they brought him the job with the Newfoundland Mining Association. They also enabled him to write the following letter to Governor Bannerman on 10 October 1860: "...Having traversed large sections of the Country during the last 9 years, and having inspected the several localities hereinafter named, I now furnish a list of Mines opened to date....

List of mineral deposits worked during the years 1855 to 1860:

"Harbor Mille," Fortune Bay, "Turk's Head," Conception Bay, "English Ridge," ditto, "La Manche," Placentia Bay, "Frenchman's Hill," "Griffin's Point," "Sweetman's Island," "Strouter," Placentia Bay, "Rockey Cove," "Stoney House Cove," "Lawn," "Paquet," French Shore, "Terra Nova," Little Bay,* Copper and Silver. Peacock Copper. Galena or Lead. Peacock Copper. Ditto. Silver Lead. Ditto. Grey Copper. Ditto. Silver Lead. Yellow Copper. Mundic and Copper.

In all 13 mines have been opened during the past five years, at an outlay of £50,000 Sterling, while the returns therefrom have thus far been but £18,000...."⁽¹²⁾

The flurry of activity shown by the list as compared with the dearth of mines in Newfoundland ten years before reflected two changes in Britain's economic policy. In 1853, Britain abolished its import duty on copper ore; and in 1855, Newfoundland joined the Reciprocity Treaty between Britain and the United States whereby all metallic ores were duty-free.

Gisbourne's list was incomplete. It contained prospects that never actually produced ore and yet excluded the Trump Island copper mine in Notre Dame Bay, which opened in 1860 under master mariner Francis Taylor of Carbonear. Taylor shipped about 280 tons of ore to Swansea in 1864. Nonetheless, six of the listed mines were productive. These were the Turk's Head, English Ridge, La Manche, Stoney House, Lawn and Terra Nova mines.

Earliest Mines



Charles Fox Bennett. (I/2.) Larger Version (21 kb)

Frederick Gisbourne probably discovered the two copper deposits located at Turk's Head and English Ridge near Marysvale in Conception Bay. In 1856, he and Charles Bennett incorporated The Turk's Head Mining Company and The English Ridge Mining Company and brought out Cornish miners to work the orebodies. The partnership of the two men, however, was brief, as Bennett reneged on the agreement around 1858 because miners had managed to extract, from both mines, only 31 tons of ore in three years. (As we shall see, Gisbourne was not the last man to suffer from Bennett's unorthodox ways.) Gisbourne sold the ore in Britain for £400, a sum that could sustain neither him nor the mines; and early in 1859 he departed for the Middle East to lay a cable across the Red Sea.⁽¹³⁾

Gisbourne returned to Newfoundland in the fall of 1859, replenished with money and with plans for his mining properties. He floated the St. John's United Copper and Lead Mining Company and blatantly advertised that the two Conception Bay mines had sold over £1000 worth of ore. St. John's businessmen knew better. They refused to back the company, leaving him no alternative but to close down the mines again in 1860.

Although Gisbourne abandoned practical mining after 1860, he made a lasting contribution to the Newfoundland mining industry. Through his and others' urgings, the government instituted the Geological Survey of Newfoundland in 1864, a body that became invaluable to, and instrumental in, advancing Newfoundland mineral exploration for the next 53 years.

* * * *

Frederick Gisbourne was also involved, albeit indirectly, with the discovery of the La Manche lead mine in Placentia Bay. He visited New York in January 1854 to confront financial backers of the Newfoundland Electric Telegraph Company and, while there, mentioned his aborted cable scheme to the wealthy American capitalist, Cyrus Field.⁽¹⁴⁾ Field seized and expanded upon the idea and later in 1854 incorporated the New York, Newfoundland and London Telegraph Company to lay a telegraph cable across the Atlantic Ocean. As workers from Field's company were surveying the cable route on the east side of Placentia Bay in 1855, they 'discovered' lead ore in the cliffs near La Manche.⁽¹⁵⁾

That, at least, is what company directors told the Newfoundland government. They may not have realised - or chose to ignore - the fact that for years Placentia Bay fishermen had been removing lead ore from the area, smelting it over open fires and making it into fish jiggers.⁽¹⁶⁾ A local man named Best supposedly staked the La Manche lead veins around 1850 and sold them for one hundredweight of bread to a Carroll from Trinity.⁽¹⁷⁾ Political connections, however, are nine-tenths of possession. The Best-Carroll transaction, if it ever existed, faded into oblivion on 6 March 1857 when the Newfoundland government gave the New York, Newfoundland and London Telegraph Company a grant for the La Manche area.

The telegraph company took prompt advantage of its mining grant by sending Matthew Field (Cyrus' brother), Major Ripley of Messrs. Ripley and Company of New York and a Mr. Crockett to Newfoundland in the summer of 1857. Crockett tentatively excavated a trench near the shore, with such poor results that Ripley went to Britain to seek more professional help. There he engaged a 26-year-old Cornishman named Harry T. Verran, who became the first mining engineer to work in Newfoundland.

Verran arrived in La Manche in September 1857. He spent six weeks inspecting the site and then moved on to New York to assist Ripley in assembling miners and machinery from Connecticut. That done, the whole entourage - Verran, Ripley, Field, miners and machinery - crowded aboard the brig *Bloomer* in February 1858 and set sail from Boston. They arrived in La Manche two months later, exhausted, having passed 35 days trapped by ice in the Gulf of St. Lawrence.

The La Manche mine opened in June. Verran, with his mining background, knew that carefully planned underground development is essential for longevity of a mine and its miners. He sank three shafts and excavated material so as to leave behind supportive pillars of rock. However, before long he encountered unwelcomed interference from Field and Ripley. The former, a railway engineer, gave rein to his speciality and spent hundreds of pounds building a railway to tram ore to the coast rather than saving money for the actual mine. Ripley, for his part, ordered a cargo ship in July without consulting Verran. When Verran protested that he had insufficient ore to fill the ship, Ripley told him to obtain more ore by removing the mine pillars. Verran refused, and resigned four days later, writing in his diary that he had "not come to Newfoundland to dig graves for the miners.⁽¹⁸⁾

From the day Verran resigned, the La Manche mine fell victim to one incompetent or poorly financed manager after another. Ripley took over the mine in July 1858 and worked it in what Verran referred to as a "reckless, lemming-like manner."⁽¹⁹⁾ Although Ripley sold about £6000 worth of lead ore in two years, the money only just paid for the cost of installing wharves and tramways and of wages for workers. The telegraph company complained that it had expected larger profits from the mine with which to fund its trans-Atlantic cable, and caused the fearful Ripley to implore the Newfoundland government to lower or waive the 5 per cent royalty imposed upon the ore.⁽²⁰⁾ He received no sympathy from that quarter. Nor did he receive any from his own associates, for in the winter of 1858-60 a dispute arose between Ripley and the telegraph company, forcing him to give up the mine.

For a time, Harry Verran considered reviving the La Manche mine for the telegraph company. The company approved the plan at first, but then leased the property instead to the Placentia Bay Lead Company. It was a most unfortunate decision. Far from improving upon Major Ripley's performance, the Placentia Bay Lead Company went bankrupt and sold the mining lease at an auction on 6 June 1865 to another American firm, the La Manche Mining Company. This latter concern alienated the Newfoundland miners, knew nothing about mining and in 1871 relinquished the mine to the telegraph company.

The La Manche mine sold 2156 tons of lead ore between 1857 and 1871: a sorry production rate, even by nineteenth-century standards.

So ended what might be termed the American era of the mine. The telegraph company next approached investors on the other side of the Atlantic Ocean, hoping that they would be more competent or at least solvent. They were neither. The Newfoundland Mining Company of London acquired the mine in 1873 and dispatched mine captain Henry Bradley to La Manche. Bradley and the miners found it impossible to retrieve the finely dispersed ore economically; worse, they nearly starved in the 1874-75 winter because of inadequate company funding. The company directors declared insolvency in August 1875, resurfaced the following year as the La Manche Mining Company Limited and submerged again, defeated, in 1878.

So ended the British era of the La Manche mine: as feebly as did the American. The disillusioned telegraph directors tried to succeed where the others had failed and in 1891 leased the mine to an associate firm, the Newfoundland and Canadian Exploration Trust Limited. William Wingfield-Bonnyn, a mining engineer with the firm, managed the revival, but found the mine "practically destroyed to such an extent as to require no uncommon courage to rehabilitate it."⁽²¹⁾ Three years and \$50,000 later, the trust company added its name to the list of the conquered and withdrew, selling off the mine equipment for \$1000 to a man from Nova Scotia.

The various attempts that have been made since 1900 to revive the mine have been to no avail. Save for the ore dumps and the slumping headframe that overlooks Placentia Bay, La Manche of today is much the same as when it was granted to the New York, Newfoundland and London Telegraph Company in 1857. In all likelihood it will remain so for years to come.

* * * *

South of La Manche lay the Stoney House Cove or Stoney House copper deposit that was discovered by Harry Verran after his resignation from the La Manche mine. Verran and Charles Bennett operated the Stoney House mine in June and July of 1860, during which interval the men developed an enmity for one another. Verran felt that Bennett made over-generous demands on his mining expertise in return for under generous compensation, and Bennett accused Verran of deliberately concealing the location of the best Stoney House ore.

The four men that worked at Stoney House were experienced miners from England and Connecticut; however, they betrayed their profession. While Verran was in St. John's on business they excavated the ore so poorly that Father E. Condon of Placentia felt obliged to warn Verran in a letter: "For mercy's sake come home as soon as you can. Stoney House, from the reports I have heard, is going to the dogs."⁽²²⁾ By the time Verran reappeared the damage was done. His only recourse was to ship the 25 tons of raised ore to Britain and abandon the ruined adit.

Across Placentia Bay from the La Manche and Stoney House mines lay the eastern edge of Charles Bennett's one-million-acre grant that covered most of the Burin Peninsula. Liberal decrees to the contrary, Bennett persisted in considering the entire grant as his property and accosted those men who dared to exploit minerals within its boundaries.

The Newfoundland government unknowingly aroused Bennett's territorial instincts in August 1860 by giving the mineral rights for a lead deposit near Lawn on the Burin Peninsula to a St. John's land surveyor named Frederick Page and a Burin farmer named Isaac Collins. Page and Collins approached Harry Verran, who had just left Stoney House, and he agreed to develop the claim. However, when Bennett learned of their intentions he confronted the men with orders either to accept him as the controlling partner or to expect court action. They capitulated to his forceful character and gave him a controlling share in the mine.

Excavations at the Lawn mine consisted of a small adit reaching into the cliff along a lead-bearing fluorspar vein. In the process of following the lead ore, miners struck and shovelled aside what appeared to be sand and gravel. A few rainy days later they noticed that the washed-out debris contained lumps of native silver: lumps that were small enough to be pilfered behind Verran's back and large enough to fetch hefty prices from jewellers in St. Pierre and St. John's.⁽²³⁾ The miners depleted what little silver existed in the claim, leaving the mine to collapse figuratively for lack of ore and literally when a landslide buried the workings.

Verran neglected mining temporarily after 1862 for marriage, children and a job with his in-laws, the merchant family of Sweetman. However, whether because he disliked trade or because he missed mining, he remained with his young family only four years longer. In 1866, he left Newfoundland for mining jobs in Africa and Spain and never returned. Tragically, he fell victim to his chosen way of life by contracting silicosis, and died alone in England in 1869 at the age of 38.

* * * *



Isaac Winser and wife Mathilda, first settlers in Tilt Cove. Isaac was indirectly responsible for the initial (1864) opening of the Tilt Cove copper mine. (I/4.) Larger Version (20 kb)

The sixth productive mine on Frederick Gisbourne's list, the Terra Nova copper mine, lay one-and-a-half miles from the shores of Baie Verte in White Bay. While Gisbourne searched for minerals in the 1850s, a Nova Scotian named Smith McKay also prospected the Newfoundland coastline, with substantially more success: McKay found the Terra Nova and the Tilt Cove copper deposits in 1857, the latter of which

became exceedingly productive. As McKay explained later in an article in the *Morning Chronicle:* "...my not being flush of means and unable to open both at the one time, I tossed up a coin - heads for Terra Nova, tails for Tilt Cove. It came down heads and of course I went to Terra Nova."⁽²⁴⁾

Smith McKay, like Gisbourne and Verran before him, became entangled with Charles Fox Bennett. In March 1859, McKay obtained a license to mine the Terra Nova deposit; and in April 1860 he, Bennett and a number of St. John's and Boston financiers incorporated the Terra Nova Mining Company. William Hoskins (an uncle of Harry Verran) was engaged as mine captain. Hoskins and the miners installed impressive surface facilities, including a pier at Baie Verte and a railway from the pier to one of the five shafts. However, they did not realize that Terra Nova ore occurred in irregular lenses rather than in true veins and so worked the mine incorrectly, extracting about 200 tons of ore between 1860 and 1864.

The mine's poor showing distressed McKay. At 5 o'clock on the morning of 6 August 1864 he, Bennett and members of an English firm involved in the Terra Nova mine arrived in St. John's, having just come from the property. All except Bennett made straight for the local pub, and as they hammered at the door for admittance McKay exclaimed: "My interest in the Terra Nova mine for one glass of the invigorating fluid!"⁽²⁵⁾ He eventually disposed of his interest for more than that; by 1866, Bennett had sole ownership of the property.

The Terra Nova mine lay deserted for decades following its closure in 1864 until an American firm, the Newfoundland Exploration Syndicate, leased it and revived the old workings in 1901. The syndicate formed a subsidiary called the Terra Nova Company and shipped about 52,500 tons of ore to Britain and the United States between 1902 and 1906. In 1910, the Cape Copper Company Limited, an English company then working Newfoundland's Tilt Cove mine, optioned the Terra Nova property and exported another 11,000 tons of ore. Late in 1913, however, the company withdrew from Tilt Cove. The Terra Nova mine provided insufficient incentive for the firm to remain in Newfoundland and was closed down in 1915, since which date it has lain virtually dormant.

* * * *

Of the six preceding mines - Turk's Head, English Ridge, La Manche, Stoney House, Lawn and Terra Nova - the last-named which lies immediately west of Notre Dame Bay, was the most significant. The mine, though modest in itself, indicated something spectacular. The rocks of Notre Dame Bay have undergone a peculiar geological history that has resulted in the formation of a large number of metallic orebodies. When Frederick Gisbourne, Smith McKay and others began searching the area it was inevitable that someone would find something large. The break came with McKay's discovery of the Tilt Cove copper deposits.

Tilt Cove Mine

Twice in the last 120 years - from 1864 to 1917 and from 1957 to 1967 the bustle of mining has disturbed the repose of Tilt Cove. Newfoundlanders



Tilt Cove c. 1872, looking across Winser Lake with opening to sea at right. Engraving by B. Kroupa. (I/5.) Larger Version (34 kb)

are more familiar with the recent era because of its temporal proximity; however, a few people can also recall the final years of the first and perhaps more interesting period.

The traditional story regarding discovery of the Tilt Cove copper deposits tells that as Smith McKay explored the district in 1857 he met a fisherman from Tilt Cove named Isaac Winser and noticed that the man used a heavy metallic rock as boat ballast. Upon interrogation, Winser conducted McKay into Tilt Cove and showed him outcrops of copper ore in the steep cliffs surrounding the community. Another account relates that McKay spotted samples of copper ore on the mantlepiece of Winser's home and was told that the cove was 'full of the stuff'. Both versions support an affidavit signed in 1864 by Isaac and his two brothers, testifying that "on his departure he stated that there was mineral there, and he would return again."⁽²⁶⁾

Because of McKay's involvement in the Terra Nova mine, some years passed before he 'returned again'. However, having left Terra Nova and, more importantly, having met Charles Bennett, whose interest in minerals equalled his own, McKay's thoughts came increasingly to dwell upon Tilt Cove. He revisited the community, saw that its copper deposits did indeed warrant development, and formed the Union Mining Company with Bennett. Bennett put up capital for the company in exchange for a 6 per cent interest and McKay agreed to supervise the mining operation.⁽²⁷⁾ Final arrangements were completed, and on 27 July 1864 the first blasts shook the west cliffs of Tilt Cove to herald the birth of the Union or West mine.

As with other early Newfoundland mines, the first Tilt Cove miners came from Cornwall. The Cornishmen's trait of being able to smell out copper deposits over a sizeable distance was particularly useful in Tilt Cove, where ore lay in irregular 'pockets' rather than in veins. In the beginning miners removed ore from horizontal adits, but as surface ore became depleted they reached deeper into the heart of the hillside and worked by the light of candles stuck onto canvas hats with resin and pitch.



Tilt Cove, showing tramway from East Mine and part of townsite. (I/6.)

Mining techniques used in Tilt Cove closely resembled those of the Cornish mines and were practised in subsequent Notre Dame Bay copper mines. Three men drilled explosive holes: one held a steel bar or 'gam' while two others alternately hammered the gam. Explosives were then inserted and ignited to loosen the

Larger Version (28 kb)

rock. After the blasted rock had been hauled to the surface, long lines of boys and young men 'cobbed' it by striking away barren rock from the ore-rich portions with a small hammer. Cable or 'Swansea' cars carried cobbed ore down from the mine site along an iron tramway to a two-storey pier, where vessels waited to take the ore to the Swansea copper smelters in Wales. The noise of ore dropping 30 feet into a ship's hold reverberated all over Tilt Cove.

Not only copper ore passed along the Tilt Cove tramway. Between 1869 and 1876, miners removed 416 tons of nickel ore from a small lens in the West mine; in 1870, Tilt Cove had the brief glory of providing 5 per cent of the world's then-minimal nickel production.⁽²⁸⁾

Freight rates in the 1870s allowed ore to travel more cheaply to Swansea by sea from Newfoundland than by rail from Cornwall. Even so, the sea voyage across the Atlantic Ocean had its dangers. On 25 September 1875, the brig *Jura* left Tilt Cove for Swansea with a load of copper ore and ran into a storm that broke open the main hatch and toppled the masts. As one of the ten sailors aboard related in a song called 'Loss of the Brig Jura':

"We worked to clear the wreck while the tempest loud did roar, And we sadly thought of home and friends we never might see no more:

While some were lashed unto the pumps to keep the vessel free, And more were heaving copper ore into the raging sea."

Their valiant efforts failed to save the brig, and at last crewmen had to climb upon a passing barque and leave the Jura to her doom:

"With four feet of water in her hold, her mast and booms just gone, She would be at the bottom long before the day was done, With a heavy load of copper ore the Jura she went down, And she was bound from Tilt Cove across to Swansea town.⁽²⁹⁾"

Once mining began at Tilt Cove, it was as though all the latent and frustrated hopes left unsatisfied by previous mining ventures in Newfoundland focussed on the tiny cove. From being a haven of three families in 1863, Tilt Cove turned into Newfoundland's first mining town with scores of neat white cottages blanketing the bowl-shaped cliffs around Winser Lake. In 1869, the town's 300 miners supported its 768 inhabitants with salaries ranging from $\pounds 10$ to $\pounds 21$ per month. Although living conditions in the earliest years were spartan, life in Tilt Cove had its merits - witness this 1869 order form for the Union Mining Company: 174 gallons of rum, 24 cases of gin, 20 bobs of ale, 12 caskets of wine, 12 bottles of sherry, 5 gallons of brandy and 1 case of champagne.⁽³⁰⁾

A grimmer side existed to the bleak and isolated aspect of Tilt Cove. On 6 December 1867, the Queen of Swansea left St. John's for Tilt Cove with fifteen people, including two of the mine manager's children and a druggist, Felix Downsley, who was to have become a Tilt Cover doctor. Twelve miles from Tilt Cove, the ship ran aground off Gull Island. The survivors lit a fire and waited in vain for help to arrive. In desperation, they resorted to systematic cannibalism, the unlucky victims being chosen by drawn straws. These measures only postponed the death of all hands, and when fishermen visited Gull Island a year later they found little but bones and Felix Downsley's diary.⁽³¹⁾ Today, a monument to the *Queen of Swansea* sits atop the east cliffs of Tilt Cove.

During its first 16 years, the Tilt Cove mine owed much of its success to the energies of Smith McKay, who supervised the mine and oversaw the community at large. He spent most of his time in Tilt Cove, a fact which contributed to his being elected as the district's Member of the House of Assembly in 1869, 1873, 1882 and 1885. Charles Bennett, however, did not share the general enthusiasm for his partner. Early in 1877, differences arose between the two men regarding the fact that Messrs. C.F. Bennett and Company had charged a 5 per cent commission for handling the mercantile affairs of the Union Mining Company.⁽³²⁾ The partnership dissolved, and Bennett filed a suit claiming that McKay owed him nearly £20,000. The aghast MaKay denied the debt and maintained, furthermore, that he had never received his annual managerial salary. His pleas went unheard. Bennett won the court case and in July 1880 bought the Tilt Cove mine and assets for £45,000 at a public auction.

Thus did the discoverer of the Tilt Cove copper deposits unwillingly relinquish his hold on those same deposits. People looking back at the McKay years came to regard them as the golden age of early Tilt Cove; for after his banishment, major problems started to infect the mining operation.

The first hint of impending trouble came in 1882 when miners began to have increasing difficulty in excavating large quantities of the highgrade ore demanded by the Swansea smelters. A considerable tonnage of low-grade ore still remained underground, but existing copper prices made it uneconomic to mine such ore from a deposit the size of the West mine. Charles Fox Bennett died in 1883 at the age of 90 without proposing a solution to the problem. He also left his business affairs in chaos for his spectrum of British relatives, none of whom relished the prospect of managing an ailing copper mine in Newfoundland.

By 1886, miners at Tilt Cove were hard put to remove additional highgrade ore without jeopardizing the soundness of the mine, a situation that finally compelled the mine captain to open up a large orebody in the east side of Tilt Cove in 1886. The East mine ore averaged only 3 to 4 per cent copper and was highly pyritic*. On the other hand, it was plentiful and accessible enough to be quarried or 'glory-holed' more cheaply and safely than was the West mine ore. Bennett's trustees, however, felt uneasy as they witnessed fluctuating world copper prices immobilize one British copper mine after another. They did not rest until they had found a company willing to lease the Tilt Cove property. The interested party, the Tilt Cove Copper Company Limited from London, issued Bennett's trustees a trust deed of 800 mortgage debentures worth £100 each on 29 November 1888, and in exchange took over the Tilt Cover mines.

If the McKay years were the best ones of early Tilt Cover, the Tilt Cover Copper Company years were the worst. Upon assuming control of the property, the directors decided to smelt the pyritic ore on site rather than ship it to Swansea. The decision very nearly destroyed the entire Tilt Cove operation.

Costly blast furnaces were erected in 1889 and, from the moment of their installation, seemed destined to failure and disfavour. They drained financial resources of the company by consuming coal that had to be imported from Britain. Sulphurous fumes from the smelting works both literally and figuratively tainted the Tilt Cove atmosphere. Miners especially hated the smelter for its insidious hazards: a man once slipped into a frothing iron smelting pot, necessitating burial of the pot and contents. Another complaint about the smelting works involved disposal of molten waste or slag. Usually it went into a slag heap on land, but occasionally mine manager W.R. Thoms ordered the material to be dumped into the salt water. The practice prompted serious repercussions between management and townspeople when red-hot slag exploded on contact with the cold water and scattered glowing embers on nearby roofs, setting them afire.

The company had its own problems with fire, for in 1890 a giant conflagration obliterated most of the East mine surface facilities. The accident coincided with a large drop in copper prices and aggravated the company's already alarming debt of £100,000 caused by inefficient smelting methods. Simply in order to pay miners' wages and ordinary operating costs the company had to mortgage its copper stocks and equipment to a principal director, John Taylor.

It was Taylor who finally saved the Tilt Cove Copper Company from complete ruin. He arranged in 1890 that the company sublease the mine to the Cape Copper Company Limited, a firm that he had formed in 1862. It owned copper mines in Africa and India, and smelters in Swansea, and was reportedly one of the most financially stable mining concerns in the business. The two firms agreed that the Cape Copper Company would pay a £4000 annual rent and that profits would be shared after the Tilt Cover Copper Company's debts had been nullified.⁽³³⁾

For all its reputation, it is debatable that the Cape Copper Company could have saved the Tilt Cove Copper Company, had not dramatic changes happened simultaneously in the Swansea smelting industry. In the early 1890s, Swansea chemists began smelting pyritic ores for their sulphur content, and the Briton Ferry Chemical Works started manufacturing sulphuric acid and allied sulphates. In the course of testing the East mine ore, metallurgists found that it contained not only 35 per cent sulphur, but also 2 ounces of gold and silver each per ton of copper metal. The East mine ore became sought-after, the Tilt Cove smelters closed down and Tilt Cove ore left again in its raw state for Swansea, where it was now to be smelted for sulphur, gold and silver as well as for copper. Just as Tilt Cove received this new lease upon its mining life, the United States abolished all tariffs on metallic ores in 1894, making it economically feasible for the Cape Copper Company to send ore to American markets. The waived duty enabled the company to rework the idle West mine dumps and to reopen the West mine itself. With the two mines in production, the Tilt Cove Copper Company's debts vanished and annual profits surpassed £500,000.

Tilt Cove thereafter entered a prosperous period in which its population of 1000 people was serviced by a doctor, telegraph operator, policeman, tailor, blacksmith and teacher. Mail arrived in summer by the fortnightly steamer *Plover* and in winter by dogteam from Badger. Affixed to some of that mail was a 5¢ stamp depicting miners at work underground in the Tilt Cove mine. The stamp, issued in 1897 and entitled "Mining: One of the Colony's Resources", was the first mine-motif stamp issued in the world.⁽³⁴⁾

With the beginning of the twentieth century, however, the era of prosperity ended. The West mine shut down in 1902 and by 1907 the East mine's visible ore reserves were nearly gone. The mines had been high-graded, copper prices were sagging and the end was in sight. To add to Tilt Cove's woes a freak snowslide on 11 March 1912 killed Francis W. Williams, the most popular manager in the town's history.

Bennett's trustees, meanwhile, had been looking on in alarm at the mines' demise. Afraid of losing their 800 debentures, they approached Tilt Cove Copper Company directors during the lull in operations following William's death, and requested the £80,000. The Cape Copper Company announced shortly afterward that troubles with its African mines obliged it to cancel its contract with the Tilt Cove Copper Company in September 1913. Faced with these converging dilemmas, the Tilt Cove Copper Company took the obvious recourse: it went into liquidation and in March 1914 returned the Tilt Cove mining lease to Bennett's trustees.

It is a fact of the mining industry that what at one time may be an economically unviable metal ore deposit may later become viable, should the metal's price increase sufficiently. At a shareholders meeting of the Cape Copper Company in 1913, the chairman announced that the Tilt Cove mines approached exhaustion;⁽³⁵⁾ and yet within two years of the company's withdrawal from Tilt Cover two Newfoundlanders took over the mining operation and made \$150,000. They could do so because the outbreak of World War I caused copper prices to more than double between 1914 and 1916.

The two gentlemen in question were Robert G. Rendell, administrator for the state of Charles Bennett, and James M. Jackman, a Tilt Cove merchant who became acting mine manager after William's death. Rendell and Jackman had worked together previously on a number of mining ventures. When the Tilt Cover mines became available they requested and obtained the right to operate the property.

Rendell and Jackman organized the Tilt Cover Mining Company and

quickly made the \$150,000 by taking advantage of inflated wartime copper prices. In the end, however, the war proved their downfall, as freight rates escalated so much that the men could not afford to ship the ore to market. They tried to overcome the problem by treating the ore on site with an ore concentrating plant worth \$100,000, but two days after the plant's installation in 1916 it broke down. Having no inclination to struggle further with the machine or the mine, Rendell and Jackman sold the concentrator to a company in Bay Roberts and returned the mine to its trustees.

* * * *

So ended the first active era of the Tilt Cover mines. One could extol the economic virtues to Newfoundland of the roughly 61,000 tons of metallic copper, 416 tons of nickel ore, 50,000 ounces of gold and 50,000 ounces of silver produced by the mines during those 53 years, but historically that would be secondary. The Tilt Cover mines' real significance lay in that their inception sparked the Notre Dame Bay copper boom - the very backbone of Newfoundland's mining history.

* The 'Little Bay' referred to here is now called Baie Verte. Back Up

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Chapter II: Fever of the Copper Ore

ONCE UPON A MINE Story of Pre-Confederation Mines on the Island



of Newfoundland by Wendy Martin

Typical miner's 'tilt' complete with clothesline. (II/8.) Larger Version (31 kb)

We of the well-informed 1980s can scarcely appreciate the dubious view that most mining speculators from a century ago had of Newfoundland. Nor can we in this scientific era fully understand the jaundiced opinion that laymen had of geologists, mineralogists and their like. Prospectors were generally regarded as more eccentric than enterprising:

one Scottish gold-seeker in Newfoundland was described to St. John's authorities in the 1860s as being a "poor demented creature who went about hammering at the cliffs but otherwise he appeared to be quite harmless."⁽¹⁾

James P. Howley, director of the Geological Survey of Newfoundland from 1883 to 1917, wrote in 1898 that:

"In the earliest stages of the Newfoundland mining industry, all sorts of drawbacks had to be encountered and overcome...mineralogical knowledge of the country, impossibility of procuring skilled labour except from outside...but beyond all a blind and unreasonable prejudice...which amounted almost to a prohibition of any attempt at mining enterprise...."⁽²⁾

The overwhelming success of the Tilt Cove mine changed all this. As news spread of the immense profits being made by Charles Bennett and Smith McKay, prospectors and mining entrepreneurs began to converge upon Notre Dame Bay. When Bennett became Newfoundland's anti-confederate premier in 1870 and on 25 April 1872 abolished mining royalties completely, even the most reluctant speculators were stirred into action.

The subsequent rush for mining claims in Notre Dame Bay continued unabated for several years. Once an experienced mine expert staked a given property the surrounding territory was immediately blanketed by the claims of people knowing nothing of geology or minerals. Some claims were staked on non-existent land while others with alleged coastal frontage turned out upon survey to be situated miles inland.

Thus began the Notre Dame Bay copper boom. It peaked in the 1880s, died out with World War I and left in its wake over two dozen copper mines, the combined output of which transformed Newfoundland briefly into the world's sixth largest copper producer. During the boom years, literally scores of mining companies sprung up in and beyond Newfoundland for the sole purpose of wresting ore from the rocks of Notre Dame Bay. Local newspapers reported mineral discoveries with such frequent and cheerful exaggeration that, reading them, one has the feeling that mining ran a close second to weather in daily conversation.

"Wisha! mines is the greatest of blessins, And I wants jist to tell ye now why it is, Sure the counthry is pregnant all over, With metal they call the "Proprieties."

"I was axed to take shares in a mine -Says I, it's no harm for to try, it is, We may hit on a lead or a vein Of that illigant stuff the Proprieties.

"So I sends off some men for to blast -It is done on the quiet and sly, it is; For there's other folks watchin' our moves, That are bint on the search for Proprieties;

"Well, we climbs up the side of a hill -Faith tis meself that can't tell how high it is -And we puts in a dhrill for a blast In a lead for the copper Proprieties;

"And we hammers and hammers the dhrill. And at every hard sthroke sure a sigh it is, 'Till we gits down about half a yard In the rock for the lovely Proprieties.

Well, we gits out our powdher and fuse, When says Mick, "Musha now thin how dry it is!" Says I, we'll soon wet it, my boy, When we lights on the copper Proprieties.

"So the blast is set off, and the hill It is gone to ould Nick now, sky high it is; But the divil a sign could we see Of that illigant stuff the Proprieties.

"Well says I, let us dhrink for success, It is no use at all for to cry, it is. Sure there's quartz in the rock there, says Mick, And he pints to a vein of Proprieties.

"Well, they say that in Brigus there's gold, But what's that when compared with varieties? Sure we've iron and copper and lead, And silver, with copper Proprieties.

"We have mundick and sulphur and tin, And all you've to do is to try, it is, You'll find brass and amalgum and zinc, Catalina stone too, and Properties. "Arrah! sure thin you don't doubt my word -Would you be afther sayin' a lie it is -Spake aisy! Sure gold too we found In this beautiful vein of Properties.

"The Specimint's gone to be thried, Oh! Musha! and isn't it I it is That will scather the told that I make, From this illigant mine of Proprieties."⁽³⁾

* * * *

As more and more men became involved in the search for 'proprieties', the bureaucratic burden of the copper boom fell heavily upon the shoulders of Newfoundland's surveyor general, John Warren. In the space of five years, his previously peaceful office became a circus of prospectors, politicians and mining personnel, all anxious to obtain mining licenses, leases and fee-simple grants in accordance with the latest mineral regulations. The inevitable legal conflicts over claim boundaries and possession finally led Warren to hire extra assistants for the Notre Dame Bay district, one of whom was a retired sea captain named Robert G. Knight. Knight was 45 years old when he became a deputy surveyor and, by chance, discovered the Betts Cove orebody.

Betts Cove Mine

The Betts Cove mine lay 8 miles south of Tilt Cove and exemplified all that is romantic in mining. It turned men into millionaires and was worked by a German baron before passing into oblivion 15 years after its discovery.

Modern deputy surveyors, like other government employees, are strictly forbidden to use information gathered at public expense to further their private ends. In the 1860s, however, no such regulations restricted the initiative of Robert Knight. While pursuing his official work as deputy surveyor along the western shores of Notre Dame Bay, he obtained mining licences for copper deposits at Betts Cove in 1865, Nickeys Nose in 1868 and Burtons Pond in 1868. Higher government officers also indulged in extracurricular activities. When surveyor general John Warren heard of Knight's good fortune, he and other Liberal Members of the House of Assembly formed the Notre Dame Mining Company in 1869. At the same time, they persuaded Robert Knight to join them and to transfer his claims to the company.

Rather than following Knight's suggestion of exploring the Betts Cove claim, the Notre Dame Mining Company chose in 1869 to work the far less promising Burtons Pond discovery.⁽⁴⁾ Even after the Burtons Pond mine failed in 1872, the company showed no interest in Betts Cove other than demanding that Knight forfeit his share in the claim in lieu of paying a debt that he owed company directors. Knight died in poverty on 18 January 1873, resentful to the end of his associates' behaviour. The Betts Cove property might have remained unexploited indefinitely had not Baron Francis von Ellershausen entered the Newfoundland mining scene.

Baron Francis von Ellershausen came to Newfoundland at a time when its mining industry needed the catalysing influence of a mining expert with vision, courage and lots of money. He fitted the bill perfectly.

Ellershausen was born in Saxony, Germany in 1820 and came to Canada in 1862 to work as a mining engineer in the Nova Scotian goldfields. The attractions of private enterprise caused him to leave mining in 1864 and to develop a pulp and paper mill on timber land along Nova Scotia's St. Croix River. So lucrative was this business that by 1870 he had built a mansion on the site and had furnished it with French mirrors, commissioned paintings and a piano, which he played with considerable skill. Surrounding his home were cottages of German immigrants to whom he had offered housing and employment following their being shipwrecked off Sable Island.⁽⁵⁾ These cottages together with the mansion became known as Ellershause.⁽⁶⁾

Ellershausen built an exceptionally elegant home near the mansion for a friend, a mining engineer named Adolph Guzman, assuming that the man would marry one of his daughters. In 1872, however, the girl refused Guzman, who thereupon fled to Newfoundland and began to stake claims in Notre Dame Bay - not for himself, but for Ellershausen. Charles Bennett once maintained that *he* had sparked the baron's interest in Newfoundland minerals.⁽⁷⁾ The assertion probably stemmed from wishful thinking, for it was almost certainly Guzman's endeavours that brought Ellershausen to Newfoundland.

Francis Ellershausen landed in Notre Dame Bay in the spring of 1874 and set to work with lightening speed. Within two months of his arrival he had visited Betts Cove and optioned the claim from its owners for a royalty of 8 shillings per ton of mined ore. Next, he sailed to Britain and organized the Betts Cove Mining Company with two Glasgow capitalists, William Dickson and Walter MacKenzie. Leaving them to conclude financial arrangements, he returned to Ellershause to hire 30 German men as miners.

Ellershausen was a man of peculiar temperament. At a farewell party given in Ellershause for the departing men the village teacher joked to the crowd that the miners were going to a land of cod and copper. Ellershausen sprung to his feet saying: "The land which you call cod and copper is bringing you your bread and butter!", and stalked from the hall with family in tow.⁽⁸⁾ The party disintegrated in embarrassment at once.

Shortly after Christmas of 1874, thirty Germans from Ellershause landed in Betts Cove and joined seventy Newfoundlanders in erecting the mine's surface facilities. The men began mining in the spring of 1875 and by September had exported 6000 tons of copper ore to Swansea.

The mine site had six shafts. The ore removal or 'outcast' shaft sat near Betts Head, where copper was first discovered. Steam engines forced compressed air down pipes in the 'ventilation' shafts to relieve the stale subterranean atmosphere. Miners descended the 'travelling' shafts by stairs and vertical ladders that gradually reached 150 feet below the surface of the earth. According to Reverend Moses Harvey, who visited Betts Cove in August 1878, navigating underground was a challenge:

"I went down the mine in company with Mr. Ellershausen, who knows every nook and corner of it as well as a housewife knows the rooms and closets of her house...I followed him in his rapid course up and down ladders, along winding galleries, over planks were a false step would be instantly fatal, and by the edge of yawning chasms..."⁽⁹⁾

Harvey did not mention that Ellershausen himself had narrowly escaped death four months earlier when a ladder collapsed beneath him during an inspection tour. Ellershausen strode through his mine twice daily and often startled nightshift workers by appearing among them, wraith-like, at 2 o'clock in the morning.

The main excavations occupied a level between 100 and 150 feet below the surface and formed a shimmering rabbit warren of candle-lit caverns alternating with copper-rich pillars left behind to support the roof. Men working under mine manager Adolph Guzman blasted the rock loose and removed it with pickaxes and crowbars into wagons. These rolled along a tramway to the bottom of the outcast shaft, where a steam engine hauled material to the surface. There, on a huge roofed copper floor, men and boys cobbed larger pieces of ore, leaving smaller fragments to be jigged through sieves that separated the heavy copper-rich portions from the lighter rock.

The Betts Cove Mining Company installed Newfoundland's first ore smelters in 1876. The six cupola blast furnaces sat on the west side of the cove and smelted ore down to a regulus of 20 to 30 per cent copper over fires of Welsh coal. The coal arrived as ballast aboard the same vessels used to carry ore and regulus to Swansea. When an ore ship appeared in Betts Cove, the whole community turned out to witness or help with the loading. Two-ton cars full of ore crept the first 500 feet from the mine site by horse-power and then coasted a mile down a tramway to the pier. Between 1875 and 1878, more than 75,000 tons of ore left Betts Cove for Swansea.



Engraving of Betts Cove c. 1878, printed on reverse side of Betts Cove Mining Company bills. Swansea cars and ore smelters are in foreground. (II/2.) Larger Version (37 kb)

The population of Betts Cove peaked in 1878 at about 2000 individuals, half of whom were miners from Newfoundland, Germany, Nova Scotia, Cornwall, California, France and Australia. Men received 4 to 10 shillings per day in custom-made Betts Cove Mining Company bills that ranged in value from 6 pence to 5 pounds and that were redeemable for merchandise at local stores.⁽¹⁰⁾ Engraved on the bill face was a

picture of the Betts Cove smelters.

Betts Cove facilities included three churches, a hospital, school, foundry, telegraph office, mineral assay laboratory and sundry stores. Liquor was forbidden in town, apparently to the good of the community, as there was a singular lack of the usual rowdiness of mining towns. Reverend Harvey noted with satisfaction: "No dissipations or midnight revelries disturb the repose of Betts Cove."⁽¹¹⁾ Not surprisingly, the two resident policemen spent most of their time preventing illicit distillation of alcohol.

What Betts Cove lacked in refreshments it made up for in 'copper fever'. Copper formed the main topic of conversation. Everyone knew someone who had found a deposit guaranteed to become a mine. Prospectors wandered about town with ore-filled pockets willing, for a price, to conduct people to the original outcrop. Betts Cove even had a dog that retrieved pieces of discarded copper ore. He occasionally disappeared into the hills for days, leaving villagers convinced that he prospected for copper. Their assumption was not as far-fetched as it may appear, for some modern Swedish mining companies use specially trained German Shepherds to smell out sulphide minerals.



Payday at Little Bay mine, c. 1892. (II/3.) Larger Version (36 kb) During its first four years, the Betts Cove Mining Company was prosperity itself. Not only did it operate the Betts Cove mine; it - or its successor, the Betts Cove Mining Company Limited⁽¹²⁾ - also leased seven other Notre Dame Bay copper properties. This gave the company a near-monopoly on copper mining in

Notre Dame Bay. Ironically, one of the other properties - that in Little Bay - evolved into a mine that rivalled Betts Cove in reputation and eventually contributed to its demise.

While operating the Betts Cove mine, Ellershausen began to transfer some Betts Cove men and machinery to the Little Bay deposit in 1878. Even so, the two mines might have been able to co-exist under the Betts Cove Mining Company had he not at this time embarked upon an uncharacteristically foolhardy scheme.

In the summer of 1879, Ellershausen formed a company to drain Lake Ainslie on Cape Breton Island preparatory to drilling for oil beneath the lake bottom. He reasoned that, should oil not exist in economic quantities, he could turn the exposed ground into fertile farm lands. Unfortunately, his enthusiasm overrode his ethics: in the fall of 1879 he exploited the name and subscription of a Boston lawyer, who angrily withdrew backing from the company and advised others to do likewise.⁽¹³⁾ Failure of the Lake Ainslie project and the concomitant 20 per cent drop in copper prices threatened Ellershausen's financial stability and made him reconsider his future in Newfoundland.

Then in the summer of 1880 William Dickson, Ellershausen's close friend and associate in the Betts Cove Mining Company, died suddenly. Ellershausen, overwrought and shaken, decided to liquidate the Betts Cove Mining Company and sell its holdings. After initiating negotiations with some New York capitalists, he spent two weeks showing the Notre Dame Bay copper properties to one of the representatives. The man's favourable report led the New Yorkers to incorporate in September 1880 into The Newfoundland Consolidated Copper Mining Company Limited and to apply to buy the land at once. The remaining Betts Cove company director, however, refused to sell, forcing Ellershausen to acquire the entire Betts Cove Mining Company assets in December 1880 for \$750,000. One month later he sold them to The Newfoundland Consolidated Copper Mining Company for \$2.5 million!⁽¹⁴⁾

The Consolidated Mining Company inherited the Notre Dame Bay copper mines amid a flurry of notoriety that made the company name synonymous with all that was dishonest and fraudulent. When the furor subsided the company placed most of its energy and money behind the Little Bay mine; the Betts Cove and other mines were viewed primarily as fringe benefits in the deal.

The Consolidated Mining Company possessed none of Ellershausen's mining skills, and gave way to greed. Concerned only with extracting as much ore as possible from Betts Cove, the company began to remove the copper-rich mine pillars. In May 1883 the inevitable happened: a landslide off Betts Cove Hill fell on the mine roof which, being unsupported, caved in. The landslide also took with it buildings and machinery.

Miraculously, no injuries resulted, as a boy noticed the slumping hillside and shouted to the men underground; but for Betts Cove the cave-in signalled doom. What little interest the Consolidated Mining Company had had in the mine dissolved. The town's population plummeted to the point where in 1884 only 40 miners remained on the site. A further drop in copper prices forced operations to suspend in April. In 1886, the mine's last ore shipment left for Swansea, bringing its total production to 130,682 tons of copper ore and 2450 tons of pyrite. Missionaries visiting the settlement in 1887 found two families surrounded by deteriorating tramways, churches and houses, with the intact buildings being moved to Little Bay.

