Articles by and about

Peter Thomson 1823-1879
(widely known as PAKEHA)

of Dunedin, New Zealand

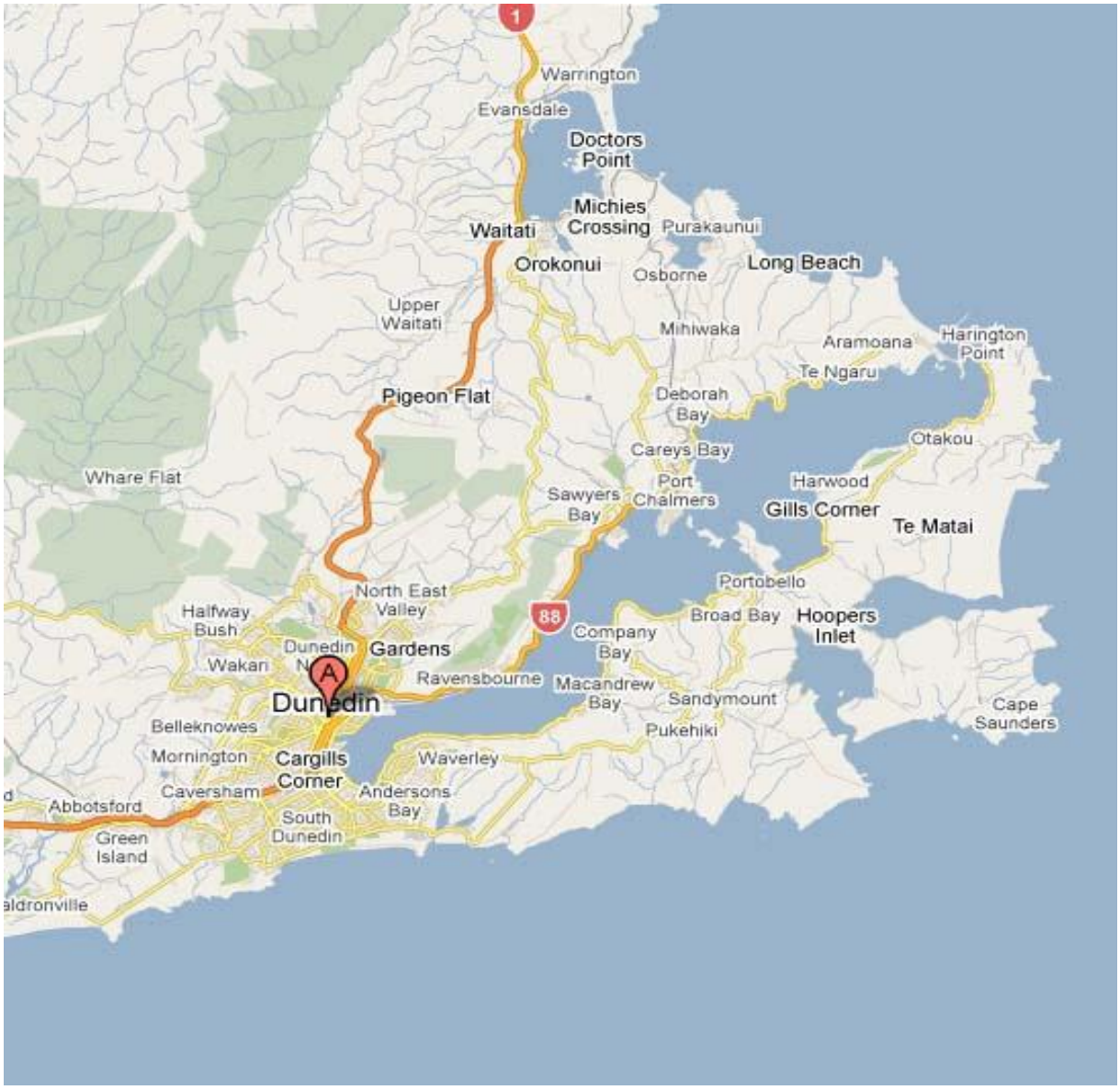
collected and presented by Mary Skipworth (gt granddaughter) 29 Jun 2016

Peter Thomson
image courtesy Noeline Cottam, from Stewart sisters album

**The photo shows him dressed for one of his "Rambles"
with a sturdy stick, a plant press under his arm,
and a vasculum on his back for carrying delicate specimens.**

Bibliography - Peter Thomson

Acknowledgments:
Most of these articles have been extracted from the newspapers *Otago Daily Times* and *Otago Witness,* digitised by the National Library of New Zealand and made available on their website http://paperspast.natlib.govt.nz/.
Maps and photos from Google Maps
For details of Peter's family and background go to
http://www.genealogy.ianskipworth.com/pdf/edinthomsons.pdf



Map of Dunedin and Otago Peninsula

THE BURNING OF THE WILLIAM BROWN

A thrilling story of the sea is that of the burning of the ship *William Brown* off the Western Isles. Fortunately there was only one life lost, but if it had not been for the timely arrival of a passing brig the toll must have been much heavier, and one can readily conceive the fate of the *William Brown* being added to the long list of "mysteries of the sea." A fine vessel of between 400 and 500 tons, she, together with her cargo, was valued at some £30,000. Her commander, Captain Barclay, was a particularly fine sailor, and during the terrible ordeal he acted up to the best traditions of the British mercantile marine. I have been fortunate in happening upon two excellent accounts of the tragedy, one being the story told by Mr. P. Thomson, and the other by Mr. Thomas Hirst. Mr. Thomson's narrative appeared in a contemporary Scotch paper, and I am indebted for a copy of it to Mr. M. G. Thomson, of Dunedin, a grandson. Mrs. Hirst's story was told in a letter she wrote to her children, and for a copy of that I am indebted to Miss Lucy Devenish, of New Plymouth, a grand-daughter of this fine old pioneer lady.

There were nine passengers on the *William Brown*, and the crew brought the total on board to twenty-three souls. In addition to Mr. Thomson and family, and Mr. and Mrs. Hirst, there were also on board Mr. and Mrs. Muckleston, who, like the Hirsts, were afterwards well-known residents of New Plymouth.

The Hirsts had emigrated to New Zealand, and were Home on a trip to visit some of their relations who lived in Yorkshire. People who believe in occult influences will be interested in a rather peculiar incident connected with this family. Mrs. Hirst had an elder sister named Margaret, between the two there being a strong bond of sympathy. Margaret for some reason or other took a strong dislike to the *William Brown*, and did all she could to persuade Mr. Hirst not to take passage by her, but he was anxious to get back to New Zealand, and did not listen to the protest of his sister-in-law. One morning after the *William Brown* had sailed Margaret came down to breakfast depressed and anxious. Pressed for the reason she said she had had a strange vision or dream. She thought she saw the door open, and Mrs. Hirst enter with outstretched arms, saying, "Here we are, Margaret; and we've lost everything." A few weeks later the identical door opened and Mrs. Hirst entered, her hands outspread, and she used the very words Margaret had heard in her dream.

It was on September 5, 1861, that the *William Brown* sailed from London for Nelson, but owing to bad weather and other causes she put in at Plymouth and did not sail from that port until the 17th. Across the Bay of Biscay dreadful weather was experienced, but all went well until October 2, when just after tea one of the sailors put his head down the hatch, and asked in an excited voice for any buckets or pans, as a fire had broken out in the fore hold. "I felt as though my blood had ceased running for a moment, and grew quite chilled," wrote Mr. Thomson, "but to hand up our slop-pans, throw on my coat, and rush forward to see what was the extent of the danger, was the work of an instant. I found that smoke was issuing from out of the bulkhead which divides the forecastle from the hold, and also through the deck at the foremast."

After going back to reassure the rest of the passengers, who were all on deck in a state of alarm, Mr. Thomson went below to collect his papers and a few other things, but even then smoke was entering the cabin. Going on deck again he helped the crew to fight the fire. Holes were cut in the deck, and water was poured down, and it was thought that they were getting the fire under. Just at this stage occurred the only fatality that marked this exciting fire. The captain had sent the steward down into the cabin to get up some provisions, the sextant, and charts, for fear they would have to take to the boats. The man made one trip, and then went below a second time. When the captain called, the steward did not answer, and, fearing a mishap, the captain rushed into the cabin, where he found the poor fellow in a state of collapse, overcome by the smoke. The captain and Mr. Hirst got the man on deck and every effort was made to restore animation, but life was extinct.

All this time the fire was gaining in intensity, and Mr. Thomson, who had a rifle and cartridges, began firing shots in the hope that some vessel would see the flashes. Further desperate efforts were made by the crew, with the help of the male passengers, to fight the fire, but at last came the order to clear away the long boat, and then the passengers knew that the worst had happened. As the boat had been used as a pen for sheep it was in a very dirty state, but it was soon cleared out and with much difficulty launched. The gale that had been blowing had calmed down very much, but still there was a bad sea running, and more than once it was thought the boat would be swamped, or crushed against the side of the burning ship.

Then came the difficult task of getting the passengers off. First came the children, then the women, and then the men, and last the crew. It was a fearful job. A line was passed round the body of each passenger, who was then lowered into the little boat, which was tossing wildly alongside. "A great deal of water came aboard," says Mr. Thomson, "and the passengers were wet up to the middle. Once the boat was nearly down; as the ship rolled, it caught the side of the boat and nearly forced it under, till the water rushed in. I thought all was over, and instinctively began to throw off my topcoat, which was ballasted with over a hundred rounds of ball cartridge, but it rose again immediately, and was with difficulty veered astern, and fastened to the ship with a long rope.

"By this time the flames had broken out through the deck, and all round the forecastle hatch was a mass of flame. The foremast began to shake, and the captain ordered the longboat's painter to be cut, so that the boat might be clear of the ship before it fell, which it shortly did, bringing down with it the main topgallant mast, etc. This was at 11.15 p.m. So here we were, adrift in a leaky boat, over 200 miles from the nearest land, with a very heavy cross sea running which took the utmost skill and attention of the captain and crew to guard against.

"We kept as near the burning ship as we could, as if any ship was near it would bear down on the flames, and we could thus be more readily saved. At 1 a.m. the mainmast fell, and the ship drifted slowly before the wind, while we were rapidly going to leeward and the wind and the sea was getting worse. Shortly after this one of the crew said he saw a vessel's lights coming near us."

The poor people could not believe it at first, but the joyful news was true, and they could distinguish the sails of a brig near the burning wreck. The stranger sailed round, and at one time was so close to the drifting boat that the shipwrecked people tried to attract his attention by shouting. Then Mr. Thomson tried his rifle, but it was so wet that he could not fire it off. The brig hove-to near the burning ship, and Captain Barclay sent off his second mate and four sailors in the gig, which was being towed behind the longboat, with instructions to try and reach the brig, and tell them of the plight of the longboat, which the sailors were unable to navigate in the sea that was running. Fortunately the gig reached the brig all right, coming up to her at about 3 a.m.

In the meantime the longboat was drifting all the time to leeward, and the men left in her could do nothing more than keep her head to the wind and sea.

Everyone prayed for daylight, and when it came there was no sign of the brig, but a little later they saw her bearing down on them, making a zig-zag course in the direction it was thought the boat would drift. Soon she was alongside, and willing hands soon got them on board the brig, which proved to be the *Hedvig Charlotta*, of Stockholm, Captain F. A. Hallengrien, bound from St. Ubes to Rio with salt.

The people of the brig could not do enough for the unfortunate passengers and crew of the *William Brown*, and Captain Hallengrien put in to Madeira to land them so that they could get back to England. It was Sunday, October 6, four days after the fire, that they were landed at Funchal. They landed in a poor plight, one wanting shoes, another a coat, a third a cap, and so on; "a beautiful set of scarecrows," Mr. Thomson called them. They got a very cool reception from the British Consul, and were all billeted on one Portuguese family—two beds for twenty-three people! It was a poor sort of reception, but things improved later on, and, anyhow, they were thankful to be alive.

The next thing was to get back to England. The captain, the mates, and two cabin passengers took passage to Lisbon in the Portuguese mail boat, but the rest of the shipwrecked people had to wait until October 18 for the English mail steamer. Before these people left Madeira their first bad impressions of the Consul and the British residents were quite changed, Mr. Thomson saying that the greatest kindness was shown them, and everything was done to ease the calamity as much as possible by gifts of clothes and other necessities.

Mr. Thomson eventually left London again in the ship *Matoaka* on November 14, 1861, and arrived at Lyttelton on February 11, 1862.

"We had terrible weather through the Bay of Biscay," wrote Mrs. Hirst. "Such gales, and the wind mostly against us. On the second of October the wind changed in our favour, but there was a fearful sea running. We sat rather long at our tea. The captain was cheerful and hopeful, and after tea he went on deck, my husband going with him. In a few minutes later one of the sailors came and said there was smoke coming from the hold. The captain and mates went forward. My husband came and told me, and I put on my shawl and bonnet, and went up on deck. The men came to get buckets, or anything to hold water. Some of the children had gone to bed, but we got them up and dressed them on the poop, and brought their blankets up.

"It began to rain, and we went down again into the cabin, but it was full of smoke and we were obliged to go up once more. I got my pocket with my purse in, and my husband got his portmanteau with his papers and money in. It rained a little, and we covered ourselves with blankets. The scene forward was all confusion. The captain came aft and told us to keep up as he thought they were getting the fire under. The steward got up a bag of biscuits, a cask of water, the captain's desk and sextant. We did not know the steward had gone down again for the chart. The captain called 'Steward!' but there was no answer, and he rushed into the cabin and shouted 'Help!' My husband ran down, and in an instant they brought up the lifeless body of the poor steward. We did what we could to restore animation, but he was quite gone. The captain was obliged to leave him to us, while he went into the cabin to get his chart, my husband calling to him all the time to make certain that he was not overcome by the smoke. The captain succeeded and brought it to me to take charge of. They then closed the cabin so that no air could get in. The captain again came aft and said there was no hope of getting the fire under. He called the men to launch the boats. The women and children sat perfectly quiet and nothing was heard but the voice of prayer, the little boys kneeling on deck, with hands clasped and their faces turned upwards. The words of our Saviour came to my mind, 'Fear not; only believe.'

"The flames had now burst forth with great fury. It was supposed that it was oil and turpentine that was burning. The captain feared that the foremast would burn through. Getting into the longboat, the mate and four of the crew took with them the biscuit and water. We then threw in the blankets, and the women and children were lowered. I was the last of the women. I put my legs over the side and they then tied two ropes round me. There was a roaring sea, and the boat dashed about fearfully. Twice I was lowered, and the third time I landed safely in the bottom of the boat. Then the men passengers were lowered, but the sailors and the captain remained on the ship.

"As the boat dashed against the ship's side we thought every minute she would be stove in, or that the mast would fall over on her. At last we got clear of the ship and dropped astern, being still made fast to the ship by a long rope. All this happened within about four hours from the fire being first discovered. We saw them lower the captain's gig and he was the last man to leave the ship. When they came up to us the captain got into our boat, to which the gig was fastened, and with an axe he cut away the rope by which we were made fast to the ship. I was sitting in the middle of the boat, and the water was up to my waist. The captain would have me move to the end, where the other women were, and as he lifted me up said, "Oh, she has been sitting in the water and never spoke." The captain said the fire would be seen twenty miles off, and that our only chance of being picked up was to remain near the ship. They then cut the rope and we drifted away. It was a great relief, although we feared the result.

"We still kept near the ship, the waves every moment appearing ready to swallow us up. Towards midnight the wind increased, and we had a cross sea. The men worked with all their might to keep the boat head on to the sea, and she was continually working round broadside on, and then there was nothing for it but she would ship a heavy sea, and we feared she would be swamped. Three oars were lost by the men, who worked for dear life. About one o'clock we thought we saw a light, and every eye was strained. In a short time, oh, what a rapturous sight! A green and a red light were visible, and a ship was evidently bearing down upon the burning vessel. Alas, however, we were drifting fast away. By this time the foremast had gone and the vessel was one burning mass from stem to stern.

"Mr. Thomson had his rifle, but the sea had washed over it and it would not fire. We had a lantern and a few matches, but they would not light. The men shouted with all their might, but oh, how faint it seemed! There was nothing but to pray and wait for daylight. The captain's gig was then cut adrift and some men were sent in her to try and get to the ship. It was with heavy hearts that we saw the poor little boat bounce away on the top of the waves, looking no bigger than a cockle shell. We soon lost sight of her. With thankful hearts we saw the first streak of daylight, and then we took one of the oars, and fastened two red handkerchiefs to it for a signal. We had lost sight of the ship for some time, but as daylight increased we again saw her bearing down upon us.

"None but those who have been similarly situated can form any idea of what our feelings were. She was soon near us, and we were very glad to see Mr. Smith (the second mate) and the men of the gig all safe on board. They threw us a rope, which was soon made fast to our boat, and we were quickly safe on board, the captain coming last."

Long beach & Heyward's Point from Mopanui

from *Otago Daily Times* 15 June 1864, reprinted *Otago Witness* 18 June 1864

A TRIP ON THE COAST

The writer of the following notes having had to take a holiday for the good of his health, selected that part of the Coast between the Heads and Blueskin Bay as the scene of his "out," and was landed on the Sandspit, opposite the Pilot Station.

The configuration of the coast between the two points named is rather peculiar, being a series of sandy beaches, divided from each other by high rocky bluffs, the ends of long spurs running down from the ranges a mile or two inland, all these bluffs being densely wooded till within a short distance of the ocean. The water from the gullies generally forms a sort of lagoon on the flat inside the beach; not communicating directly with the sea, except in very wet weather, when it overflows. In the lagoons, eels and a small fish about six inches long,

called by the natives eenik, abound. On the rocks, under tide mark, are large quantities of mussels and other shellfish, and in the holes among the kelp may be caught crayfish, hardheads, &c, while lower still may be seen the beautiful pawa, or mutton-fish. On the beaches there are at all times large flocks of redbill, snipes, gulls, sea pies, &c.; and occasionally on the lagoons are numbers of ducks and teal. In the bush are plenty of all the usual birds—pigeons, kakas, tuis, &c.

Coastline west of Otago Heads - refer also Peninsula map, page 2

It will thus be seen that all the elements necessary for sustaining a rude life occur on this range of coast, and accordingly we find that the Maori once lived here in considerable force, every one of the beaches having had its full complement of population. The beach from the Spit to Heywood's Point was named after the chief, Big Fellow; the one immediately to the west was named after another, Kai- Kai; the next one, the shortest of the series, is called Murdering Beach, from a sad episode in the annals of whale fishing, when the boat's crew of a vessel which had put in for water, were set upon for some imaginary cause of quarrel, and fourteen of them massacred. The settler presently living there has euphonised the name into Murmuring Beach, which is also quite appropriate, as the surf may be said to be always murmuring. The next flat is called Long Beach, from its size; and on it must have lived a very large population indeed. The next indentation on the coast line is much deeper than those mentioned, having a narrow entrance, but opening out into a large expanse of flat sand, covered at half tide, and is called Purakauni [sic] Bay. Here alone, of all the many natives who once lived in this locality, are still to be found a few, living on a grassy flat at the head of the bay, supporting themselves by fishing, &c. A mile or so further on is the well-known bay, named after a native who was so much tatooed as to merit the appellation of 'Blue Skin.' From this bay the coast trends away to the north to Waikouaiti.

On the slopes leading down to these bays, &c, there is plenty of fine agricultural land; but, as was said before, all very heavily timbered, and possessing the disadvantage of not having any direct access. The distance from Port Chalmers or the Main North Road is not so very great as the country is difficult; and landing from a boat dangerous five days out of six, on account of the heavy surf. Precipitous tracks exist over the various bluffs, by which a desultory intercourse is kept up among the few settlers who live on the coast.

Of their long residence the Maoris have left many traces behind them. The remains of their whares may be seen everywhere; and the writer of these lines spent a few hours very pleasantly fossicking about in search of greenstone and other relics. He was pretty successful in his research, having found several specimens of axes, adzes, and so on. These implements appear to have been dropped in the sand, and so lost; the

sand which covered them being afterwards blown away by the wind. Little is left of the houses except the stumps of the posts which formed the walls; but all round may be seen groups of firestones and large heaps of shells and bones, the *debris* of many a feast. Here and there, in little out of the way hollows, may be seen the bleached bones of the former lords of the soil, the wind having blown away the sand in which they had been buried. These are principally to be seen on Long Beach, where, along the inner edge of the flat, close to the bush, there must have existed a sort of street, about half a mile long. Very little traces of the houses are left, but all along the line are large heaps of shells, bones, and stones. It is among these heaps that the stone implements are found; but also, scattered over the surface are pieces of flint of all sizes and colors, from white granular quartz to brown and yellow cornelian, and nearly transparent calcedony. Some of these exist as sharp flakes, and were perhaps used as knives or scrapers for preparing the flax for use. Pieces of a smooth compact close-grained sandstone also abound, evidently the remains of the hones on which the greenstone axes were polished and sharpened.

The preparation of these tools was confided to the old men of the tribes who, the writer was told, used to come out in the morning with their work—a bit of greenstone, a hone, and a dish of water, and sit on the sand wrapped in a blanket, grinding away the whole day. The time taken to finish some of the specimens seen by the writer, by such a slow process, must have been enormous. Indeed, some of them may have taken years of patient unremitting toil. When we add to this, the immense distance of the locality whence the stone was brought, far away in the interior, near the West Coast, there is little wonder that the natives attach great importance to the possession of greenstone. It generally took nearly two months for a party to travel to the locality in question, detach a few pieces and carry them home, there to be split and operated on as above described. It seems to have been split as thin as required. A groove was then ground on each side the size of the article wanted, till it was thin enough to break off, and then ground into shape, sharpened and polished. After being lashed into an appropriate handle, the axe was then ready for use. But at the best, what a poor weapon compared with the steel axe or tomahawk, with which the Maori would become acquainted through the visits of the Pakeha. However, the natives still put great value on these tools, and particularly on the war axes or meres, which are handed down from father to son, and from chief to chief. The present chief at Otago, Korako, has in his possession, officially, several very fine meres; one in particular is of a very fine texture, being of a beautiful green, nearly transparent, and valued at between £4O and £5O.

Among other relics picked up by the writer were some teeth, which had formed part of a necklace; a bone fish hook; some buttons or brooches made out of the pawa shells, &c, all displaying taste and skill, as well as great patience in execution. Two stone-sinkers for fishing, round as a shot, with a groove cut to receive the line were also met with.

Not the least interesting of the various objects found on these beaches is a bronze medal, evidently one of those which Captain Cook bestowed on the more friendly of the natives with whom he came in contact. The medal bears on one side the effigy of George III, with the usual inscription, and on the other side Cook's two ships are portrayed (and queer-looking things they are, with high poops and forecastles). The names of the ships and the date of their sailing are given round the edge. Both sides are in a very good state of preservation, and every letter legible. [This medal was gifted to Otago Museum in 1925. Refer also page 160 - Cook medal]

On Long Beach there is a very curious hollow, situated at the extreme end of the line of houses. It is perfectly clean, covered with fine gravel, and not a blade of grass over its whole surface. I was told it was the place where the natives used to hold their great koreros, or public meetings.

In the lagoon here there were two natives catching eels. The mode was rather singular. Wading into the water they poke about with their feet until they feel a fish,

when they strike down with a short spear, and sometimes manage to secure a large number of eels in a short time. They are very fond of this fish.

Off the various points fish are abundant, and a few porpoises may generally be seen rolling about. Baracouta and groper can be caught nearly the whole year through. Most of the bones in the heaps referred to belong to those two sorts of fish.

It thus appears that New Zealand has passed at once from the stone age of the archaeologist to the iron age, without passing through the inter-mediate or bronze period. Can this account for the semi-civilised state in which the Maori remains—clinging with one hand to some of the old ways of the savage, while laying hold with the other to some of the fast ways of the go-a-head white man. But what can account for the almost total extinction of this fine race of people? Between Otago and Waikouaiti there is not now a dozen of the Maori race living, where there must have been hundreds. Of the Otago and Waikouaiti tribes, very few are left, probably not 50 in each. At this rate, a few years more and this Province will have lost the entire native population, or, at most, there will be so few as to be more thought of as a curiosity than as part of the people.

After spending a very pleasant week in thus ranging the coast, the writer started for town by Purakanui and Blueskin, crossing the bush to the first, and a long high range to the second, striking the Main North road about the twelfth mile post, and so home by the Junction and N.E. Valley.

PAKEHA. Dunedin, 9th June, 1864

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from *Otago Daily Times* 2 July 1864

"FISH, OH!"

In the present dearth of anything in the shape of news, perhaps a few words about the Fisheries of Otago—what they are, and where they are—may not be uninteresting to your readers.

But first, a word or two about the fishermen. I do not include in this class those who sell the fish, they are a distinct genus, and have little in common with the fishermen proper, those who catch the fish. Indeed, as the trade is managed the interests of the sellers are very often opposed to those of the catchers of the fish. The latter are generally men who have been at sea for some time; very seldom have they been brought up to the trade as practised in the old country. They, are, as a rule, of a careless, happy-go-lucky disposition, content if they earn as much as provides for the wants of the day. Representatives of many different nations are to be found among them, and they are very generous and hospitable. They are generally associated in small parties of from three to five, one of them owning the boat and gear. The proceeds of a trip are divided as follows:—Suppose £10 is earned; £2 is taken for the boat. Out of the balance about an equal sum may he taken for stores for the crew, and what remains is equally divided. Apparently the owner of the boat thus gets double the share of the others, but out of this he has to keep the boat in repair, provide oars, ropes, sails, &c.; and it is obvious that this must at times be rather a heavy item in his expenses. The boats are generally whale boats, with a crew of three, four, or five, according to circumstances or the season, more men being required in winter than in summer.

Most of these men live in huts and tents on the Maori Reserve near the Heads and are generally on pretty good terms with their native neighbors, though, very frequently not far removed from them in the scale of domestic comfort. Living so near the open sea gives them the advantage of being ready for work whenever the weather permits. There used to be a few small half decked cutters, from five to ten tons burthen, engaged in the trade; but recently these have all been withdrawn, and there are now none but open boats used. The outfit for one of these boats consists of a couple of lines for each of the crew having two or more hooks attached, the bait used being a bit of fish. In the barracouta season there are provided; the proper rods, and a number of spare *pahs*. A baracouta rod is seven or eight

feet long, with a strong line of about four feet, to the end of which is attached a piece of cedar—the *pah* about one inch square and six inches long, through which is driven a long nail, bent and sharpened in a peculiar way. This is thrown into the water from the side of the boat, and played about just under the surface, so as somewhat to resemble the motion of a fish; and the more splashing and noise it makes the better. The fish sees this—makes a bite at it—and is at once hooked by the nail and thrown into the boat. Going on in this way, if the fish are biting anything freely, a party of three or four men will fill a boat in a very short space of time. Indeed, during the most of the season—from October till the end of March—there is no trouble whatever in getting a load of baracouta; a dingy, a punt, anything that will float, could be filled with fish just outside the Heads. The lines are generally over the side all the time, for the purpose of catching a few groper, &c; but during the baracouta season, however, there are seldom anything but sharks caught.

I have hitherto spoken of the outside or deep-sea trade; there is another class of fishermen—those who use the seine net in the shallow water of the harbor. They generally live about the Port but a few of them are completely aquatic; and cook, eat, and sleep entirely on board their boats, which are flat and lightly constructed, so as to be easily hauled ashore and pushed off again. At the stern is a broad platform on which is coiled the net, which consists of three parts—a bunt and two wings—the bunt having smaller sized meshes than the wings. These nets are from 40 to 6o fathoms or more in length, about four feet deep in the wings, increasing to 12 or 15 feet in the bunt. The top is corked, and the sole leaded in the usual way, and they are run out from the boat with the tide. The time for fishing is generally an hour before till an hour after low tide, when the water is confined to the channels.

This fishing is managed by parties of two or three men, one of whom stays on shore with one end of the shore rope, while the others runs out in the boat so as to take in a curve off the shore proportioned to the length of the net, which is run off the stern of the boat. When the net is all paid out, the boat is run ashore, a rope which is attached to the end of the net being run out at the same time. The boat being made fast, the men immediately haul away on the ropes till the net is gradually drawn to the bank. As the ends close, of course all the fish that may have been in the piece of water enclosed in the sweep make for the deepest part, but here they are met by the bunt, which is about three times the depth of the wings; and as the net continues to be hauled in, the space gradually narrows until the whole comes ashore, when the fish may be seen tum-bling over each other, making frantic efforts to escape. Considerable skill is requisite in the management of these nets, particularly in the paying out from the boat, and the hauling in again to the shore with the fish.

Fishing is carried on all over the space between Cape Saunders on the south, and Waikouaiti on the north. A bank extends from the Heads, which gradually deepens as the shore is left behind. On the bank, during the spring and summer months, are caught abundance of white cod, groper, ling, skate, and baracoutas, with an occasional schnapper and other odd fish. As the season goes on, the fish seem to retire to the south or to deep water, and the boats have then to go to the neighborhood of the Cape, where groper and the blue or rock cod are generally plentiful. The white cod has been getting scarce for some time—probably owing to the increase of seining, as this fish comes into the shallow waters to spawn, and is disturbed by the nets, which capture large numbers of the young. Ling and skate are common enough, but are not much in demand. Groper is a fine large fish, and is not half so much in request in Dunedin as its qualities would lead one to suppose. Baracouta is like the herring in the old country, so abundant as to displace nearly all the rest. Indeed the writer has seen the whole water in the neighborhood of the Heads, as far out as the eye could see, and as far up as the Cross Channel, quite alive with fish, leaping and tumbling over each other, and making the sea, otherwise smooth, glitter and curl in the sunshine, as if a fresh breeze blew. It is not likely that the above list contains all the fish that may be found in the waters of Otago, but if there are others,

they are so seldom caught as to form but a small item in the whole.

