

SIR ALEXANDER MACKENZIE'S  
~ ROCK ~  
END OF THE FIRST JOURNEY  
ACROSS NORTH AMERICA



A WISE NATION PRESERVES ITS  
RECORDS - GATHERS UP ITS MUNI-  
MENTS - DECORATES THE TOMBS  
OF ITS ILLUSTRIOUS DEAD - REPAIRS  
ITS GREAT STRUCTURES & FOSTERS  
NATIONAL PRIDE AND LOVE OF  
COUNTRY - BY PERPETUAL REFER-  
ENCE TO THE SACRIFICES & GLORIES  
OF THE PAST . . . JOSEPH HOWE . . .  
CANADIAN NATIONAL PARKS - HISTORIC SITES

HISTORIC SITE SERIES  
No. 6

# Mackenzie's Rock

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With a map showing the course followed by  
the explorer from Bella Coola, B.C.,  
to the Rock, and illustrated with  
views along the route

*By*  
CAPTAIN R. P. BISHOP, B.C.L.S.

*Introduction and notes by*  
HIS HONOUR JUDGE HOWAY, LL.B., F.R.S.C.

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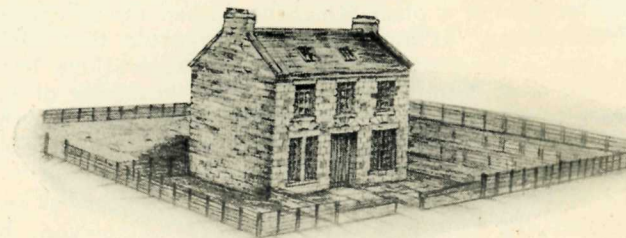


*"I now mixed up some vermilion in melted grease, and inscribed, in large characters, on the South-East face of the rock on which we had slept last night, this brief memorial - - - 'Alexander Mackenzie, from Canada, by land, the twenty-second of July, one thousand seven hundred and ninety-three' "*

*Mackenzie's Voyages, 1801 edition, page 349.*



SIR ALEXANDER MACKENZIE



BIRTHPLACE OF SIR ALEXANDER MACKENZIE, STORNOWAY, SCOTLAND

### *Introduction*

The first European to cross the North American continent north of Mexico was Alexander Mackenzie (afterwards Sir Alexander Mackenzie), one of the partners, or "bourgeois" of the North West Company of Montreal. His achievement has not been heralded as the work of some explorers has been and thus it happens that too frequently the honour that is properly his is wrongly attributed to others. It seems therefore desirable to state the fact and to repeat it continually: Alexander Mackenzie was the first white man to cross the main body of the continent of North America.

Mackenzie's voyages to the Arctic Ocean and to the Pacific Ocean are well known. Summaries will be found in every history of Canada. Although the original edition of his "Voyages" and the early reprints are now quite rare and expensive, the book was brought within the reach of every one by a popular-priced edition published in New York about twenty years ago and republished in Toronto in 1911. Yet strangely enough many readers fail to realize that they are not merely reading of an early journey across the continent—not merely reading of the first crossing of British North America—but that they are reading of the first crossing of the North American continent.

It is not intended in this short introduction to retell the story of this pioneer and perilous journey. The "round, unvarnish'd tale" of the explorer would lose its



attraction in any such attempt. For the present purpose it is sufficient to say that, setting out from Fort Chipewyan on Lake Athabaska in October, 1792, he spent the winter trading for furs at a place which he named Fort Fork on the Peace River. It must never be forgotten that Mackenzie was a fur-trader and that his explorations both north and west were undertaken in the interests of his company to discover new regions for trade to which the rival Hudson's Bay Company could not by any possible construction of its vaguely-worded charter lay claim.

In May, 1793, having closed the winter's business and despatched the collected furs for Fort Chipewyan, he with his nine companions resumed his journey up the Peace River. In his account of the voyage Mackenzie says: "My winter interpreter, with another person whom I left here to take care of the fort and supply the natives with ammunition during the summer, shed tears on the reflection of those dangers which we might encounter in our expedition, while my own people offered up their prayers that we might return in safety from it." Arriving at the source of the Parsnip, the southern branch of the Peace River, he crossed a low divide of 817 paces to a small lake whose waters flowed into the Fraser. He launched his canoe upon this unknown River of the West—he thought it to be the Columbia—and descended it until on the advice of the natives he determined to seek the Pacific Ocean by a shorter route. Accordingly he ascended a tributary of the Fraser, now known as the Blackwater, and, journeying by land and by water, at length reached Bella Coola, or Rascals' Village, as he calls it. Thence he continued his voyage towards the open ocean, until 22nd July, when having tested his artificial horizon, he concluded to return.

The exact point which marked the termination of his voyage has been for years a matter of doubt. This doubt originates, almost entirely, in the discrepancy which exists between the text of Mackenzie's "Voyage" and the footnotes which he has added. If the latter be excluded the difficulty is greatly diminished. In estimating the reliance to be placed on those footnotes one must bear in mind that, as appears from his letters to his cousin Roderick Mackenzie, the explorer transcribed his journal and prepared it for publication in 1794. Vancouver's "Voyage"

was published in 1798 and Mackenzie's "Voyage" in 1801. It would therefore seem that the footnotes were added some four years or more after the journal was written. It is not surprising that errors occurred when after that lapse of time Mackenzie tried to plot his route upon Vancouver's chart.

During the summer of 1923 the author, Captain R. P. Bishop, a trained surveyor, who was then in the service of the Land Department of the Government of British Columbia and engaged in professional work in the vicinity of Bella Coola, was instructed to make an effort to locate the rock which was the westernmost point reached by Mackenzie. The interest with which he undertook the task and the skill with which he performed it are well shown by the annexed report.

Captain Bishop has pursued the rational course of going over the ground (or rather, the water) traversed by Mackenzie from Bella Coola to the rock on which he made his "brief memorial," taking as his guide the courses and distances given in the journal and utilizing on every occasion the "checks" therein contained. Following this plan he found but three difficulties, outside of those caused by the errors in the footnotes. (1) In one instance Mackenzie gives a course of one-quarter of a mile, whereas on the ground the distance is about four miles. The explanation here seems obvious. (2) The "island," as Mackenzie calls it, opposite Point Edward on King Island is in reality a peninsula. The photographic view which is reproduced in the paper shows how easily its real nature could be mistaken. This is a frequent type of error on the part of early explorers. The classical example in British Columbia is that of Vancouver who denominates the peninsula near the City of Vancouver, now known as "Stanley Park," as an "island." (3) The most serious difficulty is that the distance along the north shore of King Island is considerably greater than Mackenzie makes it. The author's suggestion on this point is that owing to the danger in which the party then was Mackenzie inadvertently failed to record one course and distance.