This was essentially the end of Betts Cove.⁽¹⁵⁾ Yet in recent times the area has gained international fame in the scientific world, as its rocks are of a kind rarely exposed on land. Every year scores of geologists inspect the cove and, for a time, make its hills sound again with the ringing of of hammers.

Little Bay Mine

The Little Bay mine, which lay 17 miles from Betts Cove, was dubbed in its prime as the 'El Dorado of Newfoundland', so highly did people regard its ore deposits. Delusions of grandeur aside, the Little Bay mine resembled the legendary South American goldfields slightly in that its riches became the focal point of greed ans scandal. Not even subsequent Newfoundland governments have equalled the political intrigues that characterized the mine's early days. The first victim in the Little Bay saga was its discoverer. In the spring of 1878 a hunter, Robert Colbourne of Wild Bight, noticed copper mineralization near the shores of Little Bay on land that already belonged to others. He unwisely broadcast his find and had to reveal its whereabouts to the claimholders for $\pounds 10$, a chest of tea and a tub of butter. Colbourne died two years afterwards in dire poverty, but the claimholders became wealthy men. One of them was Dr. Henry Eales of London. Another was Adolph Guzman of the Betts Cove Mining Company.

Because the Little Bay discovery coincided with depletion of the highgrade and most easily accessible ore at Betts Cove, Guzman had little difficulty in persuading Ellershausen to lease the Little Bay claim for a royalty of 8 shillings per ton. Mine development began in August 1878, with men and machinery floated from Betts Cove across Green Bay to Little Bay. While some men transformed the silent wilderness into a mine site with houses, a tramway and pier, others assembled the first shipment of ore. Reverend Harvey visited Little Bay two weeks after the opening and left us this vivid description:

"After a brief pause we started for the mine, Mr. Ellershausen leading the way with rapid strides...till panting and exhausted, we reach the summit, scramble through a little morass, and there is Little Bay mine. What a sight we gaze upon here! It is simply a great cliff of copper ore that we are looking at...On the face of this copper cliff the miners are at work quarrying literally the great blocks of copper. The bottom of the cliff is strewed with these glittering masses, small and great, and piles are being heaped up for shipment..."⁽¹⁶⁾

Miners sank shafts in November and by December had shipped 10,000 tons of ore to Swansea - an amazing feat, considering that every pound of ore had to be blasted, raised and loaded by hand. If Harvey's account is at all reliable, it is no wonder that The Newfoundland Consolidated Copper Mining Company desired so strongly to lay claim to the Little Bay mine.

Transfer of the Betts Cove, Little Bay and other Notre Dame Bay mines from the Betts Cove Mining Company to The Newfoundland Consolidated Copper Mining Company in December 1880 and January 1881 came on the brink of the Newfoundland government's decision to build a railway from St. John's to Halls Bay. Not since introduction of responsible government had a matter been debated as fiercely in the House of Assembly. Such was the publicity afforded to the issue that it attracted attention in the United States. When the Newfoundland government called tenders for the railway, a group of Americans headed by Albert L. Blackman formed the Newfoundland Railway Company. In March 1881 they won the bid. At this, a new and more intense wave of publicity broke with the rumour that the people backing the Newfoundland Railway Company also backed The Newfoundland Consolidated Copper Mining Company, and that the Newfoundland government was secretly involved with both firms.⁽¹⁷⁾



Sir William Whiteway. (II/4.) Larger Version (23 kb)

The first concrete evidence of a connection between the mining company and government came in June 1881: the *Evening Telegram* released a copy of the Consolidated Mining Company's prospectus, showing Newfoundland's Premier Whiteway to be one of its directors.⁽¹⁸⁾ Sir William Whiteway's position in the company was predictable, as he had owned shares in local mining companies since the 1850s and had held power of attorney for several of Ellershausen's business dealings. What incensed the press (and the opposition party)

was not just that Whiteway could use his office to the mining company's advantage, but also that he, as chairman of the government committee to consider the Blackman railway proposal, had threatened to resign if the committee rejected the bid of Blackman's Newfoundland Railway Company⁽¹⁹⁾, which even then was suspected of having associations with the Consolidated Mining Company.

Evidence suggests that both Whiteway and Ellershausen had vested interests in the railway company as well. In the summer of 1881, Ellershausen sailed to England to seek additional financial backing for the Consolidated Mining Company. He secured Messrs. Matheson and Company of London to be the firm's major creditors and returned to Newfoundland on 26 August 1881 with members of the Matheson company. Two weeks later Whiteway arrived from England on the same boat as Blackman amid vehement press accusations that Ellershausen, Whiteway, Blackman and the Mathesons had been conducting critical business in London. The local reporters would have relished this letter written on 3 September 1881 from Ellershausen to Whiteway: "I have nothing mentioned to *anybody* about my affair with Blackman and as long as *he* does not mention *anything* to *anybody*, I shall keep quiet, but not otherwise."⁽²⁰⁾

The manipulations of Whiteway and Ellershausen apparently reached beyond the formation of the Consolidated Mining Company and into the very ownership of the Little Bay property. Claim records show that Adolph Guzman and a Twillingate doctor, William Stirling, filed the first claim for Little Bay on 14 October 1876, but that Stirling's name was replaced by that of Ellershausen's friend, Dr. Henry Eales, immediately before the property was transferred to the Betts Cove Mining Company Limited on 17 December 1878. Stirling managed to regain partial possession of the Little Bay lease on 23 April 1881, but on 17 May 1882 had to share the fee-simple grant with Guzman, Eales and Ellershausen's son-in-law, William Colchester. A series of communications between the parties involved reveal that Stirling deplored the joint arrangement. They also hint that Whiteway had more than a casual hand in fabricating the overpopulated fee-simple grant.⁽²¹⁾

What did Little Bay miners know of these intrigues? It is highly unlikely that the details ever reached them. They, at any rate, had more immediate troubles to contend with, for in April 1883 the Consolidated Mining Company put the mine on contract and laid off 100 men. The remaining workers struck briefly in protest at the time and struck again a month later, having since formed a union of sorts. This precipitated a general meeting at which mine manager E.C. Wallace declared that he approved of the union and would give all miners an equal share of the work. The village minister arose next to preach the immorality of preventing one's fellow man from working. The point was made, and the miners returned underground.

All labour disputes and job shortages vanished in the summer of 1883 when the first smelters came to Little Bay. The original smelting works resembled those at Betts Cove in being capable only of roasting ore over coal fires to a regulus of 32 per cent copper. In 1887, however, the Consolidated Mining Company installed refining smelters that reduced roasted ore further into copper ingots. The process provided highly lucrative, and from 1887 until 1892 copper ingots formed the mine's entire output. Miners' wages rose accordingly and in the *Twillingate Sun* of 20 March 1886 were cited as being as follows:

engineers	6 to 8 shillings daily
miners	6 shillings and 6 pence
strikers	5 shillings and 6 pence
men and boys on copper floor	4 shillings and 6 pence
men in jigging mill and smelters	4 shillings and 6 pence
boys employed about the mine works	2 shillings

These wages were fairly typical of most Notre Dame copper mines of the period.

Meanwhile, dramatic changes were happening to the world copper market. Beginning in the early 1880s, American and Spanish copper production had risen sharply; simultaneously, copper consumption had increased because of the new electrical industry. Alarmed that soaring copper production and consumption would severely devalue the metal, an influential French firm attempted to control international copper production by making contracts with the world's major copper companies, including Messsrs. Matheson and Company.⁽²²⁾ However, the resultant escalation in copper prices rejuvenated so many dead or lethargic mines outside the agreement that production actually increased. High prices and high production could not co-exist, and in March 1889 the copper market collapsed.

It took some months for the full effect of the crash to reach Little Bay; in the summer of 1889 the deepest of its seven shafts still employed 400 hundred men. However, before long the mine's depth became its undoing, as the diminished copper values aggravated the already heavy costs of pumping and hoisting in the 1400-foot shaft. Hugh Matheson of Messrs. Matheson (The Newfoundland Consolidated Copper Mining Company's main creditors) grew more concerned with each passing month, particularly after the company's long-dormant New York board of directors pulled a surprise election in early 1889 and voted Messrs. Matheson and Company out of its presidential capacity. Hugh Matheson then pulled a surprise of his own and in August launched a petition for the liquidation of the Consolidated Mining Company.

The much-publicized Matheson petition revealed that the mining company owed its creditors £229,285, a figure grossly exceeding its total assets.⁽²³⁾ Despite outraged protests from the New York board of directors, the court decreed that the Mathesons could continue to manage the company's affairs. In effect, the petition was postponed pending further development.

As Matheson feared, the situation at Little Bay worsened shortly thereafter, and in 1892 the Consolidated company had to buy 30,000 tons of Tilt Cove ore to keep the Little Bay smelters in operation. In October Matheson filed another petition against the Consolidated company, this time successfully: the New York directors sullenly but silently would up their affairs. The Little Bay mine worked for two more years under the Mathesons and finally closed down in July 1894, reduced to inactivity by low copper prices, low ore reserves and low morale among its miners.

The Little Bay mine might have remained inactive for many years had not the 1897 improvement in copper stocks brought a veritable bevy of foreign geologists and mining engineers to Newfoundland. One man, Joseph H. Collins, returned to England pursued by rumours that he planned to reopen some of the Notre Dame Bay copper mines. The rumours were substantiated on 8 March 1898 when he incorporated The Newfoundland Copper Company Limited to exploit ten square miles of Notre Dame Bay copper properties, including the Little Bay mine site.

Thus began a brief phase of prosperity for Little Bay, during which miners picked over ore dumps of the old workings and sank two new shafts in Sleepy Hollow about 1000 feet west of the original shafts. The smelters were revived, and the community thrived once again beneath the acrid aroma of sulphur fumes.

A visitor to Little Bay in 1899 might have complained of the sulphur smell, but would not have faulted the visual aspect of the settlement. The town of 2000 people was divided into the Loading Wharf and the Bight. The former location contained the pier, smelters and company officials' homes; sulphur smoke shrouded the site, making breathing laborious and vegetation virtually non-existent. The greener Bight housed most of the miners, one church, company stores and the telegraph office. Between the two areas stood a steep hill crowned by an Anglican and a Roman Catholic church, both of which could be reached only by a long flight of stairs that ascended from the village below.⁽²⁴⁾

However, a visitor to Little Bay in 1904 would have seen an entirely altered picture. The smelters by then sat dormant, company officials were gone and the community lay ravaged by fire. The Newfoundland Copper Company directors had tired of Newfoundland's seven-month shipping season and had withdrawn from Little Bay in June 1901 to work copper properties in Chile. Another company optioned the mine in 1902, but gave up in August 1904 after a fire obliterated most of the town and mine offices. Because the fire also destroyed all mine records it is possible only to estimate that about 200,000 tons of copper ore left Little Bay for Swansea between 1878 and 1902.**

One last detail remains to be told of the Little Bay mine. Some of the final copper ingots manufactured in the smelters did not go to Swansea; instead, they were moulded into an heraldic shield that was presented to the Duke of York during his 1902 tour of Newfoundland.⁽²⁵⁾

* * * *

As the Betts Cove and Little Bay mines evolved, reached their primes and declined, numerous lesser copper mines also arose and fell in Notre Dame Bay. They lay in the Southwest Arm of Green Bay south of Betts Cove, in the adjacent Halls Bay, on Islands in the Bay of Exploits and farther east on Twillingate Island at Notre Dame Bay's eastern extremity. Although some mines were owned and worked by private individuals, the majority were leased and operated by one or both of the Betts Cove Mining Company and The Newfoundland Consolidated Copper Mining Company. Consequently, a number of the characters encountered in the Betts Cove and Little Bay accounts reappear in the stories of these smaller, but equally colourful, operations.

Southwest Art Mines

Looking at the rugged coastline of the Southwest Arm of Green Bay, it seems unimaginable that its south shore once harboured five copper mines. The oldest and most easterly of these, the Swatridge, belonged to a St. John's firm called the Southwest Arm Mining Company composed of six men, five of whom were or had been Liberal Members of the House of Assembly.

In 1876, an unusually warm autumn enabled miners employed by the company to drill two shafts on the Swatridge deposit and to raise some ore before the snow fell. The winter, however, reached far into 1877. One Sunday in May, mine manager Martin ventured onto a partly frozen pond while throwing sticks for his dog and fell through the ice. He drowned before help could arrive, bringing the Swatridge mining venture to an abrupt and unhappy end.

* * * *

Two-and-one-half miles southwest of the Swatridge shafts sat a mine known variously as the Location, Pill's and Old English. If a person scrutinizes the area today he can still unearth remnants of the 800-foot double-track tramway that ran from one of the mine's two shafts down to a wharf on the Southwest Arm. He can also find fragments of wooden ducts that conducted pumped fresh air down shafts to the two dozen miners who worked under mine captain William Pill of England.
The Old English mine produced a small amount of ore in 1879 and 1880. Before the Consolidated Mining Company abandoned the mine in 1882, another 490 tons left the 'Southwest Arm mines', those being the old English and the adjacent Colchester mines.

* * * *

In the early days of Newfoundland mining, people customarily referred to a small mine by the name of its presiding mine captain. Thus was the Colchester mine named after William Colchester, Francis Ellershausen's son-in-law, who managed the property for the Betts Cove Mining Company around 1878-79.

As soon as the Betts Cove Mining Company optioned the Colchester mine in 1878 from its owners, the Southwest Arm Mining Company, a farmer from the nearby village of Jackson's Arm, James Batstone, announced that *he* had discovered the orebody in the early 1870s. Judgment passed on the ensuing suit of equity against the Southwest Arm Mining Company allowed Batstone to buy a one-seventh share in the company for \$220 in exchange for paying one-seventh of all prior and future company expenses. Batstone then turned the tables on politicians in general by immediately selling half of his share for \$400 to Robert Bond, who later became a premier of Newfoundland.

By mid-1878 the Colchester mine thronged with miners busily erecting an inclined tramway and a road to the Southwest Arm, and sinking three shafts for the Betts Cove Mining Company. It also thronged with mosquitoes and blackflies that made the miners' lives miserable:

"No one could go about unless protected by a veil on hands and head, or smeared all over with a mixture of tar and oil, which drives them off. One man braved them in an unprotected condition, but in a short time his face was a bloated, gory mass, in which all traces of the original had disappeared. His horrified comrades besought him to spare their feelings and 'take the veil'."⁽²⁶⁾

Four years and two ore shipments later the Consolidated Mining Company, having acquired the Colchester mine in December 1880, left it to concentrate upon Little Bay. William Colchester departed from Newfoundland and took a job in South America, where he eventually died of a fever in 1891.⁽²⁷⁾

The Colchester mine had one last burst of activity. When The Newfoundland Copper Company reopened the Little Bay mine in 1898 it also leased the Colchester mine and, between 1898 and 1901, exported about 300 tons of ore from the property before leaving Newfoundland.⁽²⁸⁾

* * * *

The years 1889 to 1898 were lean ones for Notre Dame Bay miners. Copper prices sat at a record low and the list of liquidated mining companies lengthened monthly. Most unemployed miners returned to their fishing boats, but a few took up the prospector's pick. In the fall of 1891 one such man spotted copper ore southwest of the Colchester mine and, next spring, made the long treck to the Surveyor General's office in St. John's. There he found that news of his discovery had preceded him and that a Liberal politician, A.W. McNeily, had already secured the property.

McNeily was a lawyer, choral singer and member of the London Society for Psychical Research.⁽²⁹⁾ He was also a shareholder in The Newfoundland Consolidated Copper Mining Company. Despite having voted the Mathesons out of office in the 1889 shareholders meeting, McNeily had no compunction about leasing his mine property to Messrs. Matheson and Company in 1892. The Mathesons, for their part, were in no position to be particular about their sources of copper ore: they needed new deposits desperately to supplement the declining Little Bay reserves to keep the Little Bay smelters in operation.

The Little Bay mine manager, Andrew Whyte, began to develop the McNeily mine in 1892. He, mine captain John R. Stewart and a handful of Little Bay miners raised 650 tons of ore, ran it through an on-site crushing plant and cleared a road between the two mines preparatory to carrying the ore to the smelters. However, when the Little Bay mine took a sudden turn for the worse, Whyte and Stewart hastened back to Little Bay and left the McNeily mine to its fate. Not until 1897 did John Stewart (by then the Little Bay mine manager) return to the site with men and horses, and haul the raised ore along the overgrown road to Little Bay.

That one haulage plus another shipment made in 1898 by the Tharsis Sulphur and Copper Company from Glasgow constituted the only ore to leave the McNeily mine. Five thousand tons of ore, raised and left by the Tharsis company, remain on the mine dumps to this day.

* * * *

The Little Bay and McNeily mines were the first ones worked by John R. Stewart. Born in Middlesborough, Nova Scotia in 1859, he came to Newfoundland in 1879 and gained employment with Messrs. Matheson and Company at Little Bay in 1881. The Little Bay mine collapsed in 1894, after which date he went on to manage the Mortons Harbour arsenic mine, Mings Bight gold mine, Buchans base metal mine and, lastly, the Kings Point or Rendell-Jackman mine at the bottom of the Southwest Arm.

One day in September 1909, Esau Burt of Kings Point noticed copper mineralization while moose-hunting near Oval Brook. He mentioned it upon his return, never realising that the story would spread up Green Bay to Tilt Cove. The Tilt Cove merchant, James M. Jackman, heard of Burt's discovery and relayed the information to Robert Rendell in St. John's. Rendell filed a claim for the location and approached John Stewart, who was between jobs. Stewart accepted the position as mine manager, hired 30 miners and in November 1909 began mining. The Kings Point mine absorbed nearly \$43,000 of Rendell's and Jackman's money, but remained unproductive. In March 1912, Jackman became the manager of the Tilt Cove mine (the previous man having perished in a snowslide), and in March 1913 John Stewart died of dropsy at the age of 53. The two deaths disrupted the Kings Point operation and forced it to follow the other Southwest Arm mines into dormancy.

Halls Bay Mines

Springdale Peninsula in Notre Dame Bay is bound on the north by the Southwest Arm of Green Bay, on the south by Halls Bay and is named after the town of Springdale on Halls Bay's north shore. Springdale owes much of its prosperity to a recent phase of copper mining that occurred in the 1950s and '60s and saw the opening or reopening of the Gull Pond, Whalesback, Little Bay and Tilt Cove copper mines. Although Springdale residents may realise that these mines turned their community into a centre for mining supplies and services, few know of the old Peyton's and Sterling mines that lay behind the Springdale townsite.

A deputy surveyor, Thomas Peyton, discovered both the Peyton's and Sterling orebodies. He noticed the Peyton's deposit in 1875 amongst tree roots near Sullivans Pond and, like other gullibles, leased his mining property in 1878 to the Betts Cove Mining Company. Adolph Guzman developed the claim during much of 1879, removing hundreds of tons of ore from the locale to the Little Bay smelters.

Then late in 1879, Guzman ordered miners to fill up the Peyton's shaft with rock and to leave the site. Rumours flew from one end of Green Bay to the other! Some said that Guzman held a grudge against Peyton over a property dispute in which both men asserted their right to the Peyton's mine. Others believed that Guzman disliked the idea of anyone profitting from his labours. However, the miners whispered between themselves that the ore at the bottom of the shaft was so rich that Guzman wished to hide it from Ellershausen and to work it alone at a later date. Guzman himself said nothing and moved from the Peyton property to exploit the nearby Sterling claim.

The Sterling mine belonged to Thomas Peyton, Dr. William Stirling and two other men, at which time it was called only the 'Halls Bay' mine. Not until 1916 did Dr. Stirling's opera-singer daughter, 'Toulinguet Sterling', become a part-owner of the property and lend her stage name to the old mine.

Premier William Whiteway may have intended that the name 'Sterling' never reach the property at all. The same sheaf of telegrams that suggest Whiteway's influence in the fabrication of the Little Bay feesimple grant hint that he also tried to alter ownership of the Sterling mien in the summer of 1880.⁽³⁰⁾ He chose a poor time: Stirling still rankled over his treatment in the Little Bay affair and was further distressed by his wife's serious illness. He threatened court action, and the matter mercifully dissipated.

Miners working on the Sterling property in 1880 nicknamed it the 'Whim Shaft mine' because of the horse-driven whim or winch erected over the shaft to pump out water and hoist ore. Between 1880 and 1882 they raised 240 tons of ore, some of which went directly to Swansea and some of which was treated first in the Little Bay smelters. When the final ore shipment left the Sterling mine in 1882, Adolph Guzman had miners sweep the copper dust from the bottom of the shaft and place it in canvas bags to be taken to Little Bay. This was probably the last Newfoundland mining job supervised by Guzman. He left the Island around 1883 for the United Sates and subsequently was murdered in Arizona.⁽³¹⁾

Clear Mines

No character in the story of early Newfoundland mines appears as consistently and in more divergent enterprises as Captain Philip Cleary. Between 1865 and his death in 1907, his name surfaced across the Island in ventures associated with marble, coal, asbestos, oil, pyrite and copper. It is sad that none of them ever made respectable profits while in his grasp.

One of the Cleary's two copper mines lay at Crescent Lake near Roberts Arm, 14 miles to the east of Springdale. Unlike the secluded Southwest Arm and Halls Bay mine site, the old Crescent Lake site lies in the centre of the Crescent Lake Municipal Park; its ore piles have long since been removed by Roberts Arm residents to form part of their community wharf.

The Crescent Lake orebody first came to light in May 1878 when lumbermen working in the area stumbled upon outcrops of copper ore along the north shore of the lake. Cleary, who already owned claims covering the deposit, obtained samples of the ore and showed them to officials of the Betts Cove Mining Company. To his delight, they pronounced them to be unusually high in copper and offered to lease the property for a royalty of 5 shillings per ton.

The Crescent Lake mine possessed remarkably sophisticated surface facilities for a small mine of its day, as its lessees, the Betts Cove and Consolidated mining companies, felt that the high-grade ore merited more than the usual hurried treatment. It had a sturdy two-mile tramway that ran from the mine site to a wharf at the head of Roberts Arm, a copper floor for cobbing ore and a crushing mill that operated on water power funnelled by a flume from a pond. Ore travelled on flat scows from the mine site on the north side of the lade to crushers on the south side before being rolled to Roberts Arm. About 1260 tons of ore left the Crescent Lake mine between 1879 and 1881.

It appears that Cleary became somewhat of a thorn in the side of the last Crescent Lake mine manager, a Mr. Rutter. Rutter's increasingly frustrated telegrams to the Consolidated Mining Company show that Cleary accused the company of paying him less than his rightful royalties - "Must I pay Cleary other than minimum royalties?"⁽³²⁾ and that Cleary laid claim to the surface facilities - "Please inform Cleary

that the machinery belongs to the company." In the fall of 1881 Rutter could stand no more. He smeared tar over the ore exposures in the shaft and recommended that the Consolidated Mining Company leave Crescent Lake. It did so.

Captain Philip Cleary's experiences with the Consolidated company left him undaunted, and in 1893 he approached Messrs. Matheson and Company again with ore samples from another copper property found at Miles Cove on Sunday Cove Island at the mouth of Halls Bay. The Mathesons brusquely dismissed the ore as "unmarketable"⁽³⁴⁾, but Cleary put their opinion down to pique over the Crescent Lake affair.

In 1898, the Tharsis Sulphur and Copper Company came to Newfoundland from Glasgow on the wave of revived international copper prices, looking for copper mines to lease. If the company's representatives had been less anxious to obtain property they might have suspected Cleary's eagerness to woo them onto Sunday Cove Island. Only after they had optioned his Miles Cove claim and exported 210 tons of copper ore did they realise that the ore was indeed 'unmarketable'. The mine fell into disrepair after the company left in 1899 and today is indistinguishable from the surrounding countryside.

Pilleys Island Mine

Immediately eastward of Sunday Cove Island lies Pilleys Island, with dark volcanic rocks stained in places by rusty-yellow mineralization. The striking pattern led local people to call one particular cove "Bumble Bee Bight"; it also lured Philip Cleary to stake a claim around Bumble Bee Bight in the late 1860s.

In the process of exploring his property, Cleary came to recognize that its orebody consisted mainly of pyrite, an iron sulphide mineral that at the time fetched only 24 shillings per ton. Cleary could not lease such a claim and on 28 December 1885 sold it instead for \$13,000 to Archibald MacNichol of Maine and James Murchie and Lewis Mills of New Brunswick. Cleary thus disposed of his one valuable mineral holding, as the ore later supported Newfoundland's largest pyrite mine and was smelted for iron, copper and sulphur.

The subsequent success of the Pilleys Island mine was not immediately apparent. The first mine manager, Frederick W. Andrews (Lewis Mill's brother-in-law), had spent his youth travelling around California and New England and had run a brickyard and roller skating arena in Saint John, New Brunswick⁽³⁵⁾; however, he knew nothing of mining. He arrived in Newfoundland in 1886, determined to work the property as cheaply as possible. As a result, the 40 local miners were kept short of food, accommodations and wages. Between 1887 and 1889 the undernourished miners raised 9790 tons of ore, the returns from which the claimholders used to incorporate The Standard Pyrites Company Limited in June 1889.

Had the Pilleys Island mine remained for long under the control of The Standard Pyrites Company, it probably would have suffered from half-

hearted development and premature closure like so many other Notre Dame Bay mines. Luckily an opportune change in the American foreign trade policy prevented this: in October 1890 the United States waived all tariffs on pyrite ores containing over 25 per cent sulphur.* ** The Standard Pyrites Company received offers to buy its holdings and on 8 April 1891 sold the mine for £68,070 to an English firm called The Pyrites Company Limited.



Pellys Island mine site, c. 1892. (II/5.) Larger Version (27 kb)

Pilleys Islanders were struck at once by the contrast between Frederick Andrews and the English mine manager, Cecil Bowen. Within two weeks of his arrival, Bowen had the 86 miners raising new tramways, sinking new shafts and repairing the mine buildings. So that the mine could operate 24 hours a day, he hired

a man to install electric lights throughout the surface and underground workings. The Pilleys Island mine was the first in Newfoundland to be thus equipped. He also contributed to the social community by organizing the Pilleys Island Board of Health. By the time Bowen left Pilleys Island in the fall of 1892 - his pregnant wife balked at bearing their child in Newfoundland⁽³⁶⁾ - Bowen had transformed the mine from a faltering operation into a thriving concern.

It was due largely to Bowen's groundwork that his successor, A.H. Beatty, was able to ship 270,000 tons of ore to Canadian and American smelters between 1892 and 1899; some of it was copper-rich pyrite containing 2 to 3 per cent copper, and some was pure pyrite. In 1899, however, the mine's productivity came to a halt when miners encountered a hard ore zone that would yield neither to hand tools nor to imported compressed-air drills. The men struggled with the orebody, led on by mine captain Daniel McCuish of Cape Breton, who in the 1890s lost an arm in an underground explosion and so acquired the name "One-Armed McCuish".⁽³⁷⁾ By June 1899 The Pyrites Company directors could wait no longer for miners to penetrate the ore. They voted to liquidate the firm, and passed the property over to trustees.

At this point, Frederick Andrews reappeared on the scene. He had spent the intervening years managing other mining and business ventures and had accumulated enough capital to purchase "certain effects" of The Pyrites Company from its trustees in 1901. He sold the mine on 11 September 1902 to a subsidiary of the most ubiquitous mining company then active in Newfoundland: the Newfoundland Exploration Syndicate.

The Newfoundland Exploration Syndicate, a West Virginian firm, was incorporated in 1900 to lease or purchase Notre Dame Bay mining properties. It formed the Terra Nova Company in 1903 to lease the Terra Nova mine in White Bay, the Pilleys Island Pyrites Company in 1902 to take over the Pilleys Island mine and later leased mining claims in Betts Cove, Little Bay, Trump Island, Tea Arm, Crows Gulch and Bear Cove.

Unlike the Betts Cove and Consolidated mining companies, the Newfoundland Exploration Syndicate appeared rarely in the news. The most commonly mentioned individual was Charles F. Taylor, a St. John's entrepreneur and mining promoter who served as the company's resident manager. Taylor travelled extensively about Notre Dame Bay supervising the syndicate's mines, but spent most of his time in Pilleys Island where he owned a store and where, according to one journalist,

the older residents prayed for him daily for reviving the mine.⁽³⁸⁾ Taylor needed all the prayers he could get. Sometime in 1904 he became \$29,000 in debt, and in 1908 he lost his entire business and personal possessions to mortgagers.

Meanwhile, after having exported about 218,000 tons of ore to the United States between 1902 and 1908, the Newfoundland Exploration Syndicate found that a large fault displaced the main ore lens. The company had sustained heavy debts already from its too-widespread activities and so used the fault as an excuse to announce to the miners that pay day would be postponed until geologists determined the extent of the displacement. The announcement was simply a ruse to gain time: while the grumbling miners extracted the last available ore the company pulled together and withdrew silently before the government could take court action to wrest wages from the management.

The Pilleys Island mine ceased working after 1908 and was sold on 14 May 1914 at a public auction to an American, August Hechscher. After regaining some of his \$50,000 purchase money by selling the mine machinery for scrap metal during World War I, Hechscher disposed of the property in 1918. The more recent, intermittent exploration of the mine has yet to bring it back into production.

Eastern Notre Dame Bay Mines

If one were to place on a map a red pin for each of the Notre Dame Bay copper mines, the western area of the bay would emerge as a rosy cluster of dots. Yet the more easterly region would remain unblemished, save for an isolated flash of colour around Seal Bay, New Bay and Twillingate Island. The reasons for this is simple: geological forces originating millions of years ago created more mineral deposits in the rocks of western Notre Dame Bay, so that statistically the rocks contain more mineable orebodies than those of the east.

Few would-be mining magnates of the 1870s and 80s realised the wisdom in limiting their activities to western Notre Dame Bay. Every new ore deposit located anywhere in the bay brought cries of 'a new Little Bay!'. Only later did people notice that virtually none of the eastern copper deposits became productive mines.

William Pill moved in May 1880 from the Old English mine to the Thimble Tickle prospect near Lockport and spent a barren season working on its pyrite deposit. Charles O'Brien Redin, a British Columbian living in Little Bay, raised a considerable tonnage of ore from Fortune Harbour's Grey Copper mine, so-called for the ore's peculiar colour; none of it ever left the mine site. The Reid Newfoundland Company Limited exported a small cargo of copper ore from a deposit found near Saunders Cove, only to abandon it when no further ore could be extracted from the workings. Joe Roberts of Beaver Brook Cove tells of how he was the only man able to stay a full shift underground in the unusually dusty Tea Arm prospect in New Bay.



Loading pier and ore storage shed of Sleepy Cove copper mine, c. 1907. (II/6.) Larger Version (26 kb)

Little is known about the history of the foregoing fruitless endeavours. The same could not be said for Twillingate Island's Sleepy Cove mine. Despite the mine's poor productivity, enough intriguing fragments of information exist to draw a sketch of its rise and fall.

In 1905, Obediah Hodder of Pennsylvania revisited his birthplace at Crow Head on Twillingate Island and, while exploring his old haunts, happened upon a copper prospect that he had found as a child.⁽³⁹⁾ That was the newspaper version of the discovery on the Crow Head or Sleepy Cove mine. Another story described how Hodder's father spotted the ore while searching for net ballast. The facts are the Obediah's father, James, and brother, Edgar, staked the Sleepy Cove orebody with other men in the early 1900s and sold it to Obediah around 1906 for \$5000 and a 20cents-per-ton royalty.⁽⁴⁰⁾ He then incorporated the Great Northern Copper Company Limited and transferred the claim to the firm.

Like many of his contemporaries, Obediah Hodder clung to the belief that a sophisticated surface outlay could compensate for an indifferent mineral deposit. Disregarding the Sleepy Cove orebody's limited size and copper content, he spent \$225,000 on importing the latest mine equipment from the United States. Older Twillingate residents can recall its arrival by steamship in the fall of 1908; Crow Head men still relate the problems in hauling it piece by piece over the snow from Twillingate to the mine site using horses and sleds.

To obtain an idea of how the Sleepy Cove mine appeared in its prime, one can look in the Crow Head Town Hall at Melvin Sharpe's colourful mural of the old site. One wood-burning steam engine hoisted the ore up the shaft. Another ran the cable cars along the tramway between the shaft and the crusher. A turntable centrifuged the ore from the barren rock, and yet another steam-powered tramway carried the ore to the wharf.

For all its impressiveness, the machinery had little chance to perform. Of the three ships that came to remove ore, one carried 560 tons to an unknown destination in 1910; another abandoned loading operations after high winds drove it onto rocks; and a third took ore to New York where it sat unclaimed for months before the American Smelting and Refining Company bought it in 1915 or 1916.

Obediah Hodder stopped mining around 1917 to start up a cooperage in Twillingate, but later returned to Pennsylvania. His abandoned mining and cooperage machinery lay rusting until the Crow Head Town Council gathered it together and transformed it with crimson and yellow paint into playground equipment for children of the village.

Miscellaneous Mines of Notre Dame Bay

Although the preceding mines were the more successful or wellknown of the copper boom, numerous other shafts of forgotten origin riddle the coastal and inland regions of Notre Dame Bay. Prospects such as that at Delaney near the head of Little Bay worked in 1883 by Captain Maynard; at Shoal Arm near Little Bay worked in 1881 by Captain Brown; at Mine Cove near Springdale worked in 1881 by Captain Muir - these are but a few of the mining properties that produced nothing but a local legend and a hole in the ground. On the other hand, some copper properties found before or at the turn of the twentieth century were not exploited successfully at once, but remained alive in people's memories until the financial, political or scientific climate grew suitable for their development: the Buchans, Gull Pond, Rambler and Whalesback copper deposits were recognised for years before they became commercial operations.



Ship loading 'iron ore' from the Fortune Harbour iron mine, with tramway in foreground. Print was reproduced from postcard photo made by unidentified American tourist, c. 1897. (II/7.) Larger Version (38 kb)

The sheer number of copper mines in Notre Dame between 1864 and World War I may give the impression that mining in the district consisted solely of the exploitation of copper ore. By and large this was true, but there were noteworthy exceptions, those being a lead mine in Bear Cove, an iron mine in Fortune Harbour and an arsenic and an antimony mine, both in Mortons Harbour.

The Hodder family of Twillingate

Island played a varied, if minor, role in the Newfoundland mining industry. James Hodder and his son, Edgar, staked the sleepy Cove deposit; Edgar's brother, Obediah, worked it; and James' brother, George, staked and attempted to develop the antimony deposit of Mortons Harbour on New World Island.⁽⁴¹⁾

In the summer of 1876, George Hodder learned that villagers digging for peat behind the west side of the harbour had unearthed what they thought was galena or lead ore. Touched by curiosity, he investigated the site and there met Baron Francis von Ellershausen, who had been drawn from Betts Cove by the same news. Brief exploratory work satisfied Ellershausen that the ore was not galena, but the rarer mineral antimony, which at the time had few known uses. He left for Betts Cove without trying to discourage Hodder's interest in the deposit.

Time has since proven Ellershausen's astuteness in ignoring the

Mortons Harbour property, for seldom in Newfoundland's history has so much money and litigation been expended upon so modest a mineral deposit.

George Hodder, Corbett Pittman and John Templeton staked the antimony showings in the early 1880s and made three tiny ore shipments before enticing two others, William Lethbridge and A.O. Hayward, to join them. Largely through Lethbridge's cunning - he originated from England and spread embellished rumours of the property's value among his British acquaintances - the New World Island Mining Syndicate Limited was organized in England and on 3 August 1892 bought the Mortons Harbour claim for about \$75,000. Its directors were confident of success.

By 1897 the scene had changed. The syndicate had become hopelessly in debt, could not pay the full purchase price and had been issued a writ of *fiera facias* by Hodder *et al.* The mine appeared on public auction on 26 June 1897 where Hodder and the others reclaimed it for \$500. That ended the reign of the New World Island Mining Syndicate.

History repeated itself in 1912, this time at the expense of the Newfoundland Antimony Company of New York. The company representative consented in 1905 to buy the mine for \$50,000; seven years later Hodder and company took him to court for having paid only \$13,000 of the stipulated sum. They won the case and again regained possession of the property.

With the submergence of the Newfoundland Antimony Company, the Mortons Harbour mine faded. Hodder and his associates lost interest in their ill-fated claim - which, after all, had yielded only 140 or so tons in 23 years - and abandoned its shaft and adit to the elements around 1916.

The Mortons Harbour arsenic deposit, located on the harbour's east side and discovered in 1896 by John R. Stewart of Little Bay, had a less dramatic history than did the antimony deposit. Four men hired by Stewart sank a shaft on the arsenic showing late in 1896 and in 1897 sent 125 tons of ore to Nova Scotia. Unfortunately the purchaser was declared insolvent shortly thereafter, and the money never arrived for the shipment.⁽⁴²⁾

One interesting feature of the two Mortons Harbour mines is that their ores contain over ½ ounce of gold per ton, a fact that might be worth exploring further in times of inflated gold prices.

Fortune Harbour is the site of an old iron mine and sits 20 miles west of Mortons Harbour on the tip of the Fortune Harbour Peninsula. For many years, Beothuck Indians living on the peninsula removed red ochre from the local iron deposits to cover themselves and their belongings. The Europeans who later moved into Fortune Harbour also used the red ochre by mixing it with linseed oil for paint.

William Cook, a St. John's butcher, first heard of the Fortune Harbour

iron deposit in 1896 while managing a small copper mine at Tea Arm in the adjacent New Bay. Public interest in iron ore was then rampant, as the massive Bell Island iron mines had been opened a year earlier. When Cook's Tea Arm project failed in 1897, he staked the Fortune Harbour iron deposits and hired villagers to exploit it.

The first shipload of ore, 1500 tons of manganiferous iron ore, left Fortune Harbour in 1897 and fetched \$18,000 from the Workington Iron and Steel Company in England. The next cargo, consisting of worthless red jasper and rotted stumps, was less favourably received. The Workington company pointedly refused further 'ore shipments' from Cook, and Fortune Harbour's mining days concluded as quickly as they had begun.

William Cook also owned shares in the Bear Cove lead mine in Green Bay along with three other men, including John R. Stewart. Apart from a few sporadic scratchings, however, the Bear Cove property lay unexplored until Stewart optioned it in 1907 to a novice mining engineer, James Campbell.

Campbell surveyed the lead showings cursorily - too much so to realize their character - and travelled to Boston in the fall of 1907 to float the Bear Cove Mines Company Limited. He returned in May 1908 and by June was in Bear Cove dewatering an old shaft sunk in 1905 by the Newfoundland Exploration Syndicate. His scale of mine development far exceeded the limitations of the deposit. Every month he paid out \$1700 in wages to the management, 30 miners, a carpenter, blacksmith and foreman; in five months he squandered \$16,525 of the company's money.

Although the Bear Cove mine deteriorated after Campbell's retreat in October 1908, its influence in the area remains: the nearby community of Silverdale is named after the trace silver content of the ore.

Decline of the Copper Boom

The uninspiring nature of the Bear Cove, Fortune Harbour and Mortons Harbour mines indicates why most speculators concentrated on copper ore. Yet despite this concentration and despite the approximately 1.53 million tons of copper ore, 78,200 tons of copper regulus and 5420 tons of copper ingots that left the Island between 1864 and 1918⁽⁴³⁾, the copper boom came to an undignified and premature end. It is impossible to give a single reason for its demise, for the causes were as varied as the mines themselves.

Prime culprits were the Betts Cove Mining Company and The Newfoundland Consolidated Copper Mining Company. They monopolized the Newfoundland copper industry almost from its inception and spread themselves across Notre Dame Bay without doing justice to any one mine. Had the companies been concerned as much with the longevity of the mines as with the size of their bank accounts, some of the operations - certainly the Betts Cove and Little Bay mines - might have lasted for decades. Instead, managers 'highgraded' the orebodies: they removed only the richest ore and left the lower-grade material strewed on the mine dumps or buried inaccessibly in collapsed shafts. These greedy practices disabled Newfoundland mines from competing with the huge American porphyry copper deposits that opened in the 1880s. Worse, they increased the mines' vulnerability to the fluctuating international copper market and allowed it to play havoc with the smaller mines, whose narrow profit margins disappeared with a minimal drop in copper prices.

The Consolidated Mining Company was especially harmful because of its affiliations with the ruling Liberal party. Until 1891, mining laws allowed friends of the government to obtain large swaths of land and either to hold them in limbo or to pass them over to the Consolidated Mining Company. Private individuals finding mineralization on such land had no alternative but to reveal its whereabouts for a small remuneration.

Newfoundland's mercantile system of giving credit rather than cash for fish made it next to impossible for fishermen to develop even unlicensed territories. Credit did not buy gunpowder and pickaxes; nor did it pay the government surveyors' obligatory and exorbitant fees.

For those who managed to borrow money, further hazzards arose. Some prospectors discovered orebodies in unlicensed regions, staked the area legitimately, worked it enough to ascertain its value and were then 'regretfully informed' by the surveyor general that he had just realised that Mr. X - usually a politician - had prior claim to the property. The registration fee was returned to the prospector, and the claim fell to Mr. X. Incredible as it may seem, one man visited the surveyor general's office to examine the records and maps of claims staked on the Island and was told that the office "objected to giving such general information to private individuals"!⁽⁴⁴⁾

Only after copper mining came to a near standstill around 1889 did the Newfoundland government try to salvage the copper industry. In his report for the year 1890, the surveyor general complained that the lack of competent and inexpensive government surveyors debarred most people from gaining access to mineral lands, and proposed amendments to the Crown Lands Act to give prospectors more initiative.⁽⁴⁵⁾ The amendments were enacted in 1891, but in 1892 a disastrous fire obliterated the surveyor general's office (and most of St. John's), greatly hampering verification of claim ownership and development work.

The government made another salvage attempt in 1910 and 1911 by passing two copper smelting acts to encourage small mine owners to work their properties. The 1910 Copper Smelting Act proposed, among other things, to abolish import duties on smelting equipment and to establish a copper smelter at York Harbour in the Bay of Islands in western Newfoundland. When the 1910 act received negligible reaction, the government passed a second act in 1911 that promised to subsidize up to \$50,000 of the smelting costs for each mine owner. In 1916, the government made a final, futile gesture of financing an electric copper smelter in St. John's to combat high wartime freight rates and to provide copper for ammunition.⁽⁴⁶⁾

Yet at the same time as trying to boost the copper industry, the government in 1913 cancelled the Geological Survey of Newfoundland, which had begun in 1864 concurrently with the start of the Tilt Cove mine and the copper boom. Proponents of the cancellation argued that the Survey had become superfluous because of Newfoundland's dwindled mining activity. In fact, the Survey's cessation removed the one reliable source of geological information and encouragement to continue mineral exploration on the Island.

In the end, all government efforts to save the copper mines failed. The tremendous devaluation of copper after World War I coupled with the long years of political and economic disadvantages had effectively quenched the Newfoundland copper industry. Over a decade intervened before it began its slow revival.