In the Harbor are caught flounders, mullet, trumpeter, gar fish, codling, silver fish, trevalhas, &c, all of which are much scarcer than they used to be. Indeed, unless some sort of close-time be allowed, these fish, will be known in Otago Harbor only in name. Flounders are gradually getting smaller, and gar fish are very rare. The nets are worked nearly every tide, and as fish have got scarce, smaller ones are caught and sent to market. The Government ought to see to this; otherwise, what is now a source of employment to a good many boats crews, will gradually die out, and such a thing as a flounder on a breakfast table become a myth. Either two or three months a year should be set aside as a close time, or, the size of the meshes should be so regulated that no fish be caught under a certain size. In the Lower Harbor at one time, more than a dozen boats might have been seen fishing in one part of the channel, tide after tide, for weeks together. It was like killing the goose which laid the eggs.

A few seine fish are brought round from Purakanui and Blueskin occasionally, but not in quantity sufficient to influence the market.

Crawfish are caught at the Point in fine weather. This crustacean inhabits the sides of the rocks just within the surf; so that it is not at all times safe or practicable to reach the few spots where a net can be worked; hence the irregularity in the supply, for they are very abundant all round the coast.

Oysters are found in the Lower Harbor, and in Blueskin Bay, Hooper's Inlet, and Wykliffe Bay, but not in very large beds. Dredging has been carried on for some time, with varying success. From the circumstance of the shells being pretty common on the outer beaches, it is probable that an oyster bed exists on the bank of the north and west of Tairoa's Head. Pretty fair sized oysters used to be brought from Stewart's Island, where they abound in some of the harbor.

The rivers and lakes in the interior contain abundance of fine large eels; a few are brought to market occasionally, but there is no regularity in the supply. The fresh waters of the Province do not apparently contain any other sort of fish but as the salmon experiment has been successful in Tasmania, it is to be hoped that a very few years will elapse ere this king of fishes will be introduced into the rivers of Otago.

At the present time (June, 1864,) there are upwards of 30 boats occupied in the Otago Fisheries, employing about 120 men. Including the dealers in town, about 150 may be considered as being directly engaged in this department of industry.

There have been very few fish cured this season. Various parties, have been engaged in the trade at different times, but the experiments have always been failures commercially. It has been found an insurmountable difficulty to procure a market for the dried fish. Large parcels have been sent to the diggings, to Melbourne, and other places, as well as different stores in town, but somehow the article does not seem to be in demand. The result has always been a heavy loss to those engaged. There are three smokehouses standing yet, but none of them in work. Salting the fish and packing them in casks, when plentiful and cheap, has also been tried, but with a like result. Only in one case has the writer heard of a profit being made, and in this case, it was something like a fraud; for the parties procured old herring barrels, filled them full of salted mullet, and sold them for Scotch-cured herrings.

In the hope that I have not been tedious, and promising to return to the subject shortly, I now bring my remarks to a close.

PAKEHA. June 24th, 1864.

CRAY FISHING

Did you ever see a live crayfish? I do not mean in a basket, or in the window of a shop in the Arcade, or in a boat alongside the jetty; but in its native abode, among the rocks, and in the surf which beats perpetually on the iron-bound shores of this part of Otago. If the reader would like to learn a little of the habits of this curious animal, and see the process of capture, let him accompany the writer on a cray-fishing expedition.

We will suppose the preliminary run to the Heads over, and all the arrangements as to nets, &c., attended to, and proceed at once over the wide expanse of white sand which forms so singular a feature in this locality. This sand is spreading slowly but steadily in an easterly direction, and has during the last twenty years covered a considerable amount of good land, as well as the sites of several Maori houses, and a wide shallow lagoon of fresh water; and will no doubt ere long work its way to the top of the saddle, and so over to the beach on the other side. This is evidently due to a prevalence of westerly winds, as well as, in the writer's opinion, to a gradual rising of the land, thereby exposing more and more of the beach to the action of the sea and wind every tide. It is very fatiguing walking over the loose sand, the feet sinking three or four inches at every pace, and as the way lies up a pretty steep hill the work is all the harder. But every hill has a top, and so has this; and what a magnificent view we have now, it amply repays the labor of ascent. The whole of the Lower Harbor lies at our feet, right up to the Port; every channel marked plainly by the different colors of the water, and dotted here and there by beacons and buoys; while several boats and other small craft moving about, give life and animation to the scene. The spit on the northern shore with its wrecks, and the high, bold promontory of Heyward's Point, bound the view on the opposite side; while the round bluff of Harrington Point serves a similar end on the right, leaving a long strip of water visible away up to the cliffs to the north of Blueskin. To the eastward is the ocean, with, luckily for our purpose, very little swell on; the far horizon sharply defined as if cut with a knife.

Having now breathed ourselves thoroughly, let us begin the descent on the opposite side. Our way lies past several Maori houses, in our opinion very badly chosen, as the drift from the sand in windy weather must be very uncomfortable, as well as its being certain in time to cover all the ground about. There is some excellent land about here, and the natives have some enclosed paddocks with pretty fair crops of potatoes, &c. A goodly number of cattle, horses, and pigs are straying about the neighbourhood.

Leaving the clearings we enter the bush and commence a pretty steep descent by a gully towards the beach, getting fine glimpses of the ocean as we proceed. We come out on a little grassy bluff, bounded at the bottom by high rocks, against which the surf beats constantly; but by inclining a little to the left we find our way down by a broken shelving part of the rock, which here is of a very peculiar nature, having a burnt, irony appearance, as if it had been all in cracks and melted metal poured in among them. By the action of the surf all the softer parts of the rock have been washed away, leaving the harder parts standing out, which makes the rock very difficult to walk over. A copious stream of fresh water issues from a crack in the rock here, considerably under high water mark; it is very cold, and has a slight chalybeat, taste. It forms, as it runs, over the rocks, a number of small pools; and it is curious to taste the water as it nears the waves. The lower pools are bitter as the sea, and they get fresher and fresher till you get up to the spring. There is no more fresh water to be had after we pass this point, so laying in a supply we leave it behind.

Watching our chance at the reflux of a wave, we leap across a small creek and find ourselves on the firm smooth sand of a small bay, surrounded on every side but the seaside by rocks of 300 to 400 feet high. The other end of this bay is covered with fragments of rock which have fallen from the cliff overhead, and are heaped above each other in irregular but very picturesque masses, through and among which the surf is rushing with considerable force and noise. It is in these channels that the crustacean against which we are about to wage war is to be found. To reach a place where a net can be worked with anything like ease or effect, we have to pick our way over these blocks as we best can. After a little scrambling a point is reached where all further progress seems barred by a perpendicular face of rough rock, past which there are two ways of getting, however; one is

by climbing over at the inner side, close to the main rock, the other is by going round the outside, holding on to the little projections left by the sea washing away the softer portions.

It was in coming round this point one day after a successful catch of fish that the writer had a rather narrow escape of losing his life. He was coming round as usual, holding on to the various knobs of rock, when, just as he had got to the very point, hampered with his net and a bag of fish round his neck, one of the points by which he was holding came out, and he dropped right down into the water. Luckily, it was deep enough to swim; for a big roller came in just at the time and broke over him like a thousand of bricks. Half stunned and choked he was hurled with great violence against the rocks, but had presence of mind to hold on by some weed, which prevented the force of the returning water from carrying him away again; and watching his chance he swam round to the stones on the other side, where he found his net and his bag, the former torn and the latter emptied of half its contents—Messrs Crayfish having taken advantage of the opportunity to make good their escape. Stripping off his clothes and spreading them on the rocks to dry, he found he had sustained little damage beyond a few scratches. To make up the loss of the fish he turned to and went in to the water bodily after some more, and by groping about in the most likely places, managed to secure as many as he had lost, by which time his clothes were dry again, and he was able to start for home.

But after this long digression, it is time that you were shown something as to the mode of capture. The net is a bag, with a pretty wide mesh, about two feet in diameter at the mouth, which is kept distended by an iron hoop; at the bottom is tied a bit of old fish as bait, ballasted with a small stone. The whole is slung to the end of a long line, sufficient to reach the bottom and leave plenty of slack. Let us now make a heave, and wait the result. Here is just such a place as will do. There is a good depth of water, and the seas come in "solid," the side being steep; and all round there are sure to be plenty of our prey roaming about in search of food, using their long feelers as we of the genus *homo* use our tongues, tasting whatever they come across. They are very combative, and if two meet over an edible fragment there is sure to be a fight, and then they tumble over each other in great style, quite *a la* King and Heenan. Those feelers—the antennae—are sure to suffer first, indeed most of the large crayfish caught are more or less scarred in this way, some wanting a limb altogether, or having one shorter than the others. In common with the other members of the family, the crayfish has the power of reproducing a lost limb. When the water is smooth and clear, they can be seen clinging to the rough parts of the rock, or crawling about on the bottom, forwards, backwards, sideways, or all ways at once, or take a fit of swimming, which they do with great speed, stern first, by means of their tail.

Let us now make a haul and see what luck we have. Up they come, two or three of them; what a row they make! Gently with them, for they fight like cats, and draw blood easily. There, hold the bag. Here is a big fellow, more than a foot long, and three smaller ones. All secured, stand by for another heave. Down goes the net again. Let us make fast the line and take another means of capture which can be employed in some of the nooks—the spear. Here is a place where the water is quite in the shade, being overshadowed by a big stone, but quite clear and smooth. Leaning over the rocks the sides and part of the bottom can be seen easily. There are no crustaceans worth trying to spear, but there is a fish—a hardhead—just within stroke, if he will only wait till I get a little nearer. Swish! I've missed him, have not allowed enough for the refraction of the water, and only stirred the sand up. But he has not gone far, and will come back. There's a crayfish just coming round the corner, and within range. I have him, right through the back. Just lay hold of him, while I see after Mr Hardhead, who has, as I expected, taken up his position in the nook where he was first seen. I have him this time. How he struggles! But he can't get off; so into the bag he goes. He doesn't look very well, but he is splendid eating after his thick coat of scales is off. Now, let us to the net again. Better luck still, about a dozen this time. Another haul like that, and we shall have as many as we shall care about carrying over the hill.

While the net is down, let us examine minutely one of the curious creatures we have just caught. If ever any living creature betrayed evidences of Design, we have it here. Everything about it is beautifully adapted to the life it is intended to lead. The eyes are placed on stalks (pedunculated), so that it is enabled to see all round it at once; independently of which it has the long feelers

for poking into places where the eye cannot pierce. Intended to live among troubled water, where the sand would be very apt to get into its numerous joints, every one is provided with a brush to keep it clean. Nay, even its lungs are provided with brushes, which sweep out all the passages. (What a handy thing it would be for us, were we able to do something of this sort.) In this part of their economy there are two fine little Archimedean screws, constantly at work, propelling the water through the gills. Near the eyes there are two queer little organs, finely jointed, something between a brush and a toothpick, which keep constantly nodding to each other, as if they were talking, they are probably picking up stray particles of food from the stream of water caused by the action of the gills, for they drop down to the vicinity of the mouth every now and then. The mouth, too, is a singular organ. How would men look were the jaws placed vertically instead of horizontally in the face. It would be rather a difficult matter to take soup. But so it is with this animal, and a very nicely constructed mouth it is too. The whole digestive apparatus will well repay any one who likes to examine it, from the footjaws outside to the stomach inside, which, by the way, contains four teeth. A more profitable way of spending a half-hour (it would be with the very best Author, too), can hardly be recommended than in studying the economy of a crayfish. It has this advantage over other study, that after you have completed the examination, you can eat him.

But don't let us forget the net. Haul away again. Only two this time. Better luck next shot. But we have got a stranger in this haul—a spider crab. What a contrast between the two, and yet something like after all. The body short and square; no tail visible; the same number of legs, but two powerful nippers are attached to one of the pairs; the carapace prolonged into a sort of beak over the eyes; the legs long and thin, and seeming to possess but little power; indeed the animal is very sluggish. But look out; there is a big sea coming in. Pick up the bag! Oh, never mind a little salt water, you won't catch cold from it, and you will soon dry again. However, this is a gentle hint for us to be under way; either the sea is getting up, or the tide is rising fast, in either of which cases we might find a little difficulty in getting dry over the rocks at the other end of the bay. So we will get up the net again. Carry it off bodily. Up you go, just in time; the tide is rising sure enough. Now that we are clear of the water we will make our catch a little more portable; so. Take you the net and line. Cautiously over this place; a false step might cost a broken limb or even a life. But gently does it; and we are once more on the sand, over the creek, and at the spring on the rocks at the other end. After a hearty drink, and a look at the grand rocks overhanging the little bay in which we were working, all along the base of which the surf is beating furiously, we brace up our nerves for the ascent of the hill again. We will not go down by the sand, but take the track through the bush which skirts its edge, and after a beautiful walk of a couple of miles or so, find ourselves at the lower end of the sand, close to the little natural harbor “The Rock," where our boat is moored. After a smart pull with the tide in our favor, we arrive at the Port, and in a few minutes more are on board the little Peninsula, steaming gallantly off for town.

July 30, 1864. PAKEHA.

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from *Otago Daily Times* 8 August 1864

OUR PORT DEFENCES

In the present juncture of European politics, when every mail may bring us the dreadful news that we are plunged into war some other country, it may not be out of place to look at the defences of the Port, and see what might occur were war to break out; and, at the same time, how to prevent, or at least mitigate as far as possible, the dangers resulting from the visit of an enemy's ship. Presuming, of course, that it is only from an occurrence of that nature—being laid at the mercy of some smart cruiser—that we have anything to fear.

Let us see, then, what he is likely to do. It is not at all likely that any such measure as that of shelling the town would be adopted. It would only be threatened. The place would be laid under contribution of so much, to be paid within so many hours, under the usual threat of burning or shelling the city. An armed boat's crew would be landed with some such ultimatum. The money would be paid, and the cruiser might then retire, only to give place to some other, of perhaps more rapacity; or even, emboldened by success, to return again a second time, to levy a still greater contribution.

As things stand at present, there is nothing to hinder a smart vessel, with a good crew and well commanded, from doing just as the commander pleases, with the Port of Otago, and all that is in or about it. With a swift, light-draught, well armed steamer, the thing is easy.

Let us now see how such a calamity is to be avoided. As a primary step, all the buoys in the channel should be removed, or altered so as to be, to a stranger, useless, the leading marks taken down, and, in short, access to the Port rendered as difficult and dangerous as it is now easy and safe. This would give time for the authorities to organise some means of resistance. But something more requires to be done, and this is to prevent a hostile vessel getting into the Port at all. For this purpose two batteries are requisite, the sites to be at the Heads—one on Harrington Point—the other on the Sandspit opposite. These batteries would be so placed, that their fire would converge on a given spot. Built as low as possible, so as just to be clear above high water mark, they would at the same time present no mark for a ship to fire at, while they would be in the most formidable position for doing damage to a vessel trying to run the passage. There need be no hesitation in saying that two such forts, of four or five guns each, well handled by smart crews, would be able to give a very good account of any vessel ere she had time to get into their rear. Her bows would be knocked to pieces, her masts carried away, or her machinery disabled at the first round. By systematic drill towards such a purpose as this; by frequent practising at ball firing at such a space as would be filled by an advancing vessel, the crews who would man these guns could be made to blow a vessel out of the water ere she had the chance of firing more than her bow guns once or twice in her own defence.

But supposing a vessel had made the passage, had actually got into the harbour; what then? Our next line of defence would be an iron clad moveable battery, of steam power sufficient to move her easily about, and armed with four or six heavy rifled guns. She would thus be able to take up a position in any narrow part of the channel, and hold her own against all comers. There are two or three places between Harrington Point and Port Chalmers where this could be easily done. A third line of defence would readily be made at the islands dividing the lower from the upper harbour. These islands are admirably placed for defensive purposes, indeed, the small island might be converted into a second Gibraltar, completely commanding, as it does, all that narrow passage. With that island properly fortified, and the floating battery moored just inside of it, it would be a matter of impossibility for a vessel to force its way through.

All this, however, speaks to a very heavy outlay; and in the present state of colonial finance, it seems as if expenditure on such barren works as those required for the defence of our town and port from insult by some audacious privateer, will be about the last things thought of. But nevertheless the fact remains all the same. So it is high time the authorities were looking ahead; for sooner or later the time is sure to come when such works will be wanted, and as usual most wanted when it is too late to construct them. Advantage ought to be taken of the zeal of our gallant Volunteers, especially the Naval Brigade, have them drilled to some such work as that mentioned above. As things go, it will be on Volunteers that the work will fall; and the sooner they are made to know and understand thoroughly the work they will have to do, the better it will be done when it is wanted.

August 5th, 1864 PAKEHA.

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from *Otago Daily Times* 15 August 1864, reprinted *Otago Witness* 20 August 1864

PORT DEFENCES AND OUR VOLUNTEERS

It is very satisfactory to see that this subject is receiving a share of public attention, and I read the article in our paper this morning with a great deal of pleasure indeed. It is not a day too soon, for every hour that runs by makes the danger all the more imminent. It is highly necessary that the Volunteer-ing spirit be stirred up in the town and neighboring district. I am sorry to say that at present it is in a very languid, indeed, almost moribund condition. There is something wanted to infuse life and animation into the whole movement. The attendance at drill is becoming less every week, and the more enthusiastic members among the various corps, are losing heart, and resignation is frequently mooted. No doubt a

good deal of this is owing to the weather, which prevents all outdoor drill, and men soon get wearied of the room. A little is also due to the want of arms, which are not in sufficient number; and on the part of the Artillery and Naval Brigade, which corps have only a wooden model to work with, the whole thing looks too like child's-play to be recognised as part of the stem training requisite to make a soldier.

But what is really wanted is that the Volunteer principle should become wide-spread, universal in fact. We maintain that every man in the colony should be a volunteer; that is to say that every man between the ages of 20 and 40 ought to be able to handle a rifle, to load rapidly and shoot correctly, and to know sufficient of the light infantry drill as to be able to turn out armed and take up his position at the sound of the bugle, ready for any movement of attack or defence; or to run to his battery and gun, have her loaded and run out, ready to take good aim at any advancing foe. A population such as this, with proper works, and under proper command, would be in a word, impregnable. But to bring them into this state will take a very long time indeed, as things are going on at present. For that matter, I am afraid that nothing short of the actual occurrence of the calamity we so much dread will awaken the people out of their present state of apathy or torpor towards the defence of our hearths and homes from the ravages and spoliation [sic] of an audacious enemy.

There are plenty of brave men among us, men with the heart to dare and the hand to do; but bravery is nothing without system, without organisation. Were the occasion really to arise, I have not the slightest doubt plenty of men would be had. It is very well to sneer at the movement, or to pat it on the back with faint praise; or even, as some will say, "Oh, your first line of defence would be the back of Flagstaff!" If the time should ever arise, our Volunteers will be the men to be found in the front rank, and the first to occupy the post of honor, that where there is the greatest danger. But God forbid the time should ever come.

On taking a look at the district in which Dunedin is situated, there seems very little probability of an attack being ever made upon it from any other quarter than the harbor. To the north of the town, over towards Blueskin and Purakanui Bays, a force might be landed; but beyond destroying a few settlers' houses or the like, nothing else could be done. No force, unless it were very strong, in fact an army, would ever attempt to march on Dunedin. Nearly all the country between is covered by bush which soldiers could never penetrate. The road could be defended by a small number of men and two or three light guns against any force, at several points. All along the south and east we are well protected by the heavy surf which always breaks on the coast, from any landing of forces. No doubt, we have the example of Sir Ralph Abercrombie at Alexandria, where the British forces landed from boats on the beach, formed and drove the French troops over a range of sandhills, which may be supposed to somewhat resemble those of Otago; but the surf of the Mediterranean is not the surf of the Pacific, and we may consider ourselves pretty safe from any attempt on that side.

It follows, therefore, that all our efforts at defence will have to be directed to keeping an enemy out of our harbor; and our military authorities ought to examine the locality in order to the drawing up of some well arranged plan of defence, by which the various corps, detachments, contingents, or whatever they may be named, may at once be able to commence a course of drill, having such an object in view. Above all, no time ought to lost in procuring a liberal supply of arms and ammunition, for both artillery and riflemen, and cutlasses and carbines for the Naval Brigade, as well as the organization of boats' crews for services on various parts of the harbor. Night attacks, boat attacks, and every sort of movement that would enable the men to know each other, and work with and depend on each other, should also be adopted. The Pilot staff at the Heads could also be made into a powerful adjunct to a Defence Force; from their intimate local knowledge they would form an admirable corps for the works in the lower harbor. From Port Chalmers could be drawn a very strong contingent for the Naval Brigade, a large proportion of whom would likely be men who know their drill well, having learnt it on board ship. So that on the whole, we need not fear for men; if the Government only send us plenty guns, powder and shot, the rest is easy if we are well led. Let the Government erect the works, and find the necessary armament, and men will be found to man them, and should the time ever arise, make the proper use of them.

PAKEHA. 11th August, 1864.

A NIGHT WITH THE SEINE

Some little time ago, having some spare time on my hands, I made arrangements with some friends to accompany them on one of their regular fishing expeditions among the channels of the lower harbor, and for the purpose went down to their tent at the Port by the last boat from town. Found them all ready for a start; but as it was not high water till after ten o'clock, we turned in for an hour or two's snooze, seine fishing being only carried on here about the time of low tide. Turned out again a little after midnight, and in a very short time were on the water. We were a party of four, in a fine light boat, well provided with a new seine net, nearly 50 fathoms in length, with all the necessary tackle.

The tide was fast ebbing, and the night was very dark. The various vessels in port, as we pull past them, loom large and indistinct. Our intention is to try first some of the channels in the middle ground —that large portion of the lower harbor to the south of the main channel. For this purpose we keep that channel till we are off "Pull-and-be d___d Point," when we turn in to the labyrinth of little runs and channels between that euphoniously named point and the opposite shore. There is just light enough to see to steer by, and we pull boldly on, though not without feeling the keel of the boat rubbing and scraping on the bottom now and then. After a little we arrive at a place where there seems more water, and we here make preparations for our first haul. For this purpose one of our party is landed, who takes in charge the end of a line which is attached to the net. Two of the others then pull the boat away from the shore, while the fourth looks after the net as it runs off the stern, where it has been nicely coiled away on a broad flat board, placed for the purpose, so as to fall into the water smoothly. The lower side of the net being loaded with small pieces of lead at short distances, and the top floated with corks, when it falls into the water it of course assumes a vertical position, and remains so until it touches the bottom with the lower edge. A semi-circular course is steered, so as to take in as much surface as the length of the net will allow, and when the net is all in the water the boat is pulled direct for the beach. All hands jump ashore, and commence hauling in on the lines attached to each end of the net, gradually closing both ends as they come in. The net is then drawn in with a slow, steady motion, hand over hand, care being taken that the top is not brought in before the bottom, or the reverse. As the space enclosed by the net becomes gradually narrowed, the fish commence retreating from the net, and were now to be seen in the gloom of the night flashing about in the water, some of them running themselves ashore in their endeavors to escape the advancing danger. We now had the satisfaction of seeing that our labors were so far to be crowned with some success, for as the net came in quite a crowd of fish came with it, composed of mullet, flounders, and cod with a few trevalhas. They were speedily gathered in a basket and deposited in the bottom of the boat. The net has now to be "overhauled" and recoiled on the stern of the boat, to be ready for another haul.

As the tide is still running out, we determine on making another haul in the same channel; but we pull across, and work the net from the opposite shore, of course pulling the boat, &c. with the tide. This time we are not so successful, only netting some cod and half a dozen flounders, so we determine to make at once for the bottom of the cross channel, where there are some likely spots for mullet and flounders. The net is coiled away as before; we all get aboard, and pull away down the channel. It is getting near daybreak, and already the opposite shores are becoming visible; but we soon spin our way through the water, and running the boat ashore on the beach prepare at once for another haul. It is always coldest just before daybreak, and it is no sinecure wading along the margin of the water with the shore line. But the net is soon all paid out, and the excitement of the coming catch makes us forget everything else. We soon have the ends of the net ashore, and are steadily hauling in on the net itself, which this time comes in very light.

But the tide is now turning, and the "young flood" is always reckoned the best time for netting, for then the fish come in to shallow water to feed; so we go at it once more, and this time with very fair success. It is quite light now, and we see the fish easily as they dash back and forward in the gradually lessening space. It is no use, however, the net is in too steady hands to give them the chance of a return

to the deep water. And in they come, tumbling over and over each other—flounders, cod, mullet, mullet, flounders, cod—a most judicious mixture. The net is very heavy this time, and the basket has to be filled again and again ere the fish are all safe in the bottom of the boat. The net is again cleared and coiled away, and another sweep made up the channel; and so on for another hour, every haul bringing a few more fish in.

Just here a rather startling episode occurred to disturb the even tenor of our night's proceedings. When the net has been overhauled, in order that it may be easily coiled away on board again, it is necessary to slew the boat round so that the stem may be near the shore. At this part of the channel there are some very deep places, the bank falling away all at once into three or four fathom water. So steep is it in some parts, that the stern of a boat may be aground, and yet from the bow no bottom could be struck with the longest oar in it. One of the party was in the bow of the boat engaged in this part of the duty, and had the boat's head out all right, when, feeling the current taking her round again, he gave a thrust with his oar to keep her steady, expecting to feel the bottom as usual. But at that place there was about twenty feet of water, and of course down he went, oar and all, with a loud cry. Now, though this man had been several years of his life at sea, he could not swim a stroke, like a great many sailors the writer has come across in his day. It is singular so many good sailors should be poor swimmers. Our friend, however, made the best of it, for he luckily kept hold of the oar; and we had nothing to do but to run out the boat and fetch him ashore, little the worse for his early morning plunge; and by keeping in constant motion for the remainder of the time we were engaged—he did not even catch cold.

But the tide had by this time risen so much that work had begun to be very difficult, the water covering the flat. So after a haul in which not a single fish was brought ashore, the net was put on board, the boat was trimmed, some weed put on top of the fish, and we returned to Port. Here several barrels were procured, and a rough clearing of the fish took place; the flounders being all put together, then the cod, and a third cask held all the trevalhas, silver fish, &c. The total catch amounting to over three barrels, a few being kept to supply customers at the Port. The boat then being pulled alongside the *Golden Age*, into which the barrels were transferred and sent off to market.

It now remained for us to spread the net out to dry, and take the opportunity to repair any damage it might have sustained, as well as to clear away all weeds, sticks, and the like it might have picked up. The boat was then washed out clean, moored off, and we all retired to breakfast, pretty well tired out with our night's work, the writer finding his way to town in the course of the forenoon.

PAKEHA. 20th August, 1864.

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from *Otago Daily Times* 31 August 1864, reprinted *Otago Witness* 3 September 1864

WANDERINGS ABOUT DUNEDIN
SIGNAL HILL

Well, my dear reader, what do you propose to do with yourself this fine afternoon? Nothing particular. What do you say to taking a walk to the top of Signal Hill over Pelichet Bay yonder. It is not too far. Let us see; it is now nearly two o'clock, and I will undertake to have you back here again before six, in plenty of time for tea. Agreed. We are now in the Octagon; let us get out of town by Stuart and Cumberland streets. This last is quite a busy place now; saw mills bizzing away on the one side, and foundries hammering away on the other. But our progress in this direction is soon stopped by a wide slough of deep mud, quite impassable. Verily the Town Board have some work to do here before a practicable road can be made. It is wonderful how the natives of this part of the town manage to live; it must be quite a hot-bed of fever. We must turn down by St Andrew street towards the beach, and then along by the Superintendent's to Albany street, and so by Forth street to the end of the Town Belt.

Here we have a little difficulty in making much progress. The fine weather of the past few days has had little influence on the mud under the thick bush, so we must pick our way as we best can. Notwithstanding this drawback this is a very pretty place, and is quite romantic all the way along the margin of the bay. There are no large trees

hereabout, I suspect the timber has all been cut down and carried away, leaving little but the usual scrub, such as the fuschia, broad leaf, eini eini, mapu, ti free, fern, all bound and interlaced by no end of supplejacks and lawyers. But we have no great length of this to scramble through, and we speedily arrive at the daylight at the side of the little creek draining the valley which enters from the head of the bay. The track now leads us through some rather thick ti-tree scrub, with here and there a miki-mik, still bearing some of last year's berries. They are harmless, but not very pleasant to eat. As we proceed on the flat, we have to cross the creek several times as it winds about, but we gradually draw near the leading spur up which we have to go to get to the top of the ridge.

Now comes the tug of war. This will try your wind and bottom. We have over a mile of this to do. But "setting a stout heart to a stiff brae," is a very good motto for our guidance, and we will find it easy enough.

This hill has been covered with scrub, which has been burned at no distant date, the dead stems of the bushes being everywhere apparent. It is a rather singular thing that this, the western side of the hill should be entirely destitute of timber, while the eastern side is very heavily timbered. Only here and there on this side are there any trees, and they are all in patches on the sides of some of the gullies. Some others of the hills around partake of the same character. I suspect there must be something in the soil not favorable to their growth. The soil seems fertile enough if we may judge by the quantity of flax, fern, and other plants growing all around, and is of a rich dark brown color. Some parts of it, as you will see presently, are very stony. We have now obtained a pretty good elevation, and are on the first terrace; as you seem rather warm, and are perspiring pretty freely, we will here cry "Spell, oh!" and have a rest among the long fern. There is nothing like a smart walk up a hill, for expanding the chest and opening the pores of the skin. But five minutes is quite long enough. We must not allow ourselves to cool too much, else the result might be rheumatics.