But after all, these difficulties are more apparent than real, for an examination of Mackenzie's map shows, as does the working out of his courses and distances that The Rock must be sought somewhere in the vicinity of



Cascade Inlet. It must be a rock which will meet the following conditions: an abandoned village site near-by; a rock suitable for defence and with a sheer face on the south-east side; near an inlet on which is an old Indian village; a southerly exposure for at least three miles; and with a cove lying north-east about three miles distant.

The rock which Captain Bishop has located complies exactly with each of these requirements. He has therefore called it "Mackenzie's Rock," as being beyond doubt the rock on which the explorer wrote with a mixture of vermilion and grease those words, his "brief memorial" known to every school boy in the country: "Alexander Mackenzie from Canada by land the twenty-second of July one thousand seven hundred and ninety-three." His conclusion has been concurred in by the Land Department of British Columbia, the British Columbia Historical Association, and the Historic Sites and Monuments Board of Canada. Our author's work has also been checked by another surveyor, Mr. J. P. Forde, Resident Engineer of the Public Works Department in Victoria, on the ground and his conclusion affirmed and accepted.

That "Mackenzie's Rock" has been definitely identified will be the opinion of every one who carefully reads the attached paper (which is his official report on the subject) and who studies the route as shown on the map with the aid of Mackenzie's own account.

The Historic Sites and Monuments Board of Canada regards this as one of the most important identifications that has been made in connection with the story of Western Canada. It has therefore determined to give Captain Bishop's paper a wide publicity by publishing it as a memoir.

In conclusion I cannot do better than quote the author's words in an address delivered in Victoria, B.C., upon this subject. Emphasizing the importance of this apparently trivial matter he says:

"There are two important reasons. One is that it marks the first crossing of the continent. All good Canadians are well aware of this, but the fact is apparently by no means universally realized. Fiske, in 'The Discovery of America,' solemnly announces that the continent was first crossed by Lewis and Clark, whose expedition reached the Columbia some twelve years later, when the United

States had acquired a right of way to the Pacific by purchasing the Louisiana territory from Napoleon, who had not the naval strength to hold it. It is hard to understand how so learned and impartial an historian as Fiske should make such a mistake; possibly his sources of information were influenced by some of the disputes which arose in connection with the various international boundary questions in this part of the world. The identification and monumenting of our historic sites should, however, help to neutralize the effect of any little errors of this kind in the future.

"Another good reason for the identification of Mackenzie's Rock is that it marks the end of a journey which, in my opinion, is the cause of Canada's having an outlet on the Pacific Coast to-day.

"To support this somewhat sweeping statement I should explain that this country, although elaborately surveyed about the time of Mackenzie's visit, was without an owner for many years afterwards.

"The reason for this was the terms of the Nootka Convention whereby Spain abandoned all her claims to the sovereignty of this part of the Pacific Coast. To quote Howay and Scholefield's 'History of British Columbia': 'Neither treaty nor declaration ever transferred or attempted to transfer the abandoned Spanish sovereignty.' The land was left 'without sovereignty in any European state, a sort of no-man's land, to which title could be acquired by entering into possession and exercising dominion over it.'

"Such dominion was exercised by the North West Company, whose traders entered into possession of the country by establishing posts west of the Rocky Mountains. Their advance agent, Alexander Mackenzie, arrived on the coast while the question of the restitution of the lands at Nootka Sound of which Meares claimed to have been dispossessed was still under discussion and recorded his mighty achievement on 'The Rock'—Mackenzie's Rock—a few weeks after Captain George Vancouver had camped near and, perhaps, on the very spot."

F. W. HOWAY.



## MACKENZIE'S ROCK

BY

CAPT. R. P. BISHOP



ALTHOUGH the far-reaching extent of its results has hardly been appreciated, Sir Alexander Mackenzie's voyage to the Pacific, being the first occasion on which that coast was reached by land across the main body of the continent, has generally been referred to at some length in histories of North America.

The explorer's course from Fort Chipewyan to the Pacific can now be clearly traced. The easterly portion, following a water route as far as the mouth of the Blackwater, presents no difficulty to the student, but the notes of the journey overland to the Bella Coola river, made while the explorer was carrying a heavy load through the day, are by no means easy to interpret. Fortunately the famous Dr. Dawson, of the Geological Survey of Canada, was able to define most of this part of the route in the year 1876, when most of the old "back-pack" trails could still be followed. A portion of the trail over the Tsi-Tsutl Mountains, which Dr. Dawson did not have the opportunity to follow, was located by the writer during survey operations in 1923.

The historic arrival at the Pacific at Bella Coola is a matter of great interest to the inhabitants of the valley, and of proud tradition to those Indians whose forbears gave Mackenzie a hospitable reception. Skimillick, a relation of Soocumlick, who was chief of the "Friendly Village"<sup>1</sup>

<sup>1</sup>Now known as Burnt Bridge. It was here that Mackenzie struck the Bella Coola valley; see Alexander Mackenzie, *Voyages from Montreal through the Continent of North America*, London 1801, pp. 318, 368.



in 1793, can furnish many interesting details of the explorer's visit.

The greatest interest of the journey, however, centres in the historic memorial, painted by Mackenzie with a mixture of grease and vermilion on the rock which formed his westerly camping place:—

ALEXANDER MACKENZIE, FROM CANADA, BY LAND,  
THE TWENTY SECOND OF JULY ONE THOUSAND  
SEVEN HUNDRED AND NINETY-THREE.

The words of this memorial have been quoted in almost every detailed history of Canada, but the exact position of the rock on which they were written has apparently never been determined, although many rumours on the subject have been prevalent on that part of the coast for a number of years. The late Captain Walbran, who was known to be deeply interested in the matter, is reported to have commemorated the historic voyage by painting an inscription on a rock in the vicinity of its westerly camp. The existence of this painting may perhaps have given rise to the rumours referred to.

From Captain Walbran's reference to the inscription in "British Columbia Place Names,"<sup>2</sup> it seems evident that he did not profess to know the exact position and that he was of the opinion that nobody had reported having seen the inscription since the visit of John Dunn in 1836. Mr. Dunn, who was then stationed at Fort McLoughlin, now Bella Bella, refers to the painting in "The History of Oregon," but gives no clue to its exact position. From his account it would appear that there was not very much left of the paint at the time of his visit.<sup>3</sup>

The Bella Coola Indians,<sup>4</sup> who are full of lore on the subject of Mackenzie, know nothing about the inscription beyond what they have been told by white men as to its

<sup>2</sup> British Columbia Coast Names, by Captain John T. Walbran, Ottawa, 1909, pp. 44, 84-85.