****** The Little Bay mine reopened between 1960 and 1969. See Chapter VIII. <u>Back</u> <u>Up</u>

*** The Pilleys Island ore contains 50 per cent sulphur. <u>Back Up</u>

Back to beginning of Chapter II

^{*} See Appendix II for an outline of early Newfoundland regulations regarding mineral land acquisition. <u>Back Up</u>



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MINE

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LE UPON

of Newfoundland by Wendy Martin

Story of Pre-Confederation Mines on the Island

Mr. Scanlan (?) washing quartz for gold in front of a water-powered chrusher at Brigus on August 13, 1886. (III/3.) Larger Version (26 kb)

As word spread of the mining fortunes being made in Notre Dame Bay, the whole of Newfoundland became infected by the prospecting bug. Gold, iron, copper, manganese, lead, chromium, pyrite, gypsum, pyrophyllite, asbestos and molybdenum mines sprung up across the Island between 1864 and 1918 and provided the Newfoundland mining industry with a diversity that

belied their poor production record. Many Notre Dame Bay mining personalities - Charles Bennett, Francis Ellershausen, Adolph Guzman and Philip Cleary to name but a few - became involved in these other mines, lending their illustrious or infamous names to the ventures.

Some mines occurred on the Avalon Peninsula, others along the south coast. The majority, however, lay upon Newfoundland's northwest and west coasts, referred to at the time as the "French Shore".

French Shore Mines

Few countries in European history have waged such chronic and intermittent warfare as have France and England. The settlement of North American by both nations did not diffuse the antagonism, but simply enlarged the battlefield. Newfoundland with its bountiful fish resources became a contentious issue in assorted treaties between the two countries. One of these, the 1783 Treaty of Versailles, restricted French fishing rights in Newfoundland to the coastline from Cape St. John to Cape Ray; however, it also prohibited all English fixed settlements upon the so-called French Shore on the grounds that they might hamper French fisheries.⁽¹⁾ It soon transpired that the French navy considered 'fixed settlements' to include mining piers, shafts, ore ships and tramways; and until the treaty's abrogation in 1904 French complaints curtailed so many French Shore mining ventures that geologist James P. Howley felt moved to write about the "bungling old fossils of statesmen"⁽²⁾ who had given away the key to the door of Newfoundland's mineral treasure house.

Lead Cove Mine

Some of the original claims along the French Shore belonged to Charles Bennett, who, during his term as Newfoundland's premier (1870-74), eased restrictions on mining in general and on French Shore claimstaking in particular. The relaxed regulations encouraged the Anglo-American Telegraph Company to hire Captain Andrew Harvey in 1873 to prospect upon the Port au Port Peninsula, where both the company and Bennett had claims. Harvey was about to return home at the end of the summer when he saw an outcrop of high-grade lead ore - not on the telegraph company land, but on one of Bennett's claims.⁽³⁾ Bennett heard the news and coerced Harvey and twelve other men into developing a lead mine near the discovery site, which later became known as Lead Cove.

The mining crew came to Lead Cove early in 1874. Within a month they had built accommodations, a pier, storehouse and forge. After driving an adit into the limestone cliffs along a lead vein, they excavated the ore and placed it on the beach, anticipating the arrival of an oreship. To their dismay, the first vessel to great them in the summer of 1874 was a French man-o'-war skippered by Capitaine Aubrey, who cast a supercilious eye over the mine site and informed the British navy that the pier obstructed French fishermen. The British commander sent to investigate the complaint reported: "The removal of Mr. Bennett's premises would, by parity of reasoning, render necessary the removal of every English house and settlement along the entire line of coast along which the French are allowed to fish."⁽⁴⁾ Boosted by the commander's opinion, Harvey refused to budge and ignored his insistent French visitors. The Colonial Secretary of Newfoundland, however, feared to incur French disfavour and told Harvey to dismantle the mine site. The miners departed in 1877, leaving the ore pile to disperse with storm and tide.

The harsh treatment of the Lead Cove mine discouraged mineral exploration along the French Shore for the next 20 years. Improved diplomatic relations between France and England in the 1890s lured a few mining entrepreneurs to the forbidden coast, but the French navy continued to balk the fledgling mines at every turn.

The first target of interference in the 1890s wee two gypsum quarries, one worked in the Codroy Valley by a Mr. Scoles and the other at Romaines Brook by Charles Osman. Between 1890 and 1893 the men exported a total of about 900 tons of gypsum to the United States and Canada before French protection squadrons forced the operations to stop around 1894.

Asbestos Mines

Mineral deposits situated far from the coast did not attract French attention, but because of their isolation were ignored by prospectors as well. One exception was an asbestos deposit that lay inland from Port au Port Bay and was acquired in 1887 by Robert Bond, then a Member of the House of Assembly.

It is highly unlikely that Bond ever visited his asbestos property. To do so he would have had to trudge 15 miles through the heavily wooded Lewis Hills; once there he would have seen an asbestos deposit of negligible value. The John's Asbestos Company of New York leased the property from Bond around 1889. After three years of exploration, it concluded that the difficulty of hauling supplies into the wilderness was matched only by the trials of transporting the ore back out to the shore - and that the ore's sporadic distribution warranted neither effort.

Although nothing came of the Bond asbestos prospect, its exploration caused a small staking rush in the Port au Port area and led indirectly to the opening of two mines at Bluff Head, 15 miles west of the Bond property.



Captain Philip Cleary; owned many Newfoundland mines, but profited from none. (III/1.) Larger Version (20 kb)

The first of the two mines lay near the coast of Port au Port Bay, where for years fishermen had told tales of seeing boulders veined with 'cotton rock' strewing the beach beneath Bluff Head. "The tale and the 'cotton' passed from fisherman to fisherman, until a morsel of both got into the hands of a St. John's legislator, who pricked up his ears and opened his eyes and declared the stuff was asbestos."⁽⁵⁾ The legislator, Captain Philip Cleary, sent out a prospecting expedition to Port au Port Bay in 1891. The men searched farther up the Bluff Head cliffs and there located the original asbestos outcrops.

The Bluff Head asbestos deposit's extensive mineralization led Cleary to open a mine at the site and to ship 3218 tons of ore to Britain before the French navy brought mining to a halt in 1900.

The second Bluff Head mine arose primarily through the energies of a mining engineer from Halifax, Charles E. Willis, who was drawn to the district in 1892 by rumours of the Newfoundland asbestos fields. Within a few weeks of his arrival, Willis ascertained that valuable asbestos deposits lay in a deep gulch one mile from Port au Port Bay on claims belonging to a Sandy Point merchant, James R. Hayes. He discussed the matter with Hayes, returned to Halifax to incorporate the Halifax Asbestos Company Limited and on 13 January 1893 purchased Hayes' claims.⁽⁶⁾

The Halifax Asbestos Company began to explore its property in July 1893. The workers spent a year uncovering the asbestos deposits, after which time Willis hired a drill and drillers from Nova Scotia to probe the showings further. In June the drillers were boring through an asbestos vein when they suddenly intersected a zone of a dark and heavy mineral. Willis assumed that it was iron ore. Upon showing samples to a Québec mining engineer, however, he learned that it was the rare mineral chromite, or chromium ore.⁽⁷⁾ Willis discarded the idea of asbestos mining, organized the Halifax Chrome Company Limited and set out to extract chromite.

The miners first quarried a trial shipment of ore from an open pit dug into the Bluff Head deposits. They hand-cobbed the ore, placed it in ore cars that ran along a short tramway to a corduroy road and transferred it to horse-drawn carts that took the ore to the coast. Within months the company received a verdict from the ore's American purchasers that its chromium content was too inconsistent. Willis therefore installed a concentrator beside the mine to upgrade the ore, but in the process threw the company into debt. Food supplies fell to a bare minimum, the miners became uneasy and in mid-1898 the company went bankrupt.

The Halifax Chrome Company (although not Charles Willis) vanished from Newfoundland in June 1898 when Frederick Burnham of New Jersey bought the Bluff Head mine for \$11,655 at an auction. What with the transferral and the fact that the concentrator broke down in 1898, little ore left the mine that year. The miners spent most of the time erecting a hoist on Bluff Head so as to tram the ore two miles south to the more sheltered port of Broad Cove.⁽⁸⁾ Unfortunately, the project drew complaints from the French navy; the British government chose to support French officers rather than Newfoundland miners, and in 1900 the Bluff Head mine closed down.⁽⁹⁾

The main significance of the Bluff Head mine lay, not in that it produced about 5700 tons of chromite, but in that it brought Charles Willis to Newfoundland. So impressed was he by the Island's mineral resources that after leaving Bluff Head he sought financial backing in the United States to exploit other Newfoundland mineral deposits. His efforts brought a number of New Jersey businessmen together to incorporate the Humber Consolidated Mining and Manufacturing Company Limited in September 1902. The company took on Willis as resident manager and subsequently worked three mines in western Newfoundland: a chromite mine at Chrome Point, a pyrite mine at Goose Arm and, most important, a copper mine in York Harbour.

Willis leased the Chrome Point mine in 1902. To avoid French interference, he arranged to build a railway for carrying the ore from the mine site to the Bay of Islands, where the French seldom ventured. About \$48,000 of the Humber company's money went into laying a railroad bed to the Newfoundland Railway, buying locomotives and ore cars and erecting storage sheds and loading facilities at Petries Point in the Bay of Islands. However, as miners prepared the first shipment of chromite, Willis changed his plans. He informed the men that the Humber company was quitting Chrome Point to concentrate upon the most promising of its possessions: the York Harbour copper mine.

York Harbour Mine

The story of the York Harbour copper mine began a decade before the Humber company leased the York Harbour claim in 1902. Around 1892, a 62-year old prospector named Daniel Henderson explored the district. He had moved from Nova Scotia to Newfoundland in the mid-1850s and had worked as a soapmaker, mine promoter and prospector. His one success in the latter field came in 1893; in that summer he located the York Harbour copper deposit in a gulch 1000 feet up Blomidown Mountain.

Henderson had little ready cash and in November 1893 wrote to John R. Stewart of Messrs. Matheson and Company in Little Bay asking if the company would like to lease his find. Stewart forwarded the letter

to Matheson, whose terse reply was: "We're obliged for your perusal of Henderson's York Harbour claim letter of November 23 ...but we're not interested."⁽¹⁰⁾ More amenable was St. John's merchant A.J. Harvey, who offered Henderson financial support in return for part-ownership of the property. Henderson agreed and in 1897 mining began.

The first people to arrive at York Harbour in the spring of 1897 were mine manager Hedley Smythe and mine captain Charles Rendell. The former became popular with all his associates, but the latter proved ineffectual. Rendell sank four random shafts without doing proper geological assessment work and built a precarious chute and pulley contraption to transport pork barrels of ore down the cliff to the coast. He could make neither miners nor machinery operate efficiently, and by 1899 the mine's total output of 500 tons of ore lay unsold on the shores of the Bay of Islands.

In 1900, Harvey fired the unfortunate Rendell and leased the property to the York Harbour Copper Company of Manchester, England. The transaction happened so rapidly that the 26 miners had barely recovered from bidding Rendell farewell before the new mine captain, James Hooper, appeared in May 1900.

Hooper evolved complicated schemes to renovate the York Harbour operation. Under his supervision, miners deepened one of the four shafts and above it installed a gasoline engine to raise the ore. According to Hedley Smythe, however, Hooper's actual mining skills left something to be desired:

"In this case our local methods of mining were not adhered to, the material result being that although a large body of ore was opened up the workings were in depth gradually going away from instead of toward the regular or main lode. Consequently, the conclusion arrived at was that the bottom of the ore was reached and that it had cut out completely. Having been connected with this property since its first working ...I had every confidence that such was not so..."⁽¹¹⁾

Bad luck compounded Hooper's inadequacies. Sparks from the cookhouse started a fire at the mine in June and forced everyone to flee with their possessions down to the beach. A brief visit from the French navy squelched plans to build a new pier and tramway; and a summer dysentery epidemic struck the settlement, rendering many of the miners helpless for days.

What with misfortune and mismanagement, Hooper raised and exported only 100 tons of ore before the York Harbour Copper Company's lease expired. Harvey refused to renew it. He formed The Western Copper Company Limited in 1902 with, among others, Charles Willis of the Humber Consolidated Mining and Manufacturing Company, and Daniel Henderson. The Western company leased the York Harbour mine to Willis in October 1902, and he in turn leased it to the Humber company.⁽¹²⁾

Willis retained Hedley Smythe as mine manager and put 200 men at

his disposal. Smythe made the most of the opportunity and before long had transformed the York Harbour mine into the most sophisticated Newfoundland mine outside of Notre Dame Bay. The men sank the shaft to 300 feet, drove out six levels and laid an underground railway between the levels and the shaft. Using lumber from Goose Arm on the north side of the Bay of Islands,⁽¹³⁾ they erected secondary tramways and chutes to convey the cobbed and sorted ore to a milelong overhead tramway leading down to the beach. There the cars dumped ore into a V-shaped ore pocket that funnelled it through into smaller orecars that moved by rail to the end of a pier.⁽¹⁴⁾ Between 1902 and 1905, about 15,000 tons of ore left York Harbour for the United States.

With all the modern equipment and ready market, the York Harbour mining operation should have swollen with profits and rivalled Little Bay. However, financial problems caused by mismanagement and misappropriation of funds undermined the company's stability and on 19 January 1905 forced it to mortgage the mine and chattels. By doing so, the Humber company blatantly violated a crucial clause in its 1902 contract with The Western Copper Company.

A.J. Harvey's reaction to the mortgage deal was predictable: he sued the Humber company for breach of contract. The company failed to show up for the court case, in which Harvey accused Willis of skulduggery and of operating the mine in an "unworkmanlike manner".⁽¹⁵⁾ The judge awarded the property to the Western company on 12 May 1906. The Humber company retired from Newfoundland and wound up its affairs.

As the confused and unemployed York Harbour miners returned to their villages, The Western Cooper Company deliberated its future. Some directors, jaundiced by the experiences with previous lessees, suggested working the mine themselves; other advocated abandoning it. In the end they did neither, but chose to option it on 24 September 1909 to a group of London mining engineers and merchants constituting the York Harbour Mine (Newfoundland) Limited.

Sometime in the midst of the legal proceedings and change of management, the popular Hedley Smythe left Newfoundland. Whether because of his absence or because the local people had washed their hands of the mine, the English company suffered from a chronic lack of manpower. Mine manager L.R. Jenkins outdid himself trying to accommodate the workers. He ordered the construction of new barracks and a small shop near the mine. He paid the men \$45 per week and let them either board for \$2 per week in the barracks and return home on the weekends or live permanently in houses at the site, where miner James Strugget gave Sunday school classes to the children of resident families. The company president, John Moubray, attempted to please miners by writing a booklet entitled "Notes on Some of the Common Minerals to be Found in Newfoundland and Labrador" for "fishermen and liviers". Yet nothing halted the rapid turnover of miners. As seasonal lumbermen kept replacing seasonal fishermen, Jenkins had to place repeated advertisements in the Western Star: "More practical miners needed at York Harbour".

Ignoring the labour shortage, Jenkins assured the company directors of the mine's quality and potential longevity. Taking him at his word, the directors approached the Newfoundland government with an offer to smelt ore from other Newfoundland mines, should the government install a copper smelter in York Harbour. The government approved of the proposal and in 1910 and 1911 passed two copper smelting acts (see page 29).

Strangely, the smelter never materialized. Perhaps the apathy of other mine proprietors negated the acts' intent; perhaps the government came to doubt York Harbour's suitability as a smelter site; or perhaps the company lost interest when one of the levels foundered, killing a miner and halting operations for weeks. Almost certainly, the company reassessed its future and decided against the idea of a smelter. By 1913, upper levels of the mine were either collapsed or depleted of ore; and as excavations began on deeper levels, word arrived that the company was pulling out. The last load of ore left York Harbour for the United States in July 1913, bringing the company's total shipments to 15,000 tons. By September the mine was closed and the York Harbour Mine (Newfoundland) Limited wound up.

After the English company departed, the abandoned barracks sheltered itinerant trappers until the wood rotted with age. Nearby inhabitants removed most of the mine equipment, leaving the rest to fall into rust and decay. As the store at the mine site slowly disintegrated and exposed its contents to the elements, bagsful of hopseeds dispersed into the wind, took root among the ruins and can be seen still growing there today.⁽¹⁶⁾

Goose Cove Mine

The only other notable copper mine of the French Shore lay at Goose Cove, Hare Bay, on the Northern Peninsula. In 1904, Erastus Moores of Tilt Cove staked the deposit and showed it to an English geologist named Brenton Symons. The property excited Symons. He formed The Cove Copper Mines Limited and on 16 October 1907 leased the claim from Moores.

Prior to visiting Newfoundland, Symons had supervised successful mining ventures in Nicaragua, Turkey, Hungary, Algeria, Venezuela, Transylvania, California, Nova Scotia and Mexico.⁽¹⁷⁾ It is unclear whether his mobility expressed a love of travel or an inability to hold a job; in any case his stay in Newfoundland was brief. He spent \$40,000 on elaborate surface equipment and then found that he lacked money to actually work the mine. The fallen copper market made it impossible to raise additional funds, and around 1911 Symons relinquished the property lease, leaving behind 1800 tons of raised ore and thousands of dollars in machinery and buildings.

Gold Mines

Gold, more than any other metal, stirs people's imagination and lures

them from afar to pursue the elusive substance. Unfortunately, it has proven more elusive than alluring in Newfoundland, as evidenced by the Island's limited volume of gold production, most of which originated as a by-product of copper and base metal mines rather than as 'free gold' from quartz veins. The only productive Newfoundland mines worked specifically for gold lay on the French Shore at Mings Bight and at Sops Arm.

The first people to stake claims at Mings Bight were also some of the original mining entrepreneurs of Newfoundland: Smith McKay and Charles Bennett. They acquired a claim along the west shore of Mings Bight in 1877, followed shortly afterwards by Adolph Guzman who, deliberately or otherwise, overlapped his claim boundary onto the McKay-Bennett property. While trenching his claim for copper in 1879, Adolph Guzman intersected a vein of gold-bearing quartz. He had no time to pursue the matter further, however, as his claim lay too close to the coastline and the McKay-Bennett land for the government's liking.

Another Mings Bight claimholder, Captain A.B. Cunningham,⁽¹⁸⁾ received unwelcomed French attention to his gold prospect around 1883. His description of the affair probably serves as an account of many similar visitations of the day:

"...I visited the workings in order to report progress and take reliable samples of the minerals obtained. I was thus occupied when one morning a French man-o'-war steamed into the Bight, a party of armed blue jackets landed, and planted the French flag over the mouth of the principal shaft. I very naturally demanded of the lieutenant in command an explanation of these high-handed doings, and was by him referred to the admiral, who was on board the man-o'-war.

"I promptly interviewed the latter on his ship and was received with greatest politeness. A copy of the French Treaty was produced, by which I found that work on a permanent character could not be carried on without one half mile of the foreshore..."⁽¹⁹⁾

Such were the hazards of mining along the French Shore until well into the 1890s. In 1897, Daniel J. Henderson staked two claims near the Cunningham property for himself and A.J. Harvey and over the next five years explored them at his leisure without finding more than traces of gold. A few weeks after Henderson's death in December 1902, John R. Stewart (the former Little Bay mine manager) received permission to prospect the claims. Whether through luck or skill, Stewart located gold-bearing gravel deposits at once and in the spring of 1903 found the source outcrop. Harvey had since become engrossed in the York Harbour copper mine and optioned the Mings Bight claim to Stewart who, when finances allowed, formed the Goldenville Mining Company Limited and opened up the Mings Bight or Goldenville gold mine.

Some of the best miners in Notre Dame Bay worked in the Goldenville mine, including one eccentric person named Cody, who habitually slept with dynamite to warm it up for the next day's blasting. The men sank a shaft, built a tramway and in the summer of 1904 shipped 23 tons of ore to Nova Scotia. The ore's successful amalgamation into an 11-ounce gold brick⁽²⁰⁾ encouraged the Goldenville Mining Company to buy a concentrating and crushing plant in August 1905; however, the plant suffered engine failure almost from the day of installation and over the following summer yielded another 147 ounces of gold bullion and concentrates worth \$3000 - about one-tenth of the company's expenditures. Rather than lose more money, Stewart terminated gold mining in the fall of 1906.

The Sops Arm or Browning's gold mine in White Bay bore striking similarities to the Goldenville mine. Both were located along the French Shore; both were discovered in 1902 by mining engineers - the Goldenville by John Stewart and the Browning's by A. Stewart; and both produced about \$3000 worth of gold before falling prey to malfunctioning machinery. However, while the Goldenville mine's staking history was straightforward, that of the Browning's mine involved intrigue and confusion.

The story began in the fall of 1896 when James M. Jackman of Tilt Cove came to Sops Arm and started the Victoria Sawmill to provide lumber for the Tilt Cove mine. While surveying one day for timber, he found gold in quartz veins outcropping along the bank of a small brook that flows into Sops Arm. He staked the discovery with two claims in July 1897 and asked Robert G. Rendell to file the staking notice with the surveyor general's office in St. John's. Rendell did so, but in October filed two more claims - in his *own* name - immediately south of Jackman's two claims. Then in July 1900 Rendell, John Browning and others applied for a mineral license encompassing Rendell's two claims *and* Jackman's two claims, one month before a mysterious fire destroyed Jackman's Victoria Sawmills...

In 1901, Rendell, Browning and the other claimholders hired a New Zealand-born mining engineer, A. Stewart, to prospect their newlyand possibly ill-gotten land. In the course of his explorations, Stewart uncovered a gold deposit just south of their property. Two claims that he staked for them on this deposit in June 1902 became known as the 'Browning's claims' and gave rise to the Browning's gold mine.⁽²¹⁾

As with the Goldenville mine, the Sops Arm mine employed experienced miners from Little Bay and Betts Cove. They spent several months hand-winching ore up the shaft and crushing and panning it manually. At last Stewart persuaded the owners to buy a crushing and concentrating plant. The plant arrived in January 1903 and immediately made Stewart wish he had held his tongue. During its few active moments - for it broke down continuously - it burned staggering quantities of wood, obliging Stewart to employ most of the local boys as wood-cutters.

Only one shipment of ore left Sops Arm: in July 1903 canvas bags filled with 150 ounces of gold travelled by boat and cart to Howley and by train to St. John's. However, as the buyer assessed the gold's value at \$3000, Stewart and his employers concluded that the venture was a failure. The machinery was useless, and the ore's gold content did not warrant buying the proper equipment.

The Sops Arm miners disbanded in the winter of 1903, leaving behind much of the machinery and supplies, including the dynamite. Two years later a loud explosion startled local inhabitants. They subsequently discovered that a man, Cornelius Ricketts, had stumbled upon the dynamite while examining the old shaft and had met his end. Therein lies a lesson for all would-be mine explorers.

South Coast Mines

In one of the earliest references to minerals along the south coast of Newfoundland between Fortune Bay and Port aux Basques, government geologist Alexander Murray wrote that Richard's Island in Bay d'Espoir contained deposits of "a jet-black, charcoal-like plumbaginous material...which has been repeatedly removed by the nearer residents, and used for polishing stoves and such like purposes."⁽²²⁾ Stove-polishing plumbago ** aside, the south coast received no benefits from its economic minerals during the copper boom years. Its two gold mines and one molybdenum mine remained virtually unproductive and were noteworthy only in that they represented the sole instances of mining in an otherwise mineless region.

Gold mining on the south coast occurred during the brief gold rush that followed James Jackman's discovery of gold in Sops Arm. Among those stirred by the find was Luke Chafe, a Rose Blanche merchant who in his spare time prospected for minerals in the adjoining countryside. His explorations once took him to an area where, in the 1880s, William Dingwell of Prince Edward Island had found gold. Whether Chafe located the gold on his own or after receiving secondhand information of its whereabouts is uncertain; at any rate, he acquired claims for a gold prospect near Rose Blanche and in 1900 leased them to Harvey and Company. Chafe's dreams of becoming a gentleman gold owner never materialized: Harvey and Company shipped 30 tons of ore to Nova Scotia, decided that the deposit was too small to support a commercial mine and withdrew from the venture in 1902.

About 35 mines from Rose Blanche lies the village of Grand Bruit. While fishing for trout one day in the summer of 1902 two men from the community, John and Samuel Billiard, discovered gold in quartz veins along Cinq Cerf Brook. In their excitement they revealed their find to a village merchant, J.P. Chetwynd, who reportedly expressed polite enthusiasm at their story and then filed claims upon the gold deposit for himself. Chetwynd derived no profit from actually mining the claims, as the several tons of ore sent to New York were found to be of uneconomic grade. He did, however, sell shares in the claims in 1910 and 1912 for a total of \$3000.

A group of molybdenum deposits in Fortune Bay supported the only other south coast mine worked during (as well as after) the copper boom years. The mine lay in Rencontre East and was of interest primarily for the spectrum of individuals involved in its 60-year

history.

A mining engineer named Brockton first found molybdenum in 1882 while prospecting around Rencontre East for John Steer of St. John's, but because the metal had few known uses his discovery went unnoticed. Near the turn of the century the increased demand for the metal prompted a St. John's watchmaker, N. Ohman, to procure samples of the ore. These lured English entrepreneurs to Rencontre East for four months in 1900 or 1901, during which time a small amount of ore was removed for testing.⁽²³⁾

Next to visit the district were Jabez, James and Esau Butler. The three brothers had in 1892 staked the claims that gave rise to the Bell Island iron mines and since then had been prospecting about Newfoundland in the hopes of repeating their success elsewhere. There investigations of the molybdenum deposits in 1908 and 1910 failed to attract native enterprise, but intrigued an American mining engineer, William Elmer, who may have learned of the property through the Butlers' Bostonian relatives. Elmer excavated 20 tons of ore from Rencontre East in 1915 to send to the United States; the ore, however, remained in Newfoundland as the Island's government forbade the exportation of 'strategic minerals' to neutral countries during World War I.

The mine's most active period were the years just before World War II. Employees of the Newfoundland Molybdenum Company Limited from New York explored the deposits in the late 1930s and lived for a time on the shores of Rencontre Lake in a cabin called "Ackley City" after a company director, John W. Ackley. Largely through the efforts of geologist Dr. Warren Smith,⁽²⁴⁾ the company located sizeable ore reserves and initiated plans for a small wartime mining operation.⁽²⁵⁾ Political complications caused the plan to falter before coming to fruition. Nonetheless, one permanent legacy of the mine remains: "Ackley" has become the official geological name of the granite in which the molybdenum ore occurs.⁽²⁶⁾

Avalon Peninsula Mines

As the mining boom spread throughout Notre Dame Bay, the French Shore and, to a much lesser extent, the south coast, it also permeated the Avalon Peninsula. Yet apart from the immense Bell Island iron mines the peninsula's mining operations contributed little more than footnotes to Newfoundland's mining history.

Many of the more familiar names encountered earlier in this book reappear in connection with the Avalon Peninsula mines. Adolph Guzman leased a copper deposit in Harbour Main in 1879 from the deposit's discoverer, William Holden, and exported 50 tons of ore to Liverpool in that year. An early 1880s rumour of gold in Brigus prompted Robert Rendell, A.W. McNeily, Daniel Henderson and others to incorporate the Avalon Peninsula Gold Mining Company Limited in 1886. Someone - perhaps Henderson - tried to treat the ore with a water-wheel-powered crushing machine, but gave up the project. Robert Rendell later leased a barite deposit found in 1902 in Colliers Cove by prospector Mark Gibbons. In three years, 5075 tons of barite were removed from a shallow adit and sold to Canadian and American paint companies. Rendell closed the mine in 1905, partly because a severe spring storm toppled the mine wharf and partly because the miners had depleted the most accessible ore.

Another Rendell, a bicycle mechanic named James, tried to open a copper mine in the White Hills of Quidi Vidi beside St. John's. He formed the Quidi Vidi Copper Company Limited in 1909, but the vein's narrowness precluded economic development. In 1910, the company left the site with its shaft and adit, both of which may be reached by a half-hour hike from the village.

The Newfoundland and Labrador Provincial Archives contains a file entitled "Correspondence re. Manganese Mine at Brigus Head". The file's immense size bears no relation to the mine's importance, but rather to the unseemly squabbles over its possession.⁽²⁷⁾ Nathaniel Davis of Harbour Grace found the manganese deposits in 1914 and asked his American brother-in-law, J.B. Coates, to work the property. Coates, an opportunist, transferred it without Davis' permission to another man, causing Davis to demand an enquiry. Halfway through the enquiry the government repossessed the land, whereupon the sorely tried Davis sued the government. Some 930 tons of manganese ore left Brigus for the United States and Canada before the farcical entanglement between Davis and the government coupled with the post-war slump in metal prices caused the mine to fold.

The most productive of the Avalon Peninsula mines (apart from the Bell Island iron mines) was a pyrophyllite or 'talc' mine near Manuels. It was worked briefly during the copper boom years, at intervals in the 1930s and '40s, and is currently operated by Newfoundland Minerals Limited.

The original developer of the mine, Frederick Andrews, was intimately connected with the Pilleys Island pyrite mine. It seems that he disposed of his interest in the pyrite mine specifically to obtain the pyrophyllite deposits: on 11 September 1902 he sold the pyrite mine; and on 22 September he bought claims covering the 'talc' mine, later transferring them to his North American Talc Company Limited.

Litigation problems over the Manuels property hampered Andrews from exploiting it until the summer of 1904.⁽²⁸⁾ Once the title was clear, he hired local men to install buildings on the claim site -"Talcville", it was called - an overhead tramway to the Newfoundland Railway and a pier at Seal Cove in Conception Bay. Nearly 7750 tons of ore left Seal Cove in 1904-05 for the company crushing plant in Portland, Maine. In 1906, however, the company went bankrupt as it lacked a cheap mechanical means of separating ore from waste rock. R.K. Bishop of St. John's secured the company assets in 1909 and, after exporting 1700 tons of ore, shut down the mine in 1910.

Talcville was one of several Newfoundland mine sites named after their related mineral deposits. Lead Cove and Chrome Point were two more examples; the Avalon Peninsula's Silver Cliff silver and lead



J.W. Foran, one of many unlucky owners of the Silver Cliff lead mine. (III/4.) Larger Version (18 kb)

The Silver Cliff mine was the only one outside of Notre Dame Bay to be explored by Francis Ellershausen. News that John Burke of Placentia had found lead deposits near Little Placentia (now called 'Argentia' from the French *argent*, meaning silver) first reached Ellershausen in 1880 just as he was about to sell the Betts Cove Mining Company holdings. He inspected Burke's showings and though them impressive, but left again for Little Bay without leasing the property.

Three years later, Ellershausen returned to Little Placentia. In the interim Burke,

spurred by Ellershausen's assessment of the ore, had staked more lead veins in the area for himself, his brother and a Placentia telegraph operator, Charles Fowler. While trying to develop the most promising deposit, one located at Silver Cliff, the Burkes had exhausted their financial resources. They were obliged to sell their portion of the Silver Cliff claim to Ellershausen for £1500 or \$7500; the more hardnosed Fowler sold his share for \$12,000.

Ellershausen began working at Silver Cliff in the fall of 1883 under a London firm called the Cliff Silver Mines Company Limited.⁽²⁹⁾ Little Placentia residents, awed by the German baron, did their best to accommodate him, his business manager, Daniel J. Henderson, and the 50 miners that came from Little Bay and Betts Cove. However, the people's hospitality could not alleviate Ellershausen's disappointment with the property. The Burkes' unskilled mining attempts had left the underground workings dangerously unstable. Rubble obscured the best ore exposures, and the shaft flooded constantly. Because Ellershausen's longtime friend and associate Adolph Guzman had gone to the Unites States, Ellershausen was forced to hire a mine captain McVicar, whose inefficiency and apathy drove him to distraction. He expressed his feelings about McVicar's possible reappointment in a letter to Premier Whiteway:

"...So far as the other clause is concerned, that as part of considerations I should be found to give McVicar employment, I would never agree to it. My reasons are so manifold that it is useless to enumerate them...the fellow will sit on me for life..."⁽³⁰⁾

By August 1884 Ellershausen could bear no more. He left Silver Cliff, he left Newfoundland and went prospecting in Spain. He achieved some fame in the early 1900s for patenting techniques of ore refinement and died in Berlin in 1914 at the age of 94.⁽³¹⁾

The Burke brothers, too, faded from the Silver Cliff scene after 1884. Not so Charles Fowler. He became the unofficial Silver Cliff advertiser and in early 1887 promoted the property in Britain, apparently on behalf of the Cliff Silver Mines Company. Within months of his arrival the mine site was transferred for £4000 to an illfated Edinburgh company. What little ore the miners excavated for the company (they failed to find the main orebody) left Silver Cliff in the summer of 1887 and sank in the mid-Atlantic Ocean just before the death of a principal director forced the company into liquidation.⁽³²⁾

No commercial ore shipments left Silver Cliff after 1887.⁽³³⁾ However, a curious tale is tole about an enterprising promoter who used pieces of the best Silver Cliff ore to advantage in another Placentia Bay lead prospect in Jerseyside. When the Jerseyside deposit's owner visited the property, the promoter surreptitiously placed the Silver Cliff ore near a blasting site, blew it up with the bedrock and retrieved it to impress the unsuspecting owners, who promptly agreed to continue supporting the Jerseyside operation.

The directors of the Cliff Silver Mines considered selling their property after the Edinburgh company fiasco, but changed their minds when the 1891 resurrection of the La Manche mine revived interest in Placentia Bay lead deposits. St. John's auctioneer and merchant John W. Foran obtained the Silver Cliff property in 1892 and hired back some of the old miners. This time, the miners found the main orebody, at which news the delighted Foran reportedly refused an offer of \$80,000 to buy the claim.⁽³⁴⁾ No profits resulted from the orebody's discovery, however, causing Foran to rue his refusal until his death in August 1898.⁽³⁵⁾

The final mining attempt at Silver Cliff, carried out between 1922 and 1925 by the Silver Cliff Mining Company Limited of St. John's, fared no better than preceding efforts. Since 1941, the mine site with its abandoned machinery and honeycombed underground network has been part of the United States Argentia Naval Base. The base's 'no-trespassing' policy has in the recent past tempted some prospectors to approach the Silver Cliff claim from a seaward direction in thick fog. Fortunately, indications are that the site will once again become open to the public in the near future.

These, then, were the mines that arose in the rest of the Newfoundland coastline in response to the Notre Dame Bay copper boom. Noticeably few operations existed far from the sea; the sketchy maps of the interior offered negligible aid to geological exploration, and the only practical means to the interior lay along arduous canoe routes in the summer and along equally arduous snowshoe and dogteam trails in the winter. Even after the 1897 completion of the Newfoundland Railway, many years passed before the first large mines arose in central Newfoundland.

^{*} Gypsum quarrying later became a viable Newfoundland industry. See Chapter VIII. Back Up

^{}** graphite <u>Back Up</u>

^{*}** The pyrophyllite was and is quarried from an open pit rather than mined from underground. <u>Back Up</u>

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Chapter IV: Coal, Quarries and Concessions

ONCE UPON A MINE Story of Pre-Confederation Mines on the Island

of Newfoundland by Wendy Martin

As the Notre Dame Bay copper boom catalyzed mineral exploration across Newfoundland it also escalated the need for better communication and service routes between Notre Dame Bay and St. John's. During the ice-bound months of November to March, the difficulty of sending machine parts and other supplies northward from St. John's to the mining region only equalled the impossibility of shipping Notre Dame Bay ore to Swansea. While foreign competitors with mines in warmer climates supplied copper markets all year around, Newfoundland mine managers spent the winters watching snow-covered ore piles, often as not wondering whether community food stocks would last until spring. Conditions were far from conducive to a growing mining industry.

It was no coincidence that William Whiteway, with his vested interest in mining, called tenders in 1880 for Newfoundland's first railway to be built from St. John's to Halls Bay in Notre Dame Bay. Ironically, Whiteway's other vested interests led him to grant the railway contract to the Newfoundland Railway Company, whose incompetence and corruptions indirectly thwarted the very mining concerns he wished to promote. The company went bankrupt in 1883 and fueled a political scandal that lost Whiteway in 1885 election. The Halls Bay Line - the one feasible means by which the copper industry might have survived the late 1880s - was never finished. Although Whiteway returned to power in 1889 and called the mining region only equalled the impossibility of shipping per mines.

In order to ensure the railway's completion as well as to placate his suspicious electorate, Whiteway awarded the railway contract in June 1890 to one of the best-known engineers in North America: Sir Robert G. Reid. Reid, a Scotsman by birth, had already supervised the building of such engineering masterpieces as the railway along the north shore of Lake Superior and the International Bridge across the Niagara River.⁽¹⁾

The 1890 Railway Contract between the Newfoundland government, Reid and his partner, G.H. Middleton, instructed the contractors to complete the railroad to Halls Bay within five years. The railway reached Soulis Brook north of Gander Lake in the spring of 1893, but by then the copper boom's collapse had discredited Halls Bay as a terminus. The government therefore signed a contract with Reid (Middleton having since left the partnership) stipulating that the railway bypass Halls Bay and proceed on to Port aux Basques. The 1893 Railway Contract granted Reid the surface and mineral rights to 5000 acres of land along the railway for every mile of completed track, with the specification that he could pick the grants or "Reid Lots" in the areas beyond the railway, should a given piece of land beside the track be unsuitable. By the time the railway reached Port aux Basques in 1897, Robert Reid owned several thousand square miles of fee-simple land grants, the majority of which parallelled the railroad. Had the railway passed through mineral-rich lands, or had Reid chosen more lots away from the railroad in places of known mineral potential, he might have turned his considerable finances to full-scale mineral development and given the Newfoundland mining industry a timely boost. Reid, however, showed more interest in the timber rights on his lots and, in the 1890s at least, regarded his mining enterprises somewhat casually.



Sir Robert G. Reid. (IV/1.) Larger Version (26 kb)

The Reid mining enterprises entailed one iron mine, two copper mines, three granite quarries and four coal mines, most of which were unprofitable. The iron mine near Grand Falls yielded 100 tons of ore that left for Britain in 1898. The two copper mines, located at Goose Arm in the Bay of Islands and at Saunders Cove in New Bay, survived only a few months. The coal mines and granite quarries were more significant, not just because they operated off and on for a decade, but also because their inland location forecast the twentieth-century trend

toward developing the interior mineral resources of Newfoundland. As well, they represented a key stage in Newfoundland's fossil fuel and building stone development that started years before the first train crossed the Island.

Fossil Fuels

The recent energy crisis has greatly increased exploration for the fossil fuels: coal, oil and gas. Although the economic viability of oil and gas in offshore Newfoundland and Labrador is still being determined, the province's onshore fossil fuel deposits are almost certainly too limited for commercial purposes. Yet in the late nineteenth century, just as the world's energy supplies seemed inexhaustible, so Newfoundland's onshore oil and gas reserves appeared to have great potential.

Coal

Of all Newfoundland mineral resources, coal was especially favoured by government geologist James P. Howley, who spent much of his time as director of the Geological Survey of Newfoundland trying to develop the Island's coal-bearing regions. He oversaw and partook in the opening of the Reid coal mines and was bitterly disappointed by their demise.

Reid's coal mines represented the peak of Newfoundland coal explorations, which began in 1765 with the English explorer and navigator, Captain James Cook. Cook conducted the first systematic survey of Newfoundland's coast between 1763 and 1767. During one of his sojourns in the interior he found coal deposits "so commodiously situated, that the coals might be thrown directly from the coal works themselves into the ships as they lie close to the shore."⁽²⁾ Cook probably overstated the facts, for such 'commodiously situated' coal deposits have yet to be found in any of the three principal coal-bearing regions of Newfoundland: Grand Lake, Codroy Valley and St. George's Bay.

Grand Lake is the largest body of fresh water in insular Newfoundland and presents magnificent scenery for those willing to visit its hidden corners. Cliffs that are in places 1000 feet high line its central shores; rolling hills, some of them containing coal, lie at its eastern extremity.



Alexander Murray, first director of the Newfoundland Geological Survey. Geological Survey of Canada Photo 81367. (IV/2.) Larger Version (30 kb)

Government geologist Joseph B. Jukes published the first account of the Grand Lake coalfields after being shown a coal seam north of the lake in 1839 by an Indian named Sulleon.⁽³⁾ The next two government geologists, Alexander Murray and James Howley, also examined the coalfields, but it was Colonial Secretary Robert Bond who indirectly caused them to be developed.

In 1891, Bond told Howley: "If you can find a workable coal seam at Grand Lake it will be the means of insuring the construction of the railway to the West Coast."⁽⁴⁾ Howley spent portions of 1891 to 1893 costeening

and drilling coal deposits along the shores of the lake. He encountered ludicrous difficulties in the process. The drilling equipment had to be sailed from Halifax to the Bay of Islands and poled and rowed on a barge up the Humber River to the beginning of the portage into Grand Lake. The portage of the nearly two tons of equipment took what Howley described as "several days desperate drag"⁽⁵⁾ with a horse and dray. He and the accompanying drillers erected the drill beside the lake and then discovered that the drill sat over 150 feet of sand and gravel. They tried boring through this glacial debris to the underlying coalbearing strata, struck the drill bit on a rock and smashed the pipes. While trying to extricate the pipes, the drillers broke the rods and lost the chopping bit.

Fortunately, Howley's later drilling efforts were more encouraging and delineated the extent of three sizeable coal deposits at the east end of Grand Lake along Goose Brook, Alderly Brook and Coal Brook. In 1898 and 1899, Reid's employees quarried about 8000 tons of coal from the deposits. As work progressed, Reid ordered construction of a short branch line from the main railroad down to Grand Lake and called the junction 'Howley' after the geologist, not, as is often assumed, after James' brother, Bishop Michael F. Howley. Reid's gesture may have had conciliatory overtones, for in 1899 he shocked Howley by stopping all coal operations.

Reid justified the withdrawal by pointing to the scarcity of unfractured coal in his deposits. Although the coal miners themselves insinuated

that 'scarcity of labour due to poor working conditions' would have been closer to the truth,⁽⁶⁾ the problem of fractured coal was genuine, not only with the Grand Lake coalfields, but with nearly every other Newfoundland coal formation. The government, however, failed to appreciate this fact and in 1910 passed the Act for the Confirmation of a Contract for the Development of the Coal Deposits of this Colony.

The Coal Development Act typified government attempts to promote mineral development in Newfoundland. It was too late, overly accommodating and misdirected. The act gave the Newfoundland Exploration Company Limited from England the mineral rights to virtually all Newfoundland coal deposits, including those at Grand Lake. It placed coal mining equipment on the duty-free list, gave free land for coalfield access and promised a tariff on all foreign coal. Not the least of the act's attractions was that it complemented the 1910 Copper Ore Smelting Act. Politicians painted a rosy picture in the House of Assembly of Newfoundland coal being carried by train to fuel a copper smelter at York Harbour in the Bay of Islands. As with most political artwork the image faded rapidly. Neither the coal mines nor the smelter materialized. The Newfoundland Exploration Company left Newfoundland after failing to expend the required \$15,000 on coal development in 1910, and the company mining in York Harbour chose not to manage the smelter.

The Grand Lake coalfields were last worked in the years of acute coal shortage during and after World War I. The Anglo-Newfoundland Development Company Limited (A.N.D. Co.) arranged with the Reid Newfoundland Company and the Newfoundland government to work the Coal Brook seam, and between 1917 and 1920 removed several hundred tons of coal.⁽⁷⁾ One-Armed Daniel McCuish, who had left the Pilleys Island mine to join the A.N.D. Co. around 1905, managed the coal operation.