Dunedin from Signal Hill

But take a look round before we start again. We are about 600 feet above the bay, and all Dunedin lies at our feet, set like a picture in a frame, by the water and the hills around it. As we make our way upward and onward we obtain some charming views of the harbor and the wooded hills of the Peninsula. Our way lies along the edge, as it were of the ridge, rising all the time; through thick clumps of flax and other bushes, interspersed with patches covered by a sort of heath, but never so thick as to prevent free walking. Civilisation is working its wonders up here too. Here is a man busy breaking up a piece of fenced ground, off which the timber has been all cut and cleared away. He expects to get a good crop of potatoes as the first fruits of his toils. Leaving him to prosecute his labor, we now incline to the left a little, over a long tract of rough ground, covered with stones of all sizes, and producing very little vegetation, except the ubiquitous Phormium tenax, which seems to grow anywhere. Here and there, however, are to be found towards the close of summer, abundance of the delicate snowberry, and a small berry which grows on the heath mentioned before. These are the

only ones out of the numerous hillberries of New Zealand which are worth eating; all the others being very insipid. The snowberry is very pleasant to the palate, and cooling to the mouth and throat.

Our way now lies across a small saddle, and then we have the last ascent before us. The land here is much better than any we have yet gone over, and might all be ploughed and cropped with very little preliminary clearing. We are now near oar goal, and I promise you one of the most magnificent views to be got anywhere in the neighbourhood of Dunedin. Get up on the top of that heap of stones, and seat yourself on the peg of the Trig station. There. Is not that glorious? It would require a much more powerful pen than mine to do it anything like justice, so we will just content ourselves with a bare enumeration of the various hill tops and places now visible from our elevation of 1030 feet above the tide in the bay. Looking straight down the harbor, Taiaroa's Head, with the new lighthouse works, and a strip of ocean with a solitary sail in sight, bound the view; to the right there is the white sand and the wooded eminences of the Maori Reserve extending up to Portobello Bay; over the saddle there you can see the surf breaking on the rocks at the south end of Wickliffe Bay. Then we have the high wooded ridge of Mount Charles, 187O feet high; the symmetrical Harbor Cone, bush to the summit, 1028 feet up, only a couple of feet lower than we stand; the top of Sandymount, 1054 feet, is just visible over the highest part of the Peninsula, the ocean being visible at intervals all the way along. The Peninsula looks very grand from this point, sloping so regularly up from the smooth water of the harbor. To the south the Ocean Beach may be seen in nearly its whole extent, bounded by the bluff at the Forbury; the waves, as they come in to the beach, breaking clearly and regularly. Beyond that we have the ocean again, with a long stretch of the coast down as far as the Nuggets, beyond the mouth of the Clutha. In clear weather Stewart's Island can be seen, but at present the horizon is dim towards the sea. Turning inland, we have Green Island, Saddle Hill (1414 feet), and the ranges in the far interior losing themselves in the distance; and midway the whole town of Dunedin seems to lie at our feet, the streets and road-lines distinctly marked. From this side the city has a very fine appearance indeed. Looking westward, the Water of Leith valley is seen opening out, the high ground beyond bounding the view in that direction. Then there is the whole of the Flagstaff range (2190ft) out to Silver Peak (2514ft), the highest eminence in the Town District. To the north, we have the forest of Mount Cargill (2235ft), and the other wooded hills; to the east, part of the Blueskin Road towards Mihiwaka (1842ft).

In front of us lies the town of Port Chalmers, beautifully placed on the neck of land dividing the two bays. The islands between the Port and Portobello Bay look lovely from this elevation; dividing, as they do the upper from the lower harbor, they seem placed by Nature for the site of works of defence. The whole harbor lies before us laid out as if on a chart, every channel and every bank perceptible, from the sandspit at the Heads to the Middle Bank off Brewery Bay. A large steamer is running down the Cross Channel, and part of the shipping at anchor is seen under the lee of the high ground beyond the Port. But we must not forget that the days are short, and that we have a pretty stiff walk before us yet; however, it is nearly all downhill, and we will soon rattle it over. For the sake of keeping out of the high flax growing so thickly here, we will keep a little to the right, where there is a long clear strip, and so be able to strike the head of a large paddock, off which last season was got a good crop of oats. At the other end of this a road begins which will take us along the north side of the ridge. The ground here is covered with large stones, which must make the cultivation of it rather a laborious task. Beyond this swain, the ground is too steep to be good for any other than mere grazing purposes. Our way lies pretty high up for some distance but we soon begin to descend, a»d then a fine view of the North-east Valley lies before us. We turn to the right, again and skirt the edge of a patch of bush with two or three paddocks in cultivation, and a fern tree house on a knoll opposite. Still descending we cross two or three fences, pass a nice stone house, surrounded by a fine garden, and then we get into a district road, which takes us direct down the hill to the Main North Road, about a mile from the Water of Leith Bridge. This is a rapidly improving locality, a great many fine houses having been erected lately. We are soon at the Toll Bar, noticing that the

Acclimatisation Society are having a tall fence put up on the piece of the Town Belt lately granted them. Crossing the bridge we arrive at Woolley's where I propose a refresher and to wait a little till a cab come out, as it will be very dirty walking into town. We have not long to wait, and are soon bowling into town, arriving in the Octagon at half-past five, at the time I promised; in plenty of time tor the evening meal, which I hope you are not too tired to enjoy. But before we part, what do you say to us trying Flagstaff for our next walk, say some day next week, if the weather keep up. You will. So, *au revoir.*

PAKEHA. 26th August, 1864.

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from *Otago Daily Times* 6 September 1864, reprinted *Otago Witness* 10 September 1864

RAMBLES ROUND DUNEDIN
THE WATER OF LEITH

Many of our readers will remember the pretty little stream which traverses the County of Edinburgh in a north-easterlv direction, from the Western Pentlands to the sea at Leith. During the sixteen or twenty miles of its course, from the time it has volume enough to turn a wheel, its waters are made to do duty on one side or other, by furnishing the power by which machinery of nearly every sort is driven—saw mills, flour mills, meal mills, paper mills—nay, it even furnished the power necessary to drive the machinery of a printing office. So much is the stream utilized that it is hardly ever, for more than a hundred yards or so at a time, allowed to occupy its natural bed. In this way it passes through some very beautiful scenery, past many fine gentlemen's seats, and lovely hamlets and parish towns. It is crossed by many elegant and substantial bridges, some of them characterised by much architectural beauty, as well as viaducts for the various railways, and an aqueduct for a canal. Through, nearly its whole course it traverses a district remarkable for its agricultural riches, even in that district of high farming. Some remains of the ancient forest which once covered the whole country are yet to be found in one or two of the gorges which the stream has excavated in the course of time through the elevations which obstruct its progress; these gorges at the same time affording very instructive "sections," illustrating the geological formation of the country. However, from the thickly peopled nature of the district through which it flows, the latter part of its course contains anything rather than the limpid pure stream of the uplands; indeed, of late years, it has become quite an eyesore and a sort of plague to the inhabitants of its banks, and a complete bone of contention to rival parties in Town Councils, and their attending trains of engineers and improvers. This state of things is likely to result in the stream being enclosed within a huge pipe, from where it waters the city boundary to beyond low water mark at Leith.

Let us turn now to our local stream, and take a walk up its banks, and see how like and how unlike it is to its namesake in Scotland.

Starting from where it enters the sea at Pelichet Bay, we find a large fellmongery establishment, where the preparation of sheep-skins and wool has been for some time carried on. The works are on the bank of the stream, and command a constant and large supply of water; but at present there does not appear to be very much doing, perhaps on account of the season. A short distance up from here the stream is crossed by the flimsy looking bridge in Forth street, and about two hundred yards farther on a more substantial bridge is in course of erection on the line of Clyde street, which will he a great convenience to the people inhabiting the hill on the other side, now being pretty thickly covered with houses. The stream is here distributed among two or three channels, forming several islands, the gravel of which has been largely used in forming the side walks of the various streets in the neighborhood. The stream at this point intersects the Botanic Garden Reserve, in which a good deal of work has been done in clearing, &c., but it seems a long time in getting into shape. The water will form a very attractive feature in what, must eventually become a favorite place of recreation for the Dunedin public. The Leith now makes a sharp turn, and our way lies along the line of Castle street till its intersection with St David street, where a footbridge takes us across to the other portion of the Reserve, a fine patch of bush,

the trees in which have been very judiciously preserved and the beauty of the place enhanced by some fine walks being cut through it, leading to Leith street, as yet only partially formed. Crossing again by another bridge, we continue along that street till we find ourselves in the bush, through which we make our way by the side of the river. The scenery here is very pretty, wood, rocks, and running water, continuing all the way up to the corner where the tributary from the North-East Valley mixes its waters with the main stream. The Acclimatisation Society have taken pos-session of the land on the opposite side, and some extensive works are to be undertaken to render it suitable for their purposes.

Near this the Main North Road crosses the stream, and on the south bank are situated several breweries and a flour mill, all doing a large business. This is a very busy spot indeed. The stream is now running in the centre of an extensive flat, which, is destined ere long to become the site of manufactories of various kinds. Doubtless the native flax will be here both carded, spun and woven, on a large scale.

To keep to the margin of the stream here would be both dirty and difficult, so we will rather take the line of Duke street, lately formed and metalled, to the old mill, and then along the flat by the road to the saw-mill. The scenery here is on a pretty large scale, and is very beautiful, both banks being high and covered with fine timber. We soon reach the saw-mill, where the river makes a bend to the north, after receiving a pretty strong tributary from the westward. The saw-mill has been in existence for several years and is largely employed in cutting the timber of the district, which is brought down from the bush on both sides of the river a mile or two higher up. From the spots where the tree grew, after they are trimmed and cut into lengths, they are dragged by bullocks along a sort of trench or groove cut for the purpose, till they reach the edge of the hill. Here a shoot has been formed, and water being thrown on it, the logs are pushed over, and descend with immense rapidity to the flat below. They are then placed on a truck, and hauled by horse power down a tramway to the mill, a mile down the valley. This is an immense improvement, over the old system of bullocks, one horse and truck doi«g a great deal more work in less time than a team of six bullocks.

When we reached the mill in our ramble, the horse and truck were about returning for another log, so seating ourselves beside the driver, we were speedily and pleasantly trotted up the line to the shoot, thus realising in the most agreeable way the fact of there being a railway in Otago. On our way up we passed, a little way from the saw mill, a large iron building which was new to us. On making enquiries we were surprised at the answer, It is a factory specially started to manufacture the native flax into yarn and cloth. We could learn nothing of the process adopted, it being kept secret as yet, being almost experimental in its nature; but the parties are very sanguine of ultimate success. If they do succeed, it will do as much for the province in the long run as the gold fields. The building is well enough placed as regards water, &c., but not so as regards the material to be operated on, which has all to be brought from a considerable distance. However, it is to be hoped they will succeed.

From the end of the tramway we struck into the bush, following a bullock track a little way, and then crossing the water on a plank. A short way on we struck this track again, which though awfully muddy, was a shade better than the thick, almost impenetrable bush which here fills the valley, as we were able to pick our steps pretty cleanly, save an occasional slip. After following this track for about a mile, it brought us out on a small cleared paddock, where we found a man busy "burning off," at the same time breakmg the soil up for a crop of oats. The river here turns sharp to the north, and we turned our back on it, diving at one into the forest clad hill, which at this point divides the Leith from Ross's Creek. Here we got fairly into a fog, for the trees were so thick there was no keeping a straight line (as we were advised by the man in the paddock below). We were on the point of giving up and turning back once or twice, only looking back it seemed quite as formidable as to go on. So at it we went, determined to do or die. After floundering about and extricating ourselves from no end of thickets of fern and supplejacks, we dropped all at once on a stick, with a bit of paper on its end, standing in a little gully. Never was anything more welcome. We

were all right now, having only to follow the line thus pointed out, and it would be sure to lead us clear of the trees. So after a tough scramble over all sorts of fallen trees and stumps, our weary vision was gladdened by the sight of a fence and a clearing. We were on the top of the hill dividing the two waters, and had a fine view of the Half-way Bush district, and away down Ross's Creak, towards Maori Hill, &c. A few minutes sufficed to take us to the side of the stream, where we found a road. However, it was getting too late to follow this or to examine the site of the proposed water-works, which we will leave for another ramble, so we struck a bee line across the hills and gullies, the land being nearly all clear, or flax and fern towards Balmacewan. This we had little difficulty in doing, as what little bush there is, is not very thick. On passing the farm-house at Balmacewan, we struck over the hill so as to reach the Town Belt by sundry paths, known only to ramblers like ourselves. We entered town again near the Barracks, and so home by Albert and Stuart streets, having been absent nearly four hours.

PAKEHA. Sept. 1, 1864.

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from *Otago Witness* 17 September 1864, reprinted *Otago Daily Times* 24 September 1864

A PERILOUS CRUISE

About two years ago the writer, with other two mates, left Otago Harbour for a fishing trip to Cape Saunders. We expected to get there a load of groper and blue cod, and were well provided with the usual lines and appliances. Our boat was a half-decked cutter, a lively, fast-sailing, and rather comfortable craft, very well adapted for the purpose. We left in the morning, after breakfast, and were clear of the Heads before 10 o'clock. It had been blowing rather heavily from southwest for a couple of days before, with rain; but that morning the gale had moderated, and there was then blowing only a good working breeze. When we were fairly outside, we found a very heavy sea running, but it was smooth, and though it hindered our progress considerably we did not heed the swell much, as we expected it would gradually die away as the wind fell. Of course we had to beat down the coast, making our tacks from about half to three quarters of a mile at a time. In this way we had got pretty far down, and expected next tack to reach the fishing ground.

For this purpose we stood out rather farther than we had hitherto done, and were perhaps a mile and a half off the shore, when all at once the wind died away, leaving us tossing and rolling about rather uncomfortably. After whistling in vain for a while to make the breeze come, we shipped our oars and began sweeping in towards the land. This was rather heavy work, and after a little we were all sitting yarning in the stern sheets, and eating some bread, &c., we had taken as provisions. Strange so say, not one of us ever thought of looking out for a change in either wind or weather. But our apathy was rather rudely brushed away. All at once, without the slightest warning, a heavy puff of wind, right off the shore, struck the sail, and over went the boat on her beam ends. Somehow we all scrambled to the high side, and our weight brought her on her keel again, but more than half full of water. Luckily for us the sail did not catch the water; if it had not one of us would have survived to tell the tale. As it was, before we could recover our presence of mind, the sheet of the mainsail gave way, and the boom swung round with such force as nearly to knock two of us overboard. The boat having thus caught the full force of the squall, went away before it like a racehorse. Instinctively, almost, one of us took the tiller, and kept her fairly before the wind; but our surprise was so great that it did not for some time strike us that we were driving rapidly away from the land. The gear in the boat was all in confusion, and swimming about in the water, and our first care was to get the boat baled dry, and put things in their places.

By the time this was done, we began to see what a risk we were running, and that it was high time to make an attempt to bring the boat round on the other tack. The wind was all the time blowing strong, and to add to the difficulty of our position, a nasty cross sea had got up—a heavy long swell coming up the one way, while on the other, with the wind, came a short breaking sea. We lowered the sail altogether; and then with the oars, stood ready to slew the boat round, by pulling against each other, whenever a lull came. The first trial a wave struck

broadside on, and nearly filled her again, and we were pleased to let her go. After waiting a few minutes we tried again, and this time we succeeded. The boat had now her head to both sea and wind, and she rode comparatively easy, though shipping a little water now and then. However, we could easily keep her clear, by baling.

We had now a little time to realise our position and certainly the lookout was not very bright. The boat was about five miles off shore, and drifting slowly away still farther. We did not think much of this at the time, as we knew well enough that whenever the breeze moderated, the sea would go down, and we would be able to make sail again, so we agreed that we would hang it out. But another element now sprang up to add to our discomfort; it came on thick, first rain and then a sort of drizzling fog. Of course we were wet enough before, but we did not seem to mind the salt water, the rain made us miserable. But there was worse than this yet. The fog got thicker and thicker, landmark after landmark disappeared, and in a short time we were in the centre of a little round patch of tumbling water, doing all we could to keep the boat steady; all the while the wind hissing past us as wild as ever, and driving the spray with cutting force in our faces. In this way we remained for more than two hours, huddled together in the stern of the boat, hardly saying a word to each other, and only stirring when it became needful to bale out the water, which was continually breaking over us. At last the wind fell a little, at least we thought so, and we prepared to show a little sail, so that we might try to run in again. All thought of fishing was out of our heads now. We close-reefed the sails both stay and main, and stood ready to hoist away. But as if to spite us, the wind came down with increased violence, and fairly whistled past us, beating down the sea till it was like milk, and pouring it over us like a heavy shower of salt rain.

Things now looked rather serious, and to add to our apprehensions, night was coming on, and we were drifting we did not know where. Our ingenuity was put to trial, and every expedient we could think of was put in requisition to keep the boat as far as possible stationary. At last we threw the anchor overboard with one of the oars and a spare sail attached in such a manner as to expose a large surface to the water, and so act as a drag to the drifting boat. Ere this was done it was nearly dark, and we prepared to do the best we could till either the fog cleared away or the gale broke. One thing only gave us hope, and that was, that nor-west squalls like this seldom lasted very long.

Our provisions had all been destroyed when the water first came on board, and the writer, feeling thirsty, crawled forward under the little forecastle, to where the water keg had been stowed, in order to get a little water. But his disappointment was extreme, when on bringing out the cask, he found there was not a drop in it. It had been turned over somehow, and the contents, precious to us, had all escaped. It is astonishing how the want of a thing, at other times abundant, will make us crave for its possession. Almost at once a burning thirst took possession of all three, and for a moment all felt inclined to blame each other for the accident. But it was no use blaming, it could not be helped now; there was nothing for it but to bear the misfortunes that had fallen upon us like men.

By this time it was quite dark, the wind and sea remaining much the same, though we certainly thought a good deal less water was coming on board. Another gleam of comfort was given us too, for we were satisfied that the boat drifted very much less, if not altogether stationary. Sleep was of course out of the question, without water; but we arranged that one should get into the forecastle and lie down while the other two watched, and so manage to pass the night. Never in the writer's experience did a night seem to take so long to pass—the hours seemed leaden. We relieved each other every now and then, but we were so cold and so thoroughly miserable, that not one of us slept any. Towards morning the air seemed to get colder, and we again crept close together in the stern-sheets, to try if we could not keep each other warm. As daylight came on, the wind seemed gradually to go down, but the fog showed no symptom of clearing away. Our only hope was that when the sun rose it would dispel it, and then we would have a breeze from some other point and so enable us to run for port. But daylight came, and hour after hour passed away, without our being able to see a single object which would enable us to determine our position. After making every

allowance for drift, current, and so on, we calculated we were somewhere to the south of Cape Saunders, and that if the fog cleared away we would have a wind which would soon take us home again.

At last, at what we imagined would be about ten o'clock, we saw the sun, and never did anything cheer up three miserables so well as it did. It fell calm, and the fog gradually lifted, enabling us to see about us. The sea, too, went down, and we began to feel actually warm, so we removed some of our wet clothes, shipped our oars, took in our floating anchor, and began to pull, as we thought, in the direction of shore. But shore there was none; at least that we could see. The state of weakness in which we all were now, prevented our doing much m the way of pulling, so in the hope of wind of some sort coming, we set the sails again, and kept the boat's bow in the direction of where we last saw the sun. The day was cloudy, with showers of rain, and light puff of wind now and then. Our thirst seemed to die away into a sort of dull pain, which we attempted to allay by chewing the baits off the hooks. In this way the day wore on, the boat making very little way through the water. The sun seemed to be getting, nearer the horizon, and we hoped it would break through the clouds first, so that we might be able to form an idea of where we were. We consequently watched with all the anxiety of despair for a break in the clouds, or for a sight of some of the hilltops. Nor did our watchfulness go unrewarded, for we certainly saw what we took for the wooded hills in the neighbourhood of the Heads. In that direction we accordingly steered, the boat making very slow progress, although we now and then took a spell with the oars. At last darkness set in on us for the second time, and our spirits fell to zero.

The hunger and the exposure were telling on us heavily, and we lay listlessly in the stern of the boat almost despairing. But things when at the worst generally begin to mend, and so it was with us. After a smart shower of rain, during which we caught as much as gave us each a drink, the wind sprang up, and the boat was once more moving at her usual rate of speed. We let her run on, keeping her towards the point where we supposed the land to be. It was much clearer than the previous night, and we could see a long way round. In this way a couple of hours or more passed away, and we supposed it must be near midnight, when a light was seen away off our port bow. We steered direct for this for some time, when it disappeared suddenly. However, we held on, in the hope that it was either a vessel at anchor, or a light on shore. In about another hour we thought by the rate we had been sailing, that we ought to be near where the light had been, but nothing rewarded our search.

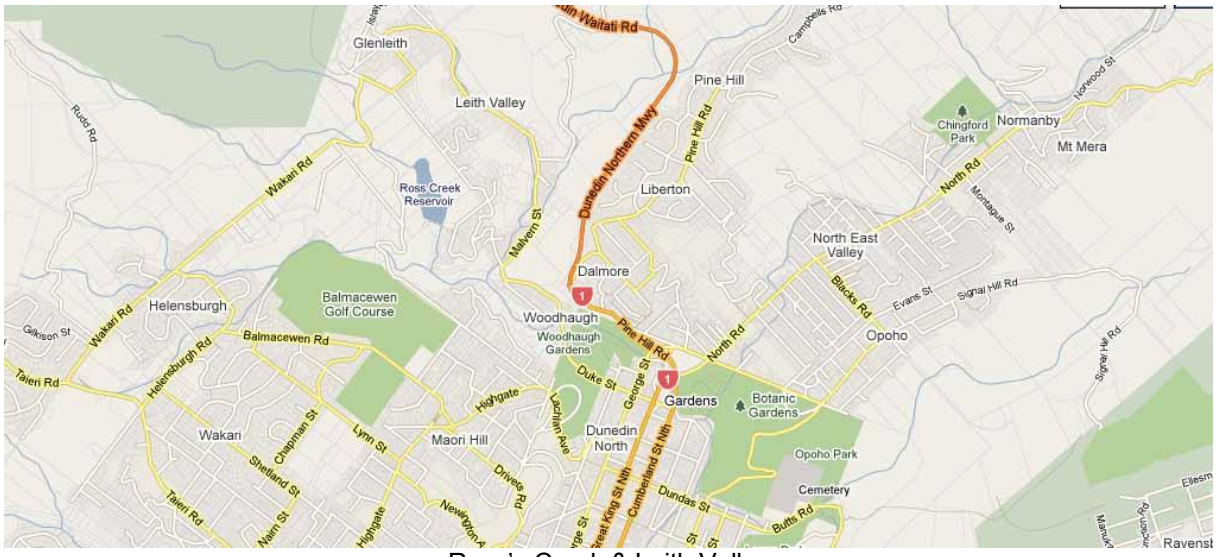
But there was a darkening of the horizon away ahead of us, which we made sure was the high ground on the coast. We kept her at it far another hour or so, and again a light rose on the horizon; this time it was steady, and gradually became brighter, and seemed to rise higher from the water. In a short time we were near enough to speculate on what light it was, and then we saw another light, also ahead of us. A short distance more, and we had the satisfaction of discovering that we were close to the Heads. The light we had been steering for latterly was the lighthouse on Taiaroa's Head; the other one was a vessel at anchor off the mouth of the harbor. The wind held so that we were able to lay right in and in the course of another hour we were safe. Neither of the three of us were good for much for two or three days after, being all very sick. But we soon got round, and before a week was out, had been to the Cape and up to town with a load of fish almost as if nothing out of the way had happened us. It had the effect, however, of making all hands employed at the trade very cautious for some time as to how they went outside before the weather fairly settled after a gale; and never to go out without making sure there was plenty of water in the keg, and some tucker in the locker.

September 7th. 1864. PAKEHA.

RAMBLES ROUND DUNEDIN
ROSS'S CREEK

This pretty little stream is one of the tributaries of the Water of Leith, and descends from the eastern slopes of Flagstaff, joining the main stream at Mr Douglas's saw-mill. In its course it passes through some very fine scenery, and as it has been selected by the Dunedin Water Company as the source of their supply, we purpose devoting this paper to an examination of the lower part of the stream, including the site of the proposed works of the Water Company.

Reversing the route mentioned in the last "Ramble," we will leave town by the Barracks, passing under Mrs Kettle's beautifully situated house, and past the grounds of Mr Robertson; we then skirt the Town Belt until we reach the finely placed house and grounds of our worthy Magistrate, Mr Strode. Here we leave the Belt, and crossing several paddocks reach the District Road to Maori Hill. We continue on this but a very short distance, and then crossing another paddock we reach the road again, near Balmacewan.



Ross's Creek & Leith Valley

At the end of this road we take to the hill, among the flax, and keeping a straight line as we best can, reach a track which leads over to the gully in which runs Barr's Creek. This stream joins the other one about a mile farther down, but considerably below the point we wish to reach, so we will scale the hill on the other side, though clad in thickest bush. There is a good run of water in the gully, and it makes pleasant music plashng among the stones and boulders which obstruct its progress. What a pity there are no fish to be found in these creeks. They are the most likely-looking places possible. In the old country they would be swarming with trout, &c. It is to be hoped the Acclimatisation Society will not let a long period elapse without an endeavor to people our streams.

However, though there are no fish in the water before us, there is no want of life. Here is a shallow pool: let us see what is in it. Not much at first sight. But there is a large beetle, and there is a whitish worm or grub, and a small green thing which darts about with great rapidity. Let us lift that stone and see what is underneath. There's a curiosity. A long tailed crab, very much resembling a lobster in miniature, having the long strong nippers, the antennae, claws, and everything the same—the fresh-water crayfish. They are very abundant in all the streams about, and are not very difficult to capture, when you get the chance; but in the present case we have lost the opportunity, not being prepared for it. But we may try again. Eels can be caught occasionally in the deep holes. But we are not provided with any fishing tackle, and as we have a stiff hill yet to climb ere we reach the other creek, we must address ourselves to the object more particularly in view. A number of the trees (manuka) in this patch of bush, have been cut down for posts and rails, and it is consequently very difficult to make way through the tops and branches of the trees, which have been left lying as they fell.

But by winding out and in, creeping under and scrambling over, we make our way steadily on to the daylight again, and then through a little scrub to the level flax-covered tract beyond. We strike across this in a diagonal line, and shortly reach the brow of the hill which overlooks the bush covered bottom of the valley through which runs the creek we are in search of (Ross's).

We soon tumble down the hill and reach the bank of the stream, which here flows in a strong plentiful current over a rocky bed, but very much obstructed with fallen and drift wood. The bush here is very dense, and we shall find it no easy matter to work our way through. But with a little patience and pains in keeping clear of the Lawyer-briar (much the same as the well-known Cape thorn, the Wait-a-bit), and keeping the music of the stream in our ears as a guide, we shall soon get through the belt of trees, and reach the open ground again. Some one with a taste for the beautiful as well as the useful, has made a settlement here. For in front of us as we emerge from the trees, stands a nice house in the centre of a productive looking garden, occupying part of a flat of a couple of acres or so in extent. The hill on the other side is covered by a dense manuka forest, the trees standing nearly as thick as corn in a field, showing, where a slight clearing has been made, a section almost as straight as a wall.

After winding across the flat the stream enters the gully again, and at the same time the bush comes right to the water's edge on one side—the other bank being covered with tall flax and scrub. It is not very easy getting to the actual side of the stream here, for the banks are high and precipitous in places; but it can be done, and after a little leg and arm labor, we reach the spot where a surveyor's camp has been and the place where a little sort of a weir has been constructed for the purpose of calculating how much water was flowing in the creek. The camp we find characterised by the usual things to be seen in such places—a few empty pickle and other bottles, empty match boxes, a tin case or two, the remains of a fire, the tent poles, and the stretchers on which they slept. These camping places are to be seen in many an out of the way place in the province, generally near a creek, and very often in the midst of a scene of very great natural beauty.

The water of the creek is here enclosed between some boards and stones, puddled with clay, so as to flow steadily over a board placed so as to be quite level, damming back the water for a few feet, and allowing it to fall easily into a little pool below. The water is beautifully clear and limpid, though we dare say it will taste better when the bed is properly cleared of all the dead and decaying wood which encumbers it for some distance above. The Water Company's dam will be situated about this part of the valley, which is particularly well adapted for a work of the sort, the valley expanding into an open flat extending for a considerable distance from this point; and a short distance below contracting again, as if on purpose to strengthen the dam. Material of every sort is here abundant—stone, clay, and timber—only requiring the necessary labor to make it available. The amount of water passing down the creek on the day of our visit was pretty considerable. There had been some rain a day or two previously, but not sufficient to discolor the water in any way. The weir represents, as it were, the section of a sluice box about five feet wide, over which there was passing, at the rate of eight inches a second, a depth of two inches, which, we presume, represents something like the quantity proposed to be sent into town by the Water Company, but not nearly equal to 30 gallons a day for over 20,000 people.

Immediately below this part of the creek the gully contracts, and both sides are covered with thick bush, through which it is a task of considerable difficulty to make any progress, and the bed of the stream is here too confined to allow of our making any use of it. But by dint of a little tact in adopting any chance opening among the trees, and making one where there is not, holding on here and squeezing through there, we reach a point where the stream runs in a wider bed, so getting down we continue our course among the stones and boulders which interrupt its free running. The rock is nearly all of the one sort—a hard blue whinstone, showing very few symptoms of weathering, and covered, wherever exposed, by miniature forests of beautiful mosses, lichens, and ferns. Some of the mosses to be gathered here are of rare beauty, while the ferns are so numerous and varied in their forms as to make one fancy a new one is met with at every step. Some of the turns the stream makes in its progress down the gully form beautiful natural

pictures. Overhead you can just see the sky through a roof of foliage, while right and left tall tree-covered cliffs ascend, and in front you have the water tumbling and plashing over the rocks. Here and there, after dashing angrily along for a few yards, it plunges all at once over a huge boulder into a deep dark pool, where it seems to take rest, and recover breath to repeat a similar process a little way farther down.