<sup>3</sup> "And in case any vessel should run to this place to trade, he [Mackenzie] made a mark on a large rock; which was partly decipherable when we were there." See History of the Oregon Territory, by John Dunn, London 1844. p. 267.

<sup>4</sup> A Coast Salish tribe (by Dunn called Bellaghechoolas) on Bentinck Arm, whose village "Rascals' village," is at the mouth of the Bella Coola River—the Salmon River of Mackenzie.

probable position. The Bella Bellas<sup>5</sup> may possibly have some traditions on the subject, but as there have evidently been other painted rocks in the vicinity it might be risky to take local information too seriously. The most satisfactory way of locating this historic point is apparently by a careful analysis of Mackenzie's journal, coupled with an examination on the ground. An opportunity to make this investigation occurred recently and the following evidence, which the writer believes to be conclusive, is submitted for consideration.

In considering the evidence offered by the journal we have, first of all, to decide on the reliability of Mackenzie's astronomical observations for latitude and longitude, and the degree of precision which may be expected of them. His equipment for this purpose appears to have included a telescope, a timepiece, an artificial horizon and some kind of instrument for measuring angles, probably a sextant or quadrant. As he never came in sight of the open ocean his object at the end of his trip was to find a "proper place for taking an observation,"<sup>6</sup> a "proper place" presumably being one where he could check the behaviour of his artificial horizon. To do this properly he required an uninterrupted view over open water for some miles, especially to the south, a fact worth bearing in mind in weighing the final evidence of the position of the observation point.

In considering the results of the observations it is better to deal first of all with the longitude, in the result of which there is a discrepancy of about 42 minutes of arc<sup>7</sup> amounting, in this part of the world, to nearly 30 miles. At first sight it might appear that Mackenzie's observations would not afford evidence of much value in determining the position of the observation point. As an analysis of the question of longitude is necessarily a somewhat lengthy affair, I will deal with the matter separately. To summarize the subject it may be stated that in view

<sup>5</sup> A Kwakwaka'wakw tribe living on Milbank Sound, but who had a village at the head of Elcho Harbour. Mackenzie's Rock lies a short distance east of the entrance to Elcho Harbour.

<sup>6</sup> "As I could not ascertain the distance from the open sea and being uncertain whether we were in a bay or among inlets and channels of islands, I confined my search to a proper place for taking an observation." This was on 21st July 1793. See Mackenzie's Voyages, ante, p. 343.

<sup>7</sup> Mackenzie gives the longitude of the rock as 128° 2' west. See Voyages, p. 351.



of the nature of his equipment, the time at his disposal and the methods which he was obliged to use, Mackenzie's longitudes were as good as might be expected; that the lack of accuracy in the determination does not reflect on his ability as an observer, and that we may in consequence have no hesitation in accepting his observations for latitude, which from their nature were susceptible of a much greater degree of precision. Fortunately we have an opportunity of checking his inland latitude observations, which were taken with the artificial horizon, at places the positions of which are now known with a fair degree of certainty, such as Bella Coola, or "Rascal's Village," Burnt Bridge or "Friendly Village," and Fort George Canyon.<sup>8</sup> Mackenzie's results at these places are generally a little over a mile in error, so we may assume that the instrument with which they were observed was not very much out of adjustment, and that confidence may be placed in the latitude observation at "The Rock." Observations were taken here both with the natural and artificial horizons, the results differing by 45" or .86 miles, so that we are probably quite safe in assuming that the rock is within a mile and a half to the north or south of the mean of the latitudes given by Mackenzie. This is important, as the mean result is about four miles from "The Cheek of Vancouver's Cascade Canal" referred to in the footnote of Mackenzie's book,<sup>9</sup> and generally assumed to be the correct position.

The position of the latitudes as observed is shewn on the accompanying sketch; their bearing on the remainder of the evidence will be discussed later on. (See Appendix).

The next thing is to follow the bearings and distances from Bella Coola. Here we must take into consideration the remark at the end of the Journal that "The courses are taken by compass" and that "the variation must be considered."<sup>10</sup> In Mackenzie's time this probably amounted to about twenty-three degrees East. In certain cases, however, the bearings appear to have been converted to astronomical bearings.

<sup>8</sup> Mackenzie makes the latitude of these three places as follows: 52° 23' 43", p. 355; 52° 28' 11", p. 323; 53° 42' 20" p. 234.

<sup>9</sup> P. 349 of his Voyages. All the references are to the edition already cited, London, 1801.

<sup>10</sup> This is the very last statement in the book. It is at the end of the errata.



"At about eight o'clock we got out of the river, which discharges itself by various channels into an arm of the sea."

THE INDIAN VILLAGE, AT BELLA COOLA

In following the track extracts are quoted in the exact words of the Journal and interpreted step by step with the aid of the sketch.

"At about eight we got out of the river, which discharges itself by various channels into an arm of the sea. The tide was out, and had left a large space covered with seaweed. The surrounding hills were involved in fog. The wind was at West, which was ahead of us, and very strong; the bay appearing to be from one to three miles in breadth."<sup>11</sup>

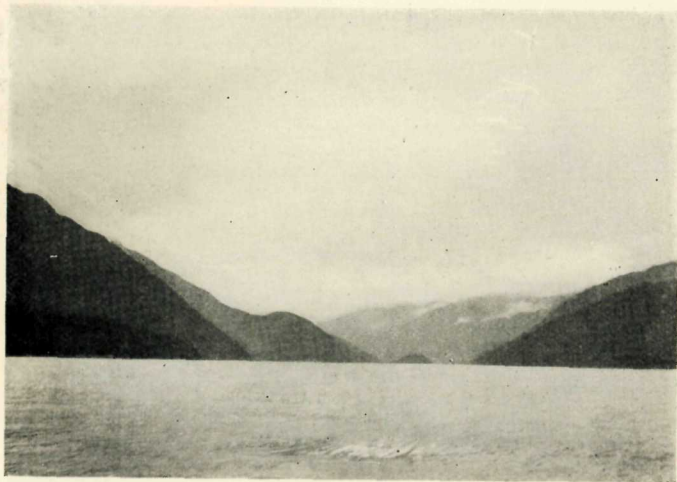
"At two in the afternoon the swell was so high, and the wind, which was against us, so boisterous, that we could not proceed with our leaky vessel, we therefore landed in a small cove on the right side of the bay. Opposite to us appeared another small bay, in the mouth of which is an island, and where, according to the information of the Indians, a river discharges itself that abounds in salmon."<sup>12</sup>

"I had flattered myself with the hope of getting a distance of the moon and stars, but the cloudy weather continually disappointed me, and I began to fear that I should fail in this important object;

<sup>11</sup> P. 341, Mackenzie's Voyages.