Today most of the Grand Lake coalfields lie under water, as the lake level rose with construction of the main dam that diverts water to the Deer Lake hydroelectric plant. One of the coal seams, however, has been exposed recently along the new road built into Hinds Lake and is being quarried on a small scale by local people wanting free coal to ease their heating bills.

* * * *

Indians on the west coast of Newfoundland knew of coal in the Codroy Valley long before Jukes explored the area in 1839. Jukes tried without success to obtain a guide to show him the deposits; the Indians, he said, feared revealing the coal to strangers without receiving permission from their king in Nova Scotia.⁽⁸⁾ Alexander Murray visited Codroy in 1866, but, like Jukes, found no coal. Thomas Downey of Codroy reportedly discovered coal along a tributary of the Grand Codroy River in 1878, only to die mysteriously before being able to describe its whereabouts. Not until the coming of the Newfoundland Railway were the Indian legends confirmed. As Robert Reid's construction crews neared the Codroy Valley in the fall of 1896, one of the men spotted coal along a stream flowing into the South

Branch of the Grand Codroy River. The news passed from him to the foreman and hence to Reid, who informed James Howley that the elusive Codroy coal had been found.



James P. Howley, successor to Alexander Murray. (IV/3.) Larger Version (23 kb)

Howley and his assistants left St. John's for the Codroy Valley by rail the following May. After a series of mishaps, they found themselves on the new railway alternately pushing and coasting along on two abandoned railcars. As they neared their destination they encountered a sagging railway trestle, which they propped up and gingerly crossed. The next trestle was gone completely. The men shouldered their gear and on June 22 finally reached the coal seam; Howley designated it the "Jubilee Seam", as much in jubilation at having completed the

exacting journey as in honour of Queen Victoria's imminent Diamond Jubilee.⁽⁹⁾

Howley remained in the Codroy Valley throughout the summer, exploring its coal indications. His various discoveries brought a Scottish coal expert named Park and Robert Reid's son, Walter, to the site in August. At Reid's suggestion, Park borrowed some railworkers and costeened the Jubilee seam for three weeks; he stopped when the men intersected a fault that had fractured and pinched out the seam. The 100 tons of loosened coal was later hauled to the railway and used to power the railway engines.

During the height of the coal shortage following World War I, the disintegrated nature of the Codroy coal prevented the Reid Newfoundland Company from retrieving more than 3000 tons of coal from the old workings.⁽¹⁰⁾ The coalfields are now covered by a regenerated layer of vegetation; except for the occasional geologist's pick, it is unlikely that they will see the light of day again.

* * * *

"...we came at a distance of eight or ten miles from the shore, on a bed of coal at the top of a small bank, ...We immediately set to work with pickaxe and shovel, and after filling our bag with the best pieces of coal, we made a fire on the beach, and had a famous blaze with coals of our own digging. ...After eating a lunch we set out on our return, and got back just at sunset..."⁽¹¹⁾

Thus, in 1839, did Joseph Jukes describe finding what became known as the Jukes seam of coal along the Middle Barachois River that flows into St. George's Bay. It was probably this reference to the St. George's coalfields that brought Captain Philip Cleary to the same area about three decades later. Cleary had a special interest in coal, having captained many vessels that frequented Welsh coal mining towns. After retiring in 1870 as the pilot of Newfoundland's first mail steamer, he prospected the banks of the Middle Barachois River, found a second coal seam that he called the Cleary seam, and staked it.

Inhabitants of the Middle Barachois River had, for several decades, quarried small amounts of coal for making fires to harden axes or to take into the interior to warm themselves while camping out. However, when Cleary tried to mine the coal he experienced volatile encounters with French officers. Entrepreneurs who later leased Cleary's claims also received French visitors, and before long Cleary could find no one willing to option the property. Despondent, he returned the coal claims to the government in March 1906 saying that he had wasted \$35,000 upon them, that his Notre Dame Bay mines had failed as well and that he felt too old to care further about minerals. Cleary perked up enough to repossess the coal claims a week later, but died on 19 April 1907 at the age of 82.

Bitter though Cleary was about his coal claims, his frustrations pale in comparison with those of their next owner, Thomas J. Freeman. Freeman, a St. John's broker, secured Cleary's claims in 1913 as part of a larger claim block along the Middle Barachois River. Like the Reid Newfoundland Company, he tried to use the wartime coal shortage to advantage: in 1918 he incorporated the St. George's Coal Fields Limited and transferred his property to the company.

At first all went smoothly. Local men working under mine captain Furlong built surface facilities and excavated hundreds of tons of coal from the Jukes and Cleary seams over the 1918-19 winter. In July 1919, residents from the neighbouring village of Robinsons sent a petition to the government stating that Robinsons lacked timber, that the company had consented to sell them coal and that for \$5,000 a road could be laid from the mine site to the town. The money arrived in October and road construction began at once.

The government also assisted the St. George's Coal Fields Company by agreeing in the fall of 1919 to provide the company with concessions similar to those of the 1910 Coal Development Act. The St. George's Coal Fields Act was passed in 1920 and stipulated that the company had to build a railroad between the mine site and the Newfoundland Railway by March 1925.

Then the troubles began. In November 1919, the manager of the St. John's Gas Light Company inspected the coal property and contracted to buy 1000 tons of coal. Furlong anticipated no difficulties in mining the coal, nor in hauling it to Robinsons Station on the Newfoundland Railway. What he failed to consider was that the railway operator, the Reid Newfoundland Company, would regard the coal as a threat to its own coal mines in the Codroy Valley and at Grand Lake. Robert G. Reid Jr. at first declined to carry the coal and then cited an excessively high freight rate. As a result, the excavated 1000 tons of coal never reached its destination.⁽¹²⁾

The affair disconcerted the Reids enough for them to approach Freeman in the spring of 1920 with an offer to option the St. George's Coal Fields' holdings. Freeman not only refused the proposal, but informed the Colonial Secretary of the Reids' move. He selfrighteously detailed his refusal of the offer and, after intimating that the Reid's interest proved the value of the property, asked: "If the government would see its way clear to aid financially to the extent of Twenty Five or Thirty Thousand Dollars in the development of (our) coal areas. ...⁽¹³⁾ Freeman's nerve can only be admired, as the letter came a month after the government passed the Coal Fields Act.

In fact, Freeman's letter backfired on him. The government took its contents to heart and became acutely possessive of the coalfields. In May 1920 Government Minister Coaker approached Freeman to sell the company's property for the \$37,000 that it had already raised. Freeman declined. Coaker next hinted that the government might be persuaded to buy 100,000 of the \$1 shares. Freeman ignored the hint. In June, Coaker changed his tune and told Freeman that he would rather lease the property for \$200,000 and a graded royalty. This offer Freeman tentatively accepted.

At this delicate moment, the Department of Agriculture and Mines sheepishly informed Coaker that parts of the St. George's Coal Fields' land had been surveyed incorrectly and really belonged to the Reid Newfoundland Company. Coaker deplored the prospect of a confrontation and ceased negotiations, fervently hoping that Freeman would do the same.

Freeman, however, was not to be dismissed. He protested to Prime Minister Squires that the government owed him the legal fees required to solve the dispute with the Reid Newfoundland Company and that, because of the interruptions, he wanted a deadline extension of the Coal Fields Act. Freeman had his way: the government paid the lawyers fees and extended the deadline. The government did not suspect that Freeman, once placated, would drive his placators to the limit.

In March 1924 Freeman asked for and received another extension, but was told that the company must start boring for coal. It failed to do so. Instead, Freeman applied to the government for a \$100,000 loan to sink a shaft. When the government refused him the loan, Freeman made the more modest request of \$30,000 to drill the property. The Executive Council, by now fed up with Freeman, denied him that loan as well. He appealed to the Minister of Agriculture and Mines, W.J. Walsh, who in turn advised the Colonial Secretary to approve the money, saying: "I am prepared to not only recommend this financial assistance, ...but am also prepared to stake my political future on the outcome."⁽¹⁴⁾ The outcome caused Walsh intense disappointment. The company obtained \$10,000 from the government used it badly and accomplished only a fraction of its original aims.

Freeman managed, with much letter-writing, to extract the promise of another loan from the government in 1928, but before it came through the government changed hands. Freeman fell from favour and did not receive the money. The company sold 150 tons of coal to the International Power and Paper Company of Corner Brook around 1929 just before the depression began.⁽¹⁵⁾ Exploration ceased and the

property deteriorated.

Intense investigation of the St. George's coalfields last took place after World War II as part of a government scheme to employ war veterans in a steel mill in the St. George's Bay area. The government planned for the mill to use coal from the coalfields, limestone from the Port au Port Peninsula's Aguathuna limestone quarry and iron from the Steel Mountain iron deposits. The mill did not materialize, ostensibly because of the unsuitability of the Steel Mountain iron ore.

Exploration work to date has yet to prove the economic feasibility of the St. George's coalfields; nor has it vanquished the St. George's Coal Fields Limited, for the company is still extant and holds the mineral rights to the coal deposits.

Oil

Oil is known to exist at a number of locales along Newfoundland's west coast, but was commercially exploited at only two places: Parsons Pond on the Northern Peninsula, and Shoal Point on the Port au Port Peninsula.

Parsons Pond lies north of Bonne Bay National Park and supposedly was named after a Mr. Parsons who eased his rheumatism with oil that seeped from the rocks around the pond. A visiting Nova Scotian, John Silver, heard of the tale and became intrigued, especially after seeing oil slicks on the pond. He returned to the area in1867 and used one of the first steam-powered drills in the world to sink a well on the north side of the pond.⁽¹⁶⁾ His activities annoyed the French navy, however, and he left Parsons Pond in 1868 to set up a sawmill in western Newfoundland.

Interest in the Parsons Pond oilfields subsided for a time until Simeon Parsons acquired claims in the district in the early 1890s. The claims passed from him to two other men and from them, on 23 April 1894, to the Newfoundland Oil Company.

The Newfoundland Oil Company belonged to a group of St. John's merchants whose combined knowledge of the oilfields entailed little more than having heard of Parson's rheumatism cure. They sent drilling equipment and two Ontario drillers up to the area in the spring of 1894 not realizing that its wharfing and transportation facilities were minimal. The drillers and their local assistants spent eight weeks simply removing the machine from the ship to the shore and towing it the seven miles inland over Parsons Pond to a site near Silver's old well. The men assembled the rig throughout the summer and were about to commence drilling when an oil expert, George Spottswood, arrived from the company. He suggested that the drillers shift the rig over a few yards to a more suitable location. They did so, but a strong wind toppled the second assemblage as it neared completion.⁽¹⁷⁾ Thus ended the first season's work.

Little did the drillers know that their troubles had just begun. They struck oil with the first well in 1895 - great rejoicing - and then
discovered that they could not control the flow. As some men plugged the hole with bean bags, rocks and flour bags, others wired frantically for help. Spottswood returned. He straightened out and lengthened the well, blasted it and began to pump out oil...so much oil, in fact, that the men ran out of barrels to contain it. The well had to be stoppered again, at which point Spottswood fell ill, returned to St. John's and died.

By now somewhat immune to catastrophe, the drillers went on and bored a second well, but were brought up short by a collapse of the pumping apparatus. Barely had they repaired the damage than George Spottswood's administrators sued the Newfoundland Oil Company for 15 shares, \$1200 in wages and a \$1000 good pumping bonus, all of which had been promised to Spottswood before his death.⁽¹⁸⁾ The court awarded the estate the shares and wages: not the pumping bonus.

The court case coming on top of the previous mishaps threw the Newfoundland Oil Company into confusion and caused it to suspend operations. Only after enlarging its financial base did it resume active exploration.

Work began again at Parsons Pond under the reorganized title of the Newfoundland Petroleum Company Limited (later The Newfoundland Petroleum Limited). Drillers bored three new wells around the pond and built storage sheds to hold the anticipated flood of oil. Oil production did slightly surpass oil consumption: the drills consumed 300 barrels for every 700 barrels raised. Drilling manager Powell proved the oil's high quality by using it in its crude form to lubricate the engines. His praise and the wells' generous behaviour moved the company to hire American oil experts in 1905 to assess the possibility of erecting an on-site refinery. The experts advised against it. As if to prove their words, the wells faltered during the following winter. Some ray dry and others flooded down the pumps froze.

By 1907, The Newfoundland Petroleum Limited's bank account was as dry as its wells. Company expenditures between 1898 and 1905 exceeded \$90,000; its one sale - 900 barrels to the St. John's Gas Light Company - added a meagre \$1460 to company coffers. The Newfoundland Petroleum Limited gave up and in 1907 voted to go into dissolution.

Three years of legal convolutions intervened before the Parsons Pond property fell on 29 April to the Newfoundland Oilfields Company Limited of England. Inexplicably, the Newfoundland government, which had allowed the Newfoundland oil companies to flounder unaided for years, supported the English company with the Act to Confirm an Agreement between the Government and the Newfoundland Oilfields Company Limited. The act contained clauses parallelling those in the Coal Development Act; and like the Coal Development Act it failed to be of use. Newfoundland Oilfields Company abandoned the site in 1914, leaving residents to retrieve what oil they could from the cracked and frozen storage tanks.

In the opinion of Parsons Pond residents, the oilfields' most useful

period was that between 1919 and 1926 when the General Oil Fields Limited, another English firm, operated three weels and a refinery at the site.⁽¹⁹⁾ They appreciated being able to buy refined kerosene and gasoline at will for their boats and household requirements without having to wait for its shipment from elsewhere.

Since the General Oil Fields company left Parsons Pond in 1926, all oil production has ceased. Oil can still be dipped from old drill casings left at the site, and oil slicks occasionally mottle the pond; it is, however, unlikely that these indications will prompt much development in the future.

* * * *

On the north side of the Port au Port Peninsula lies Shoal Point, with underlying oil-bearing shales and limestones which closely resemble those at Parsons Pond. James Howley first examined the Shoal Point oilfields in 1874 while visiting the Lead Cove lead mine: his report caused little stir at the time, for the same French opposition that closed the lead mine also discouraged interest in the oil. The interest revived later with the opening of the Parsons Pond operation, and brought Frederick Andrews out to Shoal Point.

Frederick Andrews was well known in Newfoundland mining circles at the first manager of the Pilleys Island pyrite mine and as a 'sharpie' who remained taciturn about his affairs. He formed the Western Oil Company in 1898 and sank four holes at Shoal Point, telling Howley nothing about the operation. Howley could only learn from other people that one well yielded 10 barrels of oil daily and that the project halted in 1899 when Andrews became sick. Andrews resumed drilling in July 1900, but stopped again after attempts to loosen a reluctant oil layer with dynamite arrested the flow completely. He thereafter concentrated on mining ventures in eastern Newfoundland and around 1907 entered the real estate business in his native New Brunswick, where he died in 1920.⁽²⁰⁾

An unsubstantiated but amusing report cites that an "English company" drilled one shallow well at Shoal Point in 1908. The well missed the oil-bearing strata, and the English drillers preferred swimming, reading and drinking tea to drilling, all of which contributed to the venture's failure.⁽²¹⁾

The Shoal Point oilfields remain inactive despite having been extensively explored in the 1960s. As time makes apparent the probability of a provincial offshore oil and gas industry, so does it diminish the likelihood of Newfoundland's onshore oil resources ever achieving production.

Building Stone

Coal and oil may have been Newfoundland's most overestimated natural commodities; its building stones were, and still are, one of its most underestimated resources. Granites in beautiful shades of pink and grey riddle much of the Island. Marbles are found on the west coast in colours ranging from black or blue-grey to rose and ivory white. The west coast has shales and sandstones in reds, greens, greys, whites and yellows; and Random Island and vicinity possess slate deposits equal to the best in the world.

All of these rocks were once quarried in Newfoundland. A morning's walk around downtown St. John's will reveal dimension stones removed from near Buchans, Benton, Holyrood, Petites, Signal Hill, Southside Hills, Kellys Island and Random Island. Yet today the quarries lie idle as Newfoundland's construction and monument industries purchase shipments of Ontario sandstone, Italian and Vermont marbles, and Welsh slate.

Much could be said here about the absurdity of importing building stones onto an Island that itself could be exporting the same materials to foreign markets, or about the potential of a Newfoundland building stone industry; but such issues are best left for others to pursue.

Sandstone

Records indicate that red and green sandstone around St. John's was the earliest Newfoundland building stone to be quarried by white men. During the tempestuous 1700s, towns-people used sandstone from Signal Hill and Southside Hills to construct city fortifications, taking care not to quarry on the harbour side of Signal Hill, as such excavations might be used as shelter by attacking French troops. In an 1827 report, Colonel Gustavas Nicolls praised the red and green St. John's sandstone for its high quality.⁽²²⁾

It may have been Nicholls' report that led architects to use the Signal Hill stone in constructing the Government House for the resident governor. Building of the residence began in 1827. Of the thousands of tons of red sandstone that were quarried from Signal Hill for the house, some disappeared instead into the walls of the governor's summer home. He explained that he had merely borrowed the rock, intending to replace it later with stone from Halifax.⁽²³⁾

Signal Hill sandstone also became part of the St. John's Roman Catholic Basilica. In 1839, the Colonel of Engineers offered Bishop Fleming the loose red sandstone left on Signal Hill from a roadclearing operation, thinking that he could use it in building the Basilica, then in the planning stages. Fleming relayed the news to his congregation and asked them to help in transporting the stone. Three days later, 6000 people awaited instructions at the foot of Signal Hill; by nightfall they had moved 1200 tons of rock on sleds over snow to the Basilica site.⁽²⁴⁾

The buff sandstone in the Basilica walls came from Kellys Island in Conception Bay.⁽²⁵⁾ Bishop Fleming and others camped in huts on the island and hewed out the rock throughout the 1839 summer. Both Catholic and Protestant schooners shipped the stone to St. John's; both Catholic and Protestant carts hauled it uphill to the construction site.⁽²⁶⁾

The Basilica has undergone many revisions since its completion in 1850 and stands today as testament to the beauty and longevity of Newfoundland building stone. In its very existence it also represents something more durable even than stone, as this simple verse by an unknown individual describes:

"The fishermen who built me here Have long ago hauled in their nets, But in this vast cathedral Not a solitary stone forgets The eager hearts, the willing hands Of those who laboured and were glad Unstintingly to give to God Not part, but all of what they had."⁽²⁷⁾

Stella Whelan

As Bishop Fleming held his first service in the Basilica, the Anglicans of St. John's were busily erecting their own stone cathedral. Work halted temporarily in 1850, but resumed in 1880. In little over a week in March 1880 some 7500 tons of sandstone were brought from Southside Hills to form the remainder of the cathedral. People from all ranks and religions mingled with sealers whose ships were frozen in

port, and towed the stone across the icy harbour to the site.⁽²⁸⁾ When the last block had been placed beside the nave, Bishop Jones mounted the pile to thank the crowds. The Anglican Cathedral fared badly in the Fire of 1892, as its mortar weakened in the intense heat. Masonry work is still being done to restore the cathedral to its original condition.

Southside Hills sandstone also went into the walls of other St. John's churches, but was most commonly employed by the St. John's City Council for the secular purpose of building bridges, houses and retaining walls.⁽²⁹⁾

Elsewhere in Newfoundland, sandstone served as an abrasive material. Grindstone Point in Trinity Bay and Whetstone Point on Grand Lake are only two of the many sites so named and used by the local inhabitants.

Granite

Just as Robert G. Reid's coal mines represented the peak of coal production in Newfoundland, so did the output of his granite quarries surpass that of all other Newfoundland granite works. In the 1870s, granite deposits near Rose Blanche on the south coast and at Greenspond in Bonavista Bay were quarried to provide material for nearby lighthouses; and in 1850 loose granite boulders from Holyrood were shipped to St. John's to be used in constructing the Presentation Convent. None of these granite works, however, approached the scale of Reid's operations.

The three Reid granite quarries - at Shoal Harbour in Trinity Bay, at Benton and at the Gaff Topsails near Buchans - lay along the railroad line and were worked initially to provide materials for railway bridges. In 1898, however, Reid was contracted to build a "suitable and sightly" railway station at the west end of Water Street and to pave the street with granite blocks. He chose Gaff Topsails granite to fulfill his contract obligations.

Between 1898 and 1901, Reid kept about three dozen labourers at the Topsails. They and their foreman, John Campbell, quarried out thousands of tons of granite and loaded it onto flat cars bound for St. John's, where it went into paving Water Street and building the railway station. The quarrymen's working conditions were not to be envied. They entailed living in canvas tents that provided sparse relief from the Topsails' howling winds; and they entailed, said one visitor, drinking seven-month-old tea:

"At the Stone Quarries we partook of a repast with the workmen. The experience was one to be remembered as long as the stomach lasts!.... I will not describe what we ate, although I shall carry a recollection of each item with me to my grave. It was the tea, and the tea alone, which transfixed me, first with horror, and then with an irresistible fascination. Tea in Newfoundland is boiled. When it has boiled it is taken out and reboiled. At the seventh steeping the tea has taken on those qualities for which tea is (in Newfoundland) esteemed.

"The Quarries' tea is often kept boiling seven months! That is to say, what has been put into the cauldron in April is still sizzling merrily in October...." $^{(30)}$

Some Walter Street granite cobblestones came, not from the Topsails, but from a quarry at Petites on the south coast of Newfoundland. The quarry belonged to William J. Ellis, a St. John's mason and contractor, who had first noticed the granite in 1894 while conducting a building stone survey for the government. Ellis' quarry provided cobblestones for Water Street in 1898 and granite facings for the St. John's Court House in 1899.

The last-worked granite deposit in Newfoundland lay east of Harbour Breton in Old Bay and was found in 1909 by the three Butler brothers of Bell Island fame while they were inspecting the Rencontre East molybdenum showings. They told the Bell Island mine manager, Robert Chambers, of the granite. He obtained claims for the area and in 1910 started up a quarry under his own Colonial Granite Company Limited of Nova Scotia.

Of the 1200 tons of Old Bay granite that left for Nova Scotia before operations ceased in 1914, one small slab returned to Newfoundland. This was carved into an obelisk, brought to Cupids in Conception Bay and incorporated there into a memorial statue to Sir John Guy.

Limestone

For as long as men have erected stone buildings in Newfoundland they have quarried limestone and burned it into lime to mortar the stone together. Limestone from Chapels Cove in Conception Bay was used in the eighteenth century by the English to construct fortifications in St. John's and by both the French and the English to reconstruct those fortifications after sundry battles. Some prejudice existed at first against Newfoundland limestone: in May 1827 the man commissioned to build the Government House apologetically requested permission to quarry Chapels Cove limestone in case the "usual importation" of English limestone failed to arrive.⁽³¹⁾ The prejudice diminished after the 1830s, and locally derived lime mortar went into strengthening the Roman Catholic Basilica, the Anglican Cathedral and other stone buildings of the day.

History has left us scant records of the earliest men involved in quarrying Newfoundland limestone. In the 1860s, John Bulley and Thomas Molloy operated limekilns in St. John's. The source of their stone is unknown; it may have been Chapels Cove or perhaps Topsail, Conception Bay, where in 1869 someone both quarried and burned limestone. Harbour Grace also had an anonymous limeburner in he 1860s, as did Ship Cove near Burin.

Not until the 1870s does a more personal picture emerge of the Newfoundland limestone industry. On 9 June 1870 Thomas Burridge, a St. John's builder, obtained a Crown grant for a limestone deposit in Cobbs Arm, New World Island, Notre Dame Bay. He shipped the stone to St. John's for construction purposes and to Betts Cove and Little Bay for fluxing copper ores in the smelters. The Cobbs Arm material, being of excellent quality, commanded excellent prices and brought Burridge a comfortable salary much envied by another St. John's builder, one John Score. On 14 June 1882, Score acquired land covering part of the Topsail limestone deposit from two farmers. He erected a limekiln, not just at the Topsail property, but also near Duckworth Street in St. John's. In so doing, he overreached himself financially and had to mortgage his Topsail and St. John's holdings several times in the next decades.

Thanks to his mortgagers, Score managed to continue quarrying and burning limestone throughout the 1880s. Thomas Burridge, however, died in the late 1880s. His limeworks ended up in the possession of an Englishman who on 19 June 1891 sold the Burridge limekiln - and, apparently, the Burridge Cobbs Arm quarry - to John Score. Score thus owned three limekilns and two limestone quarries, an unwieldly burden that obliged him to take out additional mortgages. Yet he handled his precarious affairs with aplomb and in the mid-1890s opened up a florist shop next door to his Duckworth limeworks. The flowers no doubt thrived from their regular applications of lime.

John Score's affairs were still unsettled at the time of his death on 6 April 1901. His family mortgaged his properties twice more, and then sold the Cobbs Arm land for \$800 on 28 November 1912 to George Davy and James R. Chalker of St. John's. With that transaction Newfoundland limestone quarrying became an established industry. Davey and Chalker (and their descendants) operated quarries in the Cobbs Arm area for the next 54 years under their Newfoundland Lime Manufacturing Company Limited. Some limestone quarried by the company became processed into the agricultural limestone or 'agstone' needed to neutralize Newfoundland's extremely acidic soils. More was burned into quicklime in kilns in St. John's and Cobbs Arm. The quicklime originally moved from Cobbs Arm in schooners through Dildo Run to Botwood; there, it was transferred into steel railcars and carried by train to the Buchans base metal mines to neutralize acid mine tailings. After losing several vessels because of quicklime's volatile reaction with water, the company began sending quicklime to Buchans from St. John's along the Newfoundland Railway, thus avoiding the dangerous sea voyage.

By far the largest volume of raw Cobbs Arm limestone went to the Anglo-Newfoundland Development Company's pulp and paper mill in Grand Falls for use in manufacturing newsprint. Limestone-laden schooners became a familiar sight in the Bay of Exploits as they conveyed stone to Botwood to be placed onto railcars bound for Grand Falls.

Slowly, however, demand for Cobbs Arm limestone disappeared. In 1951, North Star Cement Limited started removing limestone from the Corner Brook area and processing it into agricultural as well as into cement material. The Newfoundland Lime Manufacturing Company ceased (temporarily, so it thought) producing 'agstone' in deference to the government-owned North Star plant. However, when North Star found in 1956 that the agstone operation was contaminating its cement, the Newfoundland government turned to Nova Scotia, rather than to Cobbs Arm, to supply agstone for the Island's farmers. Five years later the Buchans mines abandoned quicklime for a more stable neutralizing agent, hydrated lime; and in 1966 the Grand Falls paper mill, the sole remaining purchaser of Cobbs Arm limestone, substituted limestone with soda ash in its paper-making process.⁽³²⁾

The Cobbs Arm limestone quarries have been inoperative since 1966 except as a source of aggregate for roads. Nonetheless, indications are that they may be reopened in the near future to provide agstone for central Newfoundland farmers.

Marble

The North Star Cement company currently quarries and crushes both limestone and marble in its cement operations, although marble in an ornamental role has been the least-used of Newfoundland building stones.

To give an account of the earliest quarrying activities for ornamental marble is to recite familiar names in Newfoundland mining, Charles Bennett sent two loads of marble to England in the mid-1860s from a deposit at Canada Harbour on the Northern Peninsula. While Captain Philip Cleary commanded Newfoundland's coastal mail steamer in the 1860s, he noticed marble-sided mountains lining the mouth of the Humber River. He and a St. John's marble worker, Robert McKim, together staked claims beside the river in the 1860s, worked them in 1869 without result and leased them in 1880 to an English company. The English quarry manager dispatched one cargo of marble to England in September 1881 and then quit, unable to bear the frigidity of the Newfoundland winter. McKim's executor, Donald Morison, tried to develop the same property in 1908; however, his extravagant plans of conveying the marble across the Humber River to the Newfoundland Railway in cable cars alarmed his financiers, and they removed their backing.

The foregoing endeavours could best be described as trial incursions into quarrying. The only concerted attempt to establish a Newfoundland marble industry was made between 1912 and 1915 under the auspices of William Edgar, who for years had worked in marble quarries on the Hebridean island of Iona. After an aborted move to quarry marble from Clay Cove, White Bay, William Edgar and his brother Robert concentrated upon the superior-quality Canada Harbour marble showings. Thousands of dollars from Edgars' Colonial Mineral and Trading Company went into buying tramway rails, derricks, drills and saws. Scores of local men were trained to 'dress' the marble so as to render it marketable. The Canada Harbour quarry might have become a success had not World War I's inflated freight rates and shipping hazards caused the project to fold. William Edgar returned home around 1915, but Robert remained in Newfoundland and later died there.

That was almost the last of commercial marble quarrying in Newfoundland. In the 1930s, Alfred Budden of Sops Arm excavated 50 tons of local marble at the government's request for laying in the floor of the St. John's General Hospital; no one came to retrieve it. In the 1950s, the Dormston limestone quarry near Corner Brook produced marble for building the Corner Brook Memorial Hospital. These isolated instances hardly symptomize a healthy marble industry. What with the current trend toward steel and concrete monoliths, it seems unlikely that Newfoundland marble will ever be produced on a commercial basis.

Slate

Within a ten-minute drive, one can leave behind the marble mountains of the Humber River and reach roadcuts of slate bordering the Bay of Islands. The slate, like the marble, bears the scars of old quarries.

Two slate quarries once overlooked the Bay of Islands. Four more dotted the shores of Trinity Bay and another lay in Conception Bay. Some of these seven quarries contain superb slate, a fact not at all apparent from Newfoundland's meagre slate production. The west coast operations remained unproductive, and the east coast operations shipped 300,000 tons over six decades, less than some Welsh slate quarries manufactured in a single year.

The tragi-comic story of the Summerside slate quarry on the north side of the Bay of Islands began in 1900 when a major strike crippled the Welsh slate industry.⁽³³⁾ A group of Welsh slate merchants seeking alternative slate sources visited Newfoundland in 1901 and were

impressed by the Summerside slate deposits, which belonged to the Reid Newfoundland Company. Before the group could option the deposits, however, one of their number, Owen J. Owen, approached Reid in secret and leased the property for himself.

Owen hastened back to Britain after concluding his deal and spent the 1901-02 winter writing a booklet on Newfoundland resources and floating the Bay of Islands Slate Syndicate. Despite having failed at previous slate quarrying ventures in Wales, Owen managed to raise capital and incorporate the company. He recruited eight Welsh slaters and in June 1902 departed again for Newfoundland.

That fate occasionally deals justly with dishonest men is exemplified by Owen's horrendous experience in Newfoundland. Immediately upon his arrival he received an order from Robert Reid for 30,000 slates with which to roof the railway station in St. John's. He hired Newfoundlanders to install machinery, build cutting sheds and quarry blocks of slates. These blocks the Welshmen were to square up with saws and split into slates with chisels and wooden mallets. In November, three of the Welshmen grew restless, left their jobs and were not seen again in Newfoundland. Two weeks later, the Welsh foreman accidentally ignited a supply of dynamite while warming it up; he killed himself and ruined the entire workshop area. This left Owen with four Welsh slatemakers, who complained profusely of being unable to keep pace with the Newfoundland guarrymen. He obligingly laid off the Newfoundlanders in December and in the process alienated the local villagers. Not even a special Christmas concert of Welsh songs sung by the lucky employed returned him to favour.

Worse was yet to come. Quarrying had just begun in March 1903 when the Reid Newfoundland Company received notification that the slate quarry trespassed upon land belonging to Fred Carter of Summerside and that \$4000 and a prompt withdrawal would be required to make amends. Matters thereafter degenerated to the point where Owen had to transmit a plaintive telegram to his employers: "Writ for ten thousand dollars served upon me today by Carter; wire what am I to do."⁽³⁴⁾ Owen in fact did little with either Carter or the quarry. His inactivity brought him critical dispatches from the syndicate's London directors, to which he retorted: "If you knew how I have attended to my duties here many weeks, when I was tempted to give up altogether and break my heart over the whole affair, I don't think you would have written some of the letters to me that I have received."⁽³⁵⁾

The Reid Newfoundland Company capitulated to Fred Carter in September 1903 and ordered Owen to vacate the land. The transferral of facilities to the new locale took much of the winter, but in the spring of 1904 work began once again on Reid's now long-overdue order for roofing slates. By July the order was almost ready. At this inopportune moment one of the four Welshmen married a widow 26 years his senior and refused to live with her afterwards. She threatened legal action, forcing him and another Welsh slater to run off to Cape Breton. At that, Owen's nerve broke. He fled home to Wales, leaving the slaters in utter confusion and the slate syndicate without a resident manager.

The syndicate directors, in the meantime, had fallen into financial difficulties and used Owen's departure as a chance to scupper their lease obligations to Reid. They sent out John F. Stewart as Owen's replacement, supposedly to manage the quarry. Upon his arrival they informed him that he was really there to close down the slate operation behind Reid's back. Stewart was incensed at the deception and went to work for Reid, whom he termed a "brither Scot".

The able Stewart came as fresh air after the incompetent and shifty Owen. Inspired by Stewart's energy, the men opened up six new galleries and built a pier, tramway and workshop. They manufactured and carefully stacked thousands of slates, interlayering them with wooden laths to prevent breakage. The slates were about to be shipped when a telegram arrived in July 1907 saying that Stewart's wife had suddenly taken ill. He dropped everything and returned to Britain at once. The slates remained in Summerside and the company operation collapsed into confusion from which it did not recover. This came about partly because Stewart's successor lacked his skill and determination, but more because the demand, and hence price, of slates had fallen severely since 1900.⁽³⁶⁾ By 1909 the Summerside quarry was dead.

Local children removed some of the discarded slates for school boards; the remaining ones fractured with age, grew weathered and now lie beneath a thin carpet of debris and vegetation that obscures much of the old site.

The second Bay of Islands slate quarry lay across the bay from Summerside on slate deposits near Birchy Bay (now called Curling). Before Owen J. Owen's precipitous exit from Newfoundland he had, unbeknownst to Reid or the syndicate, staked the deposits with three claims. It is doubtful that Owen intended originally to keep the property, but once in Britain he discovered that his reputation had preceded him and that to dispose of the claims would mean a return to Newfoundland.

Owen spent the 1904-05 winter in Newfoundland and in April managed to interest the Newfoundland Exploration Syndicate in his property and person: the company leased the claims and asked Owen to work them. Owen, however, lost all credibility by using a new steam drill to bore dynamite holes to fire a 21-blast salute in honour of Nelson's Day. The annoyed company directors dismissed Owen and cancelled their lease.

For all Owen's failures as a quarry operator he obviously shone as a promoter. Having exhausted his last hope of backing in Newfoundland, he sailed to England and there persuaded a group of capitalists to incorporate the Long Range (Newfoundland) Slate Quarries Limited on 16 December 1906. The company leased his claims and hired him as their resident manager. The Birchy Bay quarry came to life in the summer of 1907. People from the area watched in excitement as train cars full of equipment arrived for the company. At the quarry site 50 men - Newfoundlanders and Welshmen - uncovered the slate beds, laid tramways and put up a huge cutting shed. A reporter from the *Western Star* interviewed Owen and learned that he was "sanguine of successfully conducting operations in this quarry."⁽³⁷⁾

Had the reporter talked to the Newfoundland workers he would have found that they were less than sanguine about Owen. A week after the interview they went out on strike to protest that their daily salary of \$1.10 did not equal the Welshmen's \$1.25. Coinciding as it did with the decline in the slate market, the strike commanded no sympathy from the company. Relations worsened between Owen and the men throughout the winter. Owen became ill and quarrying grew increasingly desultory until, around the end of 1908, it stopped.

* * * *

The first slate quarry in eastern Newfoundland predated the west coast quarries by half a century and, like many other early Newfoundland mines, belonged to Charles Bennett. Bennett leased a slate deposit in Bay Roberts from John Butler on 15 March 1847 and imported Welsh slaters to develop the quarry. He sent them home again two years later, as local demand for slate was negligible.

Limited local demand also affected three Carberry brothers - William, George and Jubal - who in the 1850s began quarrying slate from Nut Cove on the north side of Smith Sound, Trinity Bay. Their material was excellent, but their markets few, St. John's being the largest buyer. As some of their slates were being installed on the roof of a St. John's building one day, a professional Welsh slater named John Currie arrived in town looking for employment. He asked about the slates' origin; and when a job in St. John's did not emerge he obtained a land grant beside the Carberrys' Nut Cove quarry in 1860 and started up his own quarry.

Inevitably, competition arose between the Welshman and the Newfoundlanders. In order to gain an edge over the Carberrys Currie wrote to his relatives in Wales and suggested that they take over his quarry so that he could handle its business affairs in St. John's. The relatives, brothers David and Pearce Currie, welcomed the proposal. They sailed to Newfoundland around 1867, built a house in Porridge Cove (now called Britannia) and became quarry managers.

Over the next 30 years, the three Curries and their descendants expanded the Nut Cove holdings and quarried slate.⁽³⁸⁾ They balanced their quarrying in the summer with lumbering and running a store in the winter. However, as the latter venture expanded to become the main commercial centre of Random Island, the Curries grew less concerned with slate; and so, in the fall of 1899, they sold the quarries to A.J. Harvey for \$25,000.

Once in possession of the Currie claims, Harvey and others

incorporated the Newfoundland Slate Company Limited in New Jersey.⁽³⁹⁾ The poor Carberrys, who had refused an earlier offer to buy their quarry, begrudgingly sold out to Harvey in 1900; by then the Newfoundland Slate Company had them at its mercy and paid them only \$2800.

The money that the company saved on its transactions with the Carberrys it spend on renovating the quarry facilities. Larger cutting sheds sprung up at the site; a more solid wharf was erected and was ballasted by waste rock. Whereas before the slaters had travelled individually in rowboats to the quarry, they now travelled *en masse* at 6 o'clock each morning from Britannia to Nut Cove in a company-hired ferry. The Welsh quarry manager, Richard Williams, replaced the old hand saws and steel gams with rotary saws and steam drills. The new equipment had its effect and increased quarry production by 1000 per cent in one year. On the other hand, the company's wage scale was as antiquated as the tool it had discarded: \$1 a day for Newfoundland blockcutters, \$1.50 for Newfoundland slatemakers, \$1.75 for Newfoundland quarrymen - and \$2.50 for Welshmen working at any of these jobs.

However, personnel problems experienced by the company came, not from the Newfoundlanders, but from the company managers. Williams left without warning in 1902. Evan Davies, also Welsh, replaced him until a fire destroyed most of the surface workings and gave him an excuse to leave. Davies' successor turned out to be a charlatan. The man used dynamite indiscriminately, fracturing the slate into worthlessness; and he worked the quarry face vertically rather than in steps, so that it became a 150-foot overhanging cliff that jeopardized all who approached it.

Mismanagement of the quarry took such a toll of company finances that, when combined with the cost of replacing the charred surface facilities and with the poor slate market, the company had to halt work. The last shipment of slate left Nut Cove in the fall of 1906; by the end of the year the site was deserted.

Some jobless Nut Cove slaters returned to fishing after the quarry's closure, but a few moved across Trinity Bay to Random Sound where three smaller slate quarries were in operation. One quarry in Hickman's Harbour belonged to William Ellis and Sir James Winter. The St. John's merchant, Walter Baine Grieve, operated another quarry in Black Duck Cove. The largest of the three quarries, also in Hickman's Harbour, belonged originally to Charles Byrant, who on 11 July 1906 sold it to a Yorkshire slate merchant, James Allison.

Although some of the Random Sound quarries outlasted that at Nut Cove, they gradually succumbed one by one to the depressed slate market. The final load of Newfoundland slate left the Allison quarry in 1910. The halffilled vessel stopped at St. John's to



Welsh slaters standing with cartload of slates in the Summerside slate quarry, c. 1903. Man with pipe on extreme right may be Owen J. Owen. (IV/8.) Larger Version (39 kb)

take on barrels of cod liver oil. During the stormy passage across the ocean, the barrels broke loose and rolled around; the ship arrived in England with nothing left of its slate lust and debris

cargo but an oil-soaked pile of dust and debris.

A few individuals, including a descendent of the original Currie family, have tried to reactivate the Trinity Bay slate properties since the early 1900s, but to no avail. It is unfortunate that the quarries seem destined to obsolescence. With their quality, they deserve a better fate.

Brickmaking



Workers in the Pelly brickyard in 1918. From left to right are Ben Pittman, Jack Tilley, Am Harris, Nath Pelly, Ned Tilley and Mac Pittman. (IV/9.) Larger Version (25 kb)

Long before the onset of slate quarrying in Trinity Bay there existed a local industry that persists in the area to this day: the art of brickmaking.

Initial reports of Newfoundland brickmaking came from Bell Island in Conception Bay where, in the 1830s, a Mr. Wiseman (and later a Captain Pitts) manufactured bricks at Lance Cove and sold them in St. John's. Wiseman spent one summer in Trinity Bay experimenting with clay found near George's Brook. His activity piques the natives' curiosity and led John Tilley of Hants Harbour to ask the government on 28 April 1833 that *he* be given the exclusive rights to make bricks in Trinity

Bay. Tilley was known as 'Scholar Tilley' for having taught himself to read and write at the age of 26. He attempted to make bricks as well, but unwittingly chose inferior clay that would not harden properly. After quitting brickmaking in the mid-1830s he went on to develop a highly successful farm in Random Sound and to become the first man in Newfoundland to can salmon.⁽⁴⁰⁾

About the time that Tilley gave up brickmaking, another more experienced brickworker called Clements started up a small brick plant at the head of Smith Sound. Like Wiseman and Tilley, Clement made the bricks by hand: he shovelled out the clay, removed the pebbles, shaped it into bricks and baked them in the sun. Clement's site subsequently received the name "Brickyard" - not because of him, however, but because of James Pittman who took over the brickworks in 1879. James Pittman, a Devon brickmaker, left England in the early 1860s as a stowaway on a French ship bound for Blanc St. Blanc [sic] in Labrador.[**] Disliking the Labrador coast, he rowed from there across to St. Anthony in Newfoundland in a stolen punt, obtained a working passage on a fishing schooner and eventually reached Trinity where his uncle William had a cooperage. Such were the attractions both scenic and personal - of Trinity Bay that James sought permanent employment in the area. He naturally considered brickmaking and visited Clement's old brickworks, which by then belonged to a St. John's mason, Daniel Cameron. Cameron was pleased to have an assistant. The two men worked together until Cameron retired in 1879 and sold the plant to Pittman for £400.

The most sophisticated piece of equipment that Pittman inherited from Cameron was a 'one-horsepower' pugmill: the unfortunate horse walked around the mill in a continuous circle while harnessed to a boom that had a bladed, rotating vertical shaft, which mixed the clay. Once churned, clay was hand-pressed into sand-lined moulds and then dumped onto wooden pallets as ready-formed bricks. Pittman and his helpers carried the wet bricks to a drying shed; thrice a year they removed the shed roof and stoked a huge fire beneath the racks of bricks to bake them into hardness.

Pittman's technique differed only slightly from that of the earliest Newfoundland brickmakers; nonetheless, he knew more about bricks than anyone in Trinity Bay. His closest friend was Charles Pelley, Scholar Tilley's grandson, who owned a sawmill nearby in King's Cove (now called Milton). Pelley had a keen interest in, but no knowledge of, brickmaking; Pittman, on the other hand, desired to learn the sawmill business. Charles Pelly took to walking at dusk through the woods to Pittman's house, where they exchanged information about their respective professions until the small hours of the morning. By 1886 Charles Pelly was ready. He hired some relatives, including a 9-year-old nephew, Malcolm Pelly, and started up his own brick plant in King's Cove.

During the 37 years of their concurrent operation, the Pittmans and the Pellys experienced only friendly competition. Pelly at first used house-powered pugmills, beginning with a modified molasses barrel and later graduating to more professional models. In 1901, he bought an Iron Quaker Brick Machine that doubled his plant's production. Pittman, not to be outdone, bought a similar machine. Pelly's bricks went to the St. John's market by scow and train and Pittman's were sold along the coast from the decks of a sailing schooner.

In 1906 James Pittman died. His sons - Benjamin, William and James continued to operate the brickworks until Benjamin's accidental death at the plant in 1920 turned them from the business. Only James remained in Newfoundland. He never again touched brickmaking; instead, he became a surrogate doctor. His friend Malcolm Pelly wrote of him.

"He was a first aid man when there was no doctor available ... nobody knows the broken bones he has set, dislocated limbs put in place, the

sick and old cared for. More often than not he got nothing but gratitude. No distance was too great for him to walk to help those in need ..."⁽⁴¹⁾

Charles Pelly died next in 1924, leaving the Pelly plant in the hands of Malcolm Pelly. He and foreman Lawrence Adams⁽⁴²⁾ managed the operation over the following decades, during which interval new techniques and equipment were incorporated into the plant as invention and money allowed. Completion of the causeway to Random Island in 1953 brought radical changes to the Pelly operation, as it enabled the company to economically retrieve quarried and crushed shale from the island. (The clay at King's Cove, although closer to the plant, had had to be stockpiled and drained for a year before being used.) The switch to shale necessitated expensive alterations of plant facilities, but resulted in a superior product: the Glynmill Inn in Corner Brook and the Arts and Culture Centre in St. John's both demonstrate the fineness of the shale-derived bricks.

Malcolm Pelly, the last of the nineteenth-century brick pioneers, died on 5 July 1964. With his passing, an era of Newfoundland brickmaking ended. Before the years was out, C. and M. Pelly Limited sold more than half of its shares to L.E. Shaw Limited. In 1971, John Green bought out most of that company's shares and changed its name to Trinity Brick Products Limited (now Trinity Brick Products (1972) Limited), under which title the plant is currently operating.

* * * *

Two other brickyards lay in Trinity Bay on Random Island: one at Elliots Cove and the other at Snooks Harbour.

The Elliots Cove plant opened up in 1890 under The Brick and Tile Manufacturing Company Limited, a firm incorporated in 1890 by six St. John's merchants. For eight years the company suffered through two incompetent managers before acquiring a third, highly skilled, Englishman named James Craven in 1898. Unlike his predecessors, who tried to make do with the dilapidated machinery provided them, Craven frankly informed his employers that modern effective equipment is the better part of profitable production. The degree to which they heeded him is revealed in the following newspaper description of the Elliotts Cove operation after Craven's takeover:

"... the brickyard contains a cluster of buildings... comprising engine house, kiln, sand house, carpenter's chop, drying sheds, stores, etc.... The "pug" is first dug out with picks... then it is taken in a trolley car to the factory, where it is shovelled into an aperture which brings it into contact with crushing rollers, which separate the stones from the clay;... (after being churned) ...it is passed down to the press machine to be properly shaped into moulds. Every few seconds six bricks, ... are ejected from the press machine and received by a man who never gets tired..."⁽⁴³⁾

Small wonder that the Pellys and Pittmans, upon hearing of this disconcertingly efficient plant, quickly replaced their humble horse-

powered pugmills with Quaker machines.

Indeed, the Elliots Cove plant might have put the Pellys and Pittmans out of business had it not been poorly situated: its nearby clay deposit was ridden with pebbles and far too small to support a large-scale operation. When a fire levelled the brickyard in the fall of 1903, The Brick and Tile Manufacturing Company decided to move elsewhere. The company reorganized into The Newfoundland Brick and Manufacturing Company Limited in 1904 to make sand and lime bricks in St. John's, but closed in 1908.

Living in Elliots Cove when The Brick and Tile Manufacturing Company first arrived in 1890 were three Smith brothers: Tom, Aaron and Charles. Tom worked in the 1890s and 1900s running a ferry between Elliots Cove and the Clarenville railway station. Lumbermen Aaron and Charles, however, became intrigued by the company's brickworks. They observed it closely and in 1895 opened up their own small brickyard in Snooks Harbour on the opposite side of Random Island.

The Smith brothers' brickyard originally resembled a museum of second-hand machinery. In 1895 they bought an old pugmill from Charles Pelley for \$1; in 1901 they bought another discarded Pelly pugmill; and in 1903 they carefully salvaged some of the charred remnants of The Brick and Tile Manufacturing Company's equipment in Elliots Cove. With much ingenuity and hard work they made enough money using these antiques to buy their own Quaker machine in 1905.

From the 1900s until 1949, the Smiths' Snook Harbour plant operated at a marginal profit and supplied bricks for local consumption. As Aaron and Charles grew older, Aaron's sons, Atwood and Norman, took control of the family business. However, with Confederation in 1949, the Newfoundland tariff on the cheaper Canadian bricks disappeared, taking with it the Smiths' profits. The two brothers and all their employees were thrown out of work. They tried in vain to have the Newfoundland government take over the brickyard, but in 1952 were forced to close down by lack of a market.

Conclusion

Four of the preceding seven commodities - slate, granite, oil and coal reached their peak of productivity in Newfoundland between 1898 and 1908, in which interlude occurred social, political and scientific events of international import. Within the decade Queen Victoria died, Russia experienced its abortive 1905 Revolution, Albert Einstein revealed the Special Theory of Relativity and mankind learned to fly.

Newfoundland reacted ambivalently to the changing centuries, and its mining industry reflected this ambivalence. The copper boom was in its death throes. The two giants of modern insular Newfoundland mining - Buchans and St. Lawrence - had yet to appear. Neatly spanning both phases, bridging the nineteenth and twentieth centuries in fact and in spirit, lay the Bell Island iron mines. Marble is metamorphosed limestone. <u>Back Up</u>
Blanc St. Blanc is likely Blanc-Sablon on the Québec side of the Québec-Labrador border - webmaster.] <u>Back Up</u>

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LE UPON

of Newfoundland by Wendy Martin

Story of Pre-Confederation Mines on the Island

Opening up the Aguathuna limestone quarry, c. 1912. Beginnings of pier construction can be seen in the distance. (V/7.) Larger Version (43 kb)

Chapter V: Isle of Iron, Men of Steel

A

MINE

One of the finest sights in Newfoundland is the early morning sun on Conception Bay warming the cliffs of Bell Island. The light accentuates their layers of sedimentary rocks and makes the strata, normally reddish with iron dust, positively glow. To the perceptive eye the angled rays also reveal vestiges of piers where ships once waited to receive ore from the Bell Island iron mines.

The Bell Island mines were originally operated by the Nova Scotia Steel and Coal Company Limited, both of which explored other mines in Newfoundland, namely the Workington iron mine, the Indian Head iron mine and, most

important, the Aguathuna limestone quarry. These three operations and the Bell Island mines had one common feature: they were worked primarily to provide some of the raw materials required to make steel. The Workington, Indian Head and Aguathuna operations have given rise to many absorbing tales and are covered in this chapter, but only the Bell Island mines have been immortalized on film, in song and in verse:

"Bell Island Mines"

"Whether in Cambrian or in other earth Conceived; or yet in Protozoic slime And ooze in the abysmal depths of time, Dawn has concealed thine elemental birth; Or whether yet, on-creeping man in dearth Of tool offensive, welcomed thee sublime, Perverting all thy virtues but to crime While unmatured lay thy finer worth. It matters naught-save only this-that now-Man's better nature to thy baser yields; His heart is steeled with temper of thine own; His soul is hardened with thy touch, and thou Dost send him blindly forth to reap these fields-"Blood, sweat and tears'-thine iron hand has sown."⁽¹⁾

About 480 million years ago a shallow sea covered Conception Bay. Centuries progressed and layers of sediments settled to the sea floor, some of them sand and mud, a few of them enriched in iron. As surrounding pressures adjusted, the sediments altered to sandstones and shales with the iron-bearing layers forming beds of hematite or iron ore. Thus, when the whole are including what is now Bell Island became uplifted to the sculpturing effects of wind and precipitation, the exposed rock strata contained three iron-rich and mineable beds.

Awareness of the Bell Island iron deposits waxed and waned throughout the 300 years preceding their development. In 1578 Anthony Parkhurst wrote of retrieving ore samples from an island of iron near St. John's, but in 1776 Robert Newman and Company of Dartmouth, England recorded: "Belle Isle. Nothing received for it. Fell due to us thro' a mortgage,"⁽²⁾ saying nothing of the iron deposits. Twenty years after someone allegedly opened an iron mine at Back Cove on Bell Island in 1819⁽³⁾, Joseph Jukes visited the island and described a bed of "bright red sandstone" without mentioning iron ore.⁽⁴⁾ Yet even as Jukes penned his report, fishermen were using what they called the 'red rock' to ballast their killicks and boats. The practice led indirectly to the opening of the Bell Island mines.

One day in the late 1880s, Jabez Butler of Port de Grave was sailing to St. John's when a storm forced him to land on the north side of Bell Island. He ballasted his boat with loose rock from the island and completed his journey. As he unloaded the rock at St. John's its obvious iron content attracted the curiosity of an English captain who took a piece home to be assayed. The assayer, however, needed a larger sample and wrote to Butler asking for 50 more pounds of rock. He, thinking the man wanted £50, ignored the request.⁽⁵⁾



Brothers James, John and Esau Butler, sons of the acclaimed 'discoverer' of the Bell Island iron ore deposits. (V/1.) Larger Version (23 kb)

Some years later, one of Jabez's sons, Esau, moved to Montreal. Esau occasionally pondered the affair with the assayer and finally asked his father to send some of the rock to Montreal. There he had it analyzed. So impressive were the test results that he telegraphed his family to stake the source at once; and on 4 August 1892 Jabez Butler, his brother John, his three sons-Esau, John and Jabez-and James Miller applied for a mineral license to three claims on the north side of Bell Island.⁽⁶⁾

The Butlers, being primarily farmers and fishermen, lacked the money to develop their claims and reluctantly approached a St. John's

merchant, Joseph Pippy, for financial aid. Pippy presented them with a contract proposal that confirmed their worst suspicions of merchants. He and a partner, Alexander Shirran, agreed to sell or lease the claims for the Butlers in exchange for 20 per cent of any resulting profits; a further 10 per cent was to be reserved for expenses incurred in connection with the mine. Jabez sent the document to his son John, then living in Cambridge, Massachusetts. John showed it to a mining consultant who declared: "Messers. Shirran and Pippy are offering to do for twenty per cent what a real estate agent can do for two."⁽⁷⁾ However, for lack of an alternative, the Butlers accepted the merchants' terms and in May 1893 signed the indenture.

Shirran and Pippy were greedy but competent promoters and within one month had an interested party: the New Glasgow Iron, Coal and Rail Company of Nova Scotia. The company's chief engineer, Robert Chambers, visited Bell Island in June with the Butlers, who first plied him with a meal of fresh lobsters and flatfish and then showed him their claims. As Chambers recalled: "It could be seen at a glance that the property was valuable."⁽⁸⁾ He told the Butlers to obtain a mining lease for the land while he negotiated with Shirran and Pippy. On 3 September 1894 the deal was made. The company leased the three claims from the Butlers for \$1000 and a royalty of 5 cents per ton on all shipped ore, and had the option to purchase the claims for \$120,000.

Bell Islanders' first reaction to news of the deal was a concern that only Nova Scotians would receive jobs with the company. Chambers calmed their fears in the spring of 1895 by hiring some local men to lay a tramway from the claims on the north shore of the island to the more sheltered south shore; he had other locals build an open-trestle pier at the tramway's southern end. Still more men were set to work with the iron ore itself.

The first ore mined on Bell Island was quarried from surface exposures of the lowermost of the three iron-rich beds, the Lower Bed. The ore yielded in rectangular chunks to the swing of a pickaxe and cost less to quarry and handle than did a contractor's fee for removing earth; the ore was mined literally as cheaply as dirt. Young men and boys cobbed the ore and loaded it into cable-driven ore cars that trundled across the island and over a swaying suspension bridge to the pier. There the cars spilled their contents into storage bins fitted with trap doors for emptying into the hold of ships. By the time the first cargo of ore left Bell Island for Nova Scotia in December 1895, Thomas Cantley of the New Glasgow company had already christened the mine site "Wabana" from the Abanaki 'wabunaki' meaning 'morning land', or the place where the sun first rises.⁽⁹⁾

Ownership of the Bell Island iron deposits underwent some revision during the initial years of mining. In 1895 the New Glasgow company amalgamated with the Nova Scotia Steel and Forge Company Limited into the Nova Scotia Steel Company Limited; this latter company became known as the 'Scotia'⁽¹⁰⁾ The Scotia initiated changes in the mine's surface facilities and secured additional property, including some submarine claims adjoining the Butler claims, its geologists reasoning correctly that the shallowly dipping ore beds extended out beneath Conception Bay. The Scotia directors, however, miscalculated the cost of renovations and soon found that the company was in financial trouble.

In Nova Scotia, meanwhile, a Bostonian named Henry Whitney had just leased large portions of the Cape Breton coalfields and was seeking a nearby iron ore supply for a proposed steel mill.⁽¹¹⁾ He approached the Scotia directors about buying some of their Bell Island holdings; the directors tentatively accepted the offer. Before the Butlers fully understood what was happening, the Scotia company exercised its purchase option and bought the three original claims for \$120,000 on 4 March 1899. Having achieved clear title to the property, it began serious negotiations with Whitney, who by then had incorporated the Dominion Iron and Steel Company Limited or the 'Dominion'.

On 21 August 1899, the Scotia and Dominion companies signed an indenture giving the Dominion company part of the Bell Island iron deposits. The contract details merit some elaboration, as they determined future development of the mines. In exchange for \$1.1 million, the Dominion company took the Upper and Lower Bed holdings on the Scotia land claims, all holdings on the adjacent submarine claims and all mining facilities. This left the Scotia company with only the superior-quality Middle Bed. It therefore built a new pier and tramway and secured a submarine area beyond the Dominion submarine claims to ensure itself a future supply of ore. In brief: on the land claims the Dominion owned the Lower and Upper Beds and the Scotia the Middle Bed; and on their respective submarine claims each company owned all three beds.⁽¹²⁾

The Scotia-Dominion contract may have pleased the management of the companies involved, but for Bell Island miners the \$1.1 million price tag aggravated a sense of grievance that had been simmering since an ineffectual wage strike in 1896. Early signs of labour unrest came in the fall of 1899 when a St. John's journalist touring the mines noticed an ore car scrawled with the words: "I am killing myself for 10¢ an hour."⁽¹³⁾ Chronic discontent tarnished the 1900-01 winter, and on the following June 17 the 1100 Dominion and Scotia employees went on strike chanting: "A fair day's pay for a fair day's work!"

The 'fair play' that miners desired was 15 cents per hour to put them on par with workers in the Dominion's new steel plant in Sydney, Nova Scotia. The companies refused to bargain, forcing miners to form their first union, the Wabana Workers and Labourers Union. Organized labour soon became disorganized anarchy. The men prohibited coal boats from unloading and threatened St. John's longshoremen who arrived to fill an ore carrier. When police arrested the strike leader, the miners' fury heightened. Peace finally prevailed on July 23 with the signing of the "Treaty of Kelligrews" at Mrs. Walsh's Hotel in Kelligrews. At daybreak on July 24, Conception Bay thronged with boats of men returning to work for 11 cents and 12¹/₂ cents per hour.

The Wabana Workers and Labourers Union dissolved after July, but its brief reign prompted the construction of a court house for Wabana that September. Over the years the building was used more in times of celebration than in times of strike. One particularly vigorous evening took place during the annual Wabana Ball. The dance hall's design allowed individuals in an elevated position to fling full bottles of beer into the milling crowds on the dance floor below. Not all missiles missed their marks. Private feuds raged for several hours before the magistrate's arrival and his threat to read the Riot Act returned a semblance of civility to the ball. More than one man saw the inside of the court house that night. Strikes and festive affairs notwithstanding, amiable relations existed between the miners and management (and between the Scotia and Dominion companies). Until the 1920s, miners could work 'six-month shifts' whereby men who fished in the summer and mined in the winter replaced those who mined in the summer and lumbered in the winter. Young boys worked the year around as ore cobbers or as 'boilers', boilers being responsible for keeping tea pots full for thirsty miners. Supplementing the Bell Islanders were ex-miners from Tilt Cove, Little Bay and Pilleys Island, together with a United Nations of Nova Scotians, Chinese, Russians, Germans and Hungarians, the last of whom had the unusual habit of ceasing work at the first indications of rain to sit under umbrellas until the shower passed.



Bell Island miners at opening of No. 3 Slope, about to descend for the 6:00 p.m. shift. Candles on hats are to light their way underground. Foreman Arthur House (extreme right) later became manager of the Aguathuna limestone quarry. (V/2.) Larger Version (33 kb)

Most Bell Island miners regarded the initial seven years of operations as pleasant enough; they laboured out of doors, and the ore was easily accessible. However, in 1902 the whole atmosphere and appearance of the mines altered, for in that year surface exposures of the Lower and Middle Beds ran out and mining descended underground.

The move underground brought alterations to mining procedures. Empty ore cars carried men down to the mine face where they worked by the light of candles and seal oil lamps as shovellers, drillers, blasters or face cleaners. During the day shovellers loaded a required minimum of 10 carloads, or 17 tons, of ore while drillers bored holes for dynamite. Both drillers and shovellers became caked with a red crust formed by rock dust mingled with sweat and mine water. As the drillers and shovellers left work in the evening, blasters reported to place and ignite the dynamite that loosened the rock. Early next morning came the face cleaners-brave men who cleared ceilings and walls of rock debris before the shovellers and drillers arrived.

One of the more unique aspects of the underground operation was its use of horses. The animals rarely saw the light of day after their initial descent, but received adequate attention in return for hauling ore cars to the base of the hoisting slope and the waiting locomotives. A horse's name sometimes revealed its origin: "Tilt Cove Tim", for example. They lived in subterranean stables, supplied fertiliser for vegetable gardens and, if they survived long enough, spent their retirement grazing in near-blindness upon the island meadows.

By 1905 the Dominion company occupied a comfortable position, as its Lower Bed covered an extensive land area and gave no signs of imminent exhaustion. Land reserves of the Scotia company's Middle Bed, however, were nearly gone. In order to continue mining, the company was going to have to reach out beneath Conception Bay. Scotia officials viewed the prospect of submarine mining with great trepidation. Apart from the obvious drawback of increased production costs, it meant having to drill through the shoreline Dominion claims to the offshore Scotia property. Nevertheless, there was little choice. The two companies signed an agreement allowing a Scotia tunnel passage through the Dominion territory, and in May 1909 excavations began.

Starting point of the submarine tunnel was the Scotia's Number 2 slope, already being mined on land. Between May and December 1906 miners advanced a cautious average of four feet per day along the Middle Bed. A few novices at first misunderstood the reason for their labours: one young man thought that the tunnel was an elaborate fishing technique whereby he could sneak up on the fish from underneath! Most miners knew better, of course, but their knowledge did nothing to dispel their anxiety in August when they encountered a fault that threw the Middle Bed up to a mere 85 feet below the bottom of Conception Bay. Further progress revealed a second fault; it brought the bed back into line, but greatly increased the volume of water seepage into the mine. Years later a group of miners recalled their qualms of the day in a song:

"Ye Men that works down in this cave, Your courage must be more than brave, To work a mine beneath the wave, Wabana you're a corker."⁽¹⁵⁾

Stronger than the miners' fears was their faith in Robert Chambers. He urged them on with assurances that the cover would increase and the waters subside, and they pushed forward with gathering speed. The tunnel reached the Scotia territory about a mile from land and at a depth of 413 feet. The miners and company officials were jubilant.

The Scotia company soon found another cause for celebration, for an exploratory shaft sunk through the tunnel bottom showed that the Lower Bed had increased in thickness and quality. By adjusting the tunnel's length and direction the miners intersected the Lower Bed, thus giving the company two workable ore strata.

Somewhat to the surprise of all concerned, submarine mining presented few problems not found in normal underground mining. The water leaked less than was anticipated, and engineers adapted the usual room-and-pillar method by leaving wider pillars to support the larger overburden of rock and water. The major difficulty entailed hauling the ore up the slope at an efficient rate. This the company solved by buying 22¹/₂-ton orecars that made up in tonnage what they lacked in speed.

Yet miners could not help but feel adverse psychological effects from working in the submarine tunnels, which eventually came to reach out three miles under Conception Bay:

"Down in those dark and weary deeps, Where the drills do hum and the rats do squeak, Day after day, week after week, Wabana you're a corker.

"The boss will show you to your room, With a lighted lamp will show a gloom, And perhaps those walls will be your tomb, Wabana you're a corker."(16)

The advent of submarine mining soon enabled annual Bell Island ore shipments to surpass one million tons: an impressive figure that obscured the ore's high cost in human life and limb. All too often dynamite failed to detonate at night and exploded instead next morning in the faces of hapless shovellers or drillers. Ore cars sometimes became detached on their way to the surface and rolled backwards into unwary workers. The Wabana mines consistently had the highest accident rate of all Newfoundland mines. Residents, too, ran risk of injuries, as the tramway crossing the island was unfenced and without devices to warn of oncoming cars.

The Dominion company became sufficiently alarmed by the situation to publish a pamphlet in 1908 entitled "Special Rules for the Conduct and Guidance of the Persons.... Employed in or about the Mines". The government expressed its concern in 1906 by passing the Mines (Regulations) Act, which required that a proper investigation be held into every mining accident. The act was more demonstrative than practical, for it barely improved safety conditions; as well, it completely neglected the issue of workmen's compensation.

By 1908 the Dominion and Scotia companies could have afforded a generous workmen's compensation fund. The Dominion company had a captive market in the Dominion steel plant in Sydney, and the Scotia had its own steel plant in North Sydney as well as steady purchasers in Holland, Britain, Germany and the United States. Estimated land and submarine ore reserves approached 3.5 billion tons, and the companies' annual profits from the Bell Island mines alone exceeded \$1 million.

With the onset of World War everything changed. The Scotia company, which relied heavily on European markets, had to suspend all mining. The Dominion kept one mine open, but laid off 1500 men, some of whom went straight from the mine tunnels to the muddy trenches of France. After the war came the recession. The iron market collapsed, more jobs disappeared and the future loomed ominously.

At this vulnerable moment in the mines' history, they became involved in a complex plot that resulted in their falling under the direction of one ill-conceived and unscrupulous company.⁽¹⁷⁾ The plot began when British industrialists seeking a means of regenerating Britain's economy hit upon the plan of amalgamating Canadian coal and iron companies into a British-owned steel corporation. At first the scheme met with little support from the Canadian business community. However, one man-Roy Wolvin, president of Halifax Shipyards Limited-envisioned the amalgamation as a route to power and consented to help the Britons achieve their ends. Wolvin began his strategy in 1919 by purchasing Dominion Steel Corporation shares⁽¹⁸⁾ and manoeuvering his way into the corporation's presidential chair. He then accumulated Scotia company shares so quietly that Scotia directors knew nothing of his activity until he presented them with the *fait accomplis*, namely, a proposal to merge the Scotia with the Dominion and Halifax shipping companies. Most of the Scotia management opposed the proposal; all, that is, except its president, Dan McDougall. McDougall and Wolvin between them used British financial backing to remove every personal and monetary obstacle to the merger and in 1921 incorporated the British Empire Steel Corporation (BESCO). Wolvin became its president, McDougall its vice-president and the Wabana mining operation its unwilling scapegoat.

The BESCO regime was the worst in the mines' history. Wolvin and McDougall set out to create the company's glory and ended up causing its ruin. They manufactured millions of dollars in watered stock from the merger until the company began to topple from overcapitalization, at which point they tried to forestall its collapse at the expense of the miners. They reduced their wages, their work-weeks and their numbers. Caring nothing for the miners and war veterans involved, Wolvin went so far as to complain that during the war the miners had "grown to like working in the sunlight and do not take kindly to their old tasks, which is... a great hardship on us."⁽¹⁹⁾

Bell Island miners reacted to BESCO's hostile attitude by forming the United Mine Workers of Wabana in 1924. BESCO promptly hired non-union labour. The miners then announced their intention of going on strike, should BESCO reject a demand for higher wages. BESCO not only refused their request, but pointedly shut down the Sydney steel mill a day later. The miners decided not to strike. In February 1925, however, their anger rose again when BESCO introduced punch clocks to Wabana. Only after considerable government intervention did the company abolish the clocks.

The Newfoundland government regarded BESCO with a mixture of fear and exasperation. Their relations had commenced in 1921 with the company suggesting that the government pay it a *bounty* on ore exported from Bell Island rather than enforce the 25-cents-per-ton royalty imposed in 1920. That tactic failing to work, the company took to closing the mines each winter and refusing to reopen them in the spring until the government waived the annual royalty. The government, afraid of losing its Bell Island votes, agreed to the company terms.

Emboldened by their successful bluffing, Wolvin and McDougall approached Newfoundland's Prime Minister Monroe in 1925 asking for numerous concessions, including waived ore royalties for the next 50 years. This modest request and its companions became known as the "BESCO resolutions" and arose in the House of Assembly in the spring of 1926 for approval. BESCO ignored-and earnestly hoped that the government would ignore-the fact that an act passed in 1920 required the company to build an iron ore refinery in Newfoundland; notification of intent to build was to have been given in January 1926, and BESCO, needless to say, had given no such notification.⁽²⁰⁾

For once, however, the government opposed the company and refused to pass the BESCO resolution without substantial compromises from Wolvin. He, however, was in no position to compromise: BESCO had accumulated massive debts and was under pressure to reorganize its structure. The government's unexpected stand hastened the company's demise. In July 1926 BESCO ceased to function and relinquished its troubled coal and iron mines to its mortgager: the National Trust Company Limited.

The National Trust Company managed the Wabana mines from 1926 until 1930. Its brief reign may be summarized by two anecdotes, of which one describes its relations with the miners and the other its relations with the Newfoundland government.

In 1928 the Trust company opened up a night school for the miners. On one particular evening the following exchange took place between an ore shoveller and a teacher:

Teacher: "Can you do do arithmetic?" Shoveller: "What's that?" T.: "Can you do sums?" S.: "All I know is how to load twenty (ore cars)." T.: "If Mr. Bishop gave you \$5 and I gave you \$5, what would you have?"

S.: "I'd have a fit."⁽²¹⁾

The night school's existence demonstrated the company's tentative attempts to better the miners' lots; but the tone of the dialogue's conclusion revealed that on essential issues such as wages the company remained negligent.

The story involving the Newfoundland government depicts one of the brilliant moments in the mottled career of Sir Richard Squires. The National Trust Company copied its predecessor's tactics and between 1926 and 1928 refused to pay any ore royalties. Then in November 1928 Sir Richard was reelected as prime minister. He vowed to force the trust company's hand. He ordered customs officials to immobilize the first ore carrier that arrived at the Bell Island loading pier and to hold it as ransom on the unpaid dues. On May 2 the officials seized the S.S. *Boulderpool*; and on May 9 the company posted a bond for the taxes.

Squires followed up his victory with a new royalty agreement in July 1929 in which royalty rates were lowered, giving the company no excuse for tardy payment. However, before the agreement could be enacted the Bell Island iron mines changed hands once again: in June 1930 they passed over to the Dominion Steel and Coal Company Limited (DOSCO) of Nova Scotia. In the same year, the Depression struck Newfoundland with full force.

The extent to which the Dominion Steel and Coal Company initially underestimated the seriousness of the Depression is shown by its announcement in July 1930 that it would spend \$6 million on expanding the Bell Island mining facilities. Within months of the statement, two of the Wabana mines were closed; the remaining two were limping by on a two-day week. Those miners lucky enough to retain their jobs worked for a fraction of the normal salary and spent their spare time tending vegetable plots on land leased without fee from DOSCO. Unemployed miners compensated for lost pay by catching seals, seabirds and rabbits. The island of necessity became agriculturally self-sufficient at this time, an admirable position that it unfortunately lost when conditions improved later.

The plight of Bell Island in the early 1930s stemmed primarily from the severely restricted demand for iron ore. What had supported the island's whole *modus vivendi* was no longer required. Captains of ore boats returning from Holland and Germany described how the previous year's shipments still lay untouched on the European docks. The countries lacked the money to manufacture steel, to transport the iron ore to steel mills and to pay dock workers.

It was distressing, but typical, that the British industrial community could have helped Wabana and chose not to. British steelmakers with vested interests in Spanish and Moroccan iron deposits imported more than a million tons of iron ore from those countries in 1932: none from Newfoundland. Despite pleas from the Newfoundland government and promises from British industry,⁽²²⁾ Britain's imports of Newfoundland iron ore remained minimal until 1937. Had it not been for the German market between 1931 and 1937, the Wabana mines might have folded altogether.

Throughout the 1930s, Germany displayed an insatiable appetite for Newfoundland iron ore to the point where DOSCO had to reopen all four Wabana mines in 1938 to keep up with German demand. The late '30s were happy days for Bell Islanders; after seven years of deprivation they had enough jobs, enough money and a victorious hockey team. (In 1938 the Bell Island Miners won the Conception Bay division of the Newfoundland Amateur Hockey Association.) Germany, meanwhile, was steadily converting iron ore into steel tanks, hand arms and submarines. And on 1 September 1939, a few days after purchasing its last order of Wabana ore, Germany invaded Poland and precipitated World War II.

Bell Island's involvement in World War II at first entailed sending iron ore to Britain and men to battle, but in 1942 the war came to Bell Island. German captains, some of whom had piloted ore ships into Conception Bay in the 1920s and '30s, returned in 1942 with submarines and an intimate knowledge of the Bell Island area.

The first attack came on 5 September 1942. That morning, the S.S. *Saganaga* and the S.S. *Lord Strathcona* were waiting off the west end of Bell Island to join a convoy before proceeding overseas. Suddenly an explosion rocked the air, quickly followed by another as two torpedoes struck the *Saganaga*. She went down with 10,000 tons of ore and most of her crew before help could arrive. Minutes later the *Lord Strathcona*, by now deserted by her alarmed crew, was also hit

and sunk almost immediately. Men on a nearby coal boat sprung into action, shooting their guns by the bay. Members of the Newfoundland Militia ran to a battery overlooking the Bell Island ferry landing and fired frantically in all directions. They managed to kill a cow in St. Phillips, but never saw, let alone hit, the submarine. The noisy barrage, however, frightened the attackers, and they slipped away.

A second raid off Bell Island in November 1942 destroyed a third ore ship, an English vessel and 40 more men. One torpedo struck the pier and shattered into fragments which were later retrieved by Bell Islanders and fashioned into souvenir rings.

Contrary to many people's fears, the years following the end of the war in 1945 were not ones of recession, but of prosperity. The late 1940s saw a monumental increase in the iron market as war-torn Europe sought to restore its buildings, industries and armaments. Wabana's iron production soared,⁽²⁴⁾ and by 1950 the mines supported 95 per cent of the island's population.

It is tragic that the same surge in the iron market that rejuvenated the Wabana mines ultimately turned against them and condemned them to oblivion. The surge stimulated extensive mineral exploration, which in turn revealed large new iron deposits, the development of which flooded the iron market with large volumes of high-quality, cheap ore. Had Wabana been competing strictly on the basis of ore quantity it might have survived; however, it simultaneously fell victim to a radical change in steel technology that rendered the ore's quality unpopular.

The Wabana ore, which possesses 0.8 per cent phosphorous,⁽²⁵⁾ had for decades suited the Thomas steelmaking process wherein heat released by oxidation of phosphorous helps to keep the bath liquid. In 1952 the first Linz-Donawitz basic-oxygen converters (LDBO) hit the market. They produced a stronger steel more cheaply than did the Thomas method, but were designed for ore averaging only 0.3 per cent phosphorous. Many of the newer iron ore deposits such as those in Labrador were low-phosphorous ore that suited the LDBO perfectly. The Wabana ore, on the other hand, contained not only higher quantities of phosphorous, but also higher quantities of silica, an unwanted impurity. Because the new ores could be 'upgraded' more easily than could Wabana ore and were mined from open-pit rather than from submarine operations, they could be sold at extremely competitive prices.

DOSCO spent \$20 million in the 1950s in a last attempt to match modern steel industry specifications. Still the new ores continued to maintain their competitive margins. Bell Island iron markets dwindled throughout the decades as one steel mill after another adopted the LDBO method. At last the Sydney smelters yielded to the demand for better steel and in 1958 began to mix large amounts of non-Wabana ores with Wabana material.⁽²⁶⁾

Timing of the decision to mix Wabana ore coincided with a change in the mines' ownership: in the fall of 1957 A.V. Roe (Canada) Limited

acquired the majority of DOSCO's shares. The change spelled the end of the Wabana mines. The company announced in 1958 that the reduced market for Wabana ore meant a reduced need for mines. Some miners accepted pay cuts to keep their fellow workers employed, but found themselves and their companions jobless a few months later. From 1957 to 1966 layoff followed layoff until the number of miners, originally 2000, was 730 men.

The direction of these moves seems obvious in retrospect. Yet when DOSCO proclaimed on 19 April 1966 that on June 30 the Wabana mines would close down, the whole of Newfoundland expressed shock. Until the eve of the announcement federal and provincial governments had been negotiating with the company to upgrade Wabana mine facilities. The head of the miners union remarked that at first the men walked about like doubting Thomases, unable to believe their ears. On June 30, DOSCO sold the mine claims and surface facilities back to the government: \$1 for the land and \$100,000 for the assets. Only then did the truth sink in.

Scores of miners and their families moved to the Labrador iron mines, to Ontario and elsewhere after 1966. Some remained away; others have since returned home to take what jobs exist on the island and in St. John's.

What will become of the mines themselves? No one knows. In the early 1970s, attempts were made to cultivate mushrooms in the mine's dark and damp recesses; for a time, mushrooms grown beneath Conception Bay appeared on the shelves of St. John's supermarkets. In 1975, the American government invited proposals for underground oil storage locations. The Wabanex Energy Corporation Limited was formed to investigate the Wabana mine tunnels as a possible storage site. Later changes in American energy policy caused the government to revoke the invitation, so ending another hope for the Bell Island economy.

Mushroom farms and underground oil storage seem far removed from the old days of pickaxes and seal oil lamps. One can only hope that the mines, in some capacity at least, will have a future.

Workington Mine

Successful mines, like successful people, tend to evoke a host of would-be imitations. Just as the Tilt Cove mine generated the Betts Cove, Little Bay and other mines, so did Wabana generate the Workington or Lower Island Cove mine.

Discovery of the Bell Island iron deposits sent prospectors scurrying around the shores of Conception Bay looking for the continuation of the iron-rich beds. Their task was impossible: the rock strata, bearing Wabana-type ore, are unique to Bell Island and occur nowhere else on land in Conception Bay or indeed on the Avalon Peninsula. It was only coincidental that Andrew Colford of Redlands discovered iron ore at Lower Island Cove on the north side of Conception Bay in 1895,⁽²⁷⁾ for the Wabana and Lower Island Cove iron deposits differ vastly in

size, quality and type.

Andrew Colford, as with the Butlers before him, was obliged through lack of money to submit his discovery and dreams of fortune to the formidable mercies of a St. John's businessman. Colford's 'patron' was a jeweller, Robert Sleater. Upon hearing of Colford's find, Sleater summoned five friends who within a year staked 14 adjoining claims in the area. They gave Colford a one-eighteenth share of the property and then contrived, vulture-like, to wrest it from him.

On 4 September 1896, Colford forefeited half his shares for \$100 to a merchant named Charles Tessier instead of paying a store bill. On 11 October one of the claim holders, Donald Morison, forced Colford to mortgage the rest of the share for an outstanding debt of \$30. Colford repaid the \$30, but later sold the entire share to Tessier for \$500 in lieu of paying another grocery bill. Thus did Andrew Colford relinquish all claim to the Workington iron mine. He continued prospecting in the area, however, and raised three prospector sons, one of whom-Daniel-came to play an important role in the beginnings of the St. Lawrence fluorspar mines.

Donald Morison, being a lawyer and ostensibly the most credible of the claim holders, became the promoter of the Lower Island Cove claims. In February he sent ore samples to England where they attracted the attention of a Workington steel company, H. Spencer and Company. Company directors dispatched an engineer to inspect the property. He presented them with a favourable report, and in June 1898 the company leased the 14 claims.

Time revealed that the engineer advised his superiors badly and that the so-called Workington iron mine should never have become a mine at all. The deposit exists in small, irregular and non-economic veins or 'pockets'.

Henry Moore, resident manager of the Spencer company, did not suspect the ore's discontinuity at first, but did notice that Lower Island Cove lacked adequate shelter for a shipping pier. He hired 150 men to lay a seven-mile railway across the Bay de Verde Peninsula to Old Perlican. There, men converted 12 shiploads of wharf sticks, 3000 feet of lumber and 9 tons of nails into a sturdy pier. That done, they focussed upon the mine site. Slowly the property assumed an industrious air as men installed boilers, crushers and other apparatus together with a machine shop to service them. They also erected bunkhouses for themselves and luxurious houses for the managerial staff.

In implementing these elaborate measures Henry Moore committed the common error of squandering money-\$250,000 by one account⁽²⁸⁾-on mine facilities before assessing its underground potential. Miners sank seven prospect shafts on the grounds trying to locate an orebody that did not peter out over a few yards. The shafts disclosed little regular ore; they did leak large amounts of water.

Moore's pessimistic monthly reports to the Spencer company alarmed

two of its directors into visiting Lower Island Cove in October 1898. Four weeks after their visit, H. Spencer and Company subleased the Workington mine to the Newfoundland Iron Ore Company of Manchester for £8000 in cash and £12,000 in paid shares. The exact details of this transaction are uncertain. Was the Newfoundland Iron Ore Company a subsidary of the Spencer company? Or did the Spencer company lease the property to an unrelated (and obviously uninformed) company? Available records shed little light on the matter.

Throughout the winter of 1898-99, the Newfoundland Iron Ore Company raised several hundred tons of ore and made one trial shipment to England. The deeper miners sunk the main shaft, the more geologists saw the futility in trying to delineate a workable orebody. Operations came to a halt when Roland Barrett of Holyrood died in an accidental underground explosion. The company pulled out around the fall of 1899 and left the claims to revert to their original owners.

The 'original owners' were by them neither financially able nor inclined to promote their property abroad and so approached Robert Chambers of the Nova Scotia Steel and Coal Company working on Bell Island. The ore's high iron content led Chambers to lease the claims, but after investigating the land in 1904 he dismissed any idea of development. Instead, he bought the boilers and company store; the former items went to the Scotia steel mill and the latter one was sailed to Bell Island and converted into a chapel.⁽²⁹⁾

All that remains of the Spencer company's \$250,000 capital outlay is seven shafts, an ore dump and the road bed of the Workington railway. The shafts are slightly hazardous to walkers in the area; the railroad bed, however, makes a convenient means of traversing the peninsula in the berry-picking season.

Indian Head Mine



Indian Head mine, c. 1942. Ore slid down hill to loading platform and into waiting trucks (V/5.) <u>Larger Version</u> (27 kb)

Women figured so rarely in Newfoundland mining that when one did appear she became the centre of suspicion. Early in 1914, Dr. Elizabeth Ingraham came from the United States to Indian Head near Stephenville with a diamond drill and a dozen drillers. Their purpose, she said, was to ascertain the extent of an

iron deposit on Indian Head. Records show that she applied for a rightof-way into the area in November. Then at the outbreak of World War I she and her crew vanished, leaving everyone convinced that they had really been German spies!⁽³⁰⁾

The Indian Head iron deposits resembled that at Lower Island Cove: they were high in grade, but inconsistent in distribution. They might have remained untouched had not World War II disrupted European iron shipments to the Dominion Steel and Coal Company steel mill. In searching for an alternative supply of high-grade iron ore to mix with the lower-grade Wabana ore, DOSCO chose the Indian Head deposits: they lay just across Cabot Strait from the steel mill, and the company already had another operation, the Aguathuna limestone quarry, situated nearby from which to draw men and equipment.

Between 1941 and 1944, DOSCO operated four separate open-pit mines on the Indian Head property under the direction of Leonard House, son of the Aguathuna quarry manager. Leonard House still recalls how men removed the highest-grade ore with welding torches, and how ore cars had wooden wheels improvised during the wartime iron shortage. Trucks carried about 16,000 tons of ore along a makeshift road to the main road leading to the DOSCO pier at Aguathuna.

DOSCO never intended that the Indian Head mine be a long-term venture. As soon as the immediate demand for high-grade ore subsided the company instructed House and the miners to return to Aguathuna.

Aguathuna Quarry

The present-day town of Aguathuna sits 15 miles west of the Indian Head mountain range. Like much of the Port au Port Peninsula on which it lies, Aguathuna is grounded upon limestone, a rock that water can slowly dissolve into fanciful shapes and designs. In the late 1800s, British naval officers noticed that waves had carved cliffs surrounding one particular cove into the likeness of a club from a pack of cards.⁽³¹⁾ This feature coupled with the fact that a man named Jacob Bellows lived in the vicinity led the officers to call the spot 'Jack of Clubs Cove'. Only later did employers of the Dominion Iron and Steel Company alter the name to Aguathuna.

The Dominion company had for years used limestone from Marble Mountain or Cape Breton Island as a flux in its Sydney steel mill. The Marble Mountain material, however, was impure, of limited expanse and situated far inland; and in 1910 the company sent its assistant mine manager on Bell Island, Arthur House, to investigate the feasibility of quarrying Port au Port limestone. House and a friend rowed along the north shore of the peninsula throughout October and November 1910 and located the ideal site: Jack of Clubs Cove.

To House's initial dismay, the Dominion company approved of his choice to the extent of asking him to leave Bell Island and manage a limestone quarry at the cove. House at first regretted the posting, but later grew inseparable from the district. He became a corner-post of the quarrying community and invariably could be recognized at a distance by his horse-drawn Victoria wagon, which he drove around town long after the advent of automobiles.

Men hired from the north shore of Bonavista Bay and equipment to develop the quarry began arriving in Jack of Clubs Cove in the fall of 1911. House chose not to build a pier directly, for fear that autumn gales would obliterate a half-completed structure. Instead, he contemplated creating a pier on the winter ice, a bold scheme that had never been attempted in Newfoundland. On the advice of a foreman, he consulted Dr. Chase's Almanac and found that it predicted an unusually cold March, one that would lessen the possibility of ice melting before the pier had been completed. With that encouragement, House decided to implement the plan.

The men spent the winter of 1911-12 erecting the pier on ice using nearly two million feet of board lumber, most of which was hauled to the coast by horses and oxen. Every day men arrived expecting to see their handiwork floating offshore on an ice pan. Fortunately the almanac prediction held true, and on March 16 they cut through the ice and sank the finished pier to the bottom of the cove. They ballasted it with 30,000 tons of limestone, drove piles through the cribwork and then celebrated by cooking a turkey meal with all the trimmings; enough trimmings, in fact, to incapacitate themselves for two days.

Completion of the shipping pier was followed by the placement of storage bins, crushing apparatus and living accommodations near Jack of Clubs Cove. Amidst the bustle Arthur House and his associates found time to petition the Post Master General that their budding community be changed in name from 'Jack of Clubs Cove' to 'Aguathuna', an Indian word meaning "white rock":



The original Aguathuna pier... (V/9.) Larger Version (30 kb)



...was replaced in 1947 by another... (V/10.) Larger Version (24 kb)



...which a year later succumbed to storms. (V/11.) Larger Version (19 kb)

"The name 'Jack of Clubs Cove' does not appear to be of any great antiquity and is not suggestive of very elevated associations. It is certainly ludicrous when applied to a village whose energies are to be developed to the respectable, prosaic and useful business of quarrying limestone.... It is felt that business correspondence emanating from a place called Jack of Clubs Cove will hardly be treated... with that serious respect and confidence which it is the business of correspondence in mercantile affairs to provoke...."⁽³²⁾

The first shipload of limestone left the Port au Port Peninsula for Sydney aboard the *Heathcote* in early 1913, and in June the site was christened 'Aguathuna'. The new name may have been less graphic than the original, but it surpassed infinitely the alternative suggestion of the day: 'Limeville'.

Quarrying procedures remained simple during the initial years of the operation. Men dynamited out blocks of limestone, hammered them into manageable chunks and placed them in horse-drawn carts. Horses pulled the carts along tracks to a crusher; from there the crushed rock funnelled through a chute to conveyor belts and on to waiting ships that left Aguathuna for Sydney ten times monthly. Of the many ships that ferried limestone across the Gulf of St. Lawrence, three deserve mention. The *Heathcote* collided with another vessel in Cabot Strait in 1914 and foundered with a load of limestone. The *Storstadt* entered the Dominion company service shortly after ramming the *Empress of Ireland* and causing the deaths of 1014 people. The *Lord Strathcona*, which doubled as an iron ship for the Wabana iron mines, was one of the vessels sunk off Bell Island during World War II.

The opening of the Aguathuna quarry just preceded the onset of World War I. The first Aguathuna 'casualty' was a town merchant, a Russian-Jewish man named Adam Safir. Already depressed at having gone bankrupt in November 1914, Safir fell morose over the war and ran off to the United States where he reportedly committed suicide. A year later a Slavic deckhand named Dominic was debarred from entering Canada from Newfoundland Regiment, only to perish in battle with most of his company. Another war 'casualty' was the Aguathuna quarry. Aguathuna's drop in productivity and employment paralleled Wabana's as the amount of limestone required by the Dominion company varied in direct proportion to the world demand for steel. The post-war recession, too, afflicted Aguathuna.

The Aguathuna management survived the worst years of the recession with the aid of the King of Clubs, a private club organized in 1912 by Arthur House and others. The club still exists today and is filled with memorabilia. An old carbide lamp movie projector that once displayed the latest silent films now sits in state in the storeroom. Photographs of ship captains, quarry managers and other venerated individuals line the club walls. Hidden carefully away are two sets of playing cards-one gigantic, the other minuscule-designed to fool intoxicated guests. A card game would begin with a normal-sized pack until a guest became tipsy enough for a club member to substitute one of the abnormal packs. The game would then continue as before with everyone pretending that nothing was amiss. The guest would consequently come to the silent conclusion that he had rather exceeded his capacity for alcoholic drink.

The 1920s and early '30s were bleak years for both Aguathuna and

Wabana; and yet the two towns supported the only consistently active mining operations in Newfoundland between 1923 and 1932. Conditions improved after 1935, and Aguathuna began to modernize its facilities. Horses and hand shovels gave way to coal-fired steam locomotives and shovels; these in turn disappeared with the advent of diesel machines. The original pier was replaced in 1947 by a more compact version. Ironically, the first pier having survived its unorthodox method of construction, it was this second pier which collapsed in a storm in 1948.

As the decades slipped by, familiar faces also vanished from the Aguathuna quarry. Some died, some retired and others lost jobs because of mechanization. In 1956, J.N. Gillis replaced Arthur House around the time that Dr. Thomas Farrell took a post as the town physician. Dr. Farrell and J.N. Gillis later became the subjects of publicity: the former as an accused (and acquitted) in an arson case in St. John's; and the latter as the manager of the St. Lawrence fluorspar mines at the time of their shutdown in 1978.

Coincidentally, Gillis was also managing the Aguathuna quarry up to its closure in September 1964. It is just as well that House was not manager at the time, for it would have distressed him greatly to have been forced to terminate its life.

Why did the Aguathuna quarry close down? The most commonly cited reasons that the Dominion Steel and Coal Company found a suitable limestone deposit in Cape Breton near the Sydney steel mill and calculated that it would be more economical to truck limestone from the new site than to ship it from the Port au Port Peninsula. Possibly the company also anticipated its withdrawal from Bell Island and wished to sever all Newfoundland ties. Whatever the reason, the closure of the Aguathuna quarry put some 70 men out of work and left Corner Brook's Bowater's Newfoundland Pulp and Paper Mills Limited (which had been buying Aguathuna limestone since 1957) in search of an alternative supplier.⁽³³⁾ Arthur House's son, Leonard, opened up a small limestone quarry at Humbermouth near Corner Brook to fill Bowater requirements and operated it until about 1968.

DOSCO sold the Aguathuna land holdings back to the Newfoundland government for \$1000 on 30 November 1966, but a large quantity of pure limestone still remained at the site. The stone attracted the attention of individuals interested in 'sea mining' for the metal, magnesium. They formed the Sea Mining Corporation and built a plant within the quarry to extract magnesium hydroxide from sea water using limestone as a precipitator. There the plant sits, unused to this day: financial troubles crippled the company before it could get underway.

Aguathuna now retains little of the character of its prime. The quarry, however, serves the surrounding area on a limited scale by providing stone for roadbuilding, breakwaters and the nearby Labrador Linerboard Limited operation.* Limestone being a multipurpose material, the quarry will undoubtedly remain partially productive for

many years to come.

With the departure of the Dominion Steel and Coal Company from Aguathuna and Bell Island, the Newfoundland mining industry lost far more than a mainstay: it lost a powerful symbol of its continuity. As late as the 1940s the Bell Island mines still retained the flavour of a nineteenth-century operation, both in their mining methods and in their miners. Youths working underground alongside older men who remembered the first load of ore leaving Bell Island could not help but feel some sense of history about their job and company. From all accounts, relations between the miners and the local DOSCO management remained amiable to the end in what can only be described in these strike-filled days as a most nineteenth-century manner.

No such anachronism characterized the two other large mines in insular Newfoundland: Buchans and St. Lawrence. They were truly products of the twentieth century. They (and the Labrador iron mines) filled in the gap left by the cessation of the Bell Island mines and carried the Newfoundland mining industry forward into the 1970s.

*Currently inactive. Back Up

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Chapter VI: St. Lawrence Town: Its Triumph and Tragedy

ONCE UPON A MINE Story of Pre-Confederation Mines on the Island

of Newfoundland by Wendy Martin

On 1 February 1978, the St. Lawrence fluorspar operations, perhaps the most publicized of Newfoundland mines, closed down. The publicity began around 1960 with the discovery that St. Lawrence miners had for nearly 30 years been working in the presence of a radioactive gas and that many had died or were dying of radiationinduced cancer. Few features lure journalists as surely as dramatic death. The St. Lawrence mines and miners became a *cause célèbre* for provincial and national media, provoking coverage ranging from the objective to the objectionable about the plight of the town and its peculiar tragedy.

The story of St. Lawrence is undeniably tragic, the shutdown a shock. Nonetheless - and contrary to some predictions - the people of the community have survived both the tragedy and the shutdown. With their own labour and fortitude they are working to bring a new image to the name 'St. Lawrence.'

Shipwrecked English sailors from Sir Humphrey Gilbert's *Delight* bestowed the name 'St. Lawrence' upon Newfoundland. After running aground off Sable Island in 1583 they drifted eastward for a week before coming to the small cove that is now called Little St. Lawrence. The cove's idyllic setting and salmon-filled stream led them to call the place St. Lawrence because the stream was a "very goodly river like the river of St. Lawrence in Canada, ..."⁽¹⁾

Although original inhabitants of the St. Lawrence area undoubtedly noticed the many purple, yellow, green and transparent fluorspar veins in the rocks surrounding their village, they would have had no more idea of the mineral's name than of its significance. More intriguing to people were the minor amounts of silver and lead ore embedded within the fluorspar vein. It was for these metals, rather than for fluorspar, that men first mined around St. Lawrence.

Tradition holds that in the seventeenth or eighteenth century Spanish or Portuguese sailors drove an adit into a fluorspar vein at Chambers

Cove near St. Lawrence and extracted the associated lead ore.⁽²⁾ A less romantic but equally plausible possibility is that men working for Charles Bennett mined at Chambers Cove around the time that they removed silver from Bennett's Mine Cove property seven miles away at Lawn. One curious early mining attempt in the area happened sometime before 1825 northeast of St. Lawrence. Here, unidentified individuals sank a shaft on a lead-bearing fluorspar vein and left behind metal artifacts that were uncovered in 1933 when the vein - the Black Duck vein - became the site of Newfoundland's first fluorspar mine.

The long interval between discovery and development of the St. Lawrence fluorspar occurred mainly because fluorspar's limited demand precluded serious investigation of such isolated veins. After World War II, however, innovations in military hardware, modes of travel and domestic conveniences greatly multiplied fluorspar's uses. As need for fluorspar expanded, interest in mineable fluorspar deposits, including those at St. Lawrence, grew accordingly.

Once 'fluorspar fever' infected St. Lawrence it spread like a plague. Between 1925 and 1935, prospectors discovered the Black Duck, Iron Springs, Church, Red Robin, Tarefare, Blue Beach, Lord and Lady Gulch, Hares Ears and other fluorspar veins, most of which were eventually worked. However, such was the number of veins and prospectors involved that the claim map of St. Lawrence soon became a maze of closely spaced, and sometimes overlapping, blocks of the most remarkable geometric variety.

Staking began simply enough. On 15 October 1925, Bernard McGrath and William Campbell * obtained a one-year license for Claim 62, thinking that it covered the Black Duck vein. Claim 62 was staked for the men by Daniel Colford, son of Andrew who discovered the Workington iron deposit. Before Daniel could restake the claim the next year it was jumped by Robert Mercer of St. John's. Then on 15 November 1929, John H. Taylor staked Claim 62 and other claims in *his* name. Events thereafter took an unexpected twist.

It has been written that around 1929 Walter E. Seibert of the Corporation Trust Company of New York visited St. John's on income tax business with the Newfoundland government.⁽³⁾ During his stay he met John Taylor's relative, William Taylor, who told him in passing of the St. Lawrence fluorspar property. Seibert allegedly expressed moderate interest, but pursued the matter no further.

According to several sources, John Taylor left for New York later in 1929 to sell his claims. One version holds that "after a long stay and without success and presumably having partaken unwisely or too well of the many delights (of New York)"⁽⁴⁾, he sold his claims for just enough cash to pay his hotel bill and passage back home. Another source relates that while Taylor was in New York his wife disappeared with their joint bank account, obliging Taylor to sell Seibert the claims for \$350. The Newfoundland Registry of Deeds gives only the bare facts: on 7 February 1930 in New York, John H. Taylor sold Claims 61A and 62 to Walter E. Seibert for \$1 and "other valuable considerations".

Other men also staked claims in St. Lawrence at this time. The claims westwardly adjoining Claim 62 - Claims 69, 70 and 80 - belonged to John S. Morris of Portland, Maine; he thought that *they* contained the Black Duck vein. Indeed, claim maps drawn at the time of staking show both Claim 70 and Claim 62 skimming alongside the Black Duck vein, with Claim 62 also covering the Church and perhaps the Red Robin vein. However, the government later instigated an accurate survey of the area, found the claims to be staked incorrectly and redrew the entire St. Lawrence claim block in such a manner that the

Black Duck vein sat on Crown Land. Walter Seibert discovered the discrepancy first and staked the vein for himself.

The 28-year-old Seibert possessed little money in 1930 and at first considered selling his St. Lawrence claims for cash. In order to make a more attractive package for prospective buyers he secured additional property; by December 1930 he owned more than three dozen fluorspar claims.

Seibert did not see his property until 1931. Early in that year he wrote to the bank manager in Burin asking him to suggest a local resident capable of investigating and reporting upon the claims. The manager responded with the name "Aubrey Farrell". Aubrey Farrell's father had in the early 1900s been a St. Lawrence merchant and an amateur prospector. The manager assumed - wrongly, as it turned out - that Aubrey shared his father's enthusiasm for rocks. In fact, Aubrey helped Seibert only at the insistence of his brother, Howard. Even then, he simply forwarded a map of the district to Seibert and told him to come and see the property for himself.

Seibert arrived in St. Lawrence in the summer of 1931 and stayed for some weeks at the Farrell's house. He inspected his claims in the daytime with an American geologist, Dr. W.S. Smith, and relaxed in the evenings with the Farrells, occasionally playing credibly, albeit by ear, upon their piano. St. Lawrence grew more familiar with Seibert as time passed by. When he left Newfoundland at the summer's end, Aubrey Farrell and six local prospectors consented to work for him in his absence.

Seibert returned to New York intending to sell the claims, but found that Depression-ravaged speculators feared risking money on fluorspar,⁽⁵⁾ especially as the United States had just raised its import tariff on the mineral. On the other hand, several companies offered to buy fluorspar should it be made available. Their interest prompted Seibert to hire a St. John's law firm to incorporate for him a mining company with which he could develop or dispose of the claims as the opportunity arose. About 16 months after the law firm incorporated the company - the St. Lawrence Corporation of Newfoundland Limited - Walter Seibert opened up a trial mine upon the Black Duck vein.

St. Lawrence Corporation

Walter Seibert's decision to open a trial fluorspar mine came at a time when the area's economic plight was desperate. Low fish prices, a tidal wave in 1929 and the Depression had forced most of St. Lawrence onto the government allowance of \$1.80 per month. To people of the district, Seibert and his proposal seemed nothing short of providential. Human nature and needs being what they are, the average St. Lawrence family man preferred the idea of mining near home, whatever the job's dangers or discomforts, to the hardships of fishing, an occupation that contained the risks but not the stability of mining. Townsmen were consequently more than willing to give Seibert as much help as he required. Seibert possessed initiative and courage in gambling his money on the St. Lawrence mining project, but also took full advantage of the town's economic handicap. He made a contract with Farrell whereby he would provide mining equipment if Farrell would provide miners. When, but not before, 2000 tons of fluorspar had been excavated and sold, miners would receive 15 cents per hour in wages. That the men agreed to work for such minimal and conditional renumeration clearly indicated their desire to establish the Corporation, aptly known locally as the 'Co-operation', in their midst.

The mining equipment arrived in St. Lawrence in the first week of March 1933. Farrell and the townsmen unloaded it onto sleds and hauled it across the snow to the Black Duck vein, somewhat puzzled by the machinery's dilapidated condition; Seibert, short of cash, had bought it for about \$2500 from a bankrupt contractor.⁽⁶⁾

The men spent the spring of 1933 arranging a makeshift ore mill and in the summer began to excavate the vein. This was a formidable task, considering that the 20 men had never mined before. They removed ore with pickaxes and jackhammers, winched it up in pork barrels, rolled it in wheelbarrows to a stockpile and shovelled it into carts to be horse-hauled to the mill. Slowly the required 2000 tons of fluorspar accumulated.

The fluorspar arrived at its destination, the Dominion Steel and Coal Corporation's Sydney steel plant, early in 1934. While Seibert waited for DOSCO metallurgists to approve the material as a flux for the Bell Island iron ore, Aubrey Farrell and the miners waited for their wages. Time dragged on; it appeared that wage payment *now* depended upon DOSCO's producing positive test results. Farrell rebelled and informed Seibert that he would not accept further conditional contracts. At last, DOSCO's favourable assessment came through, and Seibert commenced full-scale mining at St. Lawrence.

Commercial mining of the Black Duck vein began in the summer of 1934 under the management of Dr. W.S. Smith. The Corporation's limited backing required miners to work the vein as an open pit rather than as a more costly underground operation. This move ultimately caused the Corporation more trouble than it saved.

Within months of opening the Black Duck mine the Corporation encountered a problem that was to affect every fluorspar mine in the area: chronic, incessant flooding. Water entered the exposed excavation as groundwater and precipitation and grew more plentiful as the mine deepened. The mine pumps broke down continuously. The Corporation tried to postpone underground development by proposing to the men that they dig a drainage ditch around the pit. If it succeeded in diverting the water they would be paid; if it failed they would not.⁽⁷⁾ The trench failed, and in 1936 the Corporation shifted operations underground.

The move underground brought forth a new set of problems. Smoke and dust produced by the dry-drill jackhammers accumulated in the narrow shaft and drifts, causing cheesecloth facemasks to clog with debris in minutes. The continuous water seepage formed a shallow pool on the mine floor. Compounding these discomforts was the miners' lack of safety clothes, which forced them to don sou'westers and oilskins as though still tending their nets.

While miners toiled underground on the Black Duck vein between 1933 and 1941, Corporation prospectors and labourers ranged the hillsides around St. Lawrence and uncovered a dozen separate fluorspar veins. Some of the larger veins - the Iron Springs, Lord and Lady Gulch, Blue Beach and Hares Ears - became full-scale mines. The smaller veins provided a contract wage for the half a dozen men who worked them and provided low-grade ore for the Corporation to blend with the high-grade ores from the Iron Springs and Black Duck veins.

Scores of anecdotes underlie the development of each Corporation vein. The Black Duck No. 2 vein was discovered in 1935 during the clearing of land for a football field. The Red Head vein was located in 1933 and achieved modest fame as having the driest of all St. Lawrence shafts. The Church vein, though the third-widest in the area, never reached production; true to its name, part of the vein lay in the immediate vicinity of a Roman Catholic church whose premises the Corporation was loathe to desecrate.⁽⁸⁾ The accidental discovery of the Hares Ears vein happened when two men who were hired to collect rocks for a road bed unwittingly filled their wheelbarrows with fluorspar from the vein and emptied them before the eyes of an incredulous foreman. Perhaps the most romantic tale concerns the discovery of the 7700-foot-long Blue Beach vein. In the early 1930s, a St. Lawrence woodsman from St. Malo, France noticed in the darkness of dawn that his metal sled runners created sparks over a particular outcrop along his wood-hauling route. Curiosity prompted him to test a piece of the outcrop for fluorspar. He pulverized it, threw the powder on a hot stove and watched as it fluoresced.⁽⁹⁾ Thus was the Blue Beach vein discovered.

Of the nine fluorspar mines that operated contemporaneously with the Black Duck mine, seven were suspended or permanently halted before or during World War II. The same war-time iron and steel shortage that increased the demand for metallurgical-grade fluorspar⁽¹⁰⁾ also created a scarcity of mining equipment, forcing the Corporation to phase out all but the most lucrative operations. Even the Black Duck mine succumbed; engineers found that the vein narrowed with depth and ordered its closure in May 1941. This left the Corporation with two producing mines: the Blue Beach and the Iron Springs.

The Iron Springs mine contained the highest-grade ore of any Corporation vein and possessed the district's most spectacular subterranean scenery. One account of its underground reaches describes a cavern 200 feet deep, 100 feet high and 2 feet wide lined with fluorspar crystals ranging in hue from green through mauve to pink and in size from tiny to 2 feet across.

Stories differ regarding the time and means by which the vein was discovered, but most evidence verifies the following version. Late one

afternoon in November 1931, Dr. W.S. Smith and a local prospector, Michael Clark, were returning home to St. Lawrence, having been prospecting in the Salt Cove district. As they waded through Salt Cove Brook, Clark noticed a boulder of colourless fluorspar. On the next day the men located the original fluorspar vein and, while trenching it, uncovered the iron-rich spring that gave the vein its name. Michael Clark was the most successful of the Corporation prospectors and received this eulogy from Dr. Smith:

"The prospector who found the larger veins and some of the lesser ones for the Corporation was Michael Clark. He was painstaking, not objecting to spending a whole day on a few square yards of an area where float occurred... He generally worked alone. Mike died in 1942, in direst poverty."⁽¹¹⁾

The Iron Springs mine experienced a brief period of open-pit mining beginning in 1935, but became an underground operation in 1938. There, working conditions were worse than in the Black Duck mine. Narrowness of the Iron Springs vein occasionally required that wheelbarrows be bent inwards to squeeze through the opening. Dust could not escape the drift, witness the words of one ex-miner:

"In the first eight or ten years they done a cruel lot of dry drilling... They were only using a dry hammer and there was nothing, only smoke and dust all the time... You'd turn on your air hose and blow out your drift as clear as you could get it, you'd clear away your chutes, and start mucking again. When you were going ahead with your light, you could see something like a fog, your light was shining through streaks. You'd see circles, you often see the sun shining like that..."⁽¹²⁾

The mine water, which leaked into the mine at the rate of 2000 gallons per minute, reduced dust levels somewhat, but soaked miners to the skin. In summer this was merely a nuisance; in winter it made the three-mile walk home extremely unpleasant.

The copious water placed a tremendous strain on the pumps and hydroelectric plants. During summer the plants could barely keep the mine dry, let alone power the mills, electric lights and other facilities. Once, a six-hour pump failure caused mine water to rise, and led to the following recollection:

"I was lowered under water, me and another fellow. When the hoistman was given the bell to take us up, he shoved the wrong control and we went down,... under eight feet of water. I didn't mind that. I opened the hatch that was in the roof. This fellow that was with me,... there was only one thing in his mind right then and that was to hold on. I had a job to get him clear. He was the Mine Captain too. I said to him, 'What happened to you?' and he said, 'The only thing what come to me was to hold on when that cold water struck me.' A poor place to hold on, down there eight feet..."⁽¹³⁾

The story shows the dangers inherent in the Iron Springs mine. It also demonstrates what many of the miners believed, namely that their native intelligence and experience in the mine surpassed that of most people, mine captains or otherwise, from outside of St. Lawrence.

Revolutionary history has shown that groups submit to oppressive conditions only while the oppressor remains dictatorial. When he becomes accommodating towards his subjects they read it as a sign of weakness and revolt. On a much reduced scale, the same phenomenon affected the Corporation in 1941.

For about eight years, the Corporation possessed insufficient backing, paid miners abnormally low wages, provided them with abysmal working conditions - and got away with it. Lack of capital sometimes forced the management to choose between paying its employees and paying its debts for customs duties. As often as not the customs officer in St. Lawrence waived duty on incoming mine equipment in order to ensure that miners got their wages.

A combination of circumstances altered the monetary position of the Corporation around 1940. In the late 1930s, Seibert obtained credit from a New York bank, just as the United States reduced its import tariff on fluorspar.⁽¹⁴⁾ These events and the increased wartime demand for metallurgical-grade fluorspar after 1939 alleviated the Corporation's financial uncertainties for the first time since its inception.

The Corporation's changes in fortune did not go unnoticed by the miners. As a concession to its new stability, the Corporation introduced safety lamps underground and began paying the men in cash rather than by cheque. The miners viewed these gestures as a signal to expect a drastic change in their lot. When it failed to materialize, they grew restless and resentful.

Meanwhile another company, Newfoundland Fluorspar Limited (or Newfluor), had secured land near St. Lawrence and had begun to develop fluorspar property adjacent to that of the Corporation. Newfluor was a subsidiary of the wealthy Aluminum Company of Canada and could afford to provide its workers with the latest in equipment and conveniences. Evening conversations in St. Lawrence kitchens inevitably touched upon relative virtues of the two companies and heightened the Corporation miners' sense of injustice. On 17 March 1941, two days after forming a new union, they went on strike.

The March 17 strike was the first of five strikes in 1941, the last of which prompted the appointment of the St. Lawrence Trade Dispute Board on December 6. Considering the miners' numerous legitimate grievances against the Corporation it seems peculiar, not to say ridiculous, that the St. Lawrence Workers Protective Union called its first strike because its members wished a holiday, March 17 being St. Patrick's Day.

The union complained bitterly, and with great justification, of low wages. From the earliest days when miners received 15 cents per hour, wages had scarcely advanced in proportion to the cost of living. In February 1941, the average salary was 28.1 cents per hour. It rose on the day that the union became organized and peaked at 32.6 cents three

strikes later;⁽¹⁵⁾ and this was at a time when miners in Buchans were protesting an average wage of 42 cents per hour.

A second grievance concerned the irregular manner of wage payment. Before 1940, miners received cheques; local merchants honoured the pay slips, even though knowing that they would have to remain uncashed until the next sale of fluorspar. After 1940, the Corporation introduced cash wages. This method, however, proved unsatisfactory, as the difficulty of obtaining cash occasionally obliged the Corporation manager to postpone pay day for some days. The procrastination, whatever its causes, did nothing to improve relations between the union and the Corporation.

The Trade Dispute Board report recommended a basic salary of 32.6 cents plus an extra 13 cents reviewable cost of living bonus. It praised the miners, saying:

"...not one of the 90 miners, now working at this operation, had one hour's experience at any other mine in Newfoundland or elsewhere. Even more extraordinary is the fact that, at no time in the Corporation's history, was there a practical and experience miner to train the men..."⁽¹⁶⁾

What the report did not mention was that most miners from 'outside' refused to remain in St. Lawrence, fearing damage to their health and safety from the mine dust and frequent rockbursts.

The union listed miscellaneous other grievances, one of which concerned the quality of mine air. The board investigated the underground workings after the mine had lain dormant for some days, naturally found no trace of dust, and suggested that the steady flow of water purified the air. It advised that dry-drill hammers be used only sparingly, but made no specific recommendations about the mine air or about the miners' request for X-ray examinations.

Time has since shown that the 'purifying' water contained a gas that was far more lethal than the dust it settled and that it produced in the miners a disease which could, in some cases, have been detected by Xray examinations if they had been performed at the time.

Many alterations in the St. Lawrence Corporation's mining procedure occurred during and after the strikes of 1941; some were immediate and others more gradual.

The most noticeable changes resulted directly from the Trade Despute Board report. In 1942, the company replaced the dry hammers with wet drills and reduced the number of daily shifts to allow dust time to settle. The company also tried to improve medical facilities by hiring a resident doctor for St. Lawrence; he left a few months after his arrival.

A less apparent but more significant change involved a growing preference of the Corporation for the American rather than the Canadian market. The trend began when the United States entered World War II. In a desire to ensure a constant fluorspar supply to American steel plants, the American government contracted with Seibert to finance a new mill for the Iron Springs mine. The Corporation concentrated on producing acid-grade ore for the United States and sold it through an affiliated company in Delaware, St. Lawrence Fluorspar Incorporated.

The Corporation's business with the United States faltered briefly after World War II; but by using threats of closure Walter Seibert extracted a loan from the Newfoundland government in 1950.⁽¹⁷⁾ He then used the money to manufacture even more acid-grade ore for the United States.

The culmination of the Corporation's leanings toward the American market came in July 1952 with a contract between the company and the American government. In return for the Corporation's guaranteeing the government 150,000 tons of acid-grade ore within four years, the government advanced the company \$1¼ million to finance a heavy-media separation mill in St. Lawrence and a flotation plant in Delaware.⁽¹⁸⁾ Both plants were completed in 1953.

Superficially, the contract seemed to benefit St. Lawrence; it provided an assured market for the fluorspar at more than double the usual volume of sales. The deal, however, required St. Lawrence to ship ore to Delaware as a low-grade concentrate so that the Delaware plant not the St. Lawrence mill - could raise it to acid-grade material. More seriously, the contract directed the entire St. Lawrence mining effort toward supplying the American stockpile. Shipments to Canada became non-existent. When the American contract ended in June 1957 the Corporation found itself without business, as its former Canadian customers had established new contracts with fluorspar companies in Spain, Italy, Germany - and Mexico.

Mexican fluorspar in particular posed a double threat to St. Lawrence. The open-pit, dry Mexican mines with their wages of \$2 per day produced fluorspar more cheaply than did the underground, waterridden St. Lawrence mines with their wages of \$15 per day. Unlike the impure St. Lawrence ore, Mexican fluorspar was of a high quality much favoured by the steel industry, whose specifications regarding impurities (such as silica) had tightened after 1950. The increasingly large quantities of Mexican fluorspar entering Canada in the 1950s made fluorspar prices drop. The Corporation found it impossible to regain its former profit margin.

An ill-timed disaster at the Corporation's Blue Beach mine in 1957 compounded the company's troubles. One morning in March the miners reported at 8 o'clock as usual to the No. 2 shaft of the mine. Around 9 o'clock they began to notice an alarming frequency of rockfalls in the shaft, and quickly left for the surface. Half an hour later all hell broke loose. Cave-in followed cave-in throughout the day, and by that evening the shaft lay completely buried.⁽¹⁹⁾

The collapse of the Blue Beach mine forebode the end of the St. Lawrence Corporation. Seibert, unable to obtain further American contracts or to compete with the Mexican ore, suspended all Corporation mining efforts on 6 June 1957 and asked the Canadian government to impose a tariff on foreign ore.

Seibert's request ultimately did him harm. In the course of considering his proposal, an inquiry board investigated the St. Lawrence Corporation's activities; it discovered that Seibert owned a major share in a Mexican fluorspar operation and had been soliciting business for the Mexican company, all the while discouraging the sale of St. Lawrence fluorspar in Canada.⁽²⁰⁾ This and other findings led the board to conclude that the Corporation viewed the import duty solely as a means of capturing the Canadian metallurgical-grade market; once having used the Canadian market to regain its financial foothold, said the board, the company would abandon it again for the higher-priced American acid-grade market.

Little wonder that the board advised the government to reject Seibert's request. Seibert's Mexican interests could be argued as being a case of not putting all his fluorspar eggs in the Newfoundland basket; nonetheless it is ironic that some of the profits from the St. Lawrence mines probably helped to finance the Mexican fluorspar industry, which has now rendered the St. Lawrence fluorspar industry inactive.

The suspension of mining by the St. Lawrence Corporation in 1957 traumatized St. Lawrence, not only because of the lost jobs involved, but also because the company had become a constant in the area. Seven years later the Corporation sold all its assets and left Newfoundland. The factors contributing to the sale stemmed from one basic cause: the Corporation ostensibly lacked the money to continue.

The Canadian government refusal to impose a duty on foreign fluorspar left the Corporation in a quandary. The company revived some of the mines, but did so with little hope of conditions improving. Fluorspar prices in fact declined after 1957 and did not rise again until 1969. The low prices made it impossible for the Corporation to obtain further loans; and all the while pumping, wage, hydro and other costs were draining the company's financial reserves.

Added to mining costs was the imminent liability of thousands of dollars in workmen's compensation. Government and private investigations in the 1950s made it likely that any mining company remaining in St. Lawrence would have to compensate scores of miners who, from the earliest days of mining, had unknowingly been contracting a range of diseases related to their work underground. (The last half of the chapter covers this aspect of the St. Lawrence mines.)

Members of the Seibert family have claimed that the Corporation suffered from having no parent company to absorb its losses when fluorspar prices were low. On the other hand, a Royal Commission appointed in April 1967 to investigate the aforementioned diseases wrote:

"...the Seiberts attained their initial success in fluorspar operations at St. Lawrence, and... because of that success, the family, through St. Lawrence Fluorspar Inc., Wilmington, Delaware, continued in the

fluorspar business with mining operations in Mexico and a flotation plant in Wilmington..." $^{(21)}$

Be that as it may, the St. Lawrence Corporation was by 1961 technically bankrupt.

Halfway through the troubled interval between the suspension and sale of the Corporation mines, and perhaps because of it, Walter Seibert died on 9 June 1961 at the age of 59. His wife and sons assumed control of the company, but found that death duties on the estate and its inherent liabilities were too formidable. After Seibert's death they stopped mining operations and put Corporation holdings up for sale.

Stories concerning the disposal of the St. Lawrence Corporation property entailed proposals and counter-proposals, offers and rejections, near-sales and cancelled commitments. Over half a dozen companies investigated the feasibility of acquiring the holdings, only to decide against it. A major stumbling block, it seems, was the prospect of having to pay workmen's compensation to diseased miners. This liability coupled with the mines' water problems and rockbursts deterred many potential buyers.

When the Corporation property first went on sale in 1961 the adjacent fluorspar mining company, Newfoundland Fluorspar, expressed an interest in its purchase, but was informed that Newfoundland's Premier Joseph R. Smallwood disliked the idea of one company having a monopoly on the Newfoundland fluorspar industry. Four years later, no one having bought the holdings, the Seiberts approached Newfluor's parent company, the Aluminum Company of Canada, to reconsider its offer. This time, pressures both from the companies involved and from within St. Lawrence itself forced the government to subdue its objections. On 9 June 1965, four years to the day after Walter Seibert died, the material assets of the St. Lawrence Corporation of Newfoundland Limited passed over to Newfoundland Fluorspar Limited, and a new phase of mining began.

Newfoundland Fluorspar

It is a small but noteworthy coincidence that Daniel Colford, who in 1925 staked the claim that led indirectly to the formation of the St. Lawrence Corporation, in 1930 also staked two claims that led indirectly to the formation of Newfoundland Fluorspar or Newfluor. He staked the claims for Joshua Hookey, owner of a broom-making establishment in St. John's. Although neither of the two 1930 claims contained mineable fluorspar veins, they whetted Hookey's appetite for fluorspar property. Over the next seven years he accumulated nearly two dozen claims, all of which were subsequently purchased by Newfluor in 1940.

Few of the Hookey claims actually belonged to Hookey alone. Some he secured with the backing, if not the name, of William Cave, a St. John's merchant. Others he filed for jointly with Daniel Colford and a St. John's grocer, John Caul. The four men became known around town as 'Hookey and Co.', a cooperative enterprise with each member contributing his claims and expertise. Hookey acted as property manager, Cave as financial supporter, Colford as prospector and Caul in something of all three capacities.

Hookey and Co. had no sooner entered the St. Lawrence fluorspar ring than they came into direct confrontation with the Corporation. On 26 August 1931, prospector Gordon Dawe staked four claims for Hookey along Salt Cove Brook, aligning the claims with true north, according to the existing Crown Lands Act. Three days later, Aubrey Farrell staked some of the same claims for Walter Seibert, aligning the claims with magnetic north. The case arose in court. The judge declared Dawe's orientation correct, and the claims fell to Hookey.⁽²²⁾ Seibert might have appealed the decision had not his geologist and mine manager, Dr. W.S. Smith, assured him that the claims were not worth the litigation costs. Neither Dr. Smith nor Seibert - nor Hookey for that matter - guessed that the property covered the north end of what was to become the single most productive fluorspar vein in the area: the Director.

While Hookey and Co. were accumulating claims, Walter Seibert and the Corporation were gaining recognition among United States steel manufacturers and bringing St. Lawrence fluorspar to the attention of the American business community. Hookey and Co. possessed land adjacent to the Corporation property and sat in what could have been an extremely strategic position. Had they waited for three more years they could have named their price to any one of a number of companies desirous of providing fluorspar for steel-hungry, warring nations. Instead, they accepted the first offer to come their way: they succumbed to the shrewd and powerful Edwin M. Lavino.

Edwin Lavino was the president of E.J. Lavino and Company, a Philadelphia firm involved in the ferro-alloy business. Exactly how and when Lavino first learned of the Hookey claims is unclear; one rumour alleged that Dr. W.S. Smith informed him, a rumour substantiated by Dr. Smith's leaving the Corporation in April 1939 to work for Lavino.⁽²³⁾ Whatever the initiation of Lavino's interest, it bore ripe fruit; and on 11 May 1937 he incorporated the American Newfoundland Fluorspar Company Limited to acquire and develop the claims. E.J. Lavino owned 51 per cent of the shares and the Hookey contingent owned the remaining 49 per cent. On the same day, the parties signed a contract which can go on record as being one of the toughest mining deeds in Newfoundland mining.

The salient features of the Hookey-Lavino contract were as follows: in return for Lavino advancing the American Newfoundland Fluorspar Company \$10,000, Hookey and Co. were to relinquish all control over their fluorspar claims, company funds, management and mining policy. If and when the claims were mined, Lavino was to be the sole selling agent for the ore until all advances made by him were repaid and for a ten-year period after that.

Mining began within a month of the agreement's signature. Mine manager A.J. Wallace hired 35 miners in June to sink a shaft on the Tarefare vein, the largest vein then known to exist on the Hookey claims.⁽²⁴⁾ Late in the summer of 1937, however, prospectors Philip Molly and Louis Kelly returned to St. Lawrence with the news that they had discovered a large outcrop of fluorspar in the woods and had marked it with a lobster claw. The outcrop proved to be part of a huge vein, later known as the Director.

The discovery of the Director vein coincided with the finding that a main shoot of the Tarefare vein pinched out just below the bottom of the shaft. Wallace shifted operations to the Director vein in June 1938. In the ensuing winter men hauled the Tarefare buildings and machinery over snow to the new mine site and began to work the Director mine.

By November 1939, the American Newfoundland Fluorspar Company was well on the way to rivalling the St. Lawrence Corporation. The Director mine promised substantial profits, and the fluorspar market looked favourable, as World War II had begun in September. Yet those very features that predicted a good future also made it the perfect time to sell out. Lavino, ever the opportunist, approached the Aluminum Company of Canada (ALCAN) in Montreal with an offer. ALCAN responded with a counter-offer to buy the company holdings, and Lavino called a stockholders meeting to consider the matter.

For Lavino the meeting was merely a formality. He had every intention of selling out and knew that Hookey and the other Newfoundland stockholders could not prevent him: they owned only 49 per cent of the shares. Hookey and Co. knew this too and stormed out of the meeting when E.J. Lavino and company voted to accept the ALCAN proposal. ALCAN, anticipating a smooth transaction, incorporated Newfoundland Fluorspar Limited in December 1939 to manage the property.

However, ALCAN did not reckon upon Hookey's anger. Unwilling to accept the transfer he appointed a lawyer, Leslie R. Curtis, to convince the court that the 1937 Hookey-Lavino contract had been for working the claims, not for selling them. The court granted Hookey and Co. an injunction on 12 January 1940 to stop the sale, but then revoked it; and on January 26 Lavino sold the American Newfoundland Fluorspar Company holdings to Newfoundland Fluorspar Limited.

William Cave and John Caul managed to survive what they viewed as a gross betrayal.** Not so Joshua Hookey. He remained bitter until his death on 10 March 1942 at the age of 78.

A comparison of the Newfoundland Fluorspar Company's first years in St. Lawrence with those of the Corporation is a study in contrasts. Whereas the Corporation in the beginning had to use returns from fluorspar sales to continue mining, Newfluor could afford to spend two years developing the Director mine before removing ore from underground. It could also provide the miners with a change house containing a dining room, showers and toilets. The house was the envy of the Corporation miners who had to eat in a drafty shack, relieve themselves where they could and walk home at the end of shift in wet clothes.

Because of Newfluor's superior working condition, the 1941 strikes that troubled the Corporation hardly affected Newfluor, though miners from both companies received the same wages. What did affect Newfluor was an American government decision in 1941 to build a naval base 60 miles from St. Lawrence in Argentia. The Americans lured Placentia Bay men with the latest in conveniences and, to Newfluor's displeasure, paid them 55 cents per hour. Newfluor had little choice: fearful of losing manpower to the Americans at a critical stage in its development it raised its surface wages to 55 cents per hour.

With the Argentia naval base came an increased traffic of American ships up and down Placentia Bay. On 18 February 1942, a blinding snow blizzard forced two ships - the S.S. *Pollux* and the S.S. *Truxton* [sic] - to run aground near St. Lawrence within two miles and a few hours of each other. When the alarm went out, men rushed from the Director and Iron Springs mines to the scene of the disaster. Some risked life and limb by launching dories into the storm toward the stricken vessels. Others threw ropes from cliff tops down to the beaches and hauled the sailors inch by inch up the precipice, using mine lamps to illuminate their work. Those survivors who could, walked back to town. The rest were pulled on sleds to the Iron Springs mine for first aid and then to St. Lawrence for soup and shelter. Altogether, 182 men were saved by the local people.

When the American sailors returned home they praised their rescuers so highly that the United States government felt moved to present St. Lawrence with a hospital. It is shameful that circumstances, not the least of which was the Newfoundland Commission of Government's reluctance to maintain the service, postponed the hospital's construction until a decade after its presentation.

The late 1940s and '50s and their post-war slump in fluorspar prices were troubled times for Newfluor. The company survived only because of its parent organization. ALCAN spent hundreds of thousands of dollars in upgrading Newfluor facilities, exploring new veins and maintaining the mines when they lay idle between 1945 and 1948. ALCAN also provided Newfluor with a captive market by purchasing the fluorspar for the ALCAN aluminum plant in Arvida, Québec, where fluorspar was used to make artificial cryolite, a flux in the aluminum-making process.

Conditions improved in the mid-1950s. Newfluor acquired material assets of the St. Lawrence Corporation in 1965, reopened the Tarefare mine and sank new shafts on the Director and Blue Beach veins. In 1969, fluorspar prices began to pick up. The increase in activity and production should have had St. Lawrence thriving and optimistic about the future. Instead, the community sat under a black pall that first had appeared as a faint cloud two decades earlier.

In the mid-1940s, Rennie Slaney, a St. Lawrence miner, began to notice that an abnormally high number of his fellow workers suffered

from what was diagnosed as tuberculosis. Many returned home from the Sanitorium in St. John's, apparently cured, only to die shortly afterwards. A few years later, Dr. Cyril Walsh of St. Lawrence observed a large incidence of lung cancer among his miner patients. Both Dr. Walsh and Slaney wrote of their findings to the Newfoundland Department of Health; neither man received a positive response from that branch of the government.

Thus began the history of observations that led to the discovery in November 1959 that the St. Lawrence mine air contained radon gas in concentrations vastly exceeding the maximum permissible level. Subsequent studies indicated that the radioactive gas entered the mines dissolved in mine water, having been leached from uranium minerals located in the surrounding granite.

The established presence of radon gas combined with findings of a concurrent medical survey - the death rate from lung cancer in St. Lawrence far surpassed that in the rest of Canada - forced authorities to draw a chilling conclusion: the St. Lawrence miners had for years been receiving large cumulative doses of a radioactive gas and in so doing had sustained irreversible damage to their lungs and other organs.

Although it can not be denied that both the companies and the governments involved reacted unduly slowly after first learning of the miners' high incidence of lung cancer, it should, in all fairness, be pointed out that Newfluor inherited much of its problem from the St. Lawrence Corporation by hiring ex-Corporation miners who had worked in the Iron Springs and Black Duck mines. Newfluor's ventilation program was, from the start of operations, adequate for what were assumed to be normal dust conditions. The company ordered a forced ventilation system immediately after the discovery of radiation in November 1959, and installed it in March 1960. Radiation-induced cancer, however, can take 20 or more years to appear: despite the new ventilation equipment and despite the mines' present inactivity, men may still die from their pre-1960 exposure.

It is not the desire of 'Once Upon a Mine' to dwell upon this unhappy aspect of the St. Lawrence mines. The subject has been covered by innumerable newspaper and magazine articles, documentaries, books and reports, some of which have tended to exploit the town's tragedy for the purposes of academic theses, sociological studies or simply good sales. Perhaps the best publication concerning the matter is the Royal Commission Respecting Radiation, Compensation and Safety at the Fluorspar Mines. Thanks largely to the then St. Lawrence Member of the House of Assembly, Alex Hickman, the document emerged from its government stronghold in 1969 to be printed and distributed. The reader is referred to this excellent report for an investigative and yet humane account of the problem.

Two points are critical to understanding why ALCAN withdrew from Newfoundland; Mexican fluorspar was cheaper and of higher quality than St. Lawrence fluorspar; and ALCAN was concerned, not with losing money, but with maximizing its profits. Before the 1975-76 labour dispute, ALCAN paid the higher price of the St. Lawrence ore in order to ensure a captive supply of fluorspar for its Arvida aluminum smelter. The prolonged 1971 and 1975-76 disputes, however, forced the company to buy and experiment with Mexican fluorspar. As ALCAN officials compared the two ores and as the 1975-76 dispute dragged on, the economic advantage of having a captive fluorspar market was making ALCAN anxious to find means of reducing its expenditures.

On 23 March 1977, a small notice appeared in the St. John's *Daily News*: "ALCAN will go ahead with the construction of a new (aluminum) smelter in Grande-Baie." The announcement sounded the death knell for the St. Lawrence mines. Four months later the Newfoundland government received notification that the new smelter was designed to use Mexican-type, not St. Lawrence-type, fluorspar and that ALCAN accordingly would cease mining activities in Newfoundland on 1 February 1978.

Provincial government representatives spent weeks trying to persuade ALCAN to reconsider its decision or to extend the lifespan of the mines. Their efforts were futile. They travelled to Ottawa to solicit an import tariff on foreign fluorspar. The Canadian government refused the request in spite of having just allotted \$11.3 million to protect the 250 jobs of employees of a chemical company in Valleyfield, Québec. ALCAN, it seemed, held more sway in Ottawa than did the Newfoundland government. As one provincial government member said: "If St. Lawrence is so cheap to Ottawa, that it can be sold for the favour of one large company, then our membership in the Canadian confederation is indeed expensive."⁽²⁹⁾

Little remains to tell of the St. Lawrence mines. ALCAN closed down all mining operations on 1 February 1978 after a prolonged debate with the provincial government over the disposal of the mining equipment and mineral lands. In the end (and against the government's wishes) an American firm bought and removed the equipment; the land question is still unresolved.

What will become of St. Lawrence? Time alone will show the success of the town's new fish processing plant, designed in 1978 to encourage the revival of inshore fishing. One thing is certain: having suffered through troubles of the previous decades, the townspeople possess the courage and experience to survive whatever their future holds in store.

* Founder of the present-day Campbell's Meat Market in St. John's. <u>Back Up</u> ** Daniel Colford had since died on 31 December 1938. <u>Back Up</u>

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Drifting underground at Buchans, c. 1928. (VII/4.) Larger Version (33 kb)

Mining towns have formed the background to many a play and song, poem and story. The very words conjure up visions of fabulous fortunes, reeling prospectors and shaking saloons. Although one could, with imagination, have applied similar images to Tilt Cove, Betts Cove and Little Bay years ago, the mining prime of these places has long since departed. The more recent mines at Wabana and St. Lawrence also now lie idle. Only Buchans⁽³⁾ remains as the last large mining town of insular Newfoundland.

On 24 March 1903, Newfoundland's Prime Minister Robert Bond received a letter from Mayson M. Beeton of England which read:

"On behalf of Messrs. Harmsworth of London, England,....I have come to this Colony for the purposes of ascertaining whether there are available any timber lands and water powers suitable for the erection of pulp, paper and lumber mills of the capacity we want for the supply of our requirements at home... We are willing to agree that if, at any time, minerals should be discovered and worked on the said lands granted to us, a royalty of 5% of the net profits derived from such mining operations will be paid to the government."⁽¹⁾

This letter represents the first document in the dossier of the Buchans mines.

The 'Messrs. Harmsworth' were Alfred and Harold Harmsworth (later the lords Northcliffe and Rothermere respectively), publishers of London's *Daily Mail* and *Daily Mirror*. They wanted to establish a pulp and paper industry in Newfoundland because they feared that their existing newsprint shipments from Scandinavia would be disrupted in the event of a major European war, which in 1903 seemed imminent.⁽²⁾ Beeton initially intimated that the Harmsworths would accept land around either the Red Indian Lake and Victoria Lake watershed or the Grand Lake and Deer Lake watershed. However, upon learning that large portions of the latter area belonged to other concerns, Beeton specifically requested the former locale; the Harmsworths, said he, expected total control over their selected concession.

Total control is what they got. On 7 January 1905, Beeton and the Harmsworths incorporated the Anglo-Newfoundland Development Company Limited (A.N.D. Co.); five days later the Newfoundland

Chapter VII: Buchans: Company Town in Transition

ONCE UPON A MINE Story of Pre-Confederation Mines on the Island

of Newfoundland by Wendy Martin

government granted the company exclusive timber, water and mineral rights for 99 years to a 2320-square-mile area surrounding the Red Indian and Victoria lakes.

The terms of the A.N.D. Co. grant stipulated that within three years the company had to have a survey completed of the concession boundaries. Hardly had the concession agreement been ratified by the Newfoundland government on 15 June 1905 than the A.N.D. Co. hired Sullivan and Canning, Chemists and Surveyors of St. John's, to survey the grant and also to assess its mineral potential. The company in particular asked surveyors to look for deposits of sulphur, it being an essential ingredient in the pulp-making process.

The survey company mounted a prospecting party consisting of two men. One was William F. Canning, the firm's junior partner and an assayer who had studied mining engineering at McGill University.⁽³⁾ The other man was a Montagnais-Micmac Indian named Matthew or 'Matty' Mitchell.

Frustratingly little is known about the life of Matty Mitchell. He was born in Halls Bay, lived in Bonne Bay in the early 1900s and hunted around that time near Norris Arm. He knew the Newfoundland interior intimately and in 1908 guided a small party of people and an imported herd of Lapland reindeer along the 400 miles from St. Anthony to Millertown under formidable weather conditions.⁽⁴⁾ Despite this

paucity of information, Matty Mitchell's place in history is secure, for it was he who found the Buchans River orebody that gave rise to the Buchans mines.



Matty Mitchell, discoverer of the original Buchans orebody. (VII/1.) Larger Version (18 kb)

One of the rare documented references to Matty Mitchell tells that he held the hereditary chieftancy of the Montagnais-Micmac Indian tribe.⁽⁵⁾ Like many of his people, he knew that ore minerals existed along the waterways of central Newfoundland.⁽⁶⁾ It is uncertain whether or not Mitchell, when hired in 1905 to guide William Canning, had already seen mineral deposits near Red Indian Lake. The Montagnais-Micmac legends of ore in the district suggest that he could have had prior knowledge; the rapidity with which he and Canning located-or relocated-ore, once they commenced their prospecting trip, implies that he might well have

simply led Canning to a previously discovered ore showing.

Matty Mitchell and William Canning left Grand Falls on 15 September 1905 and began to explore the north shore of Red Indian Lake. Within days they found three outcrops of lead and copper ore along the Buchans River⁽⁷⁾ (known then as the Sandy River), which flows into the lake. They went on to investigate other streams, but, at the company's insistence, returned in mid-October to look again at the Buchans River deposits.⁽⁸⁾ The more they uncovered the ore the better

it looked; and the more the A.N.D. Co. directors read of Canning's report the more feasible it seemed to them to develop the deposits. In the spring of 1906, they decided to mine the Buchans River orebody.

The Buchans River mining operation came to be regarded in later years as a classic of mining technology; world-famous scientists contributed to its development, and the most sophisticated equipment filled its premises. Yet in the beginning, from 1906 to 1911, the mine possessed the staff and atmosphere of a Notre Dame Bay copper mine. The original mine captains were Little Bay's John R. Stewart, discoverer of the Mings Bight gold deposits; and Pilleys Island's One-Armed Daniel McCuish. The miners that swung the first picks into the Buchans River orebody were from the Little Bay, Pilleys Island and Betts Cove mines. How many of those men realized then that they represented the human link between the old and the new in Newfoundland mining: between the nineteenth-century Notre Dame Bay copper mines and the twentieth-century Buchans mines?

William Scott, chief engineer of the A.N.D. Co., took advantage of his experienced crew by sending out men to prospect the adjacent areas in the summer of 1907. That fall they staked an iron and copper showing along the Victoria River south of Red Indian Lake. Daniel McCuish and six miners went directly to Victoria River and, on November 1, started to explore the property with two shafts. A careful examination of the site today sometimes reveals pieces of the miners' picks and iron tools that belonged to the blacksmith, Larry Furlong.

John Stewart, meanwhile, had left Buchans River and had been replaced as mine captain by Dennis Glavine of Fortune Harbour, Notre Dame Bay. Beginning in 1907, Glavine and the miners sank a shaft on the Buchans River orebody. Their labours continued for about three years, and by 1910 geologists were able to delineate a lens of ore containing 100,000 tons of fine-grained zinc, lead and copper sulphides.

The A.N.D. Co. exported a 1000-ton sample cargo of the ore to Sweden in 1910 and promptly became embroiled in a dispute with the Newfoundland government as to whether or not the company owed royalties on the ore.⁽⁹⁾ Its reluctance to pay the tax was understandable, for the ore's test results confirmed what some company officials already suspected: the ore was too fine-grained and complex a mixture for the component metals to be separated by known scientific means. Even had the ore been treatable, its combined volume and grade-100,000 tons of 18 per cent zinc, 10 per cent lead and 1.5 per cent copper⁽¹⁰⁾-was not worth the expense of establishing a mine in the Newfoundland interior.

Discovery of the ore's unsuitability quenched the A.N.D. Co.'s mining ambitions and rendered temporarily redundant its Terra Nova Properties Limited, a subsidiary firm which on 1 October 1908 had been assigned the mineral rights to all A.N.D. Co. land holdings. Additional work failed to increase the ore tonnage assessment, and in 1911 the A.N.D. Co. discontinued both the Buchans River and Victoria River mines to concentrate on its growing pulp and paper mill

at Grand Falls.

It is impossible to know what might have befallen the Buchans River orebody after 1911 had not two unrelated incidents merged. In 1915 or 1916, Harold A. Guess, vice-president of the American Smelting and Refining Company Limited (ASARCO), noticed a short journal article outlining the history and failure of the Buchans River mine. He read with interest of the ore's complex composition, particularly as his company was in constant search of new metallic orebodies.

About this time, a small ore shipment from Newfoundland's Crow Head or Sleepy Cove mine arrived in New York and was unloaded on the city docks a short distance from ASARCO's New York offices. One can only speculate upon what happened. Guess apparently learned that the Newfoundland ore sat by, unclaimed, and bought it in the hope that it might be from Buchans River. Although he would quickly have realized the ore's true origin, it whetted his appetite, and on 13 July 1916 he wrote a letter to William Scott of the A.N.D. Co.:

"Some friends of mine, familiar with Newfoundland, were telling me that your company, the Terra Nova Properties Limited, had a large body of good grade, though complex, ore opened up, but now idle, as I recall at Buchans River mine, and I was wondering whether it might be of a sort which we could take a long term lease on terms that would be mutually satisfactory."⁽¹¹⁾

The A.N.D. Co. responded to the letter by sending Guess 25 pounds of ore samples. It is no exaggeration to say that those samples were perhaps the most significant mineral specimens ever to leave Newfoundland; through them, ASARCO came to the Island and created the mining town of Buchans with all its associated joys and sorrows.

Circumstances that transpired between ASARCO's receiving the ore and the company's coming to Newfoundland are repeated in practically every scientific treatise on the Buchans mines. ASARCO metallurgists tested the ore over the years using new methods and chemicals as they came on the market. In 1925, they devised a profitable means of treating lead and zinc concentrates from the ore, using a variation of the selective flotation technique⁽¹²⁾, and informed the A.N.D. Co. of the breakthrough. What scientific reports do not relate is that George Laycock, a mining engineer with the A.N.D. Co., sailed at once to New York upon hearing the good news and there in his hotel room held the first of many meetings with Harold Guess.⁽¹³⁾ Negotiations between the two men expanded into negotiations between their respective directors; and on 18 March 1926 they signed an agreement whereby Terra Nova Properties Limited gave ASARCO the right to prospect for and mine any orebody within a 20-mile radius of (and including) the Buchans River mine in exchange for 50 per cent of the mining profits.

The man that ASARCO chose to manage the Buchans operation was J. Ward Williams. He came from the depths of South America in mid-May 1926, but had to spend eight days waiting for Red Indian Lake to thaw before he and ten miners could proceed to the mine site. Among the miners was Dennis Glavine, who had reappeared in Newfoundland on a visit from the United States and had been persuaded to take on his old job of mine captain. Another man, Billy Tilley, had served as a mechanic in the opening days of the Buchans River mine. Although he had gone to work for the Silver Cliff Mining Company Limited in Placentia Bay in 1922, he, like Glavine, was lured back to Buchans in 1926.⁽¹³⁾

A few weeks after Ward Williams and the crew of miners reached Buchans River, the next boatload of experts arrived. They were Hans Lundberg and others of the Swedish American Electrical Prospecting Company, hired to use their innovative electrical prospecting technique in locating additional orebodies at Buchans. Harold Guess had told Lundberg to test the method on one-and only one-square mile of land around the Buchans River shaft.⁽¹⁴⁾ Few North American companies had yet employed the new technique: hence Guess' stipulated limit.

It is well for ASARCO that Ward Williams disregarded Guess' orders. Hans Lundberg and his assistants began their electrical survey in early June and in a few weeks detected a small anomaly. Diamond drilling on the anomaly site revealed an orebody which, because it sat to the east of the original mine shaft, they called the "Oriental" orebody. Upon transferring their equipment slightly westward in July, the men detected a second stronger anomaly that to Williams' chagrin lay beyond the one-square-mile limit. Guess granted the men permission to move the geophysical survey to a spot three miles west of the old shaft. Williams, however, had his own ideas. He balanced his intuition against Guess' possible ire and then told Lundberg to explore a different locale nearer to the shaft.

This was no easy task. The Swedes were working in boggy terrain swarming with black flies that "made it difficult to see the pickets through the telescope".⁽¹⁵⁾ Equally troublesome were a mother bear and two cubs who showed a disconcerting curiosity in the noisy scientific instruments and their operators. Nevertheless, the men persevered and in mid-July received their reward: while searching for bedrock in the vicinity of the second anomaly, they found:

"...massive lead-zinc mineralisation. Throughout the night my assistant and I kept digging, sometimes with our bare hands, convinced that our indication was going to make mining history... During the night my assistant, Hjortzberg-Nordlund, said in his broken English: 'This is sure a lucky find'. Williams corrected him, 'not a lucky find, but a lucky strike'. The name Lucky Strike has remained with the mine ever since."⁽¹⁶⁾

The Lucky Strike and Oriental orebodies between them contained about 6.6 million tons of ore: more than enough to support a commercial mining operation.

Being armed with the knowledge that it possessed valuable mineral

holdings gave ASARCO the weaponry to handle the Newfoundland government and Terra Nova Properties, the A.N.D. Co. subsidiary. First, ASARCO organized its own subsidiary, the Buchans Mining Company Limited, in January 1927. That done, it approached the Terra Nova Company to renegotiate the 1926 agreement. What changes ASARCO originally hoped to extract from the Terra Nova Company are uncertain; but as both firms had equally shrewd directors the new agreement of 12 December 1928 differed substantially from the 1926 version only in that it gave ASARCO the rights to all mines and minerals within a 30 (not 20) mile radius of the Buchans River mine for a period of 50 (not 25) years. Terra Nova Properties still commanded 50 per cent of the profits after allowing for ASARCO's interest and amortization charges.

ASARCO anticipated softer treatment from the Newfoundland government and asked Prime Minister Monroe for 20 years of free importation of mining and other materials. As the company expected, the request was granted, but not without sparking weeks of debate in the House of Assembly. Some members accused the company of using Newfoundland's desperate poverty and unemployment to bluff the government into granting whatever it asked. Others thought the request acceptable, though ASARCO absolutely refused to specify what it wished to import.

Members backing the 'Buchans Mine Bill' referred to the rising fame of the Buchans area. They described how the Buchans ore had influenced advancement of selective flotation technology and how the ore deposits' discovery represented a spectacular example of successful electrical prospecting. They pointed out that the publicity over Buchans had led the Empire Mining and Metallurgical Congress to hold its 1927 meeting in St. John's and to visit the mine site.

In the face of such acclaim the Newfoundland government could not afford to risk losing the prestigious mine by offending ASARCO. It consequently passed the Buchans Mine Bill in September 1927.

ASARCO appeared to be fairly confident of (or indifferent to) the Buchans Mine Bill's passage, for it began full-scale mine development under the Buchans Mining Company in the winter of 1926-27, nearly a year before the bill became law. The bulk of the mining equipment, housing supplies, food and other necessities travelled by train to Millertown and by tractor and sled over the frozen lake to the mine site. Next spring, more material was floated down the lake on scows and then hauled upriver by horse teams along a muddy, six-mile corduroy road.

As supplies and machinery accumulated alongside the Lucky Strike deposit, men from across Newfoundland assembled in Millertown, hoping to find employment with the Buchans Mining Company. For many, a job at Buchans would be the first they had held in months. They came bearing little but the clothes on their backs and, once hired, cheerfully bent those backs toward turning the silent tundra wilderness into an oasis of angular buildings. They erected a crushing plant and concentrating mill, ore storage sheds and a small hydroelectric dam across the Buchans River. They also laid the colourful and controversial Buchans Railway.

Government opposition to the railway arose at its inception in the spring of 1927. At first Members of the House of Assembly grumbled about the railway competing with the government's own Newfoundland Railway.⁽¹⁷⁾ As the line progressed the grumblings grew louder. Indignant politicians complained that the company was running the track through granted *and* ungranted land alike without applying for permission, and-insult upon injury-was building the line with materials imported duty-free under the Buchans Mine Bill. Calmer and more far-sighted members expressed concern that a private railway leading into Buchans would make the community become a 'closed town'.⁽¹⁸⁾ ASARCO assured the government that this would not happen, but time showed the members' fears to be well-grounded.

The A.N.D. Co. and ASARCO simply ignored all government protestations. They knew, as did the government, that both the 1905 Act and the Buchans Mine Bill clearly permitted the railway construction. The Buchans Mining Company completed the railway in November 1927 and in the following summer opened up the Lucky Strike orebody.

Nature initially seemed to conspire against the Buchans Mining Company. Barely had excavations started than the Buchans River burst through the hydroelectric dam, washing away the railway trestle and flooding the barracks. The company learned its lesson and laid new transmission lines to a more reliable power source at Deer Lake. In September 1928, the first lead and zinc concentrates emerged from the mill and travelled by gondola cars along the Buchans and Newfoundland railways to Botwood. Buchans Mining Company representatives supervised the concentrates passing from the train to the S.S. *Kiruna*. They watched proudly as the ship departed on December 1 for Europe; and they reacted with disbelief when she limped back into port a few hours later, listing severely from a shifted cargo. The encroaching winter prevented the ship from leaving again that season, but in the spring of 1929 she reached her destination.



Buchans mine: the boys, c. 1930. (VII/2.) Larger Version (29 kb)

From these inauspicious beginnings Buchans quickly grew into a proper mining town. The original church-a canvas tent shared on successive Sundays by the Anglican, United and Roman Catholic congregations-gave way to more permanent structures. The town hall doubled on Saturday nights as a movie hall. As the lead

and zinc concentrates won markets in France, Belgium, Germany, Britain and the United States, the Lucky Strike profits began to rival those of the Wabana operations.

Buchans, Wabana and Aguathuna were the only Newfoundland mines

to work through the Depression. Three changes in mining strategy enabled the Buchans Mining Company to survive the slump in world metal prices. In 1931 it enlarged its concentrating mill, making production and profits double. In 1935 it increased production further by opening up the Oriental orebody. Also in 1935 it began to extract copper as well as zinc and lead from its ore.⁽¹⁹⁾ These advances allowed the company not only to weather the Depression, but actually to recoup its \$7 million capital outlay by 1936.⁽²⁰⁾

However, there was another side to the story. Had the company paid the Buchans miners salaries equivalent to those received by their American ASARCO counterparts, its rate of recuperation would have been slower; and had the Buchans miners been less hungry for jobs, they might have rebelled sooner than they did. Instead, they waited until 1941, the height of World War II, to launch a protest against the Buchans Mining Company.

It is no coincidence that both the St. Lawrence and the Buchans mines experienced their first strikes in 1941. Miners from the two communities had laboured throughout the 'Dirty Thirties' for minimal wages and under depressing working conditions. When the frustrated men became intoxicated by the effervescence of the war-rejuvenated economy, they roused up and confronted their employers with grievances that had been a decade in the brewing.

The first Buchans Workmen's Protective Union strike began on 1 August 1941 and was branded at once as being unpatriotic. "The dispute," said the accusers, "will diminish lead and zinc production and jeopardise the Imperial war effort." "The miners," said the government, "must return to work," and it prohibited the strike. It then tried to appease the union by appointment a tribunal investigation of the dispute, but the gesture failed. The miners refused to budge unless the tribunal came to Buchans.

At this, the government dispatched 70 members of the Newfoundland constabulary to Buchans to quell the rebellious miners. Eyewitnesses related that the union's ire upon the constables' arrival was matched only by the constables' reluctance to leave the safety of the train when it came to a halt in Buchans before a mob of miners. Fury dissolved into friendliness, however, and before long both sides were happily sharing liquid refreshments.

In the end the miners had their way. The tribunal left for Buchans in mid-August, the miners returned to work and the constables went home.

On August 16, the tribunal began to review the miners' list of grievances. They ranged from wages through public health to dissatisfaction with the bunkhouses and the mess hall. Curiously, the union did not mention the problem of the rockfalls that plagued the mines' underground reaches. Several men had been killed already by what the miners called a 'fall of ground'. The ghosts of the victims, it was said, sometimes appeared to men working alone. Some of the strike issues were petty: "At Oriental Mine men have to boil their own kettles for lunch; at Lucky Strike hot water is provided,"⁽²¹⁾ but others deserved serious consideration, more serious than the tribunal was equipped or prepared to give. The tribunal adopted a cavalier attitude toward impure air in the mill. It admitted that the flotation tank chemicals endangered miners, health, but pleaded an ignorance of the details without suggesting the appointment of a more competent body to study the matter. It said that the company probably could not prevent sulphur dioxide-a deadly gas- from passing through the mill. It also dismissed charges that the shaft elevator had at times been left unattended, saying: "No present ground of complaint was proved."⁽²²⁾



The original Buchans gloryhole. (VII/3.) Larger Version (31 kb)

The tribunal recommended that the company raise the miners' average hourly salary from 42 cents to 471/2 cents, but tempered the recommendation with the opinion that the Buchans miners were far better off than the majority of Canadian workers. Perhaps the most revealing statement in the report, and one which

shed light upon the tribunal's attitude and also upon an underlying reason for the union's dissatisfaction, was the following: "As this is a mining town centered around a short-lived mine, the Company can not be asked to do too much."⁽²³⁾

As the years passed by, the difference of opinion over what defined 'short-lived' and 'too much' was to become a highly contentious issue between the company and the union.

What was the live expectancy of the Buchans mines? The estimate changed almost annually, a phenomenon comprehensible to men in the mineral exploration business, but puzzling to the miners. When gradual depletion of the high-grade ore in the Lucky Strike mine forced the company to reopen the old Buchans river mine in 1943 and to announce that total ore reserves would last only five years longer, some workers accused the management of deliberately understating ore estimates to avoid community responsibility. When diamond drilling conducted in the last 1940s revealed a new group of orebodies, a few suspicious miners assured their companions that the company had 'known all along'. Such was the trust between the company and its employees at that time.

The new deposits gave rise to the Rothermere mine (named after the A.N.D. Co. director, Lord Rothermere) and the MacLean mine (named after a Buchans Mining Company geologist, H.J. MacLean, who perished in a plane crash) in 1952 and 1962 respectively. The orebodies lay much deeper than the previously mined Buchans deposits and required more elaborate mining preparation, but their large tonnage excused the added expense: the Rothermere and MacLean mines between them contained enough ore to keep the Buchans mining operation alive for at least another 15 years.

While Buchans Mining Company geologists and drillers busily sought new orebodies in the 1940s and '50s, the company management, stung by the 1941 strike, set out to amend its image by subsidizing a number of sport and recreational facilities for the town. The skating arena, fashioned from a converted ore storage shed, was the most popular of these and served as the home rink of the Buchans Miners hockey team. In the winter the team formed the focal point of Buchans. Residents still talk about the parties held aboard crowded and well-lubricated railway cars as the team and its supporters head out to combat the Grand Falls Andcos or the Bell Island Miners. They recall with glee how in home games the local Buchans populous strongly urged supporters of the visiting team to sit in a corner and cheer discreetly.

Yet all the flurry of community improvements only emphasized the people's dependence upon the company. No amount of facilities could mask Buchans' basic problem: it was a closed company town from which the only means of exit was the company railway. Many grievances left unresolved by the 1941 strike resulted from this fact; and because they remained unresolved they surfaced again more violently in later strikes.

The most obvious grievance involved the practical aspects of everyday life. As all incoming goods had to pass over the railway, price-fixing sometimes occurred among town stores. Medical services suffered, for few doctors cared to remain longer than a year in the mining town. Worst of all was the housing situation. Had miners been allowed to build their own homes and establish a sense of permanence in Buchans, they might have felt the drawbacks of isolation less intensely. Unfortunately, the company adopted a 'no private dwellings' policy that forced men to live either in badly maintained company houses or, more often, in vermin-infested bunkhouses. The low rental charged for both dwelling types could not alleviate the demoralizing predicament of one's employer being one's landlord.

Added to the tangible grievances were the intangible elements that characterize most closed company towns. So much did ASARCO deliberately dominate Buchans that the people unconsciously felt its presence in every waking moment. Just knowing that the company could, if it desired, deny a man the right to leave town placed upon Buchans residents subtle psychological pressures that could only be imagined by those on the outside.

When, in 1956, the long-awaited road out of town finally came through from Badger, a flame of independence was fanned that continued throughout the 1960s. In 1956 a miner, fed up with the housing shortage, moved his family across the Buchans river to just beyond the company boundaries and built his own home. Others followed him until by 1960 sixty families inhabited what locals called "Pigeon Inlet".⁽²⁴⁾ Though the offshoot settlement was short-lived (in 1963 the lack of essential services obliged Pigeon Inleters to relocate closer to Buchans and to form another settlement called the "Townsite"), it represented the miners' initial step toward lessening their dependence upon the company.

ASARCO sensed the temper of the town and accelerated its community improvement program in the 1960s in the hopes of mollifying labour unrest. The 1960s did indeed appear to be relatively happy and prosperous times. Yet appearances can be deceptive. The miners had sublimated too many grievances to be truly content; and in 1971 Buchans' flickering flame of independence flared up into a major strike.

The Buchans of 1971 differed vastly from the Buchans of 1941 when the miners staged their first strike or from the Buchans of 1955 when they instigated a second, and ineffectual, strike. The population had risen to 2400 people. The unstable Buchans Workers Protective Union had given way in 1956 to local 5457 of the United Steelworkers of America, a powerful and far-reaching union. The two companies controlling the Buchans mines had also changed their face: on 23 December 1958, ASARCO had replaced the Buchans Mining Company Limited with the American Smelting and Refining Company, Buchans Unit; and on 30 April 1962, the A.N.D. Co. had come under the control of Price Company Limited.⁽²⁵⁾

Most significant for the townspeople were the changes surrounding the Buchans mine site. The Lucky Strike and Oriental mines inoperative and the remaining Rothermere and MaClean mines contained only eight more years worth of ore. Mining and concentrating costs had risen; metal prices on the other hand had dropped. ASARCO was therefore less amendable to compromise that it had been 30 years earlier.

The expiration of the union's working contract on 28 February 1971 gave ASARCO a chance to exercise its new philosophy. When the union asked for a 88-cent-per-hour wage increase over two years the company offered 30 cents. When the union went on strike on June 18, the company, instead of moving to negotiate, adopted a 'wait and see' attitude that infuriated the miners who, after 16 strikeless years, expected better treatment. Their fury intensified upon learning that ASARCO had just granted a 92-cent-per-hour wage increase to their American counterparts, who already were receiving \$1 more per hour than themselves.

It took the miners nearly three months of being ignored by ASARCO to realize that unless they took the initiative the strike might go on indefinitely. On September 4, the union asked the Newfoundland government to call a meeting and request the company to attend the bargaining table. The meeting took place in Grand Falls. Halfway through the proceedings company representatives inexplicably walked out, returned to their hotel and refused further discussions. At this, the union unleashed its full power. Local 5457 included workers who maintained essential services to Buchans: Local 5457 therefore cut off those services and sat back to await the company's reaction.

Two months more passed by. The hospital supplied only minimal treatment; the schools operated sporadically. Still ASARCO made no move. Fifty of the younger miners left Buchans to work in the

Labrador iron mines; the older men reluctantly dug into their retirement savings to supplement the strike pay:

"Some men have left their families To find a job elsewhere Some have gone to the mainland And more to Stephenville And some have left to settle down But quite against their will Meanwhile up in Buchans The strike continues still."⁽²⁶⁾

At last the break came. On November 1, the company approached the union with a 55-cent-per-hour increase over two years plus a generous collective agreement that included free health care, accident and life insurance. Bill Parsons, the United Steelworkers of America international representative, advised the union to accept the offer. The workers cast their ballots: 52.4 per cent opposed! Although most older men had voted for the contract, the younger, more militant, ones had balked at receiving a 55-cent raise for an 18-week strike.

Morale in Buchans plummeted as people faced the prospect of surviving winter on the strike pay of \$20 per week. The more workers talked amongst themselves and to their wives, the more they regretted turning down the contract. ASARCO saw their mood and supplemented its offer with the promise to freeze rent and coal prices during the term of the agreement. The workers voted again on November 12 and the ballots tallied up to 64 per cent in favour. The strike was over.

Life in Buchans for the time being returned to normal. Concentrate production, which had dropped sharply during the strike months of 1971, picked up again in 1972. ASARCO's larger profits for 1972 reflected both this increased production and an improvement in world base metal prices.

All went smoothly until the union met ASARCO in February 1973 to renew the 1971 contract. The two sides battled back and forth, with the company offering 60 cents more per hour and the union pointing to the enlarged 1972 profits. Negotiations ceased when union members voted against what they called an "insulting offer"; and in March, 16 months after returning to work from the 1971 strike, they put up their picket lines again.

Whether because miners felt that Buchans' days were numbered or because of the escalated cost of living or simply because of the times, the 1973 Buchans strike possessed a desperate air. After only two weeks of striking, the union cut off the town's essential services. Failing thus to force ASARCO's hand, members attached a loudspeaker to a car top and paraded in front of the local management's homes singing out anti-ASARCO songs composed for the occasion by a worker, Angus Lane of Fortune Harbour. Wives and children lent men their vocal and moral support. It is important to note that little discrepancy existed between the average wages demanded by the union and offered by the company. As one journalist put it, Buchans was "not so much a mining site caught in an industrial dispute as a community in the throes of a dying lifestyle."⁽²⁷⁾ Consciously or otherwise, striking workers were seeking to discard traces of their company town harness as well as to obtain higher wages. In 1973, more than ever before, their desire to strike within the law only just balanced their sensitivity toward any company actions suggestive of arrogance.

Suddenly on April 24 the balance skewed wildly. An irate ASARCO geologist literally broke through the picket line with his car, slightly injuring one man. The miners became livid. They overturned his car, stoned his greenhouse and compelled him to flee Buchans. For his own safety, ASARCO transferred the man from Newfoundland. However, the townsmen had not yet exorcized their rage. A week later they toppled a train caboose that had been used to mask a strike-breaking gasoline truck. Next, they marched over to the ASARCO buildings where they broke windows, ransacked files and generally turned offices inside out. Things had gotten out of hand.

The violence, regrettable though it was, forced the strike to the attention of provincial and federal governments, the former of which appointed Howard Dyer of Memorial University of Newfoundland to conduct a two-part inquiry into the dispute. The first Dyer Commission Report appeared within three weeks of its appointment and achieved instant popularity with the union for recommending that the miners receive a 92-cent-per-hour average wage increase over two years. Had ASARCO accepted the wage recommendations, the strike would have ended there and then. Instead, the company rejected it and forced negotiations to cease again.

The strike continued. In mid-August the Newfoundland government at last ordered ASARCO's vice-president of industrial relations to fly to St. John's for consultation. The man arrived and talks began. Buchans waited as ASARCO representatives, local and national union heads and government officials determined the town's fate. Upon emerging, the company made its third and final offer of an 87-cents-an-hour average wage increase over three years: a figure nearly identical to that proposed by the Dyer Commission four months earlier. Local 5457 approved the raise and so ended the strike.

Resolution of the 1973 strike brought a lull to Buchans. For 29 weeks the workers' energies had been directed toward coping with an unreal atmosphere of confusion and violence. Once back at their regular jobs they came to realize that the vital questions concerning Buchans' future still remained unanswered: how would Buchans be affected when the 50-year contract between ASARCO and Terra Nova Properties expired in March 1976; and what would happen to the town and its people when available ore reserves ran out in 1979?

The first uncertainty ended on 17 March 1976 with ASARCO Incorporated, Buchans Unit⁽²⁸⁾ and Price (Nfld.) Pulp and Paper Limited⁽²⁹⁾ signing a new contract whereby Price repossessed its original mineral exploration rights over the entire 1905 A.N.D. Co. concession area except for the mine site. The two companies agreed to continue sharing the profits from the existing mines and from any future mines developed on deposits discovered by ASARCO prior to March 1976.

The second uncertainty is still unresolved. Upon the recommendation of the final Dyer Commission Report, the Newfoundland government appointed a Buchans Task Force in April 1975 to study effects of the mines' closure on Buchans and to suggest alternative livelihoods for the community. The task force received acclaim both within and beyond Buchans, but few of its worthy recommendations have yet to be implemented.

The mining operation at Buchans now hands in the balance. The Price Company may locate enough ore reserves for mining to continue; if not, Buchans will have to devise an alternative economic base.

On 26 June 1979, Buchans finally came into its own as a full-fledged community: the Townsite amalgamated with the company-owned portion of town under a town council and became incorporated into the Town of Buchans. Thus, whatever Buchans' future-be it as a mining town, a tourist centre or an agricultural and logging centre-the people now possess the administrative means of determining their own destiny.

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Chapter VIII: For Future Reference

ONCE UPON A MINE Story of Pre-Confederation Mines on the Island



of Newfoundland by Wendy Martin

The three Gillard brothers, c. 1900. George on left generally is acknowledged as the discoverer of the Gull Pond copper deposits in 1905. (Some sources credit a Micmac, Levi Joe, with the discovery in 1903). (VIII/1.) Larger Version (26 kb)

fruition after 1949.

As 'Once Upon A Mine' is primarily the story of the pre-Confederation mines of Newfoundland - that is, of those operations that began before 1949 - this narrative might properly conclude with the account of the Buchans mines. Yet several post-Confederation mines had their origins in the nineteenth and twentieth centuries, so that to list the properties mined in Newfoundland after 1949 is in some cases to repeat names of mines or prospects mentioned in earlier chapters of the book. The Tile Cove and Little Bay copper mines were reopened, as was the Manuels pyrophyllite quarry; the Whalesback, Gull Pond and Rambler copper prospects, discovered in 1879, 1903 and 1904 respectively, also came to

Revival of these old mines and prospects, and the discovery and development of new ones, were attributable in part to the one feature that above all characterized post-Confederation mining in Newfoundland: direct and intimate government involvement in the mining industry. In an effort to transform the new province into a haven for mining investors, Premier Joseph R. Smallwood (1949-72) had his government pass a veritable sheaf of acts designed to encourage mineral exploration in Newfoundland and Labrador. More mining-related legislation emerged from the House of Assembly between 1950 and 1960 than in the preceding century of the House's existence!

Many of the acts concerned ratification of concession agreements with mining companies and individuals. The agreements varied in detail, but in general gave recipients exclusive exploration rights to specific areas of the province for terms ranging from two to twenty years, during which period the recipient could obtain a lease or development license for part of the property. Although the practice of granting mineral concessions had some precedent in Newfoundland - the Reid and telegraph lots and the A.N.D. Co. concession, for example - it reached a peak between 1950 and 1970; in those years, 28 companies or individuals acquired mineral concessions covering much of Newfoundland and Labrador.

The generosity of area and terms of the concession agreements received (and continue to receive) criticism. Detractors insisted that time spans allotted for most of the agreements were too long and too readily extended. They also pointed out that agreements usually required concession owners to spend only a few cents per acre on the ground and that some concessions were so immense as to preclude the possibility of recipients' performing efficient and thorough exploration on even a fraction of the territory. Supporters of the concession system enumerated the mines opened in Newfoundland during the concession decades. The 1950s and '60s, however, were times of increased mining activity right across Canada. Considering this overall mining renewal plus the fact that Newfoundland's entrance into Canada brought about a rise in Canadian investment in Newfoundland and Labrador, it might well be argued that the province's mining industry would have picked up after 1949 in any case, with or without the concession program.

One of the most significant concession agreements regarding insular Newfoundland was the M. James Boylen (Confirmation of Agreement) Act, passed in 1955, giving Matthew James

Boylen of New Brunswick a concession to most of the Baie Verte Peninsula in northern Newfoundland. Boylen was a 48-year-old mining magnate who had prospected in his youth, made a fortune in his middle age and come to own a range of mining companies. A book could, and some day probably will, be written on M.J. Boylen and his business exploits; but for present purposes it is sufficient to say that he and his grandiose approach to mining appealed to the Newfoundland government, through whose direct and indirect influences Boylen was able to open (or reopen) the Tile Cove, Little Bay, Rambler and Gull Pond copper mines and the Advocate asbestos mine.

The Newfoundland government also tried to advance mining in the province by passing a bill in 1952 that provoked as much controversy as did the concession agreements: the Undeveloped Mineral Areas Act. The act gave the government the right to repossess mineral land such as fee-simple grants if, in its opinion, insufficient money or exploration activity had been expanded upon the property within the previous ten years. The application of the act was arbitrary. Numerous fee-simple grant owners remained in possession of their holdings despite having spent negligible sums on their development; and yet others lost their property to the government, only to see it given shortly thereafter to a third party. The government's actions under the auspices of the Undeveloped Mineral Areas Act undoubtedly hastened the opening of several mineral deposits that otherwise might have lain fallow for years; but in the process of implementing the act the government incurred the wrath of factions of the local and national mining community.

<u>Chart 1</u> lists the mines developed in insular Newfoundland during the concession era and outlines the government's role, through concessions and other means, in their initiation. Two-thirds of these operations are still active. Some of the others, although now inactive, may yet revive should prices of copper and gold rise sufficiently.

The story of the mines in <u>Chart 1</u> is far from over. An historian working 50 years from now will hopefully have access to information that is now confidential or otherwise unavailable. Then it may be possible to write in detail - and with temporal immunity from libel suits - of the deals and intrigues surrounding the more recent phase of mining in Newfoundland.

Perhaps the most consistent theme to emerge from this account of Newfoundland's mining history is a variation on George Bernard Shaw's belief that: "We learn from history that we learn nothing from history." Time and again, mining companies spent thousands of dollars on surface outlay with only a modicum of knowledge about the mineral deposits that they so earnestly hoped would yield their fortunes. Share-holders suffered continuously from mining promoters with little geological training and fewer scruples. It is no coincidence that the times of least mining activity in Newfoundland were the times of least geological surveying.

The problem of incomplete geological data is less prevalent now due to the battery of sophisticated instruments and techniques available to the modern mining company and prospector. However, a more perplexing problem that surfaced repeatedly in the past is one that still continues today: how can a government tread the fine line between encouraging and discouraging mineral exploration without succumbing to companies or individuals prone to bluffing their way, through threat of closure or retreat, into obtaining concessions, tax waivals and similar deals? Or, putting it more simply, how can a government derive the maximum amount of revenue from the mining industry without taxing or regulating it into oblivion?

A look at the record of the previous 120 years of Newfoundland's history shows that the government has had great difficulty in striking this balance. Regulations have been either so strict as to hinder exploration or so generous to certain companies as to lay the government open to charges of favouritism or weakfitedness.

However, such is the nature of industrial development in a region like Newfoundland in which high unemployment and a low standard of living have been the norm. An average government wants to remain in power, an average company wants to make maximum profits and an average man wants a job. These three desires combine to create the dilemma wherein a government has to concede to company demands so that the company will provide the jobs that help to keep the government in power.

Until Newfoundland manages to reduce the economic disadvantages of its people, the dilemma will continue. A prime means of improving the economy is by having a thriving mining industry. The resources are there, labour is there and expertise is available. Whether or not the government will learn from past errors and use wisely the powers vested in it to do justice to the resources, labour and expertise remains to be seen.

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Appendix I: Partial List of Companies Incorporated to Work Minerals in Newfoundland

ONCE UPON A MINE Story of Pre-Confederation Mines on the Island

of Newfoundland by Wendy Martin

The Newfoundland and Labrador Registry of Deeds contains a complete list of companies incorporated in Newfoundland after 1900 to work, develop, etc. minerals in Newfoundland and Labrador. Some documentation of mining companies incorporated in Newfoundland before 1900 exists in the Newfoundland and Labrador Provincial Archives, GN 2/37; these listings, however, are incomplete.

Table 1. List of early mining companies incorporated in Newfoundland

Company	Date of Incorporation	Place of Incorporation
Advocate Mines Ltd.	31 December 1954	Ontario
American Newfoundland Flurospar Company Ltd.	11 May 1937	Newfoundland
Atlantic Coast Copper Corporation Ltd.	15 May 1956	Ontario
Atlantic Gypsum Ltd.	7 February 1952	Newfoundland
Avalon Gold Mining Company Ltd.	27 February 1886	Newfoundland
The Bay de Verde Mining Company Ltd.	9 February 1901	Newfoundland
Bay of Islands State Syndicate Ltd.	1902?	Britain
Bear Cove Mines Company Ltd.	1907-08	Maine
Betts Cove Mining Company	1874?	Britain
Betts Cove Mining Company Ltd.	1878?	Britain
The Brick and Tile Manufacturing Company Ltd.	27 October 1890	Newfoundland
Buchans Mining Company Ltd.	29 January 1927	Newfoundland
C. and M. Pelly Ltd.	9 January 1953	Newfoundland
Cape Broyle Gold Mining Company Ltd.	5 March 1899	Newfoundland
Cliff Silver Mines Company Ltd.	1883?	Britain
Consolidated Rambler Mines Ltd.	20 January 1961	Ontario
Dominion Limestone Division	31 March 1949	Nova Scotia
Dominion Wabana Ore Ltd.	31 March 1949	Nova Scotia
The English Ridge Mining Company	24 November 1856	Newfoundland
Goldenville Mining Company Ltd.	17 July 1903	Newfoundland
Great Northern Copper Company Ltd.	1906?	South Dakota?
Green Bay Mining Company Ltd.	8 June 1973	Newfoundland
Gullbridge Mines Ltd.	14 November 1950	Ontario
Halifax Asbestos Company Ltd.	1892?	Halifax
Halifax Chrome Company Ltd.	1896?	Halifax

Humber Consolidated Mining & Manufacturing Company Ltd.	22 September 1902	New Jersey
Industrial Minerals Company of Newfoundland Ltd.	8 October 1941	Newfoundland
La Manche Mining Company	1863?	United States?
La Manche Mining Company Ltd.	18 November 1875	London, Eng.
Long Range (Newfoundland) Slate Quarries Ltd.	16 December 1906	London, Eng.
Newfoundland &Canadian Exploration Trust Ltd.	19 March 1891	London, Eng.
The Newfoundland Brick and Manufacturing Company Ltd.	13 May 1904	Newfoundland
The Newfoundland Consolidated Copper Mining Company Ltd.	23 September 1880	New York
The Newfoundland Copper Company Ltd.	8 March 1898	London, Eng.
Newfoundland Exploration Syndicate	17 November 1900	West Virginia
Newfoundland Flurospar Ltd.	21 December 1939	Newfoundland
Newfoundland Lime Manufacturing Company Ltd.	24 August 1912	Newfoundland
Newfoundland Mining Association	16 May 1857	London, Eng.
Newfoundland Mining Company Ltd.	1872?	London, Eng.
Newfoundland Molybdenum Company Ltd.	2 May 1936	Newfoundland
Newfoundland Oil Company	27 March 1894	Newfoundland
Newfoundland Oil Company Ltd.	19 January 1900	Newfoundland
Newfoundland Oilfields Ltd.	1910?	London, Eng.
Newfoundland Petroleum Company Ltd.	22 April 1902	Newfoundland
The Newfoundland Petroleum Ltd.	1 May 1905	Newfoundland
Newfoundland State Company Ltd.	1902?	New Jersey
New World Island Mining Syndicate Ltd.	1892	Britain
North American Talc Company	1903?	Maine
North Star Cement Ltd.	21 August 1951	Newfoundland
Notre Dame Mining Company	1869	Newfoundland
Notre Dame Mining Company Ltd.	19 January 1900	Newfoundland
Pelly-Shaw Newfoundland Ltd.	11 February 1966	Newfoundland
Pilleys Island Pyrites Company	1902?	New York
Pioneer Mining Syndicate Ltd.	11 June 1898	Newfoundland
Placentia Bay Lead Company	1860?	United States?
Port au Port Asbestos Company Ltd.	6 April 1894	Newfoundland
The Pyrites Company Ltd.	1891	Britain
Quidi Vidi Copper Company Ltd.	6 February 1909	Newfoundland
The Silver Cliff Mining Company Ltd.	26 June 1922	Newfoundland
Southwest Arm Mining Company	1876?	Newfoundland
The Standard Pyrites Company Ltd.	8 June 1889	Newfoundland
St. George's Coal Fields Company Ltd.	29 July 1918	Newfoundland
St. Lawrence Corporation of Newfoundland	23 November	Newfoundland
Ltd.	1931	
Terra Nova Company	1903?	New York
Terra Nova Mining Company	3 April 1860	Newfoundland

Terra Nova Properties Ltd.	1908	London, Eng.
Terra Nova Properties Ltd.*	22 May 1926	Newfoundland
Trinity Brick Products Ltd.	11 February 1966	Newfoundland
Trinity Brick Products (1972) Ltd.	28 April 1972	Newfoundland
The Turks Head Mining Company	29 November 1856	Newfoundland
Tilt Cove Copper Company Ltd.	4 April 1888	London, Eng.
Union Mining Company	1864?	Britain?
The Western Copper Company Ltd.	26 September 1902	Newfoundland
Western Oil Company Ltd.	1898?	New
		Brunswick?
York Harbour Copper Company Ltd.	7 March 1899	London, Eng.
York Harbour Mine (Newfoundland) Ltd.	7 October 1909	London, Eng.

*reincorporated

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Appendix II: Outline of Laws Governing the Acquisition of Mineral Lands in Newfoundland from 1860 to 1951

ONCE UPON A MINE Story of Pre-Confederation Mines on the Island

of Newfoundland by Wendy Martin

Between 1860 and 1951, regulations regarding the acquisition of mineral lands in Newfoundland were briefly as follows:

An interested party first had to obtain a mining license for a mining location, secondly a mining lease and lastly a fee-simple grant for that area. The financial expenditure and time interval required between each successive stage varied as the Crown Lands Act was amended over the years. The size of a mining location began as one square mile in 1860, and was reduced to one-half square mile in 1903 and to one-quarter square mile in 1930.

A fee-simple grant provided a title to a mining location in fee simple - that is, in perpetuity and without rentals - once a specific amount of money had been expended upon the property. Originally, the required amount was \$20,000 in the first eleven years of occupancy; this was changed in 1884 to \$6000 in the first five years of occupancy.

The original 2.5 per cent royalty imposed in 1860 on the gross produce of a mine was eliminated in 1872 by Charles Fox Bennett's government. Certain companies - namely the Buchans Mining Company Limited and the two companies mining iron ore on Bell Island - later had to pay a designated royalty. In 1930, the government imposed a 5 per cent royalty on the net profits of all mining ventures in Newfoundland, except for the Bell Island iron mines, which came under separate legislation, and which were taxed according to the tonnage of ore shipped.

The foregoing system of land acquisition and taxation was altered substantially in 1951; fee-simple grants, for example, are no longer available. Details of the Crown Lands (Mines and Quarries) Act and its later amendments may be obtained from the Newfoundland and Labrador Department of Mines and Energy.

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Abbreviations Used

CE UPON

of Newfoundland by Wendy Martin

Story of Pre-Confederation Mines on the Island

P.A.N.L. Provincial Archives of Newfoundland and Labrador; notation in brackets after P.A.N.L. refers to call number used by Provincial Archives.

MINE

A

C.N.S. Centre for Newfoundland and Studies; on campus of Memorial University of Newfoundland, St. John's.

D.M.E. Department of Mines and Energy, Provincial Government of Newfoundland and Labrador; refers to reports found in files of that Department.

J.H.A. Newfoundland Journal of the House of Assembly; found in Centre for Newfoundland Studies.

Footnotes: Chapter I

- 1. L.A. Anspach, A History of the Island of Newfoundland, p. 370.
- 2. C. Slafter, ed., Sir Humfrey Gylberte and his Enterprise of Colonization in America, pp. 150-155.
- 3. G.T. Cell, English Enterprise in Newfoundland: 1577-1660, p. 59.
- 4. Ibid., p. 72.
- 5. D.W. Prowse, A History of Newfoundland, p. 328.
- 6. *Alberti Transcripts*, P.A.N.L. (GB4), pp. 157-171; and A. Dunn to Governor, 3 October 1777, P.A.N.L. (GN2/1 vol. 7)
- 7. J. Hiller, draft of "Charles James Fox Bennett", entry in *Dictionary of Canadian Biography*. Hereafter cited as J. Hiller, "Bennett".
- 8. M. Harrington, The Prime Ministers of Newfoundland, pp. 18-19.
- 9. J. Hiller, "Bennett".
- 10. P.A.N.L. (GN1/3A/1858).
- 11. H.M. Field, *History of the Atlantic Cable*, p. 21.
- 12. J.H.A., 1860-61, p. 511.
- 13. Biographical account of Frederick N. Gisbourne in files of Bobbie Robertson, Newfoundland Historical Society, Colonial Building, St. John's.
- 14. H.M. Field, History of the Atlantic Cable, pp. 25-26.
- 15. D.E. Woodbridge, "Newfoundland Its Resources", *Engineering and Mining Journal*, vol. 123 (1927), p. 400.
- 16. J.T. Mullock, Two Lectures on Newfoundland, p. 35.
- 17. R.T. McGrath, Past and Present, A Glance at Placentia Bay, C.N.S., p. 4.
- 18. Entry of 12 July 1858, diary of Harry T. Verran, private collection of Randall Verran (hereafter cited as *Verran Papers*).
- 19. H.T. Verran to F. Sheppard, 18 March 1861, Verran Papers.
- 20. R.S. Ripley to J. Kent, 4 December 1858, P.A.N.L. (GN1/3A/1858).
- 21. W. Wingfield-Bonnyn, Newfoundland Colonisation Handbook, p. 7.
- 22. 23 June 1860, Verran Papers.
- 23. A. Murray and J. Howley, *Geological Survey of Newfoundland Reports 1881-1909*, p. 227. Hereafter cited as *G.S.N. 1881-1909*.
- 24. Morning Chronicle, 7 December 1880.
- 25. Musty Past, P.A.N.L. (P5/24). p. 175.
- 26. Morning Chronicle, 7 December 1880.
- 27. Newfoundland Law Reports 1874-1884, p. 178.

- 28. V.S. Papezik, "Nickel Minerals at Tilt Cove, Notre Dame Bay, Newfoundland", *Geological Association of Canada Proceedings*, vol. 15 (1964), pp. 27-28.
- 29. J. Murphy, Old Songs of Newfoundland, pp. 9-10.
- 30. The Maritime Miner, 25 January 1962.
- 31. J. Hatton and M. Harvey, Newfoundland, p. 418.
- 32. Newfoundland Law Reports 1874-1884, p. 178.
- 33. W.B. Schilling, Report on Tilt Cove, 1919, D.M.E., p. 2.
- J.-P. Drolet, unpublished address to Canadian Institute of Mining and Metallurgy, November 1978.
- 35. F.R. Tegengren, *Report on the Tilt Cove Copper Mines, Notre Dame Bay, Newfoundland*, 1929, D.M.E., p. 6.

Footnotes: Chapter II

- J.P. Howley, "Mining of Newfoundland", *Canadian Mining Review*, vol. 17 (1898), p. 127.
- 2. Howley Papers, P.A.N.L. (P4/2/2), file 24/A8, 3.
- 3. Harbour Grace Standard, 22 November 1879.
- 4. In November 1876 the Notre Dame Mining Company leased the Burtons Pond mine to Dr. Henry Eales of London, who in 1878 shipped 1500 tons of copper ore from the site to Swansea.
- J. Stephens, "Water-Wheels of St. Croix", *Port and Province*, April 1938, p. 18. Hereafter cited as J. Stephens, "Water-Wheels".
- 6. Ellershause became the present-day town of Ellershouse, located just south of Windsor, Nova Scotia.
- 7. Evening Telegram, 24 March 1881.
- 8. *Local History of Ellershouse*, by school students, 1929, Halifax Archives. Hereafter cited as *Ellershouse*.
- 9. M. Harvey, Across Newfoundland with the Governor, p. 82.
- 10. J.R. Smallwood, ed., The Book of Newfoundland, vol. III, p. 514.
- 11. M. Harvey, Across Newfoundland with the Governor, p. 85.
- 12. In December 1878, the Betts Cove Mining Company reorganized into the Betts Cove Mining Company Limited. The new firm possessed \$1 million in capital shares and was managed by Ellershausen, who received one-half per cent of the profits in return.
- 13. J. Stephens, "Water-Wheels", p. 19.
- 14. The exact nature of Ellershausen's previous involvement with The Newfoundland Consolidated Copper Mining Company directors is unclear. He undoubtedly knew the company secretary, Archibald Brand, for the man married one of the Ellershausen's daughters two months before the transaction.
- 15. In 1900 and 1905 respectively, the Newfoundland Copper Concentrating Company and the Newfoundland Exploration Syndicate attempted without success to revive the old Betts Cove workings.
- 16. M. Harvey, Across Newfoundland with the Governor, p. 91.
- 17. Two men associated with the Newfoundland Railway Company and the Consolidated Mining Company came to grief in later years. C.X. Hobbs, vicepresident of the railway company, was killed in a duel in Transvaal on 16 March 1887; and Erastus Wiman, president of the mining company, was arrested on multiple charges of forgery on 23 February.
- 18. Evening Telegram, 20 June 1881.
- 19. J. Hiller, A History of Newfoundland, 1874-1901, p. 84.
- 20. Whiteway Papers, C.N.S.
- Whiteway Papers, telegrams and letters dated 10 April, 13 May, 15 May, 18 May, 20 May, 29 May, 9 June, 20 June; 1882.
- 22. O.C. Herfindahl, Copper Costs and Prices: 1870-1957, pp. 73-75.
- 23. Evening Mercury, 3 September 1889.
- J. Lumsden, The Skipper Parson in the Bays and Barrens of Newfoundland, pp. 185-186.

- 25. Western Star, 10 September 1901.
- 26. M. Harvey, Across Newfoundland with the Governor, p. 24.
- 27. Ellershouse.
- 28. The Newfoundland Copper Company also worked a copper prospect discovered in 1880 at Lady Pond near the Little Bay mine. Between 1898 and 1899, the company transported about 1000 tons of Lady Pond ore along a road to Little Bay and shipped the ore to Britain.
- 29. H. Mott, Newfoundland Men, p. 13.
- 30. Whiteway Papers, letters dated 7 July, 22 July; 1882.
- 31. J. Stephens, "Water-Wheels", p. 18.
- 32. Whiteway Papers, telegram dated February 1882?
- 33. Ibid.
- 34. Matheson and Company to J.R. Stewart, 16 November 1893, private collection of Frederick J. Stewart (hereafter cited as *Stewart Papers*).
- 35. Saint Croix Courier, 22 July 1920.
- 36. B.R. Constable to Archives, undated, Bowen Papers, P.A.N.L. (P5/14).
- 37. Daniel McCuish replaced his lost limb with a wooden substitute which he used, so it is said, to pound upon tables or walls when displeased.
- 38. Evening Telegram, 13 February 1906.
- 39. Evening Telegram, 17 May 1906.
- 40. Newfoundland and Labrador Registry of Deeds, vol. 41, fol. 276.
- 41. Yet another of Obediah's brothers, Alexander Hodder, also became involved in mining. He staked a copper prospect at Fleur de Lys, and around 1925 exported 80 barrels of ore from the site. The mine closed after this date.
- 42. G.S.N., 1881-1909, p. 405.
- 43. Although most of this production went to Swansea and the United States, two unusual shipments occurred in 1876 and 1877: 350 tons and 2580 tons of copper ore bound for France.
- 44. Memorandum of G.M. Johnson, 5 October 1872, P.A.N.L. (GN1/3A/1872).
- 45. J.H.A., 1891, p. 184.
- 46. G.V. Douglas et al., "Copper Deposits of Newfoundland", p. 9.
- 47. The Geological Survey of Newfoundland remained nominally in existence until Howley's death on 1 January 1918, but he made his last geological report in 1913.

Footnotes: Chapter III

- 1. D.W. Prowse, A History of Newfoundland, p. 353.
- 2. J.P. Howley to W.T. Stead, 20 February 1900, *Howley Papers*, P.A.N.L. (P4/2/2).
- 3. Evening Telegram, 26 November 1965.
- 4. J.H.A., 1875, p. 749.
- 5. B. Willson, The Truth About Newfoundland, The Tenth Island, p. 161.
- 6. One of these claims became owned in part by a government surveyor, Arthur White, and Sydney Woods. The fee-simple grant to the claim was issued to the latter man.
- 7. G.W. Maynard, "The Chromite-Deposits on Port au Port Bay, Newfoundland", *Transactions of American Institute of Mining Engineers*, vol. 27 (1897), p. 283.
- 8. G.S.N., 1881-1909, p. 337.
- 9. In 1917, J.A. Thompson of the United States reopened an old pit of the Bluff Head mine and shipped out 80 tons of ore to the United States and Nova Scotia.
- 10. Matheson and Company to J.R. Stewart, 18 January 1894, Stewart Papers.
- 11. Western Star, 26 November 1901.
- 12. D.J. Henderson had little time to benefit from the transaction, as he died on 11 December 1902.
- 13. Charles Willis leased the Goose Arm land from its owners, the Reid Newfoundland Company, on 14 June 1902. The Reid company had previously (1900-01) attempted to work a small pyrite deposit on the property, and had

raised 200 tons of ore. Willis and the Humber company also tried to mine the pyrite prospect in 1902, but gave up around 1903 without producing any ore.

- 14. B. Outerbridge, Report on York Harbour Property, 1923, D.M.E., pp. 9-10.
- 15. Western Copper Company Ltd. *vs.* Humber Consolidated Mining and Manufacturing Company Ltd. *and* William Nicholls, Supreme Court of Newfoundland and Labrador records.
- 16. Further development of the York Harbour mine took place in the 1950s, '60s and '70s, but the mine remained unproductive.
- 17. Who's Who in Mining and Metallurgy, 1910.
- 18. Captain Cunningham owned the claims in conjunction with Francis Barry.
- 19. B. Willson, The Truth About Newfoundland, p. 227.
- 20. The brick later appeared on display in a St. John's shop window, but has since vanished. A 37-ounce gold brick, also made from Mings Bight gold, has similarly disappeared.
- 21. The *Geological Survey of Newfoundland* Bull. No. 2 suggests (p. 37) that the Browning's claims provoked a boundary dispute between Stewart and Jackman, with the court settling the case in Jackman's favour, forcing Stewart to leave Sops Arm. The report is questionable for, far from leaving, Stewart remained in Sops Arm to manage the Browning's mine. The Supreme Court has no record of the supposed case.
- 22. A. Murray and J. Howley, *Geological Survey of Newfoundland Reports* 1864-1881, p. 225.
- 23. H.A. Quinn, *Report on Diamond Drilling Done by the Geological Survey of Newfoundland at Rencontre East, Fortune Bay,* 1944, D.M.E., p. 3.
- 24. Dr. Warren Smith was also involved in the St. Lawrence fluorspar mines at this time. See Chapter VI.
- 25. Memorandum from W. Woods to Commission of Government, 8 February 1943, D.M.E.
- 26. The only other major Newfoundland molybdenum prospect lay in Fleur de Lys, White Bay. Michael and Frank Lewis of Fleur de Lys first discovered the deposit in 1893 while digging a root cellar. Local men worked the deposit during World War I and raised some 100 tons of ore from a 55-foot shaft for a Norwegian shipping company. The ore remained at the site.
- 27. Correspondence re. Manganese Mines at Brigus Head, P.A.N.L. (GN2/5/398).
- 28. G.S.N., 1881-1909, p. 523.
- 29. Some evidence suggests that Messrs. Matheson and Company, which financed the Newfoundland Consolidated Copper Mining Company, also backed the Cliff Silver Mines Company.
- 30. Whiteway Papers, 11 September 1885.
- 31. J. Stephens, "Water-Wheels", p. 17.
- T.J. Freeman, "Letter on Newfoundland Mines", *Engineering and Mining Journal*, vol. 71 (1901), p. 77. Hereafter cited as T.J. Freeman, "Letter on Newfoundland Mines".
- A 230-trial cargo of ore left Silver Cliff for the United States in 1925 from the Silver Cliff Mining Company operation.
- 34. T.J. Freeman, "Letter on Newfoundland Mines", p. 77.
- 35. Foran's death came two months after he had tried to sell the mine to the Tharsis Sulphur and Copper Company of Glasgow, which was then working some Notre Dame Bay copper mines. The Tharsis company mining engineer, Alexander Stewart, inspected the silver Cliff property, but declined to buy it. Stewart at one time managed the Tharsis operations at Calanas Mines in Spain, and was perhaps the same A. Stewart who managed the Browning's gold mine in 1902-03.

Footnotes: Chapter IV

- 1. H.Y. Mott, Newfoundland Men, p. 267.
- 2. G.S.N., 1881-1909, p. 348.

- 3. J.B. Jukes, *Excursions in and About Newfoundland During the Year 1839 and 1840*, vol. I, pp. 137-138. Hereafter cited as J.B. Jukes, *Excursions*.
- 4. G.S.N., 1881-1909, p. 355.
- 5. *Ibid.*, p. 260.
- 6. *Evening Telegram*, 6 March 1899.
- 7. A.O. Hayes, "Coal Possibilities of Newfoundland", p. 11.
- 8. J.B. Jukes, Excursions, vol. I, p. 176.
- 9. G.S.N., 1881-1909, p. 371.
- E.D. Haliburton, "Newfoundland's Coal Areas", *Canadian Mining Journal*, vol. 60 (1919), p. 947.
- 11. J.B. Jukes, Excursions, vol. I, p. 162.
- 12. St. George's Coal Fields Ltd., P.A.N.L. (GN2/5/336-336A).
- 13. Ibid., T.J. Freeman to A. Mews, 23 April 1920.
- 14. Ibid., W.J. Walsh to J.R. Bennett, 11 September 1925.
- A.O. Hayes and H. Johnson, "Geology of the Bay St. George Carboniferous Area", p. 27.
- 16. Evening Telegram, 4 September 1922.
- 17. G.S.N., 1881-1909, pp. 342, 646-649.
- 18. Daily News, 12 October 1898.
- 19. J.H.A., 1920, p. 556.
- 20. St. Croix Courier, 22 July 1920.
- 21. Evening Telegram, 26 November 1965.
- Colonel Gustavas Nicolls, Report to the Most Noble The Marquis of Anglesey, Master General of The Ordnance, 25 August 1827, P.A.N.L. (GB2/5), pp. 43-44.
- 23. J.R. Smallwood, ed., The Book of Newfoundland, vol. IV, p. 216.
- 24. P. O'Neill, The Early Church History of St. John's, p. 15.
- 25. The Harbour Grace courthouse and the St. John's courthouse, built in 1830 and 1898 respectively, were also made of Kellys Island sandstone.
- 26. P. O'Neill, The Early Church History of St. John's, p. 16.
- 27. Poem on cover of pamphlet put out by the Presentation Convent, St. John's, on the history of the Roman Catholic Basilica.
- 28. P. O'Neill, The Early Church History of Newfoundland, p. 27.
- 29. G.S.N., 1881-1909, p. 398.
- 30. B. Willson, The Truth About Newfoundland, The Tenth Island, pp. 137-138.
- 31. M. Williams to W.A. Clarke, May 1827, P.A.N.L. (GN2/1/315/36).
- 32. Annual Report of the Department of Mines, Agriculture and Resources, for year ending 31 March 1967, p. 194.
- 33. J. Lindsay, A History of the North Wales Slate Industry, p. 276.
- 34. Appendix to Reclaiming Note for the Reid Newfoundland Company..., p. 311.
- 35. Ibid., p. 311.
- 36. J. Lindsay, A History of the North Wales Slate Industry, p. 257.
- 37. Western Star, 21 August 1907.
- 38. In 1877 the Curries bought land at Red Head in Paradise Sound for £ 10 from John Power, and opened a slate quarry on the site for about one year.
- 39. The Newfoundland Slate Company appears to have been related to the Humber Consolidated Mining and Manufacturing Company, then working on the French Shore. Both companies were incorporated in New Jersey. The Humber company leased the York Harbour mine owned by A.J. Harvey in 1902, and had Charles E. Willis as its resident manager and W.M. Morgan as a major shareholder. The Newfoundland Slate Company had Harvey as its president, an E. Willis as its secretary, and was mortgaged in 1903 to David and Frederick Morgan. It is probably no coincidence that the York Harbour mine and Nut Cove quarry closed within a few months of each other in 1906.
- 40. P. Tocque, Newfoundland as It Was and as It Is in 1877, p. 133.
- 41. Undated later from Malcolm Pelly to Claude Howse, D.M.E.
- 42. Lawrence Adams supplied much of the history of the early Newfoundland brickmaking, as told to him by Malcolm Pelly.
- 43. Evening Telegram, 30 July 1903.

Footnotes: Chapter V

- G.H. Case, "To Iron Ore", *in* M.F. Harrington, ed., *Poems of Newfoundland*, p. 5.
- 2. C.R. Fay, Life and Labour in Newfoundland, p. 215.
- 3. L.A. Anspach, A History of the Island of Newfoundland, p. 368.
- 4. J.B. Jukes, Excursions, vol. II, p. 276.
- 5. C.R. Fay, Life and Labour in Newfoundland, pp. 217-218.
- 6. Were it not for a Captain Murphy, the Bell Island iron deposits might have remained undeveloped for many more years. On 24 November 1881, Murphy in the *Scythia* rescued all five Butlers from drowning when their boat, the *May*, foundered while en route to New Bay.
- 7. Opinion written upon the offer of Messrs. Shirran and Pippy by B. Colvin, 12 April 1893, *Butler Family Papers*, P.A.N.L. (P6/B/62).
- 8. R.E. and A.R. Chambers, "Sinking of Wabana Submarine Slopes", *Canadian Mining Journal*, vol. 30 (1909), p. 110.
- 9. E.R. Seary, *Place Names of the Avalon Peninsula of the Island of Newfoundland*, p. 26.
- 10. In 1900, the Nova Scotia Steel Company Limited reorganized into the Nova Scotia Steel and Coal Company Limited, also known as the "Scotia".
- D.A. Frank, Coal Masters and Coal Miners: 1922 Strike and the Roots of Class Conflict in the Cape Breton Coal Industry, pp. 11-13. Hereafter cited as D.A. Frank, Coal Masters.
- 12. The Dominion company obtained the then-unrecognized Upper Bed inadvertently. In 1899, the Middle Bed was assumed to be the higher of two beds called the Upper and Lower Beds (actually the Middle and Lower Beds). The real Upper Bed was recognized only later.
- 13. Details of the 1899 strike and much of the other data given here on the early days of Bell Island's mine come from Addison Bown's *Newspaper History of Bell Island*, an exhaustive and invaluable compilation.
- 14. J.D. Green, Miners Union on Bell Island, p. 13.
- 15. P.F. Neary, "Wabana You're a Corker", p. 57.
- 16. Ibid., p. 57.
- 17. D. Schwartzman, Mergers in the Nova Scotia Coal Fields: A History of the Dominion Coal Company, 1893-1940, chaps. I-V.
- In April 1910 the Dominion Iron and Steel Company and the Dominion Coal Company amalgamated into a holding company called the Dominion Steel Corporation.
- 19. D.A. Frank, Coal Masters, pp. 74-75.
- 20. House of Assembly Proceedings, 1926, pp. 641-649.
- 21. A. Bown, Newspaper History of Bell Island, vol. II, p. 21.
- 22. Newfoundland Royal Commission 1933 Report, pp. 158-160.
- 23. A Bown, The Ore-Boat Sinkings at Bell Island in 1942.
- 24. In 1949, DOSCO formed a subsidiary, Dominion Wabana Ore Ltd., to handle its burgeoning Wabana mines.
- 25. D.W. Mercer, Bell Island, An Economic Analysis, p. 26.
- 26. Ibid., p. 27.
- 27. One report suggests that John Winsor of Conception Bay found the Workington iron deposit. Most evidence, however, points to Andrew Colford as being the true discoverer.
- 28. H.M. Blewitt, The Workington Mining Property, undated, D.M.E., p. 2.
- 29. In 1907, Robert Chambers leased another iron ore property at Steel Mountain in St. George's Bay from a Sandy Point merchant, Charles Bishop. Robert Chambers was not hampered by French interference, as had been former lessees of the Bishop iron prospect, but dropped the lease after discovering that its ore contained too much titanium for his purposes.
- 30. Evening Telegram, 26 November 1965.
- 31. Quarrying activities have since destroyed the cove's club-like pattern.
- 32. Petition copied from replica of the document hanging on wall of the King of

Clubs in Aguathuna.

33. Bowaters used limestone from the Junction quarry near Corner Brook from 1925 to 1942, and from the Dormston quarry near Corner Brook from 1943 to 1957; after that date the company began to buy Aguathuna limestone.

Footnotes: Chapter VI

- 1. C. Slafter, ed., Sir Humfrey Gylberte and his Enterprise of Colonization in America, p. 165.
- 2. D.H. Williamson, *The Geology of the Fluorspar District of St. Lawrence, Burin Peninsula, Newfoundland*, 1956, D.M.E. p. 1.
- 3. W.S. Smith, *Flurospar at St. Lawrence*, 1957, D.M.E., p. 3. Hereafter cited as W.S. Smith, *Fluorspar*.
- 4. E. Edwards, *History of St. Lawrence*, 1966, St. Lawrence Public Library, St. Lawrence, Newfoundland.
- 5. Report of Royal Commission Respecting Radiation, Compensation and Safety at the Fluorspar Mines, St. Lawrence, Newfoundland, p. 19. Hereafter cited as Royal Commission.
- 6. R. Slaney, More Incredible Than Fiction, p. 10.
- 7. *Ibid.*, pp. 11-12.
- 8. W.S. Smith, Fluorspar, p. 15.
- H. Farrell, *The Fluorspar Deposits and Operations of the St. Lawrence Corporation Limited*, private files of the Aluminum Company of Canada Ltd. (Newfoundland Flurospar Works). Hereafter cited as H. Farrell, *Fluorspar Deposits*.
- Commercial fluorspar is divided into three grades with specifications (re. *Royal Commission*) as follows: Acid grade: contains minimum 97% CaF₂ and maximum 1% Si. Ceramic grade: contains 94-97% CaF₂ and maximum 2.25% Si. Metallurgical grade: is graded on the basis of the "effective percentage" of CaF₂, which is determined by a formula.
- 11. W.S. Smith, Fluorspar, p. 26.
- 12. E. Leyton, Dying Hard: The Ravages of Industrial Carnage, p. 25.
- 13. Ibid., p. 59.
- 14. Fortune, November 1952, p. 236.
- 15. R. Slaney, More Incredible Than Fiction, p. 39.
- 16. Settlement of Trade Dispute Board... for the Settlement of a Dispute Between the St. Lawrence Corporation of Newfoundland Ltd. and the St. Lawrence Workers Protective Union, pp. 8-9. Hereafter cited as Trade Dispute Board.
- 17. Fortune, November1952, p. 236.
- 18. Royal Commission, p. 25.
- 19. H. Farrell, Fluorspar Deposits.
- 20. Report by the Tariff Board Relative to the Investigation ordered by the Minister of Finance Respecting Fluorspar, pp. 55-60.
- 21. Royal Commission, p. 263.
- 22. W.S. Smith, Fluorspar, p. 4.
- 23. Ibid., p. 5.
- 24. John Caul discovered the Tarefare vein in the summer of 1935.
- 25. Most accounts relate that Louis Kelly and Philip Molloy happened upon the Director vein accidentally. However, the Newfoundland and Labrador Registry of Deeds, vol. 125, fol. 398, suggests that a Thomas Kelly found the vein first while prospecting for Joshua Hookey in January 1933.
- 26. C. Brown, "The Heroes of St. Lawrence", *Atlantic Insight*, October 1979, pp. 92-95 passim.
- 27. In 1970, Newfoundland Fluorspar Limited became reorganized into Aluminum Company of Canada Ltd. (Newfoundland Fluorspar Works).
- 28. Daily News, 27 August 1975.
- 29. Daily News, 26 October 1977.

Footnotes: Chapter VII

- 1. M. Beeton to R. Bond, 24 March 1903, P.A.N.L. (GN2/5/23).
- 2. H. Inder, Anglo-Newfoundland Development Company Ltd., p. 2.
- 3. G. Neary, "Mining History of the Buchans Area".
- 4. A. Johnson, ed., Hugh Cole's Reindeer Treck Down the Northern Peninsula of Newfoundland, 1908, March 4 to April 30, p. 10-30, passim.
- 5. F.G. Speck, Indian Notes and Monographs, Beothuk and Micmac, p. 135.
- 6. The *Daily News* of 31 December 1927 reports that in the late 1800s the Micmac Indians had removed ore from central Newfoundland for a French priest, who sent it away to be made into ornaments for a St. Pierre church.
- 7. The Sandy River was renamed the Buchans River after Captain David Buchan, who in 1820 made a well-intentioned, but ill-fated, attempt to befriend the last known encampment of Beothuk Indians in Newfoundland.
- 8. W.F. Canning to W. Scott, 22 December 1905, private files of ASARCO Incorporated, Buchans Unit.
- 9. Telegrams to Deputy Colonial Secretary, 8 July, 10 July; 1911, P.A.N.L. (GN2/5/115C).
- 10. P.W. George, "Geology of Lead-Zinc-Copper Deposits at Buchans, Newfoundland", p. 1.
- 11. H.A. Guess to W. Scott, 13 July 1916, private files of ASARCO Incorporated, Buchans Unit.
- 12. The selective flotation technique involves combining powdered ore with water, oil and chemical reagents and placing the mixture in flotation tanks. Agitation of the tanks causes the metallic sulphides to adhere to the reagents and to float with the oil to the surface as a foam. This foam is skimmed off and dried to form concentrates.
- 13. G. Neary, "Mining History of the Buchans Area". See Neary's work (reference given in bibliography) for a detailed and fascinating history of the Buchans mines.
- 14. H. Lundberg, "The Discovery of Large Lead-Zinc Deposits at Buchans, Newfoundland", p. 141.
- 15. Ibid., p. 142.
- 16. Ibid., p. 142.
- 17. The Newfoundland government bought the Newfoundland Railway from the Reid Newfoundland Company Limited in 1923.
- 18. House of Assembly Proceedings, 1927, pp. 662-663.
- 19. Another change that brought increased revenue into the Buchans Mining Company coffers came in 1933. The Buchans ore contains trace amounts of gold and silver in addition to the lead, zinc and copper. Before 1933, the company received payment for the silver, but not the gold, content of the shipped concentrates. After 1933, however, it began to be paid for the gold values as well.
- 20. D. Yetman, The Growth of a Mining Town: The History of Buchans, p. 6.
- Tribunal in the Matter of the Strike at Buchans Mine, Newfoundland, August 1st to 14th, p. 9.
- 22. Ibid., p. 9.
- 23. *Ibid.*, p. 8.
- 24. Pigeon Inlet is the name of the fictitious community made famous by Newfoundland storyteller and author Ted Russell in his radio broadcasts called "The Chronicles of Uncle Mose".
- 25. The A.N.D. Co. was wound up in 1965 and replaced on 3 May 1965 by Price (Nfld.) Pulp and Paper Limited.
- 26. "The Buchans Miners Strike", *in* United Steel-Workers of America, Local 5457, *Come Hell or High Water*, 1973, p. 8.
- 27. Evening Telegram, 31 March 1973.
- 28. On 23 April 1975, the American Smelting and Refining Company, Buchans Unit, became known as ASARCO Incorporated, Buchans Unit.

29. On 21 November 1974, the Abitibi Paper Company Limited acquired a majority of shares in Price (Nfld.) Pulp and Paper Limited. The former company now operates under the name Abitibi-Price Inc., and the latter under the name Price (Nfld.) Pulp and Paper Limited, Member of the Abitibi-Price Group.

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ONCE UPON A MINE

Abbreviations used: PANL Provincial Archives of Newfoundland and Labrador Mott (1)Smallwood (2) De Volpi (3) Hatton and Harvey (4) Prowse (5) Marshall/Holloway (6)

- I/1PANL
- I/2Prowse I/3
- Mott
- I/4 Lester Short I/5 De Volpi
- I/6 Marshall Studio Ltd.; Holloway No. 472
- I/7 PANL; Holloway No. 1280
- II/1Smallwood
- II/2Hatton and Harvey
- II/3 Augustus Wells
- II/4Mott
- II/5 PANL
- II/6 Twillingate Museum and John Loveridge
- II/7Gerald Carroll
- II/8PANL; Holloway No. 393
- III/1Mott
- III/2Frederick J. Stewart
- III/3 PANL
- III/4 Mott
- IV/1Mott
- IV/2Geological Survey of Canada No. 81367
- IV/3 Mott
- IV/4Geological Survey of Canada No. 49797
- Newfoundland and Labrador Dept. of Mines and Energy IV/5
- IV/6 Manuel Currie
- IV/7Manuel Currie
- IV/8 PANL; Holloway No. 1284
- IV/9 Lawrence Adams
- IV/10 Garland Studio, St. John's
- V/1 PANL
- V/2 Sadie House
- V/3 Joseph Harvey
- V/4 Joseph Harvey
- Leonard House V/5
- V/6 Leonard House
- V/7 Sadie House
- V/8 Sadie House
- V/9 Sadie House (photo by J. Basha)
- V/10 Sadie House
- V/11 Leonard House
- V/12 W. Martin
- V/13 Leonard House

- V/14 Leonard House
- VII/1 Eric Swanson
- VII/2 Teresa Makinson
- VII/3 Teresa Makinson
- VII/4 Teresa Makinson
- VII/5 Geological Survey of Canada No. 109420
- VII/6 Teresa Makinson
- VIII/1 Henry Gillard
- VIII/2 Augustus Wells

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6. Marshall Studio Ltd. is a successor to Holloway Studies Ltd., of St. John's.

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Sir Humphrey Gilbert. (I/1.)



Charles Fox Bennett (I/2.)



Frederick Gisbourne, pioneer proponent of Newfoundland mining industry. (I/3.)



Isaac Winser and wife Mathilda, first settlers in Tilt Cove. Isaac was indirectly responsible for the initial (1864) opening of the Tilt Cove copper mine. (I/4.)



Tilt Cove c. 1872, looking across Winser Lake with opening to sea at right. Engraving by B. Kroupa. (I/5.)



Tilt Cove, showing tramway from East Mine and part of townsite. (I/6.)



Young men and boys hand-cobbing ore in Tilt Cove with what likely is the East Mine 'rabbit warren' in the background, c. 1900. (I/7.)



Engraving of Betts Cove c. 1878, printed on reverse side of Betts Cove Mining Company bills. Swansea cars and ore smelters are in foreground. (II/2.)



Payday at Little Bay mine, c. 1892. (II/3.)



Sir William Whiteway. (II/4.)



Pellys Island mine site, c. 1892. (II/5.)



Loading pier and ore storage shed of Sleepy Cove copper mine, c. 1907. (II/6.)



Ship loading 'iron ore' from the Fortune Harbour iron mine, with tramway in foreground. Print was reproduced from postcard photo made by unidentified American tourist, c. 1897. (II/7.)



Typical miner's 'tilt' complete with clothesline. (II/8.)



Captain Philip Cleary; owned many Newfoundland mines, but profited from none. (III/1.)



Mr. Scanlan (?) washing quartz for gold in front of a waterpowered chrusher at Brigus on August 13, 1886. (III/3.)



J.W. Foran, one of many unlucky owners of the Silver Cliff lead mine. (III/4.)



Sir Robert G. Reid. (IV/1.)



Alexander Murray, first director of the Newfoundland Geological Survey. Geological Survey of Canada Photo 81367. (IV/2.)



James P. Howley, successor to Alexander Murray. (IV/3.)


Welsh slaters standing with cartload of slates in the Summerside slate quarry, c. 1903. Man with pipe on extreme right may be Owen J. Owen. (IV/8.)



Workers in the Pelly brickyard in 1918. From left to right are Ben Pittman, Jack Tilley, Am Harris, Nath Pelly, Ned Tilley and Mac Pittman. (IV/9.)



Brothers James, John and Esau Butler, sons of the acclaimed 'discoverer' of the Bell Island iron ore deposits. (V/1.)



Bell Island miners at opening of No. 3 Slope, about to descend for the 6:00 p.m. shift. Candles on hats are to light their way underground. Foreman Arthur House (extreme right) later became manager of the Aguathuna limestone quarry. (V/2.)



Indian Head mine, c. 1942. Ore slid down hill to loading platform and into waiting trucks (V/5.)



Opening up the Aguathuna limestone quarry, c. 1912. Begginnings of pier construction can be seen in the distance. (V/7.)



The original Aguathuna pier... (V/9.)



...was replaced in 1947 by another... (V/10.)



...which a year later succumbed to storms. (V/11.)



Matty Mitchell, discoverer of the original Buchans orebody. (VII/1.)



Buchans mine: the boys, c. 1930. (VII/2.)



The original Buchans gloryhole. (VII/3.)



Drifiting underground at Buchans, c. 1928. (VII/4.)



The three Gillard brothers, c. 1900. George on left generally is acknowledged as the discoverer of the Gull Pond copper deposits in 1905. (Some sources credit a Micmac, Levi Joe, with the discovery in 1903). (VIII/1.)

Mine or Quarry	Present Owner and/or Operator	Government Involvement	Opened	Closed	Remarks
Humbermouth limestone/marble and shale quarries	North Star Cement Ltd.	in 1950 govt. financed construction of cement plant; in 1951 govt. incorporated North Star Cement Ltd.	1951	still active	management (but not ownership) of North Star Cement Co. Ltd. in 1959
Flat Bay gypsum quarries	The Flintkote Company of Canada Ltd. (subsidiary of The Flintkote Company of New York)	in 1950 govt. financed construction of wallboard factory at Humbermouth; in 1951 govt. incorporated Atlantic Gypsum Ltd. to quarry gypsum at Flat Bay; in 1960 govt. passed act giving The Flintkote Co. of New York the management of Atlantic Gypsum Ltd. and the exclusive 99-year lease on Flat Bay gypsum deposits.	1952	still active	Flat Bay gypsum deposits lie near those worked in the 1890s at Codroy and Romaines Brook; ownership of Atlantic Gypsum Ltd. and of North Star Cement Ltd. acquired in 1979 by Lundrigans Ltd.
Manuels pyrophyllite mine	Newfoundland Minerals Ltd. (subsidiary of American Olean Tile Co. Inc.)	in 1956 govt. reclaimed F.W. Andrews fee-simple grant under Undeveloped Mineral Areas Act, enabling Newfoundland Minerals to acquire the property	1956	still active	F.W. Andrews grant worked from 1904 to 1906 by North American Talc Co. Ltd.; 'talc' also quarried from 1938 to 1947 by Industrial Minerals Co. of Nfld. Ltd.; this is the only active pyrophyllite mine in Canada
Tilt Cove copper mines	First Maritime Mining Corp. Ltd. (originally called Maritimes Mining Corp. Ltd.)	Undeveloped Mineral Areas Act prompted owners of Tilt Cove fee-simple grants to sell their property to Maritimes Mining Corp.	1957	1967	concentrates shipped to Gaspe, Quebec
Baie Verte or Advocate asbestos mine	Advocate Mines Ltd.	in April 1955 govt. passed M.J. Boylen (Confirmation of Agreement) Act giving Boylen concession to much of Baie Verte Peninsula; he transferred land to Advocate Mines in December 1955	1963	still active	original asbestos deposits discovered in July 1955 by Norman Peters and George McNaughton, prospectors working for Boylen
Little Bay copper mines	Atlantic Coast Copper Corp. Ltd.	in 1955 M.J. Boylen agreement encouraged Boylen to invest further in Newfoundland; in 1956 he incorporated Atlantic Coast Copper Co., and in 1957 the company leased the Little Bay mine property	1961	1969	1904 fire destroyed all old mine plans; because of this, the more recent miners sometimes intersected old mine tunnels and were deluged by floods of trapped mine water; concentrates shipped to Gaspe, Quebec
Rambler copper mines		in 1960 govt. used the Undeveloped Mineral Areas Act to reclaim fee-simple grants covering Rambler deposits; property then leased to M.J. Boylen, who in 1961 leased it to Consolidated Rambler Mines	1964	still active	original Rambler deposits staked in 1904 by Enos England and Thomas Wells of Little Bay, the former of whom discovered the orebody
Whalesback copper mine	British Newfoundland Exploration Ltd. (BRINEX)	in 1957 govt. gave BRINEX a concession covering Whalesback orebody	1965	1972	Whalesback orebody discovered in 1879; Adolph Guzman of Betts Cove Mining Co. sold it in December 1880 to Nfld. Consolidated Copper Mining Co.; extension of Whalesback orebody worked as "Little Deer mine" from 1973 to 1975 by Green Bay Mining Co. Ltd.

Gull Pond copper mine	Gullbridge Mines Ltd. (subsidiary of First Maritime Mining Corp. Ltd.)	M.J. Boylen, enticed to invest in Nfld. by the 1955 M.J. Boylen agreement, had his Maritimes Mining Corp. buy property at Gull Pond in 1955 and later buy out Gullbridge Mines Ltd.	1967	1971	Gull Pond orebody discovered in 1905 by George Gillard of Halls Bay or, according to different source, in 1903 by Micmac Indian Levi Joe
Villa Marie silic mine	a Dunville Mining Ltd. (subsidiary of Erco Industries Ltd.)	in 1966 govtowned Nfld. and Labrador Hydro signed 25-year agreement giving Erco minimal hydroelectric rates; Erco now uses 16% of province's hydroelectricity	1968	still active	silica is used as a flux in the production of phosphorous