Like the stream, we have bean working our way down, and we soon arrive at the point where the water from Barr's Creek and Halfway Bush join the other stream. The best point of view is to be had a few yards below the junction, and it is certainly worth all the labor expended. It would make the fortune of a photographer if he could transfer it to a stereoscopic slide. The two streams approach each other at an angle of 45deg. nearly, and they resemble a pair of green tunnels—being completely overhung with trees.

From this point our progress is somewhat easier, but requiring a quick eye and a steady foot, as it is only by hopping from stone to stone for a considerable distance at a time that we can hope to make anything like speedy locomotion. A good stout stick will be found indispensable, as it enables you to step with more confidence in crossing and re-crossing the stream, it being only in this way that it is possible to get past some of the points. A fine little stream here falls into the gully from the south, forming a pretty little cascade as it tumbles over the rocks. Immediately below this again the banks contract, and the bed of the stream is filled with large boulders, forming alternately a fall and a pool, some of the latter being of considerable size and depth. Drift wood, too, forms another impediment; sometime large trees have fallen right across the stream, almost blocking up the gully. The flood mark can be traced from this cause up to eight and ten feet above the present level, which, for a stream coming such a short distance, is extraordinary.

After a stiff half-mile of this sort of work, we find the stream running easier, and the obstructions fewer and more distant from each other. We are approaching the spot where Ross's Creek mingles its waters with the Water of Leith, and after turning a point we emerge into the main valley, close by Mr Douglas's saw mill, which stands on the flat on the opposite side of the river. We have now the option of getting back to town by two ways—either to cross the stream and go in by the road, or take a track which leads over to Maori Hill, and so down upon George street.

We prefer the latter; so proceeding down the river bank a few yards we come upon the foot of a track which leads directly up the hill through the bush. The ascent is rather stiff, but we obtain some fine glimpses of the valley below as we get up, and on reaching the top our labor is well rewarded by the extensive view which there opens out before us. Passing, at the edge of the bush, a solitary cottage, we come out on cultivated land, the edge of which we skirt till we reach the thriving suburban township of Maori Hill. This place is nearly all in the hands of people employed in town, and has during the past two years gone ahead in first-rate style. A number of the gardens will bear comparison with any in the neighborhood of Dunedin. The soil is very good, and the owners of the various sections seem to spare no amount of labor in the cultivation of all sorts of vegetables. It is perhaps a little exposed to the heavy gales from S.W., which comes on so frequently, but this is being met by the judicious planting of blue gum and other fast-growing trees. Leaving the Hill we cross the Belt, and soon find our way to George street by Regent street, and so home, having occupied three hours and three-quarters in a very pleasant ramble.

PAKEHA. Sept. 21, 1864.

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from *Otago Daily Times* 1 October 1864, reprinted *Otago Witness* 8 October 1864

RAMBLES ROUND DUNEDIN
SADDLE HILL, TAIERI PLAIN, AND SILVERSTREAM

About a week ago we were lying in bed suffering from a very heavy cold, and coughing and sputtering away as if we would go in pieces. The morning was lovely, the sun shining brightly through the window at our bedside, and seeming to say with all the energy possible Come get up out of that! So after a little cogitation we determined to try the mechanical cure, viz., whether a long country walk would not

conquer and drive off the cold. Accordingly, about 11 o'clock, we found ourselves toddling down Princes street on our way to Caversham. However, ere we reached that thriving suburban township, sundry junctures occurred, one of which led to a slight shade of nobblerising, so that it was considerably past noon ere we had topped the hill beyond the township, and fairly began our ramble.

A great many new houses are being put up in the Caversham Valley, and it bids fair to become a place of some importance yet. Many of the villa residences belong to merchants and gentlemen of Dunedin, and some of them are very prettily placed in the midst of very well laid out gardens and shrubberies. There is a great want of trees however, in the lower part of the valley but it is likely that this want will be met by the introduction of some of the faster growing trees from the other colonies. The abundance of sandstone which underlies the clay on both sides of the valley, has led to its extensive use, though not a first-class building material, and many of the houses are either altogether, or at least have their chimneys built of it. The bed of stone seems of great thickness, and from its easily worked nature blocks of almost any size can be got.

From the top of the hill near Look-out Point a very nice view is obtained of the two valleys of Caversham and the Kaikorai, on to Green Island. Immediately after passing the saddle the road makes one of the most extraordinary turns we ever had the fortune to travel over. Instead of being taken directly down the hill, at a gradient which does not seem at all steep or difficult, the road has been carried away round in a great sweep, until the traveller actually turns his back on the direction he wishes to pursue. So much is this the case that the third and fourth mile pegs are not more than one third of a mile apart in a straight line. From the fourth mile the road jogs easily along till the Kaikorai Mills are reached. Both the water of the creek and steam power are used in driving the millstones and other machinery. The road to Green Island here branches off to the left, and the main road continues on, crossing the Kaikorai by a fine stone bridge. The broad flat expanse to the left is occupied by a series of swamps and lagoons, some of them of considerable size, the result of the damming back of the water of the creeks by the sandhills on the beach. It is a pity some means could not be adopted whereby the outlet might be kept clear, so as to reduce permanently the level of the water, and so bring a large extent of good land into cultivation; as well as at the same time improving the salubrity of the neighborhoood as the exhalation from these swamps must be very prejudicial to health. A little way farther on the road crosses another stone bridge over Abbott's Creek, and on the right is a large fellmongery establishment, where wool and skins are prepared for the market. The road here begins to rise, and in a little we reach the Fairfield Colliery, where the lignite or brown coat of the Province is extensively raised for local use. The shaft is pretty deep, constructed in the usual way, and worked by horse power.

Green Island - Saddle Hill

Leaving these works after a slight investigation, we have a fine view of the wooded eminence of Saddle Hill, as well as glimpses of the ocean away on our left. The hills and bluffs to the right have a very brown and bleak appearance at this season being mostly fern or flax covered, a small patch of bush perceptible here and there in the gullies. Beyond Ocean View the valley begins to contract, and a very considerable improvement has been effected by taking the road down to the gully, and then up to the summit by a gradual ascent, instead of going over the shoulder of the hill. A large number of men are here employed in dressing and trimming the banks and otherwise finishing the work; the cuttings and fillings here and there have been rather heavy, and in consequence of the economical fit of the Government, there are a good many very sharp turns. It was in the gully below the road that the Saddle Hill rush occurred a year ago. A good deal of gold was got by one or two parties, but the space was too limited, and it was soon worked out. The remains of the paddocking can be seen yet.

The road here attains an elevation of 1200 feet nearly above the tide, and then begins to descend at once towards the Taieri Plain. Saddle Hill itself towers up some 600 feet higher, clad in trees to the very top. It is only from the plain that it can be seen how Saddle Hill merits its horsey appellative. The hill has a double summit; both are conical and covered with trees, and look very grand from the plain below.

Beyond the summit a good many men are employed on the road, all busily effecting improvements, widening, trimming, &c. We were disappointed in a view of the plain from this point. At this season a great many of the settlers are employed "burning off," and breaking up new land, and the whole of the wide level before us was filled with clouds of smoke. The plain itself and the mountains beyond could only be seen at intervals, and the appearance the smoke gave to the landscape was very peculiar, and not without some grandeur and beauty. The road to the plain leaves the main line and turns to the north-west at the Toll-bar, proceeding thence to the Dunstan and other gold fields in the interior.

To reach Silverstream from this point, we continue on till the corner of a large patch of bush, which occupies the centre of the plain, is reached, then turning to the right, along one of the district or sectional lines which traverse the plain at intervals of a mile every way. The plain is divided into square mile sections, or 610 acres, each of which is bounded by a road, so that one can hardly lose himself. About midway in this direction is a large building, used as a mill, having a wheel driven by a stream from a semi-artificial dam; but there did not seem to be any work going on when we passed. Entering into conversation with an intelligent lad we met here, among other items we gleaned that there were very large eels to be caught in the streams and water-lodges about here; as well as a fish which he called trout but which is more likely to be the Bulli, a short thick fish with a large head. Eels from 4 to 10lb weight he described as being common. The appearance of the streams seemed to corroborate this, as they were deep and dark, and much encumbered with weeds.

The farmers seemed very busy all along—ploughing, harrowing and sowing, as well as "burning-off." Here and there the crops were above ground, and presented a very fine braird. Most of the farm yards contain a good many stacks, there being no rent-day looming in the future, requiring them to thrash up. We passed here a group of boys engaged in the burning arrangement, and it was most amusing to observe the zest with which the young incendiaries applied the flame to the bushes, and then started back to escape from the intense heat which almost instantaneously rushed forth as they successively burst into flame. A strong drying breeze from the westward was blowing and the flame leaped from tussock to tussock with the utmost rapidity, while the dense smoke rolled along the ground or rose up in the air in vast clouds. We were now close to the racecourse, so we diverted from the road for the purpose of walking over a part of it. Found the turf in bad condition, very hard and lumpy. Crossed over from the Grand Stand, and in a short time we were on the road, and had fairly turned our faces in a homeward direction. It was now nigh four o'clock, and the condition of our stomach was decidedly peckish. So having an excellent road before us, we put

the steam on, and after a short spurt reached Host Culling's, the Black Horse, where we had dinner. After a very pleasant half-hour or so spent in enjoying the good things provided, as well as the company of the landlord, from whom we got a good many wrinkles, which we hope to make use of on a future visit, we started for town, mine host accompanying us as far as the bank of the Silverstream. During the short time we had been in the inn the wind had changed from a fresh westerly breeze to a light air from N.E., and the smoke from the various parties now ascended nearly perpendicularly, and formed small clouds overhead. The section exposed by the banks of the stream at the crossing is nearly the same as we saw a mile or two further down the plain, where there are some deep ditches and comprises beds of gravel of a hard micraceous schist, with pieces of quartz intermingled in it, covered by a layer of light soil, of greater or less depth, seemingly very fertile.

We crossed the stream at half past four, and gathered our strength together for perhaps the steepest rise on any road in the Province. It is wonderful how the farmers on the plain get their produce into market. It can be only by the liberal expenditure of horse power. The road, too, is only a track never having been formed or metalled, only shallow sidelings cut along the hillside, as the road winds its way upwards to the tune of over 1000 feet. The hills are bare and stony in places and much too steep to be available for anything other than grazing. A little way up, on the left hand side, a footpath branches off, and leads up the hill by a much more agreeable and easy way than by the road, as well as being shorter, by avoiding a number of the curves the road is forced to take, so that when we once more get on the road we find we have attained a pretty considerable elevation, and at a spring by the wayside (at which some Christian has deposited a small tin dish) we stop to moisten our lips and mouth. We have now a very good view of the plain; the smoke is rising straight, and the air is very clear. The mountains beyond appear in all their grandeur, and the eye takes in one sweep the whole plain, from Waihola Lake, by Maungatua &c, right round to Flagstaff. But, time presses, the sun is getting low, and we have six miles of road yet to trot over. But this is far from being a task, in our present state locomotion is a positive pleasure, and we get over the hill and well on the road at a great rate, though casting many a lingering look behind at the fading glories of the day. At a little accommodation house, known as the "Cottage of Content," we get on "made" road again, and shortly afterwards reach Half-way Bush. This is a very pleasant spot and comes nearer to the look of Home than any place we know of near Dunedin. It is soon left in the rear, and crossing the creek at the bottom of the hill, we are toiling up the steep ascent, to Roslin. As we came down into town by Stuart street we could just see our shadow by the moonlight, and reached home at half past six, in plenty of time for tea and a rest, spending the rest of the evening at the Opera, in very pleasant company.

PAKEHA. Sept. 24. 1864.

N.B. We were about to forget that we had never given the result of the cure on our cold. It was a radical one. What between the fine day, the change of air, the gentle exercise, and the copious perspiration thereby induced, next morning hardly a trace of the cold was left; only an occasional cough, which gradually became fewer and farther between, and a slight hoarseness, which in another day was completely gone, and we were as well as ever.

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from *Otago Witness* 29 October 1864

THE FISHING TRADE

During the season just closing, this branch of industry has been in a very depressed state. The weather has been particularly stormy; gales of wind from nearly every quarter having lasted for weeks together. As no other sort of craft is in use here, save open boats, it is obvious that there can be no work done except when the ocean is moderately smooth. In addition to the bad weather, from some unknown cause, the fish have been very scarce, seeming to have forsaken their usual haunts, and this has driven the crews to seek other localities, and adopt other means for securing a cargo. In the harbor, too, seine fish have been scarce, and those who followed this branch of trade have been driven outside to try other places with varied success. For several weeks the attention of the seine-men have been

almost solely directed to cray-fishing—the consequence being that more fish of this sort have been rushed to market than there was demand for, and prices at once fell to starvation point. Six to twelve shillings and upwards, per dozen, according to size, used to be got for crayfish, but recently prices have been as low as one shilling, and hardly to be sold at that.

Though the prevailing weather on shore during the past winter may be characterised as fine, yet at sea there has been a succession of stormy windy weather, with very few and short intervals, when it was safe to venture outside for fishing purposes. Considerable damage has been done to boats and gear at various times; and on one occasion two lives were lost in attempting to cross the Blueskin Bar, at all times a dangerous place. At Hooper's Inlet, to the south of Cape Saunders, several boats were damaged in running in for shelter during a gale. Some changes have taken place in the entrance to Otago Harbor, which also tell against the fishermen. It was usual to run in or out quite close to the rocks under Taiaroa's Head, and a few lengths of herself used to put a boat in comparative safety, whereas of late boats have to keep along shore for a good distance to escape a heavy surf that breaks for several hundred yards from the Heads ere they can consider it safe to run for the Harbor.

The want of a fishmarket continues to militate against the interest of the fishermen. It is a pity the Government don't see it in this light; it would be very much to the advantage both of the fishers and the public, were there a proper place for the display and sale of the various fish caught. There is plenty of ground available near the water side for such a purpose; and under proper supervision, and with a plentiful supply of water, such a market would be very far from being anything of a nuisance, indeed it might be made a very attractive place of public resort. In various towns in the Old country, in most of the Catholic countries on the Continent, where fish enters largely into the ordinary diet of the people, the fish market is generally one of the sights a stranger goes to see. In the town of Funchal, Madeira, which is of about the same population as Dunedin, the fish market is one of the very best the writer ever saw. It is a covered in square, elevated a few feet above the level of the beach on which it stands. In the centre is a fountain, the water from which falls into a basin, containing some fine plants, around the stems and among the leaves of which a number of gold and silver fish were swimming. The fish, of which there is an immense variety generally shown, are exposed for sale on stalls, and between every row a broad flagged passage is left for the public, giving plenty of room at all times The whole place is kept most scrupulously clean, and smells as sweet as a garden, notwithstanding the semi-tropical nature of the climate, and at all times of the day it is crowded with purchasers or visitors. Now, though it is obviously too much to ask that something of this sort should be provided for Dunedin in the present state of the Provincial finances, yet it is most painfully evident to every one with a nose who happens to visit the locality where we dispose of the piscivorous part of our daily food, that something ought to be done, and that right speedily, ere the summer sets in, for the amelioration of this chronic nuisance.

A piece of the reclamation ought to be set aside at once for the purpose, stalls erected, water laid on from the tanks, where there is plenty running to waste daily, the space properly paved and drained, a few simple rules drawn up for its regulation, and the whole put under rigid police supervision; the trade paying stall rent proportionate to the accommodation required. If the trade were encouraged in this way, it would soon develop itself into much larger proportions, and the public might depend, with something like certainty, upon a much more regular and plentiful supply of fish of every sort; while, on the other hand, it would offer greater inducement to fishermen to bring larger supplies to market, and the misfortune so common among them of having to throw the whole or part of the load away would be no longer known. In short, were a proper market provided, it would tell favorably on both the public who consume, and the fishermen who supply the article. Something ought to be done in the matter at once, because the last time the writer was in the- bush, he noticed the Goai in blossom—a sure sign that we may look for the baracouta in a day or two; and then, with the usual abundance of fish we will have a repetition of the usual nuisance from the accumulation of offal. The baracouta season will set in immediately, the end of this or the beginning of next week, will likely see the first cargo; and from then for eight months there will be no want of fish, of one sort certainly, but it will very much assist in helping on the incipient crusade against dear meat. Instead of

bothering so much about opening the ports, and all that, I say encourage the fishermen by providing proper accommodation for them, and so introduce a rival to the beef and mutton trade, and those articles will very speedily find their proper level. It is to be hoped the advent of the baracouta will produce this of itself; anyway, it will be a boon to the labouring part of the population.

Instead of putting off to an indefinite time, the formation of a market-place for fish, our Secretary for Public Works ought to push on the filling-up of that piece of ground to the left of Rattray street Jetty; have it paved and proper waterways constructed, stalls erected, and the rent would soon reimburse the Government for the outlay. Besides they would have all the credit of encouraging a hitherto totally neglected branch of industry, and of supplying a want very much felt by all classes of the community. The City members ought to press this on the attention of the Government, so that a sum might be placed on the Estimates for the immediate formation of the Dunedin Fish Market.

Since the above was written, two or three days ago, sure enough, the baracouta have set in on the coast; and this morning the first lot of fish were brought to market. In a few days more the supply will be regular and abundant.

PAKEHA. Oct. 24, 1864

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from *Otago Daily Times* 7 November 1864, reprinted *Otago Witness* 12 November 1864

RAMBLES ROUND DUNEDIN
MOUNT FLAGSTAFF

It is now about two months ago, my dear reader that I promised to accompany you over Flagstaff; but so many things have come in the way that I have never been able to keep my word. So on Saturday last, having plenty of time, and a lovely afternoon before me, I proceeded to put my intention into practice.

Starting, then, about two o'clock, we leave town by Dowling street, and so over the hill by Roslin, which we leave on our left. From the top of the hill here we have a most extensive and varied view of the town and surrounding district. Turning our backs on the city we have the whole of the Wakari District before us, through which lies our way; so rapidly walking down the hill and across the creek at the bottom, we address ourselves to our task. The water in the valley finds its way to the Kaikorai, and thence to the sea at Green Island. Right and left of the road advantage is taken of the deep clay and the vicinity of the water for the manufacture of bricks, for which there is a large local demand.

As there is a strong squally N.W. breeze blowing, and as the road is very dusty, we will leave it altogether, and strike across that long flax-covered hill to the right, which will bring us nearly in front of the track leading to the hill top. It is more agreeable at any time walking on turf than on the generality of Otago made roads, even although we may have a few gullies to cross or tangled thickets of lawyer-thorns to scramble through. Proceeding in this way for about half a mile, we turn the corner of a fence, and in a few minutes find ourselves on the district road leading from Halfway Bush along the base of the hill. Following this road for a little, it takes us through some fine fields, where the crops are already up and looking well; past some finely placed houses, with some fine broom fences between them and the road; and then over a fine clear rapid-running creek where we have the pleasure of washing the dust from our almost parched mouth. The old bridle road to Waikouaiti goes up from this point; but as it is rather circuitous and rugged in some parts, we will take the more direct line, which leaves the road a little further on, and goes up by Mrs Matthew's farm, giving us the advantage of being near water for more than half the ascent, no trifle in so warm a day. Passing the farm buildings, we cannot help admiring the number of fine fowls running about the yard. The belt of bush which borders all this side of Flagstaff, is here very narrow, and has a good track through it, so we are very soon on the hill above the trees among the fern and flax. From the fact of our meeting the wood strawberry here and there among the scrub, it is very easily predicated that in a few years this pretty plant will become quite as common in this part of New Zealand as it is in many parts of the old country.

On reaching the top of the rise above the farm we sit down for a spell and to recover our wind, which certainly comes rather short. We have a fine view of the ocean to the south of our resting place, and we can see four vessels skimming rapidly on their way to the Heads. A tug steamer is coming up the harbour with a

schooner in tow, and she shortly afterwards goes off again with a barque following her. But this won't bring the top of the hill any nearer. Before starting, however, we take a good look at the long irregular slope before us, and mark out the line we intend to take; so keeping to the right to avoid a bit of swampy ground, we cross the creek and keep up its northern bank for a considerable distance, striking off gradually so as to avoid the shoulder of a large patch of timber, an outlyer from the main body below. A small house has been built by some aspiring settlers high up in this direction. and a lonely life they must have of it. Another one stands at the head of the main gully in a quiet, sheltered nook, but there are yet no signs of cultivation round these houses. Some cattle wandering about appear to belong to either or both of these places. Cattle breeding appears to be all that the land here about seems capable of doing; it is too high up and too steep for cropping. On passing the patch of timber mentioned above we enter on a region of large stones, standing in every possible position, with here and there the half burnt trunks of large trees—the remains of an extensive bush fire which took place here several years ago, when everything was consumed except the large trunks, which burnt till rain falling put the fire out. On passing this we soon get near the summit, which is mostly grass and flax covered, the stones getting larger and larger; some of them by the way look as if very little would send them bounding into the valley below, a thing we should like very well to do, were it not for the risk of smashing some of the cattle quietly grazing on the slopes of the hill. From these stones the top is easily reached, and we find ourselves on a broad flattish piece of rough ground, sloping gradually away on all sides.

Otago Harbour viewed from Flagstaff - courtesy Google Earth
PAKEHA'S wife lay buried at Otakou on the far side of the harbour, just inside the Heads

Making our way to the Trig station, we find a heavy gale coming up from the other side and we are glad to get under the lee of a big stone, from which we proceed to make a survey. There in something grand in being alone on the top of a hill. You are monarch of all you survey, quite as much as if you owned every yard of land in sight. How much more could the owner of 100 000 acres enjoy of the prospect than I do now, who do not own a yard of land in the world, except one little spot, six feet by two, where lies all that is left of one very dear to me, away far down beyond those wooded hills of the Peninsula.

As may be easily imagined from its elevation above the sea, the view from Flagstaff is very extensive, although we

cannot, as we would of a similarly situated eminence at Home, tell how many parishes and counties may be seen from the summit. The hill itself is one of a long range, running nearly parallel to the coast from Blueskin towards the mouth of the Taieri. The view extends from the hill between Blueskin and Purakanui Bays on the north-east, taking in a large portion of the wooded land at the back of Mount Cargill, away up to the top of that hill, which is a little higher than where we stand, the distant horizon being bounded by the ocean away off in the direction of Moeraki, none of the coastline in that direction, however, being visible. To the east and south east, the whole of the Signal Hill range is before us, with a portion of the Peninsula, Mount Charles, Sandy Mount, ant other hilltops visible beyond; and through a break in the hill a little bit of the beach in Wykliffe Bay can be seen, with the surf breaking in a line of snow-white foam.

In front we have the whole of Dunedin Bay, the various jetties, the shipping, Vauxhall, Anderson's Bay, with the wide ocean outside, the surface of which has just been agreeably diversified by four vessels running before a fair wind, disappearing one by one under the high land beyond Tomahawk. Then we have a large portion of the city, the houses glittering white in the afternoon sun, the Exhibition Building looming large, and forming a marked feature in the north end of the town. To the south west the range of hills leading on to Green Island comes into view, then the ocean again, the surf being plainly visible for miles, only broken by Saddle Hill and its neighbouring protuberances. The whole of the Taieri Plain is in sight, with heavy bodies of smoke here and there on its surface. The line of the Main South Road along the edge of the Plain can be easily traced by the clouds of dust raised by the strong breeze blowing.

Turning now to the inland side of the hill, a very remarkable scene lies before us, to which hardly any pen or pencil, or anything except a photographer's camera, can do fair justice. It is a land of hills, ranges, and gullies—gullies, ranges, and hills, -as far as the eye can see. all of the same brownish-green shade of colour, only varied here and there by a landslip showing the bright clay; or a deeper gully than usual, which looks almost black by contrast. All these ranges are entirely destitute of trees, which is very remarkable when the town side of the hills is so very densely wooded. The snow-capped mountains in the far interior are invisible on account of a smoky haziness which pervades the air in that direction, proceeding from numbers of burning off operations going on in the plain below, the smell of the smoke being perceptible where we stand.

After making some calculation as to the time necessary to reach the top of a hill to the north, but which we find would take too long for the short time the daylight has to run, we prepare for the downward journey. From the Bell Tower to the top of Flagstaff took an easy two hours and five minutes; an hour and a half will see us easily beside the Tower again. It is one of the writer's maxims in travelling never to return by the same way he went to a place, if he can at all contrive a change, so we will descend by the other end of the hill, and by making a slight detour, reach that part of the bush where the old track goes down towards the road. And so we trot merrily on, only stopping now and then to look at the cattle or a bud or pick up a stone or a flower, many of which are blooming here and there among the grass.

We reach the road almost at the spot where we stopped to drink on our way up, and we again indulge in a refresher, as well as a short rest; for a long course of downhill walking is very hard on the legs. We only continue a short distance on the district road, and then again take to the flax, on the same hill as before, but we this time incline to the left in the direction of Balmacewen, from thence taking the paddocks and over the hill t wards the Town Belt, which we reach near the Barracks. A few minutes more and we are proceeding down Albert street on our way home, not a bit too tired to thoroughly enjoy our tea. On examining our chronometer as we near the Tower we find that we have occupied just four hours and a quarter in as pleasant a way as is possible to spend a Saturday afternoon. Our ramble being now over, I bid my reader goodbye, hoping ere long to have the pleasure of his company on a future stroll.

PAKEHA. November 2, 1864.

ANDERSON'S BAY
TOMAHAWK, SEBASTOPOL, AND BACK

How very few of our citizens who take an afternoon walk to the Ocean Beach ever climb to the top of Lawyer's Head, to enjoy the fine prospect to be had from it; and of those who do go there how very few indeed ever go over to the fine hard beach beyond which leads on to Tomahawk Reef and Highcliffe. On this beach one may completely realise the idea that he is on an island in the South Pacific; for from it there is no town to be seen, and very little cleared land, hardly anything except wood and water, the one covering all the land to the left as you proceed along the beach, and the other extending to the sky line on the right.

It is our purpose, in the present paper, to devote a few lines to a short description of the coast line and scenery beyond this beach. For this purpose we leave town by the south end of Princes street, taking the Swamp road along the head of the bay, and passing the Recreation Ground, where there is a party of cricketers practising. The next objects are the Gas Works, and their very unsavory neighbor the Manure Depot. Proceeding further, as we near the low rocky hill, which bounds the view on this side, we pass a new hotel, rather a forlorn looking spec, but which may do a little trade on Saturdays and Sundays. The road here makes a very sharp turn round the corner of the hill, the sideling exposing a section of very light coloured, but soft and brittle sandstone, which has been quarried for building purposes to some extent. Overlying the stone there is a stratum of fine sharp sand, which is also used in building. The road now winds along the other side of the hill, passing the pleasantly situated residences of Messrs Cutten, Black, and others. Several brickworks are passed, and then the road inclines slightly to the left to Anderson's Bay, which immediately comes into view. On reaching Hildreth's Hotel the prospect opens considerably. A few hours could be spent in this locality very profitably. In front extend the waters of the Bay, which unfortunately are very shallow and dry long before low tide, beyond are the finely wooded Vauxhall Gardens, part of the town being visible past the point; then come the cultivated slopes of Mr Lothian's farm, and numerous other clearings dotting the valley away up on the right. The road here divides, and turning the corner by the hotel we take the one leading up the hill to the east, past the church, then to the right again, and over the hill, passing through a number of fine green paddocks, and so on till we reach the loose sand in the neighborhood of the beach.

At the point where the road enters this part there are a few graves situated. One of them contains a head-board bearing an epitaph on a young girl aged 17, perhaps cut off in opening womanhood by consumption; perhaps, who knows, the old, old story. Leaving these melancholy proofs of mortality, we make our way down the side of the hill to the beach, over immense quantities of loose moving or rolling sand.

On reaching the beach we may turn round and observe the effect produced by the wind on the sand which covers everything around. Up to high-water mark the beach is hard and firm, but after the tide has left it dry for a little, every puff of wind carries a little of the sand up the beach, till in time it forms the huge accumulation now before us. It is so fine as to run like as much water on being disturbed, and yet it is piled up by the wind till it reaches quite to the top of the cliff in several places, forming beautiful white streaks on the black rooks, when looked at from any distance, and particularly from the sea.

Inside of the sandhills to our left there is an extensive fresh water lake, or rather lagoon, only communicating with the sea in wet weather. It abounds in eels, of which some of very large size have been caught lately. Ducks and other water fowl used to be very plentiful, but of late have become scarce and shy. So keen has the shooting of these and other birds been in the immediate neighborhood of town of late years, that it is easily foreseen that in a short time ducks, teal, and so on will be quite extinct in the district.

Proceeding along the beach we soon reach Tomahawk Bluff and Reef. The tide being low, a space is left dry between the two, so we can make an examination of several curious caves excavated by the surf in the soft stratum of rock which underlies the hard trap or basalt of the Bluff. From the appearance of the rocks, it is evident that at times the sea must break with tremendous force on these rocks. The reef extends out about a quarter of a mile from the point and has always the sea breaking white round about it.