<sup>12</sup> P. 341, Mackenzie's Voyages.





"Opposite to us appeared another small bay, in the mouth of which is an island."

SOUTH BENTINCK ARM

particularly as our provisions were at a very low ebb, and we had, as yet, no reason to expect any assistance from the natives. Our stock was, at this time, reduced to twenty pounds weight of pemmican, fifteen pounds of rice, and six pounds of flour, among ten half-starved men, in a leaky vessel, and on a barbarous coast. Our course from the river was about West-South-West, distance ten miles."<sup>13</sup>

This bay, named by Mackenzie "Porcupine Cove," is now known as Green Bay. The "small bay" opposite is South Bentinck Arm, a photograph of which, taken off Green Bay, shews the island referred to by Mackenzie.

"Sunday, 21.—At forty minutes past four this morning it was low water, which made fifteen feet of perpendicular height below the high-water mark of last night. Mr. Mackay collected a quantity of small muscles which we boiled. Our people did not partake of this regale, as they are wholly unacquainted with sea shell-fish. Our young chief being missing, we imagined that he had taken his flight, but, as we were preparing to depart, he fortunately made his appearance from the woods, where he had been to take his rest after his feast of last night.

"At six we were upon the water, when we cleared the small bay, which we named Porcupine Cove, and steered West-South-West for seven miles, we then opened a channel about two miles and a half wide at South-South-West, and had a view of ten or twelve miles into it."<sup>14</sup>

<sup>13</sup> P. 342, Mackenzie's Voyages.

<sup>14</sup> P. 343, Mackenzie's Voyages.

This is obviously Burke Channel.

"As I could not ascertain the distance from the open sea, and being uncertain whether we were in a bay or among inlets and channels of islands, I confined my search to a proper place for taking an observation. We steered, therefore, along the land on the left, West-North-West a mile and a half; then North-West one fourth of a mile, and North three miles to an island; the land continuing to run North-North-West, then along the island, South-South-West half a mile, West a mile and a half, and from thence directly across to the land on the left (where I had an altitude), South-West three miles.\* From this position a channel, of which the island we left appeared to make a cheek, bears North by East."<sup>15</sup>

"\*The Cape or Point Menzies of Vancouver."

This paragraph is by no means easy to follow. As Mackenzie refers later on to going "across to the land on the left" the first course mentioned would apparently be around Masachi Head.<sup>16</sup> Probably the next course should be four miles instead of one-fourth of a mile. After this we have "North three miles to an island, the land continuing to run North-North-West." There is no sign of an island here but the peninsula to the north of Edward Point looks very much like one when viewed from the opposite shore. If one accepts this peninsula as the "island," the remaining courses fit in fairly well except that "the distance across to the land to the left" (Point Edward?) is a little exaggerated—quite a likely thing to happen in crossing this awkward piece of water in a crazy and leaky canoe. A view of the "island" and of Dean Channel, "of which it forms a cheek" appears in the accompanying photograph. It seems safe to assume that we are now at Edward Point and that Mackenzie is in error in referring to it as Point Menzies, which is obviously far behind by this time. His next course takes him towards Cascade Inlet, which makes Point Menzies out of the question.

It would appear that Mackenzie had a certain amount of difficulty in interpreting his own notes—a fact not at all surprising when it is considered that he had no map or chart with him when making the trip, and that several years elapsed before he had an opportunity of plotting them on Vancouver's chart. It casts no aspersion on Mackenzie's ability if it be assumed that it is possible at

<sup>15</sup> P. 343, Mackenzie's Voyages.

<sup>16</sup> The south-eastern point of Labouchere Channel. The word, "Masachi" is from the Chinook jargon and means "bad."



the present time, with the appearance of land and water as an aid, to make a better interpretation of the journal than the explorer himself could manage with only his memory for aid. The modern investigator is aided by the facts that the unfriendly Indians have disappeared, the craft is not quite so crazy and the prospect of starvation is perhaps a little more remote. There need then be no hesitation in discarding the foot note, penned some years after his visit to the coast, in which Mackenzie, in referring to the location of the rock, says, "This I found to be on the cheek of Vancouver's Cascade Canal."

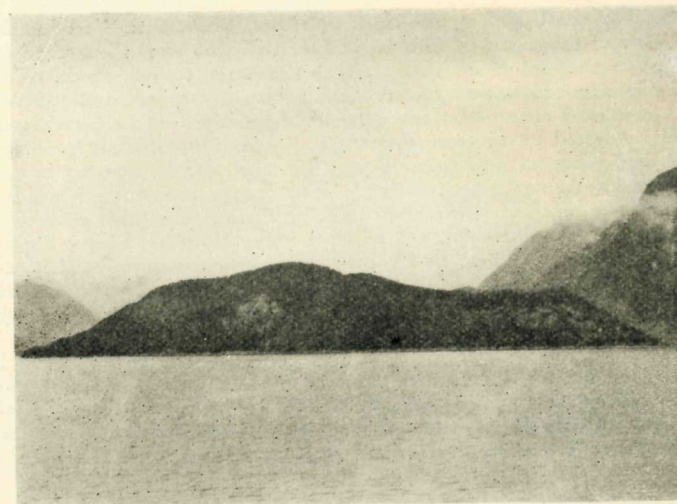
"Under the land we met with three canoes, with fifteen men in them, and laden with moveables, as if proceeding to a new situation, or returning to a former one. They manifested no kind of mistrust or fear of us, but entered into conversation with our young man, as I supposed, to obtain some information concerning us. It did not appear that they were the same people as those we had lately seen, as they spoke the language of our young chief, with a different accent. They then examined everything we had in the canoe, with an air of indifference and disdain. One of them in particular made me understand, with an air of insolence, that a large canoe had lately been in this bay, with people in her like me, and that one of them, whom he called "Macubah" had fired on him and his friends, and that "Bensins" had struck him on the back with the flat part of his sword. He also mentioned another name, the articulation of which I could not determine. At the same time he illustrated these circumstances by the assistance of my gun and sword; and I do not doubt but he well deserved the treatment which he described. He also produced several European articles, which could not have been long in his possession. From his conduct and appearance, I wished very much to be rid of him, and flattered myself that he would prosecute his voyage, which appeared to be in an opposite direction to our course.