A little way ahead, we reach the foot of a long series of cliffs, which rise gradually from near the water's edge to a height of nearly 800 feet; in some parts overhanging the surf which boils madly far below. These cliff's give their name to the adjoining district—Highcliffe. A little creek, which drains the Tomahawk Valley, runs into the sea here, and crossing it we leave the beach and take a track which leads directly up the hill. This is rather warm work on such a day, but by taking the easiest part of the slope, the top is soon reached. The view from this point is magnificent, and we will employ the time occupied by a rest and a breathing space in noting down a few of the leading objects in our widely extended horizon.

First, then, at our feet lies the ocean, blue and green and white, curling gently before the breeze. Midway are several gulls, wheeling round and round, and screaming loudly, imagining, no doubt, that we are too near their nests to be comfortable. On the ledges of the ciiffs and reefs about there birds are at present breeding, and clouds of them rise every now and then, fly round about for a little, and then settle again in quiet. To the extreme left is a long promontary, with several reefs and skerries running out from it, all of which are crowded with birds. Then comes a long succession of shallow bays and low wooded cliffs, backed by that curious-looking hill—Sandy Mount. Turning to the right, the whole of the coast line comes into view, and we have under our eye the extensive sweep from the Nuggets up to Green Island, Saddle Hill, Maungatui, and up to Flagstaff. The immediate foreground is crowded with objects, which it would take hours to describe, including such a variety as the white cliffs beyond the Forbury, part of Dunedin, Halfway Bush, Lawyer's Head &c, &c, the whole forming a coup d'oeil of unparalleled beauty.

Up to this point we have had either the open beach or smooth grass land to walk on; but now there is nothing but bush for many miles on both sides, coming right up to the edge of the cliffs, along the top of which, we continue for a short space, picking our steps as best we can. At length we get over a fence and into a large paddock, which we skirt until the bush again presents itself. But a slight track is soon found, and we pick our way onward, through the scrub, keeping the cliff on our right. However, to keep anything like a straight line, we find impossible, having to diverge sometimes one way and sometimes another, to dodge the various obstructions, doing the best we can to keep in an onward direction. In this way we pass several clearings, the track gradually rising till we reach a region of very rough ground, covered with large stones of every shape and size, trees growing wherever they could get root. After more than a mile of this we find the road begins to descend, and gradually veers from a N.E. direction, which we had been pursuing for a long space, to the S.E. This not being the direction in which we wished to proceed, and as there was no sign of any opening in the bush, which seemed rather to grow the thicker, after reaching a spot where there was a big broadleaf tree, we determined to take a rest, and hold a council. So climbing the tree, to see over the scrub, we found that the point we wished to reach was a good way off yet, and all the ground intervening covered with thick bush, Sandy Mount and Mount Charles bounding the view. It was then evident that Sandfly Bay was not to be reached from this point without an amount of time and labor for which, we were not quite prepared. The pros and the cons of the case were then laid before the meeting, and after a stiff discussion between “go-a-head" and "turn-back," in which the former party had at first all the best of it, till a glance at the sun, which happened just then to glitter in the eyes of the disputants, followed by an appeal to the watch, turned the tide in favor of a retrograde movement, and Pakeha had, for once, to turn in his tracks, finding Sebastopol, as the hill is named, quite impregnable.

After returning a considerable distance, we spied, a little way beneath us, a small clearing, with a house and some outbuildings, fowls and all the usual adjuncts of a settlement. Making our way to the door, we were courteously invited in, and after a few enquiries had been made and answered, we were invited to tarry and take a cup of tea, which with new butter, cheese, and "scons," which the guidwife was busy baking when we entered, formed such a treat as we have not previously enjoyed in the colony. The whole thing was so hearty and so homely. After doing justice to the viands, and enjoying a good rest, of which we stood much in need, we took the road again, finding, as the result of our inquiries, that we had a pretty fair and straight track through the bush to the open above Tomahawk. Down the slope we soon sped, and were quickly on the beach. The tide, however, is now up, and we have a long, fatiguing walk over the loose sand until we reach the hard road leading over to Anderson's Bay; but at length it is reached, and passed, and

we reach town soon after seven o'clock, as may be expected, pretty tired with our day's excursion, but nothing daunted with our want of success in reaching the point, aimed at, as we have determined to make another attempt, but to take the Portobello road part of the way the next time.

We occupied on this trip over seven hours, as we started from town before the noon-bell rang, and got back shortly after seven. However, the whole distance might have been done comfortably in five hours. Next trip will probably take the whole day.

PAKEHA. 5th December, 1864.

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from *Otago Daily Times* 17 January 1865, reprinted *Otago Witness* 20 January 1865

A FORTNIGHT IN MADEIRA

It was the fortune of the writer, while on his way to New Zealand some few years ago, to endure all the sorrow of shipwreck by fire; to be obliged, after some hours spent in vain efforts to subdue the flames, to trust himself, with those nearest and dearest to him, to the mercy of the waves, in the middle of a squally night, in a frail and leaky boat; leaving the ship and all his little property, and one of the crew, who had been suffocated in the smoke, to be consumed, thankful that no more lives were lost. After being tossed about in the boat all night, a kind Providence so ordered it that a Swedish brig hove in sight next day, and all hands were rescued from their perilous position, their necessities supplied, and everything done to make them comfortable. The brig was from St. Ubes in Portugal, laden with salt, and bound for Pernambuco, in South America. It was agreed between the captain of our vessel and the captain of the brig that we were to be taken to Madeira, the nearest land, and there put under the care of the British Consul. Accordingly, on the morning of the fourth day after the fire, we found ourselves close in with the coast of that beautiful island. The wind was light, and the brig made but little way, so that it was past noon ere we opened the fine bay of Funchal, the chief town, coming to anchor in the roadstead about 2½ hours after. We had thus a fine opportunity of seeing the bold coast; and to us who had seen no land for more than a month, and had hardly had anything but heavy gales of foul wind all the time, the change to the smooth seas, the balmy breezes, and the fine scenery, seemed like a foretaste of Paradise.

A signal had been flying from our masthead for some time, intimating that we wanted a boat with medical assistance sent off, for one of our crew had got his hand and arm seriously hurt by the falling of a spar ere we left the burning barque. In a short time we saw two boats approaching, both having the Portuguese flag flying at the stern; one was the harbor officer's boat; the other, and which came first alongside, was the medical officer, who put a number of queries as to who and what we were, if there was any infectious disease on board, &c, nil of which being satisfactorily answered (for in this the islanders are very particular, having suffered severely from cholera not long before), we were admitted to pratique. The other boat then came alongside, and the business part of the visit was gone into. A somewhat similar set of queries were put and answered, in the usual round about way of customs officials, and we wore then told that the consul would be communicated with, and his boat would fetch us ashore. After some time a large boat, with the British colors flying, came off, and after bidding adieu to our kind and hospitable friends in the brig, we were taken ashore. While waiting on the shingle beach until arrangements could be made for our lodging, we formed as motley a group as painter ever drew. There was hardly one of us who had a complete suit of clothes; some wanted one thing, some another—the ladies of our party presented almost a grotesque appearance. After remaining some time exposed to the gaze of the natives, we were marched off to the Consular Office, a dingy looking house in a narrow street, with the British arms blazoned over the door. Here we remained until a lodging was procured for us, and we were shortly handed over to Jose Fernandez, in the Rua da San Francisco, who was to board and lodge us at so much a head per day. The sum allowed was of course, the minimum, and we were all huddled together, about six in a room on the average sleeping on the floor, or anywhere. The houses of the Portuguese, as a rule, are not very clean, so we had to make a nearer acquaintance with certain insects of a predatory character than was at all agreeable.

In the morning we were all mustered by the Consul, and informed of our probable stay on the island, and the regulations under which we were to consider ourselves. We found that the steamer *Dane*, from Southampton, would be the first opportunity we would have of a return to the old country and that it would be a fortnight ere she arrived. The regulations allowed of our perfect liberty to roam all over the locality, in our circumstances passports were dispensed with altogether; this liberty we were not slow in taking advantage of, and this writer rambled over all the district. He means to fill up this paper by giving a short description of Funchal and its immediate neighbourhood.

The town extends along the margin of a bay of the same name, the ground rapidly rising from a small flat in rear of the beach. The streets are all narrow, and well paved with small boulders of a dark colour from the beach, the parts at the entrances to houses and shops often beautifully ornamented with fanciful patterns of rows of white stones let in among the others. Nearly every house has a garden of greater or less extent, and the vegetation being all of a tropical character, the banana, yam, orange, sugar cane, &c., being grown extensively, they formed objects of very great interest to a stranger. At the time, there were no grapes, the disease then prevailing being at its height, and the trellises and frames were nearly all occupied by melons, pumpkins, &c., some of which were of enormous size. The Cactus tribe was well represented too, the prickly pear and several other sorts being very common. The mixture of gardens and whitewashed houses gave the town a very agreeable appearance. From the sea, or from any of the eminences around, the view was lovely.

The beach is at all times a very lively and stirring place, from the continual arrival and departure of boats laden with produce from the other parts of the island, and from Porto Santo. There is at all times a heavy surf coming in, and it was most interesting to watch the dexterity and rapidity with which the boats were run in and drawn up on the beach clear of the waves. Some of the boats were too large to be hauled up in this way, so the anchor was let go, and line veered out till the stern just touched at the reflux of the waves, then the half naked crew jumped into the water, and in a very short time the loading was piled high and dry on the beach. The markets, for fruit, vegetables, fish, &c., are close to the beach, very convenient and well adapted for the purpose, and at all times during our stay profusely supplied with every item of consumption.

There is only one wheeled carriage on the inland, and it belongs to one of the hotels. Portage and locomotion are carried on by means of sleighs drawn by oxen of a small size, or donkeys, of which there are plenty. The steepness of most of the roads lending into the interior renders the use of carriages almost impossible, so the sledge is universally employed, and they may be seen of every sort, from the finely curtained concern of the dowager to the rude strong construction used for goods. The cries of the vaqueros form the most prevalent street noise of the place.

Funchal is pretty strongly fortified. In addition to a well-armed fort on a high rock a short distance out in the bay, there is a castle, in which plenty of guns may be seen on the walls and curtains; and there arc two batteries in the town, capable of mounting ten or a dozen guns each. A regiment of cacadores is quartered in the barracks, a large gloomy-looking building in the town; and there is always a sufficiency of artillerymen to man and work the guns. A small fore-and-aft schooner, mounting a couple of guns, cruises off the coast. In the bay there are always a few vessels at anchor; and it being a regular calling place for the African steamers, the scene is often enlivened by their arrival and departure. A mail steamer comes from Lisbon every week, and other craft are continually coming and going. While we were there, a British man-of-war steamer lay at anchor for several days, laying in water and fresh provisions.

In the town there are a number of very fine houses, churches, nunneries, and other public buildings. The ecclesiastical element predominates, and priests are of course plentiful—wherever there is an assemblage of people, be sure a priest or two are nigh. A number of high dignitaries of the Roman faith are always on the island, who used to rule supreme, but of late years both the English and Scotch churches have a place of worship, which are open every Sabbath, and very well attended. The island being famous

as a sanatorium for diseases of the lungs, &c, there are at all times a numerous body of British residents, who have come there to escape the rigors of the winter at home, and so pass over what is to them a very critical period. A visit to the extensive cemetery, however, shows the fallacy of all human means in treating this deceptive disease. For many of the inscriptions on the tombs tell of young men and women from various parts of Britain cut off in the flower of their days by that fell destroyer—consumption.

The town is very well supplied with water. Two streams descend from the hills at the back, and small stone aqueducts are led from them in every direction, being used for irrigating the gardens as well as for all the domestic purposes, and for supplying numbers of ever-running fountains in the streets. These streams run in very deep beds; but at this season of the year (October) are nearly dry. That a huge body of water must come down at times, however, is evidence by the large loose boulders of the black volcanic rock which forms the most of the hills, strewing the bottom of the streams. The water is conveyed from the fountains to the houses by men who make a trade of it, charging so much per cask—or about a penny a day for a moderate sized family. The writer, with some of his party, made an excursion up one of the streams, in which we passed through some very beautiful scenery of a very singular character. The inland being all of a volcanic nature, the rocks are high, hard, and almost black in their color, forming a direct contrast to the vivid green of the vegetation which clothes them abundantly wherever plants can find a spot to grow.

The hills at the back of the town rise gradually to an elevation of over 3000 feet, and are clothed in their higher parts by forests of dark pines, which supply most of the fuel used. The hills are thickly dotted with houses for most of the way up, every one with its highly cultivated garden or patch of sugar cane. Here and there too, may be seen a church; and one, the Church of Our Lady of the Mountain, is at an altitude of over 2000 feet, an ascent to it at certain times being performed by the faithful as a sort of penance. The writer walked up to it, and found it a tawdrily decorated place, with a most gorgeously fitted out altar, and some fine old paintings and plate exhibited. The view from the paved platform in front of the church amply repaid all the labor of the ascent. The view embraced the whole of the town and a large part of the district, hills and valleys, forests fields and gardens, while beyond all lay the blue ocean smiling in the sun, only broken by the sharp ridge of the Desertas, and the little dots of vessels at anchor.

Although I have said that the roads on the island are not suited for wheeled carriages, yet there is one remarkable exception, which is a new road, leading from the west end of the town along the coast for four or five miles. It is of the most substantial workmanship, and the engineering skill displayed in the various works is of a high order. The road is carried past the bluffs on sidlings, more or less deep; and various ravines are crossed by noble bridges, of several arches, the piers of several being near 100 feet in height, and the arches semicircular. The view looking down some of these gullies from the bridges is magnificent. Several of the "sections" displayed in the cuttings are very interesting and instructive, as giving a key to the geology of the island. On our ramble along this road we saw the process of thrashing wheat performed in a very original, though time-honored manner:—a corner of the field had been prepared by levelling and beating down all protuberances; in the middle of this space a post was erected, to which were attached two pairs of bullocks; the stuff to be operated on was tossed down before the animals, who were driven round and round the enclosure, more being added and the straw being drawn off by rakes as it was sufficiently trodden. The grain was afterwards cleared from the chaff, by being tossed up against the wind. Flour mills are stuck here and there in queer little places along the ravines. A very small stream of water being made to supply the power. The wheels are horizontal, and enclosed in a case, so that the water coming from a perpendicular tube strikes the floats and turns the wheel round ere it escapes. The flour is very fine; and the bread, which is mostly country made, is sweet and white, being made in small round loaves. But it is time I had drawn this rambling story to a conclusion in the meantime, as I have rather exceeded my usual limit, promising to return to it shortly.

PAKEHA. Jan. 13, 1865.

A FORTNIGHT IN MADEIRA Part II

In the centre of the town of Funchal, there is a fine square, with broad gravelled footpaths, and rows of shady trees, forming at all times a most agreeable promenade. Here, on Sunday afternoons, in a raised orchestra, plays a really capital regimental band; and here, from about four o'clock till dusk, assemble all the beauty and fashion of the place, promenading up and down the leafy alleys to the spirit-stirring strains of the band. About this way of spending a Sunday evening I offer no opinion; but to one fresh from Sabbatarian Scotland the contrast was extreme. During the time we were on the island this square was the scene of a very grand display. It was on the occasion of the birthday of the King or Queen of Portugal, I forget which. But for a day or two previously, great preparations were made. One squad of men put all the walks in order, trimming the grass, and so on, another busied themselves hanging colored lamps, flags, &c, among the trees, and on the walls of the houses, &c.; while a third were occupied erecting two additional orchestras, in order that the musical part of the entertainment might have plenty of scope.

Early in the day there was a full turn out of the military, and at noon royal salutes were fired from the castle above the town, and from the fort in the bay. The whole of the military, civil, and ecclesiastical big-wigs assembled at the Governor's house and marched in procession to the Cathedral to hear high mass; the display of uniforms, &c, was very fine. For the information of our Volunteers, I may tell them that the Portuguese regiments form in "threes" instead of "fours;" and when the display was over the military, who had lined the street during the procession, received an order equivalent to "threes right," and then “quick march" off to the barracks. The regiment of Cacadores or Light Infantry, were a fine looking body of men, but light and short in stature, dressed in green tunics and white trousers, and armed with the short Enfield and sword bayonet. The artillery wore a light blue dress, with pipe clay belts. There was a great crowd of spectators, all clad in holiday garb, both from town and country. Towards sunset the Prado began to fill. The lamps were all lighted, and hung in petition. The two military bands marched down, and occupied their respective orchestras, while the third was filled by a sort of volunteer band, belonging to the townspeople, in a neat and appropriate uniform. Here, then, from six till ten o'clock, did the band discourse sweet music, while the people strolled up and down or sat on the numerous benches placed all about for the purpose. Sometimes one band played, sometimes two, and once or twice all three were playing the same tune. In addition to this public *al fresco* concert, there were numerous private ones, the members of which marched up and down the town to the music of a group of fiddles and a flute, or the like, generally merging in the crowd in the square after a time. The *fete* fasted for three days, after which the flags and lamps &c, were removed, and the place assumed its usual quiet appearance.

Two or three days after we arrived on the Island, a large steamer from Liverpool to the African coast came into the bay. Her captain had jumped overboard in a fit, and the mate came to the Consul to be rated master, and to get another hand or two, as well as to land the effects of the deceased captain. This was a good thing for some of us unfortunates, as the captain's things were sold and some of them bought for us, and two of the crew were shipped in the steamer, which sailed shortly after. Before she left a large Glasgow ship came in with a Portuguese brig he had found at sea, with no one on board, laden with a West Indian cargo of sugar, &c. Four or five of our crew and one passenger were shipped on board of her to navigate her to Lisbon, where she was bound. This reduced our numbers a little, as it was natural the Consul would desire to have us all off his hands as soon as possible. It also gave us more room in the house, where the heat of the climate and the causes before mentioned had made us rather uncomfortable. Our numbers were still further reduced by the departure of the captain, first mate, and two passengers, who were able to give bills for the amount of the passage money in the mail-steamer to Lisbon; they were then to get forwarded from Lisbon to Southampton by the Lisbon Consul.

The bay is a very agreeable place for sea bathing for those who can swim. The beach is steep to, and covered with a clean hard gravel the debris of the volcanic rock of the Island, which is ground down to sand by the action of the surf, always rolling in from the wide Atlantic. There is a police regulation against bathing in the nude, but it is easily got over, a handkerchief round the loins being considered enough. The writer enjoyed this luxury to the full, and hardly ever passed such pleasant minutes as those spent in playing about on the surface of the tepid water. A little way outside the rollers one could lie at his ease with his ears in the water and listen to the tinkling made by the stones on the beach knocking against each other by the surf. For the convenience of invalids there were tents on the beach for dressing in, and amphibious-looking attendants to hold them in the surf, lest they should get knocked down and hurt.

After our morning's natatory exercise, it was our custom to stroll along the beach to the fishmarket to see the morning boats come in, and inspect their cargoes. It was wonderful to see the variety of fish brought in, and the brilliant colors of most of them. There was the Albacore and the Bonito, both large fish, the first one being often five feet long, and more than a foot thick; a slice cut off the middle, being more like a beefsteak than a bit of fish; very good eating, however. There were plenty of mackerel, flying fish, eels bream, and a whole host of smaller fish of the most brilliant colors, several turtle, too, might be seen, on their backs on the stones looking extremely foolish. The population of the island being exclusively Roman Catholic, the consumption of fish is large, fish and bread and fruit seeming to be the staple food. Our way home generally led by the fruit market, which was at all times a most attractive resort. For a few pence a very fair sample of fruit could be procured. Figs were very abundant, both green and blue, peaches, bananas, pomegrantes, apples, plums of all sorts, were very cheap, more than enough for three or four of us being to be had at any time for 6d. The same coin also bought a neat native-made basket filled with any sort of fruit you might fancy.

Basket work of all sorts is extensively made on the island, both for home use and export. The prisoners in the gaol are employed thus, and a space in front of the building is generally covered with strong useful willow and other baskets, made by the inmates. Parties who wish to buy, go to a low window with the article they want in their hand, and make the best bargain they can. This does not tally with our ideas of prison discipline; but I dare say they manage well enough. A sentry walks back and forward in front, who prevents any undue advantage being taken on either side. A small trade is done in fancy bird cages, with bullfinches trained to draw up a little bucket of water, when they wish to drink; open a box to get at their seed, and so on. Nearly every shop has one or more of these hanging over the door. Some of the cages were very pretty, and with a clever good whistling bird inside, sold at high figures.

The weather during the first part of our stay was beautiful. Bright, sunny, hot days and fine warm moonlit evenings. But a change was impending, and one night, when walking along the beach, we observed that the boatmen were all busily engaged hauling their boats high up on the beach, and as far away from the water as possible. On enquiring at one of them who spoke good English (and who, by-the-way, had made his fortune at Ballarat diggings), we found that a gale was expected; and sure enough, on going down to the beach for our usual bathe in the morning, we found the surf making a tremendous row, although there was not as yet much wind. Bathing was quite impossible, without risking a broken limb, so we could only watch the huge seas as they came tumbling in. Towards ten o'clock it came on to rain, and by noon a heavy S.W. gale was blowing, raising an awful sea. It was then we saw the use of the precaution taken by the boatmen, for the sea was breaking heavily a long way up from the usual tidemark. In the afternoon the rain came down in torrents, regular tropical showers heavy and close, turning the streets into rivers for the time. After dark there was more lightning and thunder, which seemed to clear the air, the clouds broke up, and the stars shone bright as ever. In the morning the gale had fallen, but the sea was if anything worse than on the previous evening—the ships in the bay were rolling their yardarms in the water, and straining as if their masts would shake out. But beyond some damage to one or two boats, little harm was done.

As the fortnight began to draw to a close, we who were left began to act very fidgetty and to long for the arrival of the *Dane*. From a point at the west end of the bay, a long stretch of the coast could be seen, and one or other of our party generally found his way there in the course of the forenoon, to look out for the coming smoke. But in this we were disappointed for the vessel came in in the morning from the opposite direction, having run past the bay in the dark. During the day we got notice from the Consul to be ready to go on board on the following day. As none of us were troubled with much impedimenta, this was easily done. A few things at the wash being all we had to wait on; these were soon to hand, packed, and ready. Next day we were very agreeably surprised by receiving from the Consul a few pounds in British money, which had been subscribed by the British residents for the relief of our more pressing necessities. This kindness took us all by surprise, and we felt it very much indeed. In the afternoon, about four o'clock, after bidding all those with whom we had been brought into contact, a kind farewell, we went down to the beach for the last time, and were shortly put on board the good screw steamer *Dane*, which steamed off shortly after, and after a very pleasant voyage of 6½ days we were landed in Southampton, and found our way to London next day, there to begin a new the voyage to New Zealand, which this time landed safely. Yours faithfully,

PAKEHA. January 27, 1865

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from *Otago Daily Times* 22 February 1865, reprinted *Otago Witness* 25 February 1865

RAMBLES ROUND DUNEDIN
PINE HILL

For some time past, PAKEHA has had very little time for rambling, having had a number of other matters to attend to but he has determined this fine day to have a tour for a few hours, and has selected the above named beautiful district as the scene.

Perhaps in no other locality round Dunedin are the marks of progress so vividly visible as on Pine Hill. What was little more than three years ago, an almost unbroken forest, is now a series of farms and clearings, with snug little homesteads, fine crops of oats, potatoes, &c., plenty of horses and cattle, poultry, &c, reflecting much credit on the enterprising settlers. The hill itself consists of a series of eminences, rising beyond each other till they culminate in Mount Cargill, the whole being a good deal cut up by deep rugged gullies. The soil, except on the very top of the ranges, where it is rather stony, is in general very good, and capable of raising any sort of crop, though of course the labour of reducing it to anything like a proper state of tilth, must be immense; and have of necessity to be spread over a number of years. At least ten years must elapse ere the stumps of the trees can be so rooted out as to allow of the free passage of the plough.

But let us take the road. The day is one of those warm days of our later summer, with a light nor'-west breeze blowing; the extreme heat of the sun being tempered by frequent clouds. We leave town by George Street. After crossing Duke street, the most northerly east-and-west street in the town, we have a very fair sample of what the streets of Dunedin were but a very short time ago, before the advent of the City Engineer. The street-line is studded with the stumps of huge trees—three, four, or five feet through, the trees themselves, or rather all that is left of them, (for the firewood of the neighborhood has been long supplied from this and such like spots) lying prostrate here and there between. It is almost a pity the timber was not utilised in some way when it was felled, rather than allowed to rot away as so much of it has done in the north end of town. A very substantial piece of fluming crosses the road here, carrying about a dozen sluice-heads of water from the Leith, and driving the wheel of the flour mills a short distance farther on. Some fine well cultivated gardens surrounding pretty cottages adjoin the road, which ends in the Town Belt. But a track leads down to the bed of the Leith, here nearly dry, and crossing by the stones, we are soon in the shade of the trees, no inconsiderable advantage on such a warm day. The flat on both sides of the stream is of a very fertile nature, and as a consequence some of the trees are very large, particularly the pines, though the best of these trees have been ruthlessly cut down. Like everything else in Dunedin and its neighbourhood, nearly all

that is *dulce* has been sacrificed to the *utile*. I wonder if this deposition has been brought to the country by the founders of the colony, or whether it is due to the indiscriminate rush of population consequent on the gold discoveries. But let us locomote.

Leaving the bank of the stream, a short ascent brings us on to the road to Pine Hill. This road, for a good way up, is a sidling cut on the face of the hill, and in its progress makes some wonderful screws, as if the engineer had acted on Hogarth's famous line of beauty—the curve; instead of taking, as those engineers of old, the Romans—the straight line. A little way up a very fine and varied view opens to our gaze, quite an amphitheatre. Away down on the left lies the Bay, the Peninsula, and the blue ocean beyond; nearer we have the north end of the town, and the various works, &c, at the Water of Leith. In front is the deep valley and the steep wooded ascent of Maori Hill, topped by the pretty cottages and gardens of that pleasant township. To the right we have the forest, only broken into at wide intervals, leading right away up to Flagstaff, Ross's Creek, &c. Here and there a white house, surrounded with its patch of green and yellow, smiles out on us in the bright sunshine, but all the ground in this direction is covered with the same uniform tint of dark, almost sombre, green of the Otago bush.

At a turn in the road here stands a fine brick villa, Dalmore House, the residence of H. Orbell, Esq. After clearing a patch of manuka, and getting on another half mile, the prospect opens considerably, and the whole of the halfway-bush and the Waikari districts lie before us, apparently gradually rising from the deep valley of the Leith at our feet. Great progress has been made in these districts in the clearing of land, and the labors of the sturdy pioneers seem well rewarded by the fine crops which now enliven the scene. On the road side here we passed a real bit of home view. A number of men and women were busily at work in a field harvesting a crop of oats, the scythe and the sickle both going merrily. We were writing the above notes on a stump at the roadside, when happening to lift our hand for a moment, a sudden puff of wind came, and away over the fence went the loose leaves of our note book. The ground inside was covered with thick scrub, and we found the task of following our copy one of no small difficulty. However, at the cost of some scratches and some climbing it was all recovered.

A considerable portion of the town supply of firewood in brought from this quarter, and we can observe all round the gaps which have been made in the manuka forest, the trees in which have a most peculiar appearance, standing straight up like a wall. The road is lined here and there by large heaps of cut firewood, ready to be carted into town. A little way further on the made road ends and becomes only a track, covered with boulders, and interrupted every yard or two by stumps, rendering walking very toilsome. Here also we passed some more harvesting, but the ground being newer, only the sickle could be used, the stumps standing thick in the field. Not feeling inclined to go much further in this direction, we turned back a little, and then striking across a paddock to the left, we entered the bush, trusting to our own perseverance to find our way over to the N.E. Valley. After a little a small clearing laid down in oats was met, and our advent disturbed a large flock of paroquets feeding on the nearly ripe grain. They took to the trees about, and commenced such a chattering as if each one was giving its individual voice on our encroachment. These birds are wonderfully good talkers, and they may be taught to say almost any phrase; indeed as we sat and listened to them, it did not require much stretch of the fancy to make words out of what they were chattering and screaming. Leaving the oats we had a rather tough scramble for a bit, emerging at last on the open on the other side of the hill. Here we had the lower part of the valley in sight, bounded by the Signal Hill range. At the edge of the bush we came on a patch of enormous thistles, quite rivalling those spoken of by Sir F. Head on the Pampas of South America. By way of keeping down the plague, we amused ourselves by going through the sword exercise with our stick against them, till our arm was wearied and the ground cumbered with the slain.

Working our way down a gully on this side, we passed some of the finest fern trees we have met with in the district. Here, too we heard the sound, most musical to a thirsty man on a warm day, of falling water, and we soon found a little spring running

over some stones. To improvise a spout with a couple of dried leaves was the work of a twinkling; and we had the pleasure of a draught of cool, clear, delicious water. The gully ended in at large clearing, from which all the timber has been removed to town, being principally manuka. Here we found a road, or rather series of tracks running up the hill in various ways to the edge of the bush, where there were folks at work, and the sharp clep-clep of the axe sounded all about. Taking the track down, we soon reached some houses, and emerged from the hills on the flat part of the valley, the fields on both sides of the road being covered with beautiful strong crops of oats, quite a credit to the farmer, whoever he may be. This road brought us out on the Main North Road, about two and a half miles from town. So, after a steady walk of about half an hour on the level road, which was almost a rest when compared with the rough tracks on the bills and in the bush, we reached home, very much pleased with our afternoon's stroll.

PAKEHA. February 17, 1865.

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from *Otago Daily Times* 1 March 1865, reprinted *Otago Witness* 4 March 1865

RAMBLES ROUND DUNEDIN
THE PENINSULA T0 THE BIG STONE

This highly interesting tract of country extends from Anderson's Bay in a north-easterly direction for about twenty miles to Taiaroa Head. It is of very irregular form, varying in breadth from about a mile between Portabello and Wykliffe Bays, to about seven from Mount Charles to the Harbor; but no part of it is more than two or three miles from the beach, the coast-line being very much cut up by the various bays and inlets. The surface is as irregular as the coast, and consists of straggling range of hills, running up to an average height of about 1000 feet. The hills, and the intervening valleys, are all covered with heavy timber, in which, during the last two or three years, the axe and the lucifer match have been busy, cutting down and burning off; and now the whole surface is dotted with clearings, from which, at intervals, may be seen issuing heavy bodies of smoke, the result of further efforts of our hardy pioneers in turning the wilderness into fertile gardens and fields. The soil ail over the Peninsula is very good, and capable of raising any sort of crop.

It is evident to the most superficial observer that what is now a peninsula must at no very distant date have been an island; the isthmus of sand existing between Anderson's Bay and the Forbury being of very recent formation. At the same time the tradition of its having been an island in Captain Cook's time must be received with some caution. From the appearance of the sandhills a much longer time than a century mast have elapsed since a channel capable of floating a boat existed between the ocean and the harbour at that point. Indeed, from the circumstance of large stumps and trunks of trees being found all over the swamp in cutting drains, &c., an argument may be had in favour of a subsidence as well as a raising of the land in the neighbourhood. But however that may be, there is very little difference in level between the isthmus and the water on both sides, so that a subsidence of a slight nature would admit the water of the ocean, more particularly as there is a difference of nearly two hours in the time of high water between the inner and outer beaches. Perhaps if a channel were once cut the scour occasioned by the current setting in and out would soon deepen it so as to become navigable. But this is altogether too fanciful, and running away from our purpose—that of giving a short description of the upper part of the Peninsula.

Leaving town, then, by Princes street south, past the Gas Works, and on to Anderson's Bay, by the road described in a late ramble, ascending the hill towards the Church, we turn to the left, and enter the Portobelio road. After making a sharp turn at tbe Schoolhouse, the road ascends gradually for a mile or two, passing several clearings, and one or two villas, one in particular being distinguished by the very liberal use of galvanised iron, in roofs, fences, &c. Some of the clearings are very extensive, and have a curious look from the number of blackened stumps which cumber the ground. Further on the bush comes close to the roadside, and one can form an approximate idea of the immense labor it must take to clear the land from the timber and scrub which everywhere covers it. Though there are many large trees, yet, commercially speaking, it seldom pays to cut them for the sake of the timber, on account of the difficulty of getting at them, and of dragging them to a convenient place for a sawpit. So the plan adopted all

round the locality is the simple one of falling and burning off. The land is afterwards cleared of stones, the larger unburnt trunks removed to the edge and made a fence of, a crop of oats or potatoes is taken, and it is then laid down in pasture, in which state it lies until the roots are so far decayed as to be easily removed. Here, too, as in other wooded districts, a considerable amount of firewood, posts and rails, &c, are carted to town, thereby lessening in some degree the cost of clearing. But the favorite firewood, manuka, is very rare on this part of the Peninsula; the trees consisting mostly of broad-leaf, pines, eini-eini, mapu, and the usual run of smaller trees and underwood.

After passing a number of clearings, the road continues on the ridge, until the harbor becomes visible through the trees, but on account of the density of the bush, a clear view cannot be had until more than a mile of road has been gone over. The road here consists of a track just wide enough for one dray, bush having been cut down to the regular width, but the road only partially formed, and running along close to the bush on one side. How two drays coming in opposite directions would manage to pass each other, is a problem so difficult that I won't attempt to solve it. Once over the ridge, the road leads along the side of the hill, a short distance from the summit; and shortly a spot is reached where the trees are low enough to see over, the land falling rapidly away from the roadside, and a noble view of the harbor lay before me, extending from Black Jack Point right away to the Heads. I here became sensible of a change in the wind, which had chopped round to the south west, bringing with it a cold air, and a few drops of rain. From the commanding I occupied I could see that Mounts Cargill and Flagstaff were both topped by masses of heavy dark clouds. Soon afterwards the low rumble of distant thunder was heard, intimating pretty strongly what was coming. After resting a little, watching the grandure of the scene, and counting the intervals between the flashes and the reports—three of which were respectively 34, 38, and 36 seconds. From this it was easy to calculate the distance, and as the flashes all came from one direction, to the north of Dunedin, the centre of the storm would be about six miles out the Blueskin road.

It is not very easy estimating your distances on these bush-lined roads, and I was rather in a fog about the particular locality I was in search of, though I made sure from the lie of the land that I was not far off. Fortunately I met a man on horseback, who gave me the desired directions, by following which I soon found the proper track, which left the road on the right, going through the bush for a few hundred yards and then emerging into a large clearing. Into this I had scarcely got when down came the rain hard and heavy; but luckily far me there was a house within a short distance, towards which I incontinently made a rush. I was very hospitably received, and got a seat by the fire, where I soon dried my wet clothes. After sitting till the shower was over, and partaking of a slight refreshment of cakes and new milk, I started off to the top of the hill to see the ultimate object of my tour, viz., The Big Stone, one of the most remarkable natural curiosities in the neighborhood of Dunedin. After a rather disagreeable travel over a quarter of a mile of very rough ground, I got quite close to the stone, which I found big enough certainly to merit the title. But I found the getting on the top a more difficult matter than I had expected. I was told there was a ladder on one side of it; but as luck would have it I could not find it. So I dodged round it, scrambling through the thick brush, among fallen trees, rocks, briars, thistles, and wet grass, till I was wet again to the middle. At last I came to a tree which had fallen from the stone, and taking advantage of its branches, I was soon on the top of The Big Stone. It consists of an irregularly shaped block, about 30 feet in diameter, and stands about 12 or 15 feet above the ground. It is nearly level on the top, on which grew the tree by which I climbed up. This I found afterwards, had been set on fire by a Goth of a sawyer, when it burned till it fell over the side. After satisfying my curiosity regarding the stone itself, I had time to look about me, and see the prospect. The magnificence of the view, I may candidly say, surprised me. The whole of the Harbor, from the jetties at Dunedin to the lighthouse at the Heads, lay at my feet. All the town was visible, and a large tract of the country beyond; Saddle Hill, Maungatua, Flagstaff, Mount Cargill, Mihiwaka, Signal Hill, the Bay down to Port Chalmers, and the islands, the shipping—all were visible. On the south and east, the view extended to the horizon over a large stretch of the ocean, while near at hand lay the long wooded expanse of Tomahawk Valley, Sebastopol, &c. Owing to the rain, however, distant objects were not very clearly defined.

Now, the question arises, where did this huge block come from? Had it been in the old country, there would have been no end of mythical stories about it. Some giant or hero, some Wallace, or Finn Ma Coul, or other equally powerful personage, would have chucked it from Signal Hill on the other side of the Harbor, some fine cold morning, just to keep himself warm. Or perhaps his Satanic Majesty himself might have got the credit of placing it on its present elevated site. But there are few myths in the colonies; we are apt rather to look at things in a purely matter of fact light, which puts all poetical supposition of that sort out of the way. The real state of the matter being that the Big Stone formed part of a reef of harder rock than the rest of the hill. A long line of large stones, all of the same sort of rock, extends to the westward from this point, and may be traced through some of the clearings. Its position is evidently due to the action of water, which has washed away all the surrounding portions of rock and soil. A clearing comes nearly up to it, and most of the trees surrounding it on the south side have been burnt off, but on the north side the bush extends, to appearance, as if never an axe had been near it.

After philosophising thus for a little, we began to think it time we were getting on the way home. Descending by the ladder, which was discovered while walking about on the nearly level top, and making our way across the clearing we entered the bush, and speedily found ourselves on the road again. The rain, however, had made a great change on the road, what was on our way up, a fine hard track, had now become a slippery heavy expanse, full of holes, most disagreeable and toilsome to walk over. However, it had got to be done, so buckling up the legs of our trousers and our resolution at once, we started off for home. We had not got over half a mile of this when a spring cart came up going the same way, and an invitation to come in out of the mud being kindly given, and as thankfully accepted, we were soon rattled and jolted over the remaining distance to town. Barring the weather, the afternoon was spent very pleasantly, and we made a mental resolve to repeat the visit to the Big Stone on another occasion.

PAKEHA. February 27th, 1865

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from *Otago Witness* 8 April 1865, reprinted *Otago Daily Times* 10 April 1865

RAMBLES ROUND DUNEDIN
KAIKORAI VALLEY, GREEN ISLAND, FORBURY HEIGHTS TO CAVERSHAM

The weather on Saturday being bright and clear, we determined on having another ramble; so leaving "The Nook" about 1 p.m., we proceed along that part of Queen street north which has been such a bone of contention of late at Town Board meetings; premising that, with all their noise, there can be no doubt of its being a great improvement. Turning to the right at the top of Regent Road, we enter the gully, passing "Cosey Dell" and a number of equally cosily situated residences. A short way up and the Town Belt is reached; here, alas! like many other parts, being rapidly denuded of all the burnable trees. It is a great pity this should be allowed. There is little doubt the time will come when the absence of trees will be deeply regretted, and the Government or the Corporation be petitioned for grants of money to replant the ground. It is not as if it were poor people who are guilty of this practice, but people who can well afford to purchase all they require may be seen almost daily cutting down trees, and making boast of never having bought a stick of firewood since they came to the place. We have only to point to that part of the Belt between Queen street north and Maori Hill in proof of this. But what is everybody's business is nobody's business. Let us to our walk.

On clearing the Belt, the road emerges on the open, close to the residence of H. Driver, Esq., having Maori Hill on our right. Our steps are then directed towards the district road that passes along the ridge of the hill which backs the town, proceeding over some fine land, now being ploughed for the first time. From its elevated position and the fine prospect by which it is surrounded, this road seems destined, at no distant date, to be lined with villas and seats. We soon reach the neighborhood of the Shepherd's Arms, passing the various sale-yards belonging to the cattle dealers in town, the City Company's abbatoir, &c. After passing these the road ascends, till a little way beyond Roslyn we arrive at the summit, about 800 feet over the tide. On the crest of the hill here there are numbers of large blocks of bluestone exposed, varying in size from one measuring sixteen feet in diameter with a

thickness of ten feet, down to pieces of two or three feet square. These blocks cover a large patch right on the hill-top, and are evidently lying *in situ*, and part of the same bluestone ridge which crops out here and there all the way from the Water of Leith to Caversham. These stones command a most extensive view, which comprises on one side the Harbor, the Town and all the district eastward; while, the other commands the Kaikorai Valley, Halfway Bush, Flagstaff, and so on, right off to the sea at the Taieri.

From thence, our way lies, to the south, towards Richmond and Primrose Hill. Still keeping the ridge, on nearing these places, we take the right-hand road down into the valley, crossing the stream at Barr's farm, where the Volunteer Butts are erected. Here we find a large party of the various corps of Volunteers practising at the 500 yards range. Adjutant Graham is in charge of the party, and some very good shooting is made while we are looking on.

In order to get out of the line of fire, we recross the stream, and proceed down the eastern bank. In crossing a paddock here we bag as many mushrooms as will make a quart of ketchup. There are several spots on the banks of the Kaikorai Creek where mills might be very easily established, were there only trade for them; there being a plentiful supply of water and a good fall—all meantime running to waste.

After a short walk over some rough ground, we emerge on the Main South Road, which we keep till King's Kaikorai Mills are reached, and then leave the Main Road by the Green Island district road, which runs seaward from this point. A short way on we cross the creek by a neat footbridge, and then pass a fellmongery establishment, where we see some very fine looking wool undergoing the washing process. Just below this the Kaikorai loses itself in a number of large shallow pools, owing their existence perhaps to the accumulation of sand at the mouth, where it is drifted up by the winds and waves. On the side of the hill to the left of the road, there are a number of very pleasantly situated houses and farms, away in recesses among the trees. This being a favorite locality with the early settlers, the countryside has an older and more cultivated look than is usual.

After proceeding along this road for about a couple of miles, the sandhills bounding the beach are reached, and then the road makes a sharp turn, rising considerably, and enters the bush. From a point just at the turn, a singular view is had. In front lies a bare bleak-looking expanse of brown hills, with numerous pools of water all along their base. On that side there being no bush, except on the towering boss of Saddle Hill; while the hills on the eastern side are covered to the top with thick heavy bush. A long range of coast is visible from this point; but walking over the wide sandy hills or *dunes* being very heavy, we did not go down to the beach. The embouchure of the Kaikorai is the site of a township (Brighton), which has been advertised as a watering-place, and pushed at land sales by fine maps and views; but to very little purpose, there being no houses as yet. The Green Island lies about a mile off the shore, just opposite; but being very small, it affords no protection from the heavy swell that always sets in; and it is obviously impossible for any bathing to be carried on in such a surf as is almost constantly boiling all along the beach. This circumstance, with the disagreeable drift of fine sand which always flies over whenever the wind is anything high, will militate against its ever being a desirable site for a township. We should have liked very much to have gone down to the beach, and along some distance, but time did not allow, it was now well on for five o'clock, and six long miles of hill and bush between us and town. *Allons*, PAKEHA! Starting out after a short rest, we took to the bush, and on our way observe some pretty large trees; one, an old Broadleaf, we measured, and found it was nearly sixteen feet in girth at four feet from the ground. Several Ribbon-woods were also passed, and some good pines. The bush is of a very mixed nature, nearly all the usual trees being present. On nearing the top of the hill we lost the track, and had to push through as we best could, but keeping an uphill course we had little difficulty in finding our way to the clearings. Crossing a fence on the hill top, PAKEHA had an ugly tumble; the top rail broke, and he came heavily to the ground, but luckily sustained no damage beyond the shaking. After crossing another paddock, we reached the district road leading to Caversham, along which lies our way. This road passes through a fine open tract of country, forming a sort of table land, most of which is enclosed and in cultivation. Here and there we passed some very nicely

placed, substantial looking houses, as well as numbers of large cornstacks, testifying to the fertility of the land and the season of the year. After getting over about a mile of this road it all at once made an abrupt detour to the right, for which we could see no reason, as the land beyond seemed equally level. So, as time was pressing, we determined rather to take the chord than the arc. But the straightest road is not always the shortest; for we found, on proceeding some distance, that a deep abrupt gully lay before us, to the bottom of which we speedily got, only to find that a deep bog of five or six yards wide stopt our way. Over this we had great difficulty in getting, but at last managed, arid soon completed the ascent of the opposite bank. On reaching the level land again, the sun was just sinking over Maungatua, and for about five minutes the scene was truly glorious; the nearly level rays of the sun tinged every point a deep golden yellow—the distant hilltops standing up nearly black out of the flood of light. Far away out to sea the waves were flushing and glittering like as many diamonds, and all the land near shone as if gilt. This lasted but a brief period, and almost as if by some one dropping a shade of something opaque over the sun, the whole scene became of a cold grey tint. This warned us to proceed, and putting on the steam, we started ahead for Caversham. We found the rest of the road, after getting on to it, in very bad order for walking, having been very recently metalled, and no side track being left for pedestrians. However, being nearly all downhill, we sped merrily on, reaching Caversham at ten minutes past six, just in time to catch the bus, in which we rattled off to town.

April 3, 1865 PAKEHA

BRIGHTON

(To the Editor of the Daily Times.)

Sir—In his last Ramble, "PAKEHA" was unconsciously led into a mistake regarding the locality of the above-named place, he having got his information from a party in the neighborhood he then described. He also takes this opportunity of thanking "S.F.E." for his information, and intimates his intention to visit the real Brighton in his next ramble, and see for himself, instead of trusting to others. [refer page 50]

I am, &c,

PAKEHA. Dunedin, 17th April, 1865

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from *Otago Daily Times* 4 August 1865, reprinted *Otago Witness* 12 August 1865

RAMBLES ROUND DUNEDIN

THE TOWN BELT Part I

In the present juncture of Municipal affairs, it may not be out of place to say a few words about the Town Belt. Most of the candidates for honors in the new municipality have spoken of the utilisation of this Reserve in their addresses to the electors. One proposes to fence it off into paddocks, clear it, and sow it down in grass, and then let it at so much an acre. Another would have it divided into allotments, and leased for the erection of villas and mansions. While a third would have roads and walks cut through it, the surface cleared of rubbish, dead wood, &c, trees planted where requisite, and the major part of it turned into places of recreation for the citizens. In one thing all seem to agree, that a revenue should be derived from it for the benefit of the City funds. In these circumstances we propose to make a tour of the Belt, and see in what state the Reserve actually is, noting down as we go on where it has suffered most from the dilapidation of the neighbouring residents, squatters, and others. Naturally, the surface of the Belt is not very valuable, its contour being very irregular; indeed there are very few spots where sufficient level ground could be got to make a decent cricket ground. Also, naturally, the Belt is divided into two distinct portions, having very different physical features; the part to the north of the Wakari road being mostly covered with more or less heavy bush, while the northern division is nearly all clad with tall flax, bush existing only in one or two gullies.

For convenience, we will take the northern division first, beginning where the line of Dundas street runs into the Belt at the head of Pelichet Bay. Here the bush begins at tide mark, and rises to an elevation of about two hundred feet above the water. There is yet some valuable timber on the hill, but it is daily becoming less so; from the peculiar position of the residents here, it has become a very difficult or almost

impossible matter to obtain supplies of firewood. Hence from this cause, whether excusable or not, the timber on this part of the Belt has suffered very much. If no steps are taken to stop the practice, in a very short time there will hardly be any good trees standing. Turning abruptly to the left at this point we work our way upward through the bush and scrub to the top of the hill, from whence we have a fine view of the bay and the town on the one side, and of Mount Cargill and other ranges of hills on the other. Proceeding along the ridge we observe that on the north side the bush subsides into thick ti-ti scrub, mingled here and there with flax, which continues to the westward till we reach the top of the steep hill overlooking the Water of Leith. Here a very pleasant and romantic path leads south to Dundas street. In the block we have thus circum-ambulated a large portion of the valuable timber has been cut down and removed; but plenty yet remains well worth the preserving, particularly in the wide gully which opens on the end of Forth street, and up to the scrub at the top. The block is capable, in connection with the Acclimatisation Society's garden on the north side, of immense improvement; and could, at very little expense, be turned into as pretty a piece of recreation ground for the citizens at the Leith end of the town as there is any occasion for.

The above-named society have set a good example in the way of clearing, and at the same time preserving the natural beauties of the ground. Working our way down the steep bank to the Water of Leith, we observe on the water side here and there trees are being hacked and cut for firewood. A few tents are squatted in this neighborhood. Getting on the line of Duke street, we cross the bridge, and get into the Belt again, which, on account of the sweep made by the river, is here very narrow, being hemmed in by the Pine Hill road on the other side. Getting up the waterside is a rather difficult matter, the underwood being so thick; but all the way the same ruthless destruction of the timber prevails, nearly all the useful trees having been removed. After again crossing the river, and a good deal of rough scrambling, we emerge on the open beyond the Belt, near the old mill. Passing up the paddock, towards the mill, we reach the road, which crosses the Reserve here. The part of the Belt we have passed is quite level and very swampy here and there, but might be easily drained and made a fine piece of ground, available for almost any purpose.

To the south of this, the ground rises precipitously, to a height of about 300 feet, some fine trees being interspersed here and there among the rocks. Large quantities of road metal have been quarried from the face of this cliff, the stone being of a hard texture, pretty well fitted for the purpose. A track leads from the road to the top of the hill, and after a rather stiff ascent, we found ourselves on a flat terrace, overlooking the North-east Valley, the Water of Leith, and part of the town. But a very short time ago, the terrace was covered with thick bush, consisting of Manuka, Pines, Broadleaf, &c, of which, alas, all that now remain are the whitened stumps. A little bush still remains further on, in the gully that runs down upon Forth Place, but it is rapidly disappearing under the persevering attacks of the residents on both sides, who seem to draw their stock of firewood from this part. We would not like to vouch for its being true, but we were told that a member of a late Executive took upwards of 150 cords of wood from this locality. Of course, he had leave from some one. Part of the top of this hill is pretty well grassed, and a few horses or cows may generally be seen grazing about, as well as a few of those pests to gardens in the outskirts of town, viz, goats.

Here we find the direction of the Belt turn to the south-west, and crossing the track leading to Maori Hill, we find ourselves on the edge of a deep gully, through which runs the fine stream of water which did so much damage to the new works in Regent Road, a little way farther down, at the time of the late flood. Crossing this stream and a road which crosses the Belt here, we find a steep hill before us, from which great quantities of timber have been removed, as well as from the gully we have left behind. On reaching the top we find it flat, like the one on the other side, the level being clad in flax and scrub, while the steep side overlooking the town is thickly covered with trees, but not of much value as timber. Quarries for road metal and pavement have been opened on the side next the town, the hill being composed of a hard compact bluestone, which can be seen cropping out of the surface here and there. This part of the Reserve is in a pretty good state of

preservation, which improves as we go on, mainly owing to its distance from population, and the interest taken in it by some of the neighboring residents.

After crossing a track leading up from Heriot Row we come upon a very romantic part of the Belt. This is a deep hollow, with high banks covered with wood on each hand, leading on to the edge of the gully running down on Royal Terrace. This might be made a very pretty place at a trifling expenditure. There are some very good trees in this locality, although towards the houses; in Royal Terrace some dilapidation is observable. Crossing the gully and ascending the other bank, we find on the top the same sort of scrub and flax covered surface as before. The flat, however, is very narrow, for all at once the ground falls off to the town, and is covered with trees down to the line of sections. Working our way down here we come on a very fine spring of beautiful cold water, sufficient to supply a considerable population, but which nearly all runs to waste. The Belt here again turns to the S.W., and ascends considerably. Getting to the hill-top again we take the road which crosses the Belt towards the top of London street, where a piece of bush exists in a hollow which contains specimens of nearly all the trees of the district. Nearer London street the trees have been nearly all cut down, and a new growth is springing up to supply their place.

We now reach a spot which has for some time been occupied, first by the military, and then by the Immigration Office as Barracks. A short way further on is the Lunatic Asylum. Both these groups of buildings are only temporarily placed where they are. This position is one of the finest on the whole Town Belt, being a fine level piece of ground, bounded on the west by a high bank covered with trees (sadly destroyed, however, this having been a favorite tent ground for some time), sloping off in other directions into shallow gullies. Room enough exists for a fine recreation ground for the middle district of town, or a drill ground for the volunteers, or even a rifle range might be laid off with perfect safety under proper regulation. Plenty of capital bluestone has been taken out of the hillside at this part, and blocks of any size could be had. A few cows are always to be seen grazing in this neighborhood, a good deal of grass growing about, even among the trees on the hill. A part of this plot has long been reserved as a Cemetery, but very little of it has been used for this purpose; indeed, from its contiguity to town it is not likely that any more land will ever be enclosed, preference being wisely given to more distant parts of the suburbs for this object.

We have now made the tour of the northern half of the Belt, and, on the whole, must say that its value, as an available part of the Municipal Estate, is more apparent thin real. By far the largest part of it is too steep to be available for building upon, although no doubt there are some very pretty spots here and there; and the same objection must apply to its being used in any way for agriculture. It therefore follows that the only use to which it can be put is the one for which it has all along been intended—a place of recreation for the citizens. But still it does not follow that it is to be left in the forlorn state in which it has hitherto lain—a prey to every one in want of firewood. Energetic measures should be taken to preserve what remains of its beauties, and by judicious improvements to render it more and more useful to the inhabitants. We will take another opportunity of going over the southern division.

PAKEHA. Aug., 1865

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from *Otago Daily Times* 12 August 1865, reprinted *Otago Witness* 16 September 1865

RAMBLES ROUND DUNEDIN
THE TOWN BELT Part II

In attempting a description of the southern section of the Town Belt, we do not find so many features of interest as we did in the portion lying to the north of the line of Stuart street. But yet, from its elevated position, and the extent and variety of the scenery lying around, embracing land and water, hill and valley, town and country, it forms no mean adjunct to a city. In this respect, this part of the Belt not a little resembles Arthur's Seat in its relation to the ancient Dunedin in the home country. On attaining the top of the hill from the district road leading out to Halfway Bush, &c, we find the surface covered thickly with flax, tall and strong, with here and there a patch of grass or fern. On the sides of the hill

plenty of boulders crop out, and at various points the surface has been opened for the sake of getting at the rock, which makes good road metal. A little outlay would render a large piece of the Belt here fit for any sort of crop, the slope of the ground being very gentle. The hill is bounded on the south by the precipitous gully down which comes the stream which frightened the storekeepers, and did such extensive damage and destruction in Maclaggan and Rattray streets lately. Within a very recent period the upper part of the gully was covered with very thick bush, abounding in large and beautiful trees; but it may be said of it, as of other parts of the Belt, Ichabod, its glory has departed. Nothing now remains of the bush but hundreds of white and yellow stumps, with here and there a few mokous, miki-miks, and other fast-growing shrubs. Looking down the gully from the upper end the cause of this destruction becomes apparent. For a long time this has been a famous squatting ground, its proximity to wood and water giving it advantages over many other parts of the Belt; and tents and shanties, of all sorts, sizes, and materials, are plentifully dotted over its surface. Excepting these instances it is difficult to say whether much encroachment has been made on the Reserve in this quarter; it not being easy to make out its limits with any degree of exactitude. Here the Belt is very broad; running down towards the town much farther than at any other point, for the purpose, we suppose, of including the extensive quarries of bluestone which are worked on the face next Maclaggan street, from which the Corporation now derive a small revenue.

On getting to the hill top on the other side of the gully, we find the surface still of the same character, but of rather more undulating contour. In a field to the westward we observed two men thrashing oats in the open air with that antiquated instrument—the flail. The regular "beat, beat," as they went on with their work, pulling down sheaf after sheaf from a stack beside the floor, sounded very pleasantly in the fresh S.W. breeze then blowing. A number of springs issue from the high grounds here, forming little marshy gullies as they trickle down the slopes, joining together as they go, and running at last into the main gully a little nearer the town. A portion of this locality has been marked off in the maps for a cattle market, but we were unable to see any indication of such an important requisite in the neighbourhood.

Another gully, or rather series of gullies, and another hill, and we approach the spirited little suburban township of Mornington, with its Progress Committee, &c. It is fortunate for us the weather has been fine for the past day or two, despite Saxby, who has logged down to-day as one of his own; otherwise we should have found the mud in this locality utterly impassable. The road leading out of town bears indisputable evidence of the state of the Provincial Treasury, not a particle of metal ever having been laid on it, and the mud and ruts are a lesson to roadmakers.

We now arrive on the hill immediately above the principal business part of the town. It is from near this point that the scene represented on the new act drop in the Theatre has been taken; and, verily, for a panoramic view abounding in scenery of the most varied nature, we hold it unrivalled. The hill has still the same sort of surface as before; straggling bushes, flax, and fern, with patches of grass, mostly capable of being put to good use in a variety of ways.

All the Belt we have gone over to-day has lain at a considerable elevation—from 500 to 700 feet; but it now begins to fall, and its direction changes to S.E. from South, the direction in which we have hitherto gone. We now pass in succession the heads of Maclaggan, High, and Stafford streets; and immediately beyond this the ground becomes nearly level, and is perhaps the most valuable part of the whole Reserve, as it closely adjoins the central part of the town, is very easy of access, and requires very little clearing to fit it for pastoral, agricultural, or any other purpose, though, as usual, it is very steep on the side next the town.

On leaving this hill behind, we find ourselves in the immediate vicinity of and overlooking the Cemetery, with its three divisions of Presbyterian, Episcopalian, and Roman Catholic, as if there were sects even among the dead. The burying ground occupies the extreme S.E. angle of the Belt, which falls rapidly to the flat which is cleared and laid out as the South Recreation Ground, immediately beyond which we

reach the tide, from whence we originally set out.

The hills near the Cemetery are composed of a loose sort of rock of an igneous nature, overlying a bed of clay, which in its turn overlies a bed of drift sand, somewhat similar in nature to the sandhills on the Ocean Beach. This sand occurs under Bell Hill, and one or two other hills in the vicinity, and has been tunnelled and dug out for building purposes. From the side of the hill fronting the Bay a large quantity of material has been removed for road making, reclamation, &c, and the process of removal has caused very extensive landslips, the front of the hill cracking off in huge pieces, as the stuff is removed from below. We have now gone over the Town Belt from end to end, noting faithfully all we observed, and hope that our remarks may be of some little use to all concerned.

August 9th, 1865. PAKEHA.

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from *Otago Daily Times* 8 September 1865, republished *Otago Witness* 15 September 1865

RAMBLES ROUND DUNEDIN
PORT CHALMERS, LOWER HARBOR, MURDERING BEACH

Here we are again! just returned from a long ramble in the above direction. On this occasion we have employed three different means of locomotion—the paddle steamer, the row boat, and our ordinary mode of getting over the ground —shanks's nags. By the first we proceeded to Port Chalmers,—the steamer going down the Long Channel, calling at Macandrew's Bay, for the purpose of filling her tanks with fresh water, the jetty there being fitted with large wooden cisterns for the purpose, supplied from a creek on shore. A wide canvas hose is put on board the steamer, a sluice is opened, and a few minutes suffices to run in a sufficient supply. After arriving at Port Chalmers we spent a short time admiring the very considerable improvements which have been made on the streets and roads. Any one who remembers what the Port was a couple of years ago, and who has not seen it in the interim, would hardly recognise it in the spacious streets and most comfortable trottoirs which intersect it in every direction. It is only when he returns to the water side, and finds the old jetty yet in its original inconvenient narrowness, that he discovers he is still in the land of the Old Identity. After making a few calls in Port, we proceeded to the Jetty, and speedily engaged a boat to take us down the Lower Harbor. The first part of our sail was very pleasant—the weather (though dull), the scenery, the tide, all being in our favor. The harbor was not so crowded with vessels as it used to be, but yet there were some very fine craft at anchor here and there. Among others, the fine new steamer Egmont, belonging to the Panama Company; the ships Caribou, Queen of India, and others, all fine craft; the latest arrival, the Peter Denny, from Glasgow, came in for a large share of our attention as we passed, her bulwarks being crowded with immigrants.

While passing the shipping, the wind suddenly freshened considerably, and blew dead against us, causing us to expend more power than we expected. In addition, it came on to rain heavily, which rendered our discomfort complete; but we had gone too far to turn back, so pulling manfully away we soon reached our place of debarkation—the jetty in Dowling Bay. From this point, our way lay over the low hill which divides this bay from Tayler's Bay, then along the flat bottom, just left dry by the retreating tide, over another neck of rock, a sandy flat, and then we entered the bush which covers all the hills in this district, down close to tide mark. A track leads over the hill from among the sandhills, but the hour or so's rain had made it in the very worst possible state for comfortable travelling. Although the rain ceased very soon after we entered the bush, yet the slightest shake of a branch brought a heavy fall of drops down on our devoted shoulders. The track, too, got from bad to worse, till it was little better than a mere quagmire, interspersed with such trifling obstructions as a fallen tree here and there, roots, stones, &c, together with a plentiful sprinkling of that native peculiarity—the sting nettle, the slightest touch of whose hairy leaves produces a blister which will trouble for two or three days after. A few fine totaras, rimus, matais, &c, are to be found in the bush on this side of the hill; but in general the trees are of little value, hardly better than scrub. The track is very steep, rising over 700 feet in considerably less than a mile, the top being

flat for some distance and then falling away rapidly to the north and west. The trees are so very thick that little or no view can be had; it being rarely that we could see across the harbor to Otago or Portobello.

Once on the hill-top, we made good use of our time, and rapidly sped over the rough ground to the other side, down which we slid and rattled at a great rate, so that it was not long till the sea on the outer beach, and then the clearings surrounding the house of our friends, met our view. Here we found a hearty welcome—a great blazing fire, and dinner nearly ready. Our wet habiliments were soon dried, and our inner man satisfied; then our business was got over, and we sallied out for a ramble along the beach and over the sandbanks, to try if we could not pick up a Maori curio or two. In this, however, we were not very successful—a few flint flakes, teeth, chips of greenstone, and some shells, being all that rewarded our search. It was too far gone in the day—work of this sort requiring bright sunshine. As there was a keen, cold wind blowing, we were glad to beat a retreat and take up our quarters again at the fireside. During the evening, the wind increased till it blew a gale from N.E., raising a heavy sea, and causing us considerable trepidation lest the boat should not be able to come down the harbor to pick us up on our return to Port on our way home. However, when the morning broke, our fears were allayed, as the wind had lulled and the sun shone brightly, giving token of a beautiful day.

After paying another visit to the beach, &c, we returned to breakfast; and, after a short tour round the neighborhood, prepared to recross the hill to the harbor. The bush here is remarkably gay just at this season, most of the trees putting forth their new buds—the goai, particularly, being covered with blossom. One feature must not be forgotten, and that was the great number of tuis which were flying all about. We had never seen them so numerous before, and they looked beautiful in the bright morning sun, darting hither and thither, up, down, and across, just like the swallows at home, and apparently occupied like them in fly-catching. We were told they were very thin, and not worth shooting. Paroquets and other birds were also plentiful.

We found the track over the hill considerably improved by the drying wind of the past night, and our walk was rendered all the more agreeable. We soon left the beach out of sight, and not long after even the roar of the surf became inaudible. On reaching the summit we took a few minutes to look at some trees, which were completely covered by a fine green moss, hanging from every twig in long strings, as if they were bearded. Many other beautiful mosses and ferns covered the trunks of the trees and bushes in this part of the hill.

We soon found our way down the southern side of the hill to the sandbanks of the harbor. Then along the beach and track as before to Dowling Bay; and we had no sooner got clear of the bush than we saw our boat coming across, there not being two minutes difference between us. We got on board at once, and setting sail stood out into the channel and up towards Port with a fine fair wind. We made but short stay in Port, but started off for town at once; there being no conveyance, we had to walk, but found that no obstacle to our thoroughly enjoying the fine scenery which opens to view at every turn of the road. In five minutes less than an hour of fine easy, though warm walking, we found ourselves at the Junction. After refreshing, we soon rattled off the remaining distance to town, arriving early in the afternoon, very much pleased with our tour.

PAKEHA. Sept. 4, 1865.

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from *Otago Daily Times* 26 September 1865, reprinted *Otago Witness* 30 September 1865

RAMBLES ROUND DUNEDIN
KAIKORAI, ROCKVILLE, THE CHAIN HILLS

The fine weather of the past few days having thoroughly hardened the roads, we determined on taking a ramble in the above direction. So, leaving town by the Regent Road gully then along the district road, across a few paddocks, and we were on the North Taieri Road, at the foot of the hill beyond the Shepherd's Arms. We here struck to the left, and proceeded south by the district road leading to the Kaikorai Creek, which is here a fine brawling stream, rattling over the stones and shingle in its bed most

merrily. Somehow, running water has a great attraction for us, and we have spent many a pleasant minute lingering by the banks of streams, both here and elsewhere. After crossing the creek, the road passes over a fine, fertile looking bottom, and then begins to rise, winding round the various knolls and hollows. There are some very prettily situated houses in this neighborhood; and the whole valley possesses considerable beauty, both sides being covered with fine bush, in which there is a good deal of large timber. Coal, or rather lignite, has been discovered lately in the Government Reserve here, but we did not see the pit, and can't say to what extent the workings are carried on. We got a pretty good idea of the fertility of the soil from a small nursery garden by the side of the road, with forcing-house and everything complete. Passing a remark to the owner as we passed, we were invited in, and shown over the premises. We observed some very handsome flowering plants, shrubs, &c, and vegetables of every sort, all in a pretty forward state, considering the long and severe winter we have had.

After leaving the garden we had a long spell of hill before us, and the heat of the day made the ascent rather toilsome. On emerging from the bush at the top of the rise, we passed some very complete and substantial-looking farm steadings; as good specimens, perhaps, as are to be found in the district. A little way further on the road turns to the south, and keeps on along the top of the range. From the ridge, which, as usual, is covered with big stones, we had a very fine and extensive prospect. In front lay the ocean, stretching away to the horizon; the beach, with its lines of white rollers, extending east to the reefs at Tomahawk. Then the hills of the Peninsula, from Anderson's Bay to Mount Charles and Harbor Cone, with part of the harbor visible at their feet. Before them lay Roslin, and beyond it the Signal Hill range, on to the Junction, the buildings at which glittered white in the afternoon sunshine. Below these, the North Road could be seen winding in and out among the trees in the N.E. Valley. More to the left rose Mount Cargill, wooded to the top; except in the Pine Hill district, no openings have yet been made in the vast forest which clothes the sides of this hill. By present appearances however, it will not be very long till the daylight be let in upon its dark recesses, and the sombre green be dotted over by the houses and the clearings of the hardy settler. To the north lay Mount Flagstaff, presenting, from this point of view, quite a contrast to its well-wooded neighbour, hardly any bush being visible on its southern and western slopes. At our rear lay a long bleak-looking ridge, covered with tall fern and flax, yet in a state of nature. After resting a little, we started again, keeping a southerly direction, passing some fairish agricultural land, until we came to a part where the road ended altogether. Here we took to the bents, and crossing the ranges, after a short time found ourselves overlooking another most extensive prospect, quite as grand in its way as the one we have just attempted to describe.

At our feet lay the Chain Hill, broken and rugged, crossed in every direction by numerous gullies; beyond lay the Taieri Plain, bounded on the west by the great Maungatua, looking huge and grand, as it loomed through the haze which generally overhangs the plain. Here and there on the level could be seen several large patches of water, relieving, by their silvery appearance, the generally sombre hue which the plain presents at this season, before the crops have made much progress.

To our left rose Saddle Hill, apparently not much superior in elevation to the point on which we were now sitting. A long strip of gray, stretching up the eastern side of the hill, showed where the South Road wound its way over the range to the plain. To the south lay the sea, the whole expanse of bay from the Green Island to Taieri Island, and on to the Nuggets, being within our view—the long line of coast being marked out plainly by the white surf. The extensive marsh in which the Kaikorai and Abbot's Creeks lose themselves, lay before our eyes as if on a map, every part of its terraqueous surface being perceptible.

We kept on the range till Trig Station X was reached, when we turned to the east in the direction of the Kaikorai Valley. This station has a most commanding view of the Green Island district, and all the hills in its neighborhood over to Look-out Point and the Forbury. A long spur seemed to lead from where we stood away nearly to town, promising a very easy gradient into the valley. In this, however, we were a little out; for a short way on it dipped all at once into a

deep bush-clad gully. Rather than encounter the briars, we turned to the north and headed the gully, continuing on the range for some distance, then over into a long glen, one side of which was covered with bush, the other with fern, with a fine grassy bottom. To this bottom we made our way, finding a track leading down the gully, near the bottom of which stood a solitary clay-built cottage, with a small stream of water running close by. A little way below this the valley made a sharp turn, which brought us out, over some rocky ground, to the Kaikorai Valley, just at Burr's farm, where we found a match going on at the Government Butts, between the Artillery and the City Guards. After looking on at the shooting for a little, we crossed the creek and breasted the opposite hill. Then crossing the Primrose Hill Township to Mornington, we got into town by Serpentine Road and Maclaggan street, and so home. The ground we have gone over to-day was of a very easy nature, presenting no difficulty of any sort, and may be easily travelled by any one in about four and a half to five hours. The delightful prospects to be obtained on the way are worth twice the labor, independent altogether of the benefits received in a sanitary and hygienic point of view.

Sept. 25th, 1865. PAKEHA.

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from *Otago Daily Times* 12 February 1866, reprinted *Otago Witness* 17 February 1866

RAMBLES ROUND DUNEDIN
BRIGHTON

It will be remembered that we made an attempt to reach the above named place some time ago, and that we were disappointed in our intention by not being able to cross the bar mouth of the Kaikorai, the tide being high, and a heavy fresh running. Several times since then the weather has interfered, and it was not until Saturday, the 3rd, that we were able to perform our promise. On this occasion we determined to avoid the beach although the most direct way, and go out by the road, adopting the same line as we did before, viz., by the paddocks to the Taieri Road, then by the Kaikorai Valley to the Main District Road, and so on.

The morning was dull and threatening but on looking at the clouds we thought that once clear of the attraction of Mounts Cargill and Flagstaff, we should get out of the fog and into the sunshine; in this we were not disappointed, for on nearing the Kaikorai we emerged into bright clear weather. In crossing a bit of waste land on the hill we came upon the first snowberries we had this season, growing abundantly in patches among the scrub. We picked a few, and found them very cool and refreshing, leaving a pleasant taste in the mouth, excellent things to eat on a warm day. The walk down the valley was very enjoyable indeed; a fine breeze was blowing, and the smell of the clover from the green pastures on both sides of the road was delicious. The stream, as it winds down the flat bottom, has worn a very deep bed through the solid rock. Looking at the usual gentle ripple of the waters, it must have taken a very long period of time to excavate its bed, which is at present from 20 to 25 feet deep. There are some fine long pools, where a bathe might be had, were it not that a large woolwashing establishment utilises the water for its purposes, but leaves it in a state hardly fit for ablution.

On reaching the main road at the junction below Lookout Point, we proceeded merrily along. Beyond the natural beauty of the district, there was little worth noting. The crops on both sides the road were looking fresh and green; haymaking going on here and there, in every other paddock nearly. Away on the right, the confused looking lumps of the Chain Hills, lay brown under the sun's rays; while on the left the low swampy expanse in which the creeks almost lose themselves on their way to the sea, stretched out to the white sandhills, behind which could be seen the ocean, glittering and foaming in the distance. Every now and then, as we passed the telegraph posts, we could hear the breeze singing among the wires, bringing one in mind of the tone of an Æolian harp, more particularly where the turns of the road brought the wind nearly directly across the lines of wire.

We soon passed Green Island, crossed the Kaikorai and Abbott's Creek Bridges, and after a smart walk found ourselves at the Coalpit. There did not seem to be much doing while we were there; we took a peep down the shaft, a look at the machinery, &c,

and then proceeded. A short way further on the road to Brighton turns off to the left, and then began a long and rather uninteresting tramp over a rough newly laid-out road, up and along the eastern flank of Saddle Hill. However, on attaining the summit, the prospect brightened a bit, a long stretch of the great Pacific came into view and a new scene opened. About five miles from the Main Road we reached the vicinity of the beach, and came within sound of the breakers; for a considerable distance the track leading parallel to the beach, over a rather rough piece of country, and at last on to the beach itself by a gap in the sandhills, about a mile from which a line of high rocks seemed to stop all further progress. On nearing these they presented the most singular appearance we ever saw, resembling hardly anything so much as, bundles, of rods or twigs, and reams of paper with the folded edge out, all twisted and turned in every direction; the whole being intersected by veins of quartz, of a dirty white and brown hue, which run in the same direction as the line of lamination. After knocking off a few specimens, we climbed the rocks to the right, and found the settlers had cut a fine road over the hill from beach to beach, some parts of it through the solid rock, which must have been a costly operation. A short way on from where we reached the road, it turns a sharp point, and at once we came in sight of our destination.

The view from this point was one of a very fine character indeed. On our right lay a range of brown-tinted hills, mostly of a conical shape, running away off to beyond the mouth of the Taieri river, the island there being plainly visible. The slopes of the hills were dotted with settlements and green fields at intervals all the way. In front lay the plain or table land on which stands the township of Brighton, the white houses gleaming in the afternoon sun. At our feet lay the mouth of the Otokia stream, which here winds its way from the lagoon, through a sand flat to the sea. To the left lay the beach, away as far as the eye could see; close at hand were a number of black weed-covered rocks, the end of the hill on which we stood. These rocks form the entrance to Boat Harbor, as the mouth of the Otokia is called, and the surf was beating heavily on the outer edges. Looking at it from the hill, it did not seem at all a difficult matter to run a boat ashore, though there might be danger at times.

After admiring this prospect for a little we proceeded along the road, which winds round the hill and down to the sandflat before mentioned. There was but little water in the creek, so there was no difficulty in jumping across then up a steep ascent cut in the face of the bank, and we were on the plateau in the immediate vicinity of our friend's house, where we were most heartily welcomed. After tea we sallied out to see the lions. First and most important of these was the lake, river, or lagoon, for it partakes of the nature, of all three. This is a long narrow winding sheet of water, running away up among the hills from the sea for about 2½ miles, varying in depth from about 8 feet to nothing, forming the finest bathing place in the Province. The water is in general quite salt; but at the time of our visit it was rather brackish, on account of the late wet weather. There is one very peculiar circumstance regarding this sheet of water which we must here mention, viz, the water is always warm the whole year through being 10 to 12 degrees above the temperature of the adjoining sea. Our friend has a boat on the lake, and providing ourselves with a thermometer, we pushed off for a pull. A few hundred yards up we dropped the thermometer overboard, and found the temperature at the bottom over 68, and on the surface 63; and a little farther on the bottom was a degree warmer, the surface 66. We pulled past a small island, and then up a fine reach, the scenery being of a very singular nature. The sea was out of sight and hearing; the fresh breeze that was blowing on the beach was here unfelt, and the water was as smooth as a mirror. On the right rose a lumpy fern and scrub clad hill; and on the left a long green bank, ending in a rocky eminence, on which sat one of those now rather rare birds in this district the white heron, which only took flight when we had pulled close up to it. This point passed, we thought we had arrived at the head of the lake; but no, turning a sharp corner, another reach was opened, and another, and another; each one as we pulled slowly up, appearing to be the last, and each one more picturesque than the other; high rocky cliffs appearing on either side, till at last, after a most pleasurable voyage, the boat ran aground about two miles from our starting point. We could have gone another half mile or so, but the recent wet weather had lowered the level of the water, by scouring out the channel across the bar so we were prevented crossing

a shallow part. The pull back again proved equally agreeable. Both up and down, we used the thermometer repeatedly, with nearly a like result —the bottom remaining about the same degree of warmth, while the surface varied a little as it was more or less exposed to the wind.

We afterwards made a tour of the township, which is laid out as a watering place with parades, terraces &c, and certainly, all things considered, the locality is very well adapted for the purpose. Once the road is properly formed, so that carriages, &c. may be easily got to it, we have no doubt it will become a favorite place of resort in the summer months for the residents of Dunedin, as it contains within it all the elements necessary for health and pleasure seekers, &c. After returning we went down to the beach and out to the rocks. These are of the same nature as the hill on the other side, but torn and twisted in every direction by the action of the surf, and worked into queer nooks and crannies. The sides of the pools left by the tide were covered by sea plants of many tints of red and green, while down in the darker corners were large and beautiful actinias. Molluscs of various sorts, particularly large-sized mussels, were abundant, and at low-tide crayfish can be caught off the outer reefs. The shades of evening were now drawing close, and a retreat to the house and a seat by the fire were very acceptable after being so long in the cool sea air.

Next morning broke dull, and the hill tops in the distance were covered with fog, but the air was moderately warm, so we started out to the lake to enjoy the luxury of a bathe. For this exercise there are excellent conveniences provided in the shape of little wooden houses for undressing in, with steps leading to the water; one being provided for gentlemen and one for ladies—at different points of the bank. To the former of these houses we quickly found our way, and in a minute or two were in the lake, enjoying to the full the remarkable difference in the temperature of the water we observed while in the boat on the previous evening. The water was delightful, and we paddled up and down to our heart's content. It is a splendid place for the purpose, and perfectly safe. The water was of a clear brown tint and brackish, but is generally quite salt, as much so as the ocean. The lower stratum of water, about up to the knee, was quite warm, the upper portion just comfortable. Where we bathed was about 60 yards wide, with from 3½ to 6 feet water, but in general about two feet deeper. After the bathe we took a short walk along the bank of the stream, and then to the house to dress for breakfast, for which the bathe and the keen morning air had given us an appetite that many a one might have envied.

After proper justice had been done to the meal, we took a walk along the Marine Parade, a long terrace running parallel to the beach, at an elevation of from 25 to 50 feet or thereby. From the further extremity of this walk, where there is a seat erected, a very fine view is had of the coast and the hills sloping up from it, all the way from near Cape Saunders to the Nuggets. Time now being of some consequence, we walked back to the house, and bade good-bye to our kind host and hostess, the former of whom accompanied us over the creek and up "Jacob's Ladder," to the district road leading over the spur mentioned before. After a consultation we determined on taking the beach all the way, instead of the rough road over Saddle Hill, so bidding Mr W. adieu, we started off on our return journey. We did not meet with anything remarkable along the sands, except now and then a flock of gulls picking a dead fish to pieces. Shells were very scarce, and only of the ordinary sorts; among the breakers a penguin was seen diving about, while a mollyhawk skimmed along, just touching the surface occasionally. This part of our walk was very pleasant; the tide being low we had the firm smooth sand to tread on; so we were not long in reaching the mouth of the Kaikorai, which was found in a very quiescent state about 10 or l2 yards wide, running swiftly, but quite smooth. We speedily doffed our boots and shoes and waded across, the water being nowhere more than half-leg deep—a very different condition of affairs from the time of our former attempt to cross, when we were nearly washed out to sea. The line of the beach is rather more than five miles from end to end, and we were not sorry when the rocks at its northern termination were neared, when the track leaves the beach and enters the fine belt of bush which covers the hills to the east of Green Island. For a considerable distance, the path leads up a valley, at the bottom of which runs a small rivulet, the ground on both sides sloping

rapidly upwards. There are a good many clearings and some very prettily situated houses, with pleasant-smelling gardens, small fields of grain, turnips, mangolds, &c., and mobs of fine-looking cattle grazing. After a mile and a half or so, the road gradually emerges from the bush, and a fine view is obtained of the long stretch of beach we have just traversed, as well as of Saddle Hill and the other eminences around. From the top of the hill the road proceeds towards town through some very fine land, in crop or pasture, until we reach the other side of the ridge, in the vicinity of Corstorphine, when it falls rapidly towards Caversham, over a metalled but very rough road. This, and the innervating two miles of the Main Road, were soon got over, and we arrived home before 4 o'clock, in time for dinner, having enjoyed our trip most thoroughly.

Feb. 8, 1866. PAKEHA.

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from *Otago Daily Times* 5 April 1866, reprinted *Otago Witness* 7 April 1866

RAMBLES ROUND DUNEDIN
MOUNT CARGILL

To attain the summit of this hill has long been an ardent desire of the writer, and he has made the attempt several times. On one occasion, from the head of the N.E. Valley; he spent half a day in wandering about the bush there, in the search for a track, or a surveyor's line, which might lead in the direction of the hill-top; but after trying several lines, they were all found to end in more or less dense thickets a short way up the side, or in another line which led to the right or left. On another occasion, from Pine Hill, he made a long excursion into the bush but was only too glad to beat a retreat to the clearings, and so home, thoroughly baffled, and wearied out. But some weeks ago, while visiting a friend who lives on Pine Hill, PAKEHA was taken out to see the lions of the neighborhood, and it was while traversing the bush to a clearing on the higher part of the hill to see some peculiar trees, that a long, straight vista cut through the thick forest, leading up the hill, was passed at one or two places. On making inquiry, he found that this particular track led so far on the way to the top of Cargill that it would be a very easy matter to get over the difficulties of the remaining distance. So a day was fixed for the journey; but on that day, and several others, the top of Cargill was shrouded in thick fog. It is this fog which renders the ascent of these hills so risky. The day may be ever so clear—not a cloud to be seen—and the whole of the hilltops in the district glistening in the sunshine, when, with very little or no warning, a heavy dense mist comes over the summit of one or other hill—but generally over the subject of our attempts—and hangs most persistently for the remainder of the day, just as if the space at the back of the range had been filled and the fog was running over to this side, the remainder of the sky being quite free from clouds, and the sun shining brightly all the time. It must be remembered that in the bush, when a fog comes on, everything has an appearance as if you had seen it before and you can hardly, for the life of you, tell where you are though a minute or two before the horizon was clear all round. As if a curtain had dropped, all your landmarks vanish, and you are left to grope your way as you best can.

It was therefore, with a full knowledge of the work to be done, that the writer started the other morning to make a ramble in this direction, with the intention; of taking the Pine Hill Road as far as it went, and then the line above mentioned and the bush to the summit of Cargill; providing himself with a compass, a tomahawk, and a few matches, in case of necessity. Leaving home about ten o'clock, the made part of the Pine Hill Road was soon got over. The day was fine, though the sky had a threatening look about it, which seemed as if rain was at no great distance. But shortly after entering the bush the sun shone out cheerily, and the difficulties of the first part of the ascent, viz., crossing gullies amid plenty of nasty sticky mud, were rapidly left behind. After a little the surveyor's line spoken of before was entered on, and then commenced a walk which has hardly its parallel for a fair hard-working trial of a man's leg-power. Any one who has traversed a recently cut line of this nature will remember what it is like, and what they had to get over, under, through, or across, in order to go-ahead. The one in question ran N.E. and S.W., as straight as an arrow, along the side of the hill, stopping for no obstruction of any sort. If it met a tree, it was either cut down and thrown aside, or a piece cut off its side, sufficient for the

chaining operation; if it came to rocks, it was carried over them; if it met a gully, it went down one side and up the other, no matter how steep, wet, or dirty it might be. And all this in the midst of the thickest bush in the Province, rendering it quite impossible to see any distance to the right or left; and only for a very short distance to the front or rear, unless when a bit of level occurred, or when the rising or falling gradient was somewhat uniform. Some magnificent cedar and pine trees were passed at various parts of the line, as well as a number of smaller trees and shrubs, which are not to found growing on lower land.

After traversing this line for upwards of two miles it was thought desirable to have a look out, in order to ascertain the position. For this purpose a cedar growing on the edge of a small declivity was climbed, and a first rate prospect of the surrounding trees obtained, but very little as to our real position as regarded the top of Mount Cargill. A little way further on the land fell a little, and a small, seemingly deserted, clearing was reached, from which a tolerable view was had. Signal Hill was just opposite, and beneath our level. The Port Road, the Junction, &c, were all in sight; but our destination seemed as far off as ever. A few hundred yards further on, the land began to dip at a great rate, so much so that in a very short distance the track fell at least a thousand feet, and after going on for a little distance over a muddy wet bottom covered between the trees with a thick growth of ferns it came to an end altogether, at a peg in the middle of a cross-cut mark in the ground. This was very provoking, more particularly as the ascent to the hilltop seemed to be from this point, quite straight, though not easy, the whole height of the mountain being visible in one mighty slope. However, from the peg just passed, another line ran up the hill again at right angles, so up the hill accordingly we had to proceed, climbing over or under a host of obstacles—the line in this case running N.W. About a mile or so of this having been gone over, and an elevation attained somewhat superior to the one we had dropped down from, another was met running in the desired N.E. direction. This seemed to be right on the shoulder of the hill, for now and then partial glimpses of hills beyond could be seen. At the foot of a tree we picked up a tobacco pipe, with the "dottle" still in it, but green with moss, from the time it had lain. A gradual rise was then met, over dry and comparatively smooth ground, through a finely wooded district, the line appearing almost like a narrow tunnel, as it kept its steady onward course. After proceeding another mile or so, our road lay almost level for a bit, and from a big pine tree on the edge a most magnificent view was had. But the summit was yet a good way off, so at it we went again, and after a rather stiff pull the top was reached, at least as far as the line went; for at the point now reached, the hill sloped down at a steep pitch for an immense distance, and the whole of the north side of the hill was in view—Blueskin, Kilmog, the North Road, &c. After resting here a little, admiring the extensive view, we struck in to the right along the ridge, and after penetrating the bush for about three hundred yards, the summit of Mount Cargiil was under us, 2297 feet from the level of the tide. It is a little irregular projection surrounded by trees, so that unless you climb up one, it is impossible to see about you. The tomahawk here came in useful; for getting up one of the pines, and cutting away all the branches obstructing the vision, a most magnificent look-out was obtained. The whole horizon was in sight. To the north lay the Heads, the sand bank at the Lower Kaik, the Lighthouse, the Lower Harbor; to the N.W. was Waikouaiti, and the coast to the point near Moeraki; nearer lay Blueskin Bay, all in sight, the quiet Waitati Valley, the Main North Road, Mopanui, and the other hills running off to Heyward's Point; to the W. lay a broad valley covered with the same thick bush as that at our side, which continued to the N.W., and beyond there was a series of hills and ranges, culminating at the extreme horizon in glittering snow-covered peaks far away in the interior. To the S.W. lay Flagstaff, and its bare green ranges; and to the S.S.W. could be seen part of the: Taieri Plain, as far as the Waihola Lake, Saddle Hill, and the coast away to Nuggets Point. Then to the south lay Dunedin calm and; still, as if laid out on a map, the lines of Great King and George streets, being remarkably well defined, but we were too far off to see anything moving on them, a few boats beating about in the Bay being the only signs of life. The hills in the Peninsula then came in, and glimpses of the ocean beyond could be seen now and then; at Portobello, in particular, the beach where lies the wreck of the twice

unfortunate Victory, was plainly viable. Nearer, were the islands near Port Chalmers, &c. After feasting our eyes on the prospect, the idea of return came uppermost, so making our way back towards the track a little, a large heap of dead wood was got together, fire applied, a lot of green branches thrown on the top to make a smoke, and a fire a couple of yards high was soon blazing; but the strong wind, which nearly always blows on these hills, prevented the smoke rising, and carried it all away down the slope to the north, so it was left to burn out. After getting back to the line again, the tomahawk was used to cut a big initial on the side of a pine, as a memento of our visit; and then "downward, ho!" was the word. Though difficult, at times, the line was rapidly traversed, and it was not long ere the junction of the one we ascended from the valley below was passed, but as this line still held straight on, it was kept in preference. The new part led over some very rough rocky ground, ascending and descending alternately, till we were well over the ridge, when it was all down hill, and we proceeded as rapidly as the thousand and one obstructions would allow. It was very fatiguing and trying to the legs, as there were many stumps and stones not very easily seen, but perseverance at last brought us out at a point not very far from where we entered the bush, close to the line of the Pine Hill Road. The last two miles were of a most villainous nature, wet and muddy in the extreme, the feet sinking over the ankles at every step, notwithstanding the care taken in only stepping on the fallen branches, &c.

There were remarkably few birds seen on the hill. A few robins were always hopping about every time a halt was made. A paroquet or two were observed on the high cedars; and at the very summit the wood was quite musical with the loud notes of green linnets, which were wonderfully tame. Two or three pigeons were seen flying among the pines at the lower part of the hill. On the higher part of the hill there are a good many strange trees and shrubs, some of them very pretty; one of them, on being cut emits a most horrid smell, something like a bad breath smelling of onion or garlic. Right on the peak, there was growing, to our great surprise, among the other shrubs, a quantity of flax, some of the flower sterns with the seed pod just formed. But what is most beautiful in the botany of Mount Cargill is the abundance of the most lovely mosses and ferns, which cover every stone and fallen tree, and many of the trunks of those in the sides of the track have large patches of mosses growing on them, of large size, and of several different sorts. A collector would make a splendid harvest. On passing through a small clearing on the way up, a herd of wild cattle were seen—consisting of a fine bull, several cows, and three calves. On shouting at them, the calves and cows made off at once, clearing the fence like as many deer, while the bull followed more slowly, and crashed through the fence as if it had been so many reeds, and they were to be heard tearing away through the bush for some time after.

The time occupied in making the ascent was nearly six hours, including the detour between the two lines, but only two and a half hours were occupied in coming home, where we arrived about 6.30 as tired as possible, having found the getting to the top of Mount Cargill rather a heavy job indeed.

April 3, 1866. PAKEHA.

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from *Otago Daily Times* 29 May 1866, reprinted *Otago Witness* 2 June 1866

RAMBLES ROUND DUNEDIN
THE SPIT, LOWER HARBOR

It has often occurred to the writer that while so many trips have taken place to the Heads on holidays, a party was never made up to land on the Spit, on the opposite side of the Harbor. He can assure his readers that a visit to this locality will be amply repaid, there being a great many objects of interest, all worthy of inspection. The Spit itself is a very curious piece of ground, forming, as it does, a complete breakwater for the protection of the Harbor, which otherwise would be open to every northerly breeze. It is of a three-cornered shape, falls in slightly to the centre, which is boggy, the outside being sandhills of more or less elevation, and quite firm and dry to walk upon. The best way to reach the locality, short of landing from a steamer opposite Harrington Point, is to take a boat from Port Chalmers, on any day when the tide is early, say between eight and ten o'clock, as then the

ebb tide will make an easy pull down to the little bay above Otafelo Point, where there is a convenient spot for leaving the boat, and after spending a few hours rambling over the place, the tide will be found flowing, and so render the return to Port easy and pleasant.

We will suppose the pull down over, the boat made fast, and so on, and then start on the proposed tour. From the point we proceed across a little grassy flat, where there used to be a small colony of fishermen, but now represented by only one house, and then keep to the right until the beach is again reached; the track proceeding along about high water mark—the only curious thing worth noticing being the immense accumulation of waifs and strays which the wind has blown ashore all along this part of the beach. Bottles, empty cases, bits of wood, corks, anything that will float, here find a resting place, after knocking about up and down the harbor with the tide for a longer or shorter time, according to the set of the wind. A short distance down, a broad opening is passed, into which the tide penetrates a long way, and which forms the outlet for the drainage of the gullies running down from the high wooded hill to the west. About a mile further a wettish flat is crossed, and the sandhills opposite Harrington Point are reached. The sullen boom of the surf has been heard for some time, and it is curious to observe how the size and force of the waves gradually increase as we round the corner of the Spit, and change from the quiet water of the harbor to the turbulent ocean, the swell of which is breaking heavily on the rocks of Taiaroa's Head on the other side of the channel.

From this point a very extensive prospect is obtained of the surrounding scene. Looking across the channel a long stretch of the Native Reserve is in view, dotted with houses; and immediately in front is that immense accumulation of white drifting sand, which forms such a remarkable feature in entering the Harbor. Turning to the left, the abrupt hill above Harrington Point and then Taiaroa's Head, with its white lighthouse and neighboring houses, come into view. Seaward is the ocean and coast running away north past Waikouaiti till it is lost in the distance. Looking up the Harbor, the various hills above Port Chalmers, the Islands, Portobello, &c., are seen, with the long line of wooded ranges on both sides.

Proceeding now along the beach, we have fine firm sand to walk on, gently sloping to the water. About half a mile from the turn, we reach the wreck of the barque *Genevieve*, which came ashore stern foremost about four and a half years ago, with a cargo of sugar, &c, from Mauritius. She missed stays, and her anchor was let go just too late to save her, as she took the ground in the break of the surf, and very speedily became a wreck, her cargo washing out, and her spars, deck-house, &c, strewing the beach for a considerable distance on both sides. She must have been a very strong vessel, as her hull stood the hammering of the surf for a long time, her forecastle, head, poop, and mizen mast remaining long quite entire: but very little of her is now left. A short distance on lies another wreck, the barque *Disruption*, which was lost in a somewhat similar manner, but came ashore broadside on, and now lies imbedded in the sand in a way that will preserve her remains for many a day.

Leaving the wrecks behind, about half a mile further on the first rocks are reached. On the left rises the huge cliff of Heyward's Point about 400 feet from the tide; a narrow passage leading through between what must have at one time been an isolated stack, with the surf beating round it, and a high spur with a curious perforated rock on its top. Beyond this the beach assumes a singularly lonely deserted look. The high cliff seems as it were to shut everything out but the sea. A sad accident occurred about midway along this beach about three and a half years ago, three men being drowned and a fine large cutter wrecked. The party had been out fishing, when it came on to blow, and they ran in for shelter under the high land, but in doing so are supposed to have got too far in. The boat was capsized in the surf, and the crew drowned. Only one of the bodies was got. Proceeding on, we find the beach ends in a high black rock, which seems to completely stop all further progress. The rocks here form a small round bay, the inner side of which is covered by a large accumulation of debris, on which grow some bushes and small trees, tufts of grass, &c. A track leads up the slope, by which any one possessed of the necessary muscle and nerve, may find his way to the summit, through the bush which covers it, and then down another cliff like the one before us, and he will find himself on Kai-Kai Beach,

on the other side. It is also possible, when the tide is low, and little sea on, to make a scramble round the outer Point to the right; and there is a good deal to see by the way too, but it is rather difficult and somewhat dangerous. After having a good look round at this queer place (by the way, there is an abundance of famous mussels on the rocks out a little, easily got if the tide is far enough down), we will retrace our steps a little and examine a curious rock which must have fallen from the cliff at some time. It is of hard black basalt, and the inner side of it shows the beads of a number of columns, just as if it were a bit of pavement standing on end. A considerable number of other pieces extend seaward from here, and the beach for some distance is lined with blocks of all sizes. Into the little bay there tumbles at times a tremendous sea, which makes a frightful noise among these lumps of rock. Retracing our steps for some few hundred yards, a point is reached where an entrance exists to a very curious place. Standing near the water's edge, and looking at the cliff, it will be observed that all along, for a good way, there lies at its base an accumulation of drift sand, apparently resting against the bare rocks, the sand forming a gradual slope from the beach up to and against the cliff. But this is not so, as a look inside this passage shows. Instead of the sand lying against the cliff, there exists a considerable space between the two, the opening having a most singular appearance. On the one side is a steep wall of loose sand, nearly as incoherent as water, looking, in fact, just like a huge wave in the act of breaking against the cliff, and suddenly arrested in its progress. On the other side tower the huge rocks to over 300 feet high, at the base a few fragments and other debris, which are prettily screened by a profusion of plants and trees of many sorts. This passage extends the whole way along till near the point where the rocks are first met, with only one slight break, where a spur comes out from the cliff. The sea at times washes up against the foot of the sand slope and carries large portions of it away; but in the course of a few days it resumes its old appearance, the wind blowing the sand up off the beach again.

Proceeding now along the beach, and keeping rather more to the right, after passing the rocks, the line of sandhills, and a small pool of water, we reach a very romantic spot, where once a few fishermen had their huts for a time, but which were one by one abandoned, the locale being too far from the boats. There are some very singular rocks in the recess, well worth inspection. The place was once the abode of a few Maoris, under the presidency of a chief who rejoiced in the *soubriquet* of Big Jack; the remains of their whares have disappeared, and only heaps of mussel shells, &c, are left to tell of the former lords of the soil. The next object of interest is an extensive cavern, hollowed out by the action of the waves at a time when the land stood some few feet lower than it now does. The entrance is as wide as any church-door, and between 40 and 50 feet in height; it gradually narrows, however, to much more moderate dimensions. At present its apparent height seems less, on account of the wind having blown a large quantity of sand into the mouth. Being provided with a bit of candle and a few matches, a light is soon procured, and the daylight left behind. The floor is covered with fine sand, on which are strewed quantities of sheep bones, the remains of a flock once landed on the Spit, and folded at the cave, but which were unfortunately allowed to drink salt water, which killed many. About half-way through the current of air gains considerable force, and the light requires attention; the roof becomes lower and lower, locomotion requires stooping; when all at once, turning a slight curve, daylight appears again, and you are in a little nook among the trees, on the other side of the hill.

From this point the option is offered of keeping up by the edge of the bush to the bay where we left the boat, or proceeding across the flat to the inner beach near the lower dolphin. If the first track is taken, which is considerably the nearest, though the most difficult, a number of beautiful places are passed, queer recesses in the bush, hollows, low water-worn cliffs, deep, dark pools of water, &c., which all combine to render the walk, though rather rough, a very enjoyable one. By the other, almost the same route is passed over as in proceeding outward, and therefore may be a little uninteresting. So we will suppose it over, the boat reached, everything found right, and after a short rest, shove out into the stream, and with the young flood tide, speedily glide over the distance between Okafelo Point and Port Chalmers, where we arrive in plenty of

time for the afternoon steamer to town—the time occupied in the Ramble being about seven or eight hours.

With this article, PAKEHA concludes his Rambles in the meantime. He has now, in his desultory way, travelled over and described most of the beautiful and romantic scenery which surrounds the city of our adoption. There are a few places yet to visit, but they will all take more time than he has at present at his disposal, so they will have to stand over for a little. But he hopes, he has done enough to induce the younger part of our population to travel about and see for themselves how many beautiful places are within an easy access any fine day.

26th May, 1866. PAKEHA.

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from *Otago Daily Times* 18 October 1867, reprinted *Otago Witness* 25 October 1867

RAMBLES ROUND DUNEDIN.
GREEN ISLAND PENINSULA

Green Island Peninsula is the southern-most point of that high-lying part of the coast which begins at the Forbury and ends at the Kaikorai Beach. Between these two points there is no beach, the sea coming right up to the cliffs, which rise from 200ft. to 500ft. or more, straight up. Both the Forbury hill and the Peninsula are of vulcanic origin, and consist of a hard dark-colored trap, and columnar basalt; the space between is occupied by that series of stratified rocks known by the general name of Caversham sandstone. The sea faces, however, are much richer in color than the sections exposed in the quarries in the neighborhood of the village, the latter being of a dirty gray tint, while the cliffs are generally of a fine bright yellow or white.

In order to reach the Peninsula, the road to Caversham is taken, then the road to the left over the hill by Corstorphine, and so down the long beautiful valley through the Green Island bush, an agreeable walk of a little over six miles brings us to the beach. On a little green flat, near the mouth of the vale, stands a house, at which strangers may obtain all necessary information as to the best track &c., as it is not very likely that many will follow in the way taken to get to the top of the hill on this occasion. Before proceeding to the beach there is a very interesting hollow, over a low green ridge to the left of the track, which will well repay inspection, as well as excite a good deal of speculation as to its origin. It is about 100 yards long by 50 wide, with a shallow sheet of water at the bottom, one side steep, the other sloping gently. What has it been? Has it been a cave, of which the roof has fallen in? formed, when the land stood at a lower level than now, by the action of the waves. Something similar, but open to the sea, may be seen at various points on the coast. The creek which comes down the valley, just before it loses itself among the stones and sand of the beach, makes a fine fall over a ledge of sandstone, which is very pretty when there is any body of water running down.

The shore is here covered with loose black stones, of all sizes, mostly of an angular shape, the tendency of the stone being to chip into cubical masses. Turning to the left, and picking a way as we best can along the edge of the surf there is soon plenty for both eye and ear to take note of. The huge green seas, as they come thundering in among the rocks, and the singular rattling of the stones over one another as they are washed up and down the beach by the surf, bear witness to the perpetual battle for the mastery going on between sea and land. On the rocks farther out, mussels and other mollusca abound, but the surf mostly grinds the shells to powder before they are left high and dry by the tide; however, two fine Pawas (Haliotis), and a queer-shaped piece of sponge, were picked up by us. Looking at the bank above, it is seen to be composed of a loose rubble of stones and clay, very subject to the action of the weather, which must wash it down in quantity, when the further action of the surf speedily washes off the clay, leaving the stones as we see them. In the water, a little way off, there are some enormous stones, big as churches, of a most curious and interesting structure, being made up of a multitude of small prisms, of irregular shape, 3, 4, 5, and 6 sided. Over these blocks the surf breaks with terrible force, sending the spray high into the air. It is not difficult to discover where these have come from; on looking up the hillside, it is seen to be wholly composed of a similar basaltic rock, lying at all angles from horizontal to perpendicular. The base of the hill is composed of a magnificent range of basaltic columns, standing erect, of much larger size than the beds above, quite as complete as those of Fingal's Cave at Staffa, or the Giant's Causeway in Ireland. Indeed, the rocks here are as worthy of a visit as either of

these Old Country lions; and there is no doubt, were they as well known, they would be equally famed. The photographer, if his chemicals would not be affected by the damp sea air, would find many an effective grouping, which would make most capital pictures; during a nor-wester the contrast between the black rocks and the broken water must be very fine, and give plenty of light and shade.

Finding further progress along the beach stopped by the water, we addressed ourselves to the more difficult task of climbing the hill. At first sight, there did not seem to be much difficulty in it; but a short trial soon made it apparent that it was not only difficult and extremely fatiguing, but at same time had enough of the perilous in it to make it exciting. The slope was very steep, covered with loose stones, and here and there some half dead scrub, which had so slight a hold on the fine floury soil as to give way on the slightest pull; the scattered tussocks of grass had the same fault, so that it was only possible to make progress by digging with toes and fingers, and taking advantage of everything likely to give a good grip. Every now and then, too, a stone would give way, and go crashing and leaping down to the surf below—showing plainly what our fate would be in the event of any mistake. However, setting "a stout heart to a stiff brae," we persevered, and overcoming pinch after pinch, had the satisfaction, when almost breathless, of seeing the ocean on the other side. To our surprise, instead of finding a flat or rounded summit, we stood on a sharp ridge, with the sides falling away as rapidly as the roof of a house, indeed there are few roofs with such a pitch. It was curious to observe the influence of the wind on the vegetation; trees which, in the low ground, grew tall and graceful, here were straggling creeping bushes, hardly daring to raise their heads from under the lee of the stones; the Broadleaf was growing luxuriantly here and there, but only two feet high! and the Kaiou, Miki-miki, and other shrubs, attained a like elevation.

From the summit the view was magnificent. Looking North-east, the line of coast from Gull Rocks, near Cape Saunders, by Tomahawk, Lawyer's Head, &c., lay before us, with all its varied outline. But the objects which most arrested the eye, were the sandstone cliffs. They had a most wonderful aspect from this point. Cut into by the action of the surf in every possible way, they formed points and bays of all shapes. Here they stood straight up like a wall, with the waves leaping high up, and falling back in a cloud of spray: there the cliffs had been undermined, and had fallen down in huge masses, with the water rushing in and out amongst them. At one point there is an almost perfect resemblance to the Sphinx on the plains of Egypt, only much larger, being about 250ft high—the nose, mouth, and chin being very well cut. Here and there stood isolated pieces, resembling various objects; while away out in the water lay the little White island, like a speck on a mirror.

Turning to the left, the hills bounding the Town District came into view, and all the undulating country round Green Island. Farther off were visible some of the high ranges in the interior, still wearing their wintry coat of snow. To the south, Maungatua, Saddle hill, and the coast line to Coal Point, filled up the view; while at our feet, as it were, lay the long line of sand hills, the Kaikorai lagoon, the Chain hills, and the fine agricultural district between, dotted over with white houses and bright green fields.

It must not be supposed that we have described all that can be seen in this locality—a paper twice as long could have been easily filled. But time was running on, and we were reluctantly compelled to leave our elevated position. Carefully avoiding the sea face, we took the land side, and after sundry detours to avoid the precipices and the thick scrub, emerged safely on the green grass of a paddock on the level below. After calling at the adjacent house and having our thirst reduced by a fine draught of milk, the track across the Sand hills, and the district road to Green Island Village, were soon traversed, and then a smart walk of five miles brought us to town.

PAKEHA. October 15, 1867.

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from *Otago Daily Times* 11 November 1867, reprinted *Otago Witness* 15 November 1867

RAMBLES ROUND DUNEDIN
THE BONE CAVE, LAURISTON,
SADDLE HILL

Having been kindly invited to visit the above locality, to see the various natural wonders existing in its neighborhood, PAKEHA took the first available opportunity that offered for doing so. Lauriston is

situated on the sea slope of Saddle Hill, about eleven miles from town, and was reached by the usual road—over Maori Hill, down the Kaikorai Valley, the Main South Road to Walton Colliery, and so much of the Brighton road as brought him to his destination. The weather being fine, the walk out was very enjoyable, though the last few miles of the road were rough and tiresome.

The first place to be examined was the cave, which was discovered accidentally, only a short time ago. So after a short rest, and getting a supply of candles, and providing ourselves with a pick and shovel, a party of three set out, winding our way over a gully and up a long hill side, from the top of which we had a fine view of the coast and the country as far as the mouth of the Taieri. Warned by a few drops of rain that there was little time to lose, we soon arrived at the site of the cave, which is in a rather curious irregularly-shaped hollow, along one side of which runs a straight ledge of rock. A small stream comes down the hill, and loses itself in a hole at one end; while at the other is a deep pit, partly grown over with scrub. On looking down the shaft, it is seen to extend farther than one would expect; but by laying hold of roots, stones, or any projection that will give a firm grip, about twenty feet of a descent landed us easily on a slippery muddy bottom.

We at once prepared for further work by taking off our coats and lighting the candles, which, as the daylight did not penetrate beyond the mouth of the cave, disclosed to our view a most singular scene. The roof and sides are formed of a hard gritty rock, broken and worn into the most rugged and irregular shapes; the sides slimy and wet with the ceaseless drip of water; the floor a soft and sticky muddy gravel. The feeble light of the candles only sufficed to show a small space, so advancing a few steps we found our difficulties begin. The roof became lower and lower, and the sides contracted, till progress was only possible by going on all fours, or in a stooping position. The muddy deposits at the bottom and sides of the passage contain numerous bones of large size, and by looking carefully along the edges, where the wafer had worn the clay down, we were not long in discovering one. By using a little care it was soon dug out, and found to be part of the thigh bone of a moa. Several other fragments were got, but on going a little further in another big end was seen, and after a little digging was got out whole, and proved to be another thigh bone, quite entire, and 18 inches long. The clay seemed full of bones. On breaking down some masses which had fallen from the roof, many fragments were displayed; and a careful manipulation of some of the stuff in daylight would no doubt yield some of the smaller bones. As it was, a rib happened to be the only thin bone we discovered, and it was so friable that it broke to pieces in the endeavour to extricate it from its bed.

About fifty yards from the entrance the cave divided into two branches, right and left, like a T; the right hand one is pretty high and clean, but it contains no bones. A small stream of water trickled down from the farther end, which turns gradually narrower till it ends in a small roundish hole, barring farther progress. The left hand branch is the most curious, but is very narrow and crooked, and the roof very low. A few yards in the scene is very brilliant. From the roof and from every projecting part of the sides, hang scores of bright glittering stalactites, the points of which danced and glittered in the candlelight, like as many diamonds. It required considerable care to avoid sticking them into our necks and shoulders as we wormed our way along. They arc very brittle, and at times every move brought them rattling down about our heads.

At one side opened upwards a large roundish cavity; on getting inside with his head and shoulders, and waving his light to and fro, the writer fancied himself in one of the enchanted halls described in the Arabian Nights. From thousands of points the light was reflected, and every wave of the candle seemed to double the number. Beyond this, the cave descends a little, turns abruptly to the left, and divides into two branches; but the roof becomes so low that it is only by crawling part of the way on the stomach, and squeezing through a narrow aperture, that progress can be made—a pool of water, too, helps to make the matter more difficult. Beyond this the cave opens up into a large chamber, of which the light failed to show the real dimensions. Here we got some beautiful stalactites, and one large bone, close on 24 inches long. After exploring a little further, we were warned, by the increasing dimness with which our lights

were burning, and the thick fog which seemed to surround us, that it was time we sought the fresh air; so retracing our steps, and picking up our prizes on the way, we soon reached the bottom of the shaft again. On looking up, we found that it was raining heavily, so we put off a little time in washing the mud off our hands and feet, and cleaning the bones a little, to make them more portable. We brought up four bones—three long ones and a short one—and a number of fine stalactites. The rain having cleared off a little, we ascended to the upper world, finding a difference of more than 20 degrees in the temperature between the cave and the air outside, which latter felt warm as an oven in comparison.

Now the question naturally arises—How did the bones get there? But it is much more easily put than answered. There must have been a multitude of moas to have yielded all the bones we saw; and from the circumstance that most of them showed more or less marks of attrition at the ends, as if they had been brought there by water, and deposited at the same time as the clay, it in evident they must have come from a distance. It has never been stated that the moa was a troglodyte; besides the nature of the cave precludes that idea, so we must look outside. On examining the hollow in which the cave begins, and comparing it with some of the rocks in the neighborhood, the hypothesis may be hazarded that the hollow was an open space, partly overhung by rock, much frequented by moas, perhaps as a breeding place; or, with that instinct which is common to all animals, they may have sought it to die. The action of the weather and the small stream before-mentioned, may have so undermined the hillside as to bring it to its present state, and the moas may have been covered in the debris of the falling stuff, from which the action of the water may have carried the bones down to the place where they were found. However, this is all mere guesswork.

Leaving the cave, &c., behind, we proceeded down the hillside and across a gully or two, till we reached a very remarkable place, possessing many features of great beauty. But it would take up too much space to describe one-third of what we saw. Suffice it to say, that here, combined, were all that is required to make up fine picturesque scenery—trees, rocks, and water. At one point the rocks are lying in just such a confused state as if a high wall, of Cyclopean architecture, had been under-mined by the action of the sea and thrown down. That the sea has been long at work on the strata is plain at several places. The rocks abound in a small species of Belemnite, about 1½ inch in length, of which we picked out several specimens. After thoroughly wearying ourselves wandering about in this grand locality, examining the rocks, looking at waterfalls, and so on, we took our way over the hill again, and the shelter of Lauriston was very welcome indeed, more particularly as it had been raining slightly for some time. The evening continued showery, and during the night there was a great deal of rain, and it was far on in the morning ere there were any signs of the weather clearing.

However, rain or no rain, town had to be reached again. So, bidding his hosts good bye, the writer took the road home by the Kaikorai Beach. On reaching the mouth of the river, the surf was running up strong; but going as near the break as he could with safety, he watched the lowest reflux of one roller, then before the next one came in, he made a dash, and got to the other side without the water coming more than over his knees a little. Boot-jacks being rare at the mouth of the Kaikorai, he could not get his boots off, so he lay down on the sand and tilted his legs in the air, to let the water run out. The walk up the hill through the Green Island Bush, and on towards Corstorphine, was extremely dirty, and necessitated very slow progress, more particularly as a heavy bundle of moa bones and a pocketful of stalactites formed additional ballast. On reaching the top of the hill over Caversham, however, the weather cleared up, the sun shone out, and the remainder of the walk was much more pleasant.

Nov. 5, 1867. PAKEHA.

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from *Otago Daily Times* 13 March 1869, reprinted *Otago Witness* 20 March 1869

RAMBLES ROUND DUNEDIN
GREEN ISLAND BUSH, THE CLIFFS, CAVE

This is one of the writer's favourite localities; there is such a variety in the scenery, and so much to see that is fresh, that it is ever

interesting and never tiresome. The object of his latest visit was to see a cave situated on the beach, at the base of the cliffs which bound the district seawards. With this in view he left town by the Caversham road on a fine afternoon, and after a smart walk of an hour or so, stood on the top of the long hill above Corstorphine. From this point a very extensive and diversified view is to be had, embracing hill and dale, town and country, land and water; so while his mates were lighting their pipes, the opportunity was taken to have a good look round. To the south lay the ocean, with two vessels in sight, a long way from land. To the east and north-east were to be seen the wooded hills beyond Anderson's Bay, and a long stretch of the harbor—the view in this direction bounded by Taiaroa's Head, the big sandbank above the Lower Kaik being visible, glittering in the rays of the afternoon sun. More to the north lay Signal Hill, the Valley, Mount Cargill, and a piece of the north end of the town; while the Flagstaff ranges continued the line of view to the westward, the prospect becoming still more varied. Immediately in front rose Saddle Hill; to the right lay the Chain Hills, while through the gap between the two, Maungatua, at the other side of the Taieri Plain, and a long stretch of country away in the direction of the Lammermoors, came in sight. It was curious, that though where we stood there was a strong north-easterly breeze blowing, some ten or fifteen miles off we could see two columns of smoke rising straight into the air, proving that those winds which blow so strongly along the coast do not extend up country any distance.

From this point the road traverses an undulating district of country, with fine pasture land on both sides, and here and there a field of oats, rapidly ripening, though rather short in the straw. After a mile and a half of this the head of the long sloping valley which traverses the bush is reached and here a fine view of another sort is obtained. Away in front is the valley opening out on the beach, on which the rollers are breaking white; the valley is dotted with homesteads and clearings on both sides, while sleek-looking dairy cattle stud the paddocks. Proceeding down the glen for about a mile and a half, we called at the house of one of the settlers, and found a draught of milk very welcome indeed. After resting a little, the road is again taken, for a short way, when, turning abruptly to the left, we proceed through the clearings towards the cliffs. These we were not long in reaching, and found them pretty well defined by a strong brush fence, which the settlers have placed there to prevent their cattle falling over. Our path was rather devious for a little space, but we soon arrived at the only point where it was possible to make a descent to the beach—some 300 feet below. This is close to the Peninsula, a high basaltic hill, and the path runs down a slope formed by the debris and rubbish which have fallen from the hill. It was very steep, and being covered with loose stones, we had to be very cautious, as a false step would have been destruction. Although this slope gives the only means of access to the beach, it is a pity it is there, for it covers the junction of the yellow sandstone of the cliffs with the black basalt of the hill, which would have been a most interesting thing to have examined.

By dint of sliding and slipping we were soon at the bottom, and found the beach covered with boulders of all sizes and shapes, over which it was no easy matter to walk. But "time and tide for no man bide," and as it was only possible to get into the cave at low water, we had to make tracks along the beach as quick as we could, the tide being already on the turn. The boulders do not extend all the way, but about half-way along give place to hard sand, the boulders retiring to the base of the cliffs. Before reaching the site of the cave a number of big angular masses of sandstone have to be climbed over—the fragments of what had been another cave, but which has long been undermined and ruined. Beyond this point the character of the beach changes, and the surf comes right up to the precipice, so that it is only possible to reach the cave by creeping along a sort of ledge, and then jumping from rock to rock until opposite the entrance. To our chagrin the waves, were rolling in heavily; but by waiting the reflux of one of the larger rollers, and taking advantage of some stones which studded the water, we succeeded in effecting a lodgement on the hard floor in the archway. Once there, the rest was easy; but, after all, there was very little to see. A high, irregular arch, opening out into a very much higher rectangular space, open to the sky, with smooth perpendicular sides, and at the far end the rollers breaking heavily in on the floor. Turning sharp round, there was another opening, leading outward, with a lower roof than the other, and with the sea also breaking into the mouth. Down this, at the heel of a retreating wave, we proceeded; and, though not without getting our feet wet, succeeded in reaching the rock from which we started, and

after a little, on the ebb of another wave, got back to the broken rocks at the other side.

Having thus hurriedly "done" the cave, we had plenty of leisure to spend on our backward progress along the beach. At first there was little to see— the beach being, like all those in the neighbourhood, very barren of shells, &c.; but mounting the bank of boulders we were soon at work on a mass of half-dry sea-ware which had been cast up by the last storm. From the tangled roots we succeeded in extricating some pretty and rather rare shells. Some short distance farther along, in a corner at the foot of the precipice, we observed a Penguin (the Ho-i-ho of the Maoris) sitting quietly on a stone. We rushed him at once, and after some time, and no little trouble, for he fought hard for his freedom, using his formidable bill with effect against our legs and hands; but by getting a hat over him we got him down, fastened his bill with a bit of string, and carried him off. However, after carrying Mr Penguin along the beach for some distance, the thought of how we were to get him up the precipice, and through the bush to the road, and so to town, induced us to take him to the water's edge and set him at liberty. Once in the water, he was soon beyond harm's way, and it was very interesting to watch him dive and swim under the water, coming up only for an instant for breath and then disappearing. Proceeding onwards to the end of the beach, we found plenty of amusement and instruction too in looking about among the boulders and rock pools at the many singular forms of life— both animal and vegetable —which we found there. In the pools we noticed some small fishes glancing about, and among the tufts of algae on the rocks we found some others, little brown slippery things. On the under surfaces of the stones we found several sorts of actinia, one of them very minute, having a white disk, speckled with brown; another one was much larger, and had the habit common to others of this family of studding its body over with small stones, empty shells, etc. It is somewhat remarkable, and as making a great contrast to similar localities at home, that we never met with a single specimen of the crab—the only thing in that line that we found being some pieces of a crayfish. Indeed, so far as I have yet seen, on the coast of Otago, the order Crustacea seems very feebly represented, the Palinurus family seeming to usurp the place of nearly all the rest. But what they want in species is certainly made up in numbers, for the writer has seen the sea red for miles with countless thousands of a small long-tailed crab, exactly like a miniature lobster; and then the crayfish themselves are very abundant all along the coast. We found some very pretty seaweeds both chlorosperms and rhodosperms, one in particular being just like a string of small emeralds. Of shells we here got a few fine specimens of the large Haliotis (pawa-pawa), a very pretty Patella, and some others; but the surf seems too strong for their preservation, those we got being more or less damaged.

But the afternoon was drawing to a close, and if previously we had to think of the tide, we had now to remember the time. So we addressed ourselves to the ascent of the steep path by which we had got own, and after a little spell of hard work, stood once more on the level land above. We struck through the bush in rather a different direction from the path pursued formerly, and got down to the road about half a mile further on, having come through some ground which is being cleared. On our way we got some good specimens of native plants, such as the Kaiou, Bulli-bulli, Totara, and others. Ferns are not plentiful near the sea shore, but we found a few here and there on the inner slopes. On our way up the road we called at our friend's, and were kindly and hospitably made to stay till tea was got ready, finding a rest in the meantime