"However, when I prepared to part from them, they turned their canoes about, and persuaded my young man to leave me, which I could not prevent."<sup>17</sup>

From the fact that the obnoxious Indian produced several European articles which could not have been long in his possession it seems quite likely that he was the individual whom Vancouver's party met on the 2nd of June, towards the head of Dean Channel, and who avoided them by poling his canoe up a small creek at the mouth of which Vancouver left some trinkets. He probably imagined the firing episode as soon as he had recovered from his fright.<sup>18</sup>

<sup>17</sup> P. 344, Mackenzie's Voyages.

<sup>18</sup> See "A Voyage of Discovery to the North Pacific Ocean and Round the World," etc., by Captain George Vancouver. London 1801, vol. IV, pp. 12-13.



"From this position a channel, of which the island we left appears to form a cheek, bears North by East."



DEAN CHANNEL

Showing the Peninsula north of Edward Point



"We coasted along the land\* at about West-South-West for six miles, and met a canoe with two boys in it, who were dispatched to summon the people on that part of the coast to join them. The troublesome fellow now forced himself into my canoe, and pointed out a narrow channel on the opposite shore, that led to his village, and requested us to steer towards it, which I accordingly ordered. His importunities now became very irksome, and he wanted to see everything we had, particularly my instruments, concerning which he must have received information from my young man. He asked for my hat, my handkerchief, and in short, everything that he saw about me. At the same time he frequently repeated the unpleasant intelligence that he had been shot at by people of my colour. At some distance from the land a channel opened to us, at South-West by West, and pointing that way, he made me understand that "Macubah" came there with his large canoe. When we were in mid-channel, I perceived some sheds or the remains of old buildings on the shore; and as, from that circumstance I thought it probable that some Europeans might have been there I directed my steersman to make for that spot. The traverse is upwards of three miles North-West."<sup>19</sup>

\* Named by Vancouver King's Island."

There are two inlets on the opposite shore, Cascade and Elcho. The latter would better correspond to the description of a "narrow channel" especially as the "troublesome fellow" said that it led to his village. There was at that time a large village belonging to the Bella Bellas at the head of Elcho Harbour, but there is no account of anything of the kind in Cascade Inlet by Vancouver, who took observations at its head. He does mention a village to the south of the point at the entrance of Cascade Inlet,<sup>20</sup> but this was probably the home of the more peacefully inclined Indians who visited Mackenzie just after his arrival and who said that "Macubah" had come to their village in boats, which these people represented by imitating our manner of rowing."<sup>21</sup>

The "troublesome fellow," on the other hand, made no mention of Vancouver having visited his village, although he had a great deal to say of him in other respects, facts which bear out the supposition that the village lay at the head of Elcho Harbour, one of the few parts of this portion of the coast which Vancouver did not visit.

<sup>19</sup> See page 345, Mackenzie's Voyages.

<sup>20</sup> See Vancouver's Voyage 1801, ed. vol. 4, p. 15.

<sup>21</sup> See Mackenzie's Voyages, pp. 346-347.

Elcho Harbour is not named on Vancouver's chart, or any subsequent one, and is somewhat imperfectly indicated, so that Mackenzie had very good reason for supposing that he had been opposite the mouth of Cascade, the only inlet hereabouts surveyed in full detail. In order to "clear Vancouver's yard-arm" it may be pointed out that an expedition to the head of Cascade was particularly necessary as the Straits of De Fonte were said to exist in the neighbourhood. Elcho, however, obviously led nowhere, so that Vancouver would not have been justified in wasting time in surveying it.

Finally there has to be taken into consideration the fact that "the traverse is upwards of three miles North-West," and that "At some distance from land a channel opened . . . South-West by West." A comparatively short glimpse down Dean Channel may be obtained from mid-stream opposite Cascade Inlet, but the bearing is nothing like South-West by West, whether Magnetic or Astronomic. Opposite Elcho, on the other hand, a clear view at the bearing mentioned may be had for many miles down Dean Channel, where Vancouver came on the 31st of May, having left his ship in Restoration Bay.

Furthermore, as this is the only place reasonably near the latitude given by the observations where a traverse of three miles can be obtained in a north-westerly direction, we may feel justified in assuming that Mackenzie approached the mouth of Elcho Harbour, and not Cascade Inlet, from the south-east. The only evidence which does not support this is the fact that the distance "coasted along the land" from Edward Point is given as six miles. In view of the windings of the channel and of the somewhat harassing conditions at the time, an erroneous estimate of the length of this course would be quite pardonable. Possibly Mackenzie omitted to book his last course at the point where the "troublesome fellow" forced himself into the canoe.

Elcho Harbour is, however, clearly indicated by all other evidence, including Mackenzie's description of his final camp, three miles to the North-East, a matter which is dealt with later on.

The direction of the shore line for some distance to the south of Elcho Harbour does not permit a clear view

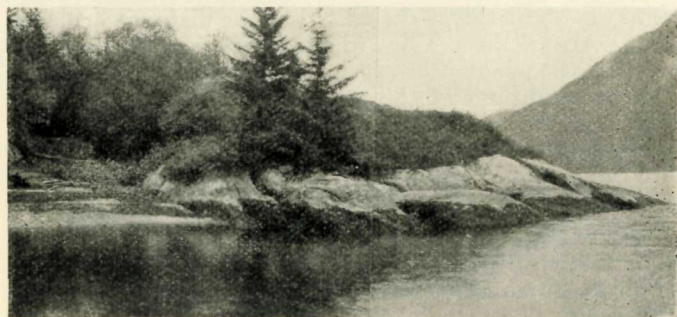




THE ANCIENT VILLAGE SITE, NOW COVERED BY ALDER, AND THE ROCK ON THE SOUTH SIDE, TO THE LEFT

to the south, and as Mackenzie used the natural horizon for his latitude observation at noon, it is apparently necessary to confine our search to the north shore.

"We landed, and found the ruins of a village, in a situation calculated for defence. The place itself was overgrown with weeds and in the centre of the houses there was a temple, of the same form and construction as that which I described at the large village. We were soon followed by ten canoes, each of which contained from three to six men. They informed us that we were expected at the village, where we should see many of them. From their general deportment I was very apprehensive that some hostile design was meditated against us, and for the first time I acknowledged my apprehensions to my people. I accordingly desired them to be very much upon their guard, and to be prepared if any violence was offered to defend themselves to the last."<sup>22</sup>



VIEW OF THE ROCK FROM THE SOUTH, SHEWING THE CANOE LANDING

<sup>22</sup> See pp. 345-346, Mackenzie's Voyages.

"We had no sooner landed, than we took possession of a rock, where there was not space for more than twice our number, and which admitted of our defending ourselves with advantage, in case we should be attacked. The people in the three first canoes were the most troublesome, but, after doing their utmost to irritate us, they went away."<sup>23</sup>

The search now becomes a matter of detail. The first thing is to look for a village site, which can usually be recognized by the nature of the vegetation. A little to the north of Elcho Harbour a bright green patch of alder catches the eye at once. Examination shews that this was once the site of a village "in a situation calculated for defence." There is a commanding view, the nature of the country behind offers excellent protection, while the canoe landings at each end afford a means of escape to the north or south by way of Dean Channel, or towards the west by way of Elcho Harbour. On the southern canoe landing are a couple of petroglyphs, carved on boulders a little below high water mark. The presence of the petroglyphs apparently tends to confirm the supposition that the place is an old village site. One of them, which is in a remarkably fine state of preservation, somehow seems to convey the warning that "Trespassers will be Prosecuted." Dr. C. F. Newcombe, who has very kindly examined the photograph, points out that the object in its lower right hand corner is a "copper,"<sup>24</sup> and that parts of the design bear a strong resemblance to others on the coast which have been interpreted as the "Cannibal Spirit,"<sup>25</sup> a personage whose name I omit as special type is apparently necessary to give an idea of its sound.

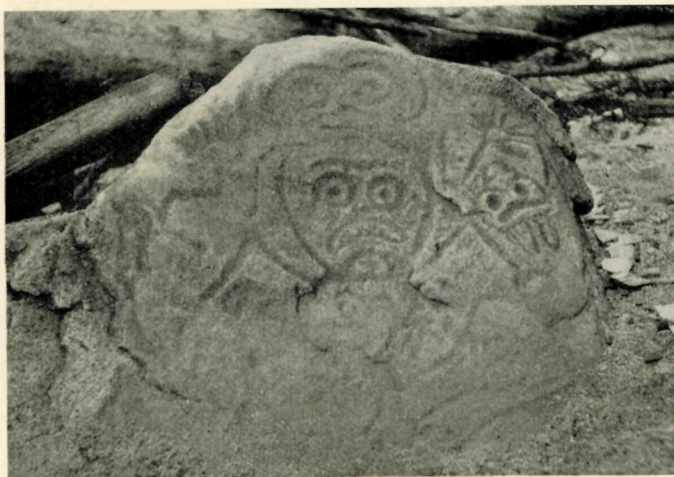
To the south of the village site is an isolated rock which answers to Mackenzie's description. Its sides are nearly vertical for the greater part and overhang on the inland side, while in other places they have been built

<sup>23</sup> See page 346, Mackenzie's Voyages.

<sup>24</sup> A part of the ceremonial dress of certain chiefs. These coppers were originally beaten from the native copper, but after the advent of the traders sheets of the manufactured article were used. They represented wealth and social standing and were frequently engraved with a crest of the chief who owned them. The top of the copper was in the form of a bow, the sides straight and sloping towards each other for a distance, the remainder being parallel. The bottom was straight. The largest coppers were about three feet in length. For further particulars see "The Social Organization and Secret Societies of the Kwakiutl Indians," by Franz Boas, Washington, 1897, p. 353.

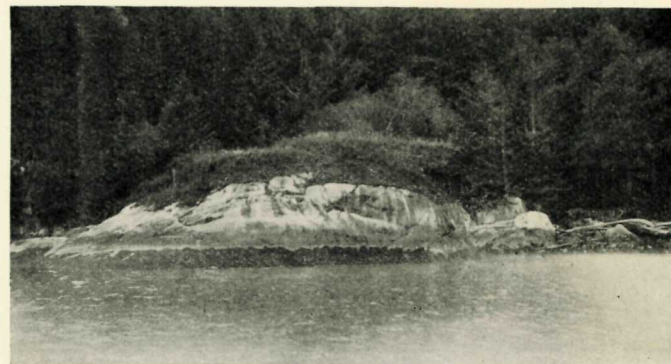
<sup>25</sup> Amongst the Kwakiutl Indians of whom the Bella Bellas are a tribe the cannibal spirit is known as BaxbakualanuXsiwae. For a full account of this spirit and the cannibal dances, see Boas "Social Organization and Secret Societies of the Kwakiutl Indians," III, p. 437, etc. "Dr. C. F. Newcombe was a recognized authority upon the history of the Northwest Coast and upon the manners and customs of its Indians. He died on 19th October, 1924."





THE CANNIBAL SPIRIT

with stones or timber. The top of the rock is covered with a deep layer of the black soil usually found on old village sites and known as Indian mould. I could find no trace of the clam shells which are usually to be found in the mould, but Mr. White of Bella Coola, who is well acquainted with this part of the coast, was of the opinion that the total absence of clams from the neighbourhood would account for the lack of shells. The surface of the mould presents a series of terraces where the gently sloping summit has evidently been carefully levelled for the construction of buildings. From these signs, and from the built up nature of the sides, it would appear that the rock once formed a defence point such as is usually found in the vicinity of the older Indian villages on this part of the coast. The view to the south is clear for some miles, so that an altitude of the sun at noon could be obtained without any trouble. Finally, a large portion of the south-east face, specially mentioned by Mackenzie, is smooth, flat and almost vertical, and having a good painting surface, presents the most suitable place Mackenzie could have found in the neighbourhood for his famous inscription.



"I now mixed up some vermilion in melted grease, and inscribed, in large characters, on the South East face of the rock on which we had slept last night, this brief memorial—

"Alexander Mackenzie, from Canada, by land, the twenty-second of July, one thousand seven hundred and ninety-three."

I will now quote an incident of Mackenzie's return voyage which throws additional light on the subject:

"As I thought that we were too near the village, I consented to leave this place, and accordingly proceeded North-East three miles, when we landed on a point, in a small cove, where we should not be readily seen, and could not be attacked except in our front."<sup>26</sup>

The words "could not be attacked except in our front" invite comparison with The Rock and the abandoned village site, both of which Mackenzie had already described as "well suited for defence." They were well suited for defence against attacks from the main channels to the North or South but not against one from the "troublesome fellow's" village in Elcho Harbour; and the fact that canoes from this direction could creep up unseen to within a few hundred feet of The Rock explains Mackenzie's desire to move further from the village to a place where "we could not be attacked except in our front."

"The two canoes which we had left at our last station, followed us hither, and when they were preparing to depart, our young chief embarked with them. I was determined, however, to prevent his escape, and compelled him, by actual force, to come on shore, for I thought it much better to incur his displeasure than to suffer him to expose himself to any untoward accident among strangers, or to return to his father before us. The man in the canoe made signs for him to go over the hill, and that they would take him on board at the other side of it."<sup>27</sup>

<sup>26</sup> See page 349, Mackenzie's Voyages.

<sup>27</sup> See page 350, Mackenzie's Voyages.



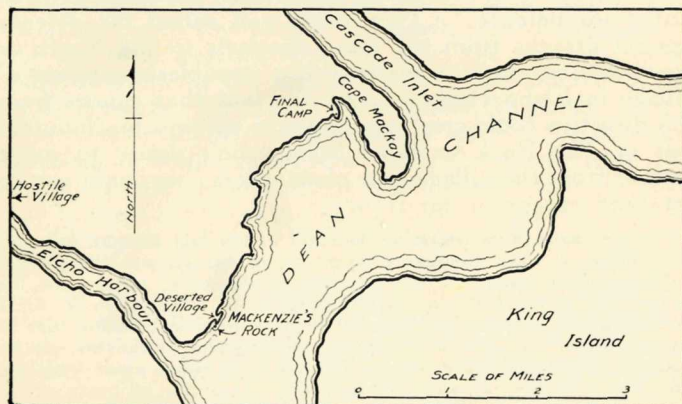


VIEW OF CAPE MACKAY FROM MACKENZIE'S ROCK

The words "Final Camp" mark the assumed position of the "Point in a Small Cove," where the young chief attempted to escape.

"The men in the canoe made signs for him to go over the hill, and that they would take him on board at the other side of it."

The "hill" is apparently Cape Mackay. The "other side" would be in Cascade Inlet, the position of which is marked by clouds in the photograph.



Three miles north-east of the rock is a point in a small bay. A narrow peninsula dividing this from Cascade Inlet corresponds exactly to the hill over which the young man wished to escape. At no other spot along the coast could I find any place which would agree with this description, so that the peninsula, which I have named Cape Mackay, may be considered as providing additional evidence as to the position of Mackenzie's rock.



## APPENDIX

### LONGITUDE

In analyzing the results of Mackenzie's observations it is necessary to go at some length into the question of longitude in order to see whether the discrepancy between the results of his observations and the true position affects his reputation as an observer, and whether his latitude observations should, in consequence, be rejected.

In order to get a good idea of the matter it may be as well to discuss the general subject of longitude which, for centuries previous to Mackenzie's time, had been the chief bugbear of navigators and explorers.

The history of the discovery of America gives a very good idea of the difficulties which arose from lack of accurate data on the subject. Columbus apparently thought at first that Cuba was Japan, and until the time of his death, after his third voyage to the New World, imagined that the mainland of the continent was part of Indo-China, and a trace of this belief still lingers in the name of the West Indies, and in the word Indian, as applied to the aborigines of this continent.

Astronomical determinations of longitude depend on a comparison between local time and the time at the meridian of reference, which in this case was Greenwich. Local time, which was obtained by a comparatively easy observation on the sun or a star, presented very little difficulty to Mackenzie; but the correct determination of Greenwich time was in those days a very different matter, presenting a problem for the satisfactory solution of which the British Government had, in 1714, offered a reward of £20,000. The first instalment of this prize was paid in 1765 to a certain John Harrison, who submitted to the Board of Longitude a chronometer which, after being tested on certain trial voyages, was retained in England as a model. It is a matter of local interest to note that the first and third copies of this famous time-piece were used by Captain Cook on his third voyage, and afterwards by Vancouver, and so presumably helped in the first published position of the shores of British Columbia, as well as in the more detailed chart work later on.

It can be seen then that the satisfactory solution of the longitude problem, even by ships at sea, was a comparatively recent matter. Greenwich time could not, however, be carried for any great length of time by means of chronometers, even when a large number were transported on board ship under the most favourable conditions. The timepieces, however carefully they may be rated and compared, will eventually fail to give the true Greenwich time, and this must be obtained by some other method. Before the days of telegraph or

wireless this could best be done by an observation for local time at some place the longitude of which was known. Failing such a place of known longitude the error of the chronometer on Greenwich time had to be obtained by means of one of the "absolute" methods of obtaining longitude. These methods, generally speaking, may be divided into two classes, the simpler of which consists of simply noting the time of certain celestial phenomena, the Greenwich time of which has already been calculated, such as, for example, the eclipse of one of Jupiter's satellites. Methods of the other class include the various kinds of observation on the moon from which the Greenwich time can be computed by a variety of methods, all more or less laborious. Of the latter class the English navigators almost invariably used the method of "lunar distances," while the Spanish occasionally observed the occultation of a star by the moon or even a lunar eclipse.

Embarrassed as he was by prospects of attack by hostile Indians, Mackenzie was fortunate in being able to use the former method and succeeded in observing eclipses of two of Jupiter's satellites. This observation, however, while the simplest of the absolute methods and one in common use even for scientific purposes a few years before Mackenzie's time, cannot be depended upon to give very accurate results, as the eclipses are not instantaneous and the exact time of the moments of immersion and emersion, or disappearance and reappearance, of the satellites is difficult to determine. Raper's "Navigation" states that the observation is only to be considered complete when both immersion and emersion of the same satellite are observed on the same evening under the same circumstances. Mackenzie had a telescope which was very probably not up to the standard deemed necessary by Raper, who specified a magnifying power of at least 40 diameters for satisfactory work.<sup>25</sup>

In comparing the results of Mackenzie's necessarily crude method with those obtained by skilled observers carrying the best equipment that England could produce, we find that Vancouver's determination of the longitude of Nootka differed from that of Cook by 20 minutes of arc.

If another case be examined in detail it is found that Vancouver, in fixing the longitude of Monterey, used 199 sets of lunar distances, of six observations each. The 199 sets are divided into 21 groups of sets and the average error of each group, compared with the mean result, is  $12\frac{1}{2}'$ . Of these 21 groups of sets, one is  $28' 40''$  in error and another  $27' 11''$ , so that certain individual sets are probably well over 30 minutes, or 21 miles, in error.

As the lunar distance was considered to be a more accurate method than the eclipse of a satellite, even when the latter was observed under the most favourable conditions; and as Mackenzie's determination, under difficult circumstances, and by the less accurate method, was incomplete, and possibly obtained by means of a telescope of insufficient power, it may be considered that the error of approximately 40 minutes of arc was not excessive.

<sup>25</sup> In a note in "Les Bourgeois de la Compagnie du Nord-Ouest," by L. R. Masson, Quebec, 1889, vol. I, p. 40, it is stated that "Sir A. Mackenzie's sextant and chronometer are still preserved in the family at Terrebonne." And in a letter on the same page written by Mackenzie from the Forks Peace River 10 January 1793, he asks his cousin Roderick to "send me the sextant with all the quicksilver you have, as I have lost all mine." It is presumed that the quicksilver was required for the artificial horizon.



I should, perhaps, mention that Mackenzie omitted to wind his watch, and so could not carry Greenwich time from his last observing place. This fact would not affect the necessity for a final observation as it would have been impossible, in view of the conditions under which MacKenzie was travelling, to carry a satisfactory determination so far with a single timepiece. The geographical result of the observation was most valuable as Mackenzie was able to say with certainty that he had reached the shores charted by Vancouver and not one of the inland seas which had appeared on the map for centuries, and which Meares had reported only three or four years before.

My main object in discussing the longitude in detail is to shew that the apparent inaccuracy of the result is due to the circumstances and to the nature of the observation, and that it casts no reflection on Mackenzie's reliability or steadiness as an observer.

## HISTORIC SITES TABLET

### INTERPRETATION OF DESIGN

The frame surrounded by a border of pine cones and pine needles. Symbolizing Our Northern Climate.

Surmounted by a Crown. " The King and the British Empire.

Below the Crown, maple leaves. " Canada.

On either side surrounding circular relief Rose, Thistle, Shamrock, Lily and Leek. " Principal races from which Canadians are descended.

Circular relief on the left, the arrival of Jacques Cartier. " The beginning of Canadian History.

Circular relief on the right in the foreground a harbour with elevator, docks, shipping, etc., at right of panel, a city and in the background, a well-developed agricultural country. " Development of Canada commercially, industrially and agriculturally.

At the bottom, on either side, a shield—on the shield to the left the first arms used in Canada (the fleur de lis & cross). On the shield to the right, the new arms of Canada. " Canada as a Colony and Canada as one of the self-governing nations of the British Commonwealth.

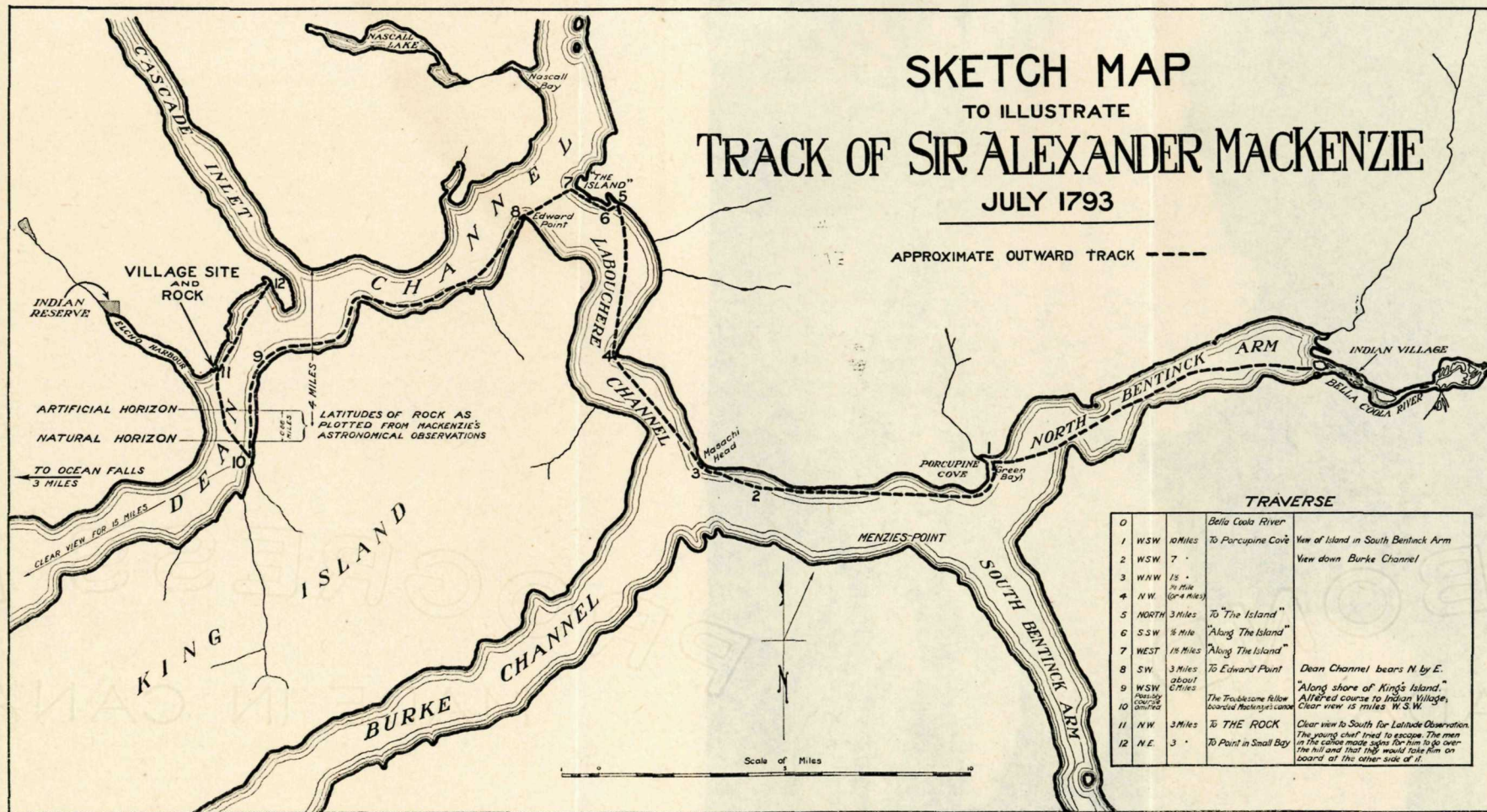


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# SKETCH MAP TO ILLUSTRATE TRACK OF SIR ALEXANDER MACKENZIE JULY 1793

APPROXIMATE OUTWARD TRACK - - - -



## TRAVERSE

		Bella Coola River	
0		To Porcupine Cove	View of Island in South Bentinck Arm
1	WSW 10 Miles		View down Burke Channel
2	WSW 7 "		
3	WNW 15 "		
4	NW 10 Miles (or 4 Miles)		
5	NORTH 3 Miles	To "The Island"	
6	S.S.W. 1/2 Mile	"Along The Island"	
7	WEST 1/2 Miles	"Along The Island"	
8	SW 3 Miles	To Edward Point	Dean Channel bears N by E.
9	WSW 1/2 Miles		"Along shore of King's Island."
10	Placed by compass	The Troublesome fellow	Altered course to Indian Village,
11	NW 3 Miles	To THE ROCK	Clear view to South for Latitude Observation.
12	N.E. 3 "	To Point in Small Bay	The young chief tried to escape. The men in the canoes made signs for him to go over the hill and that they would take him on board at the other side of it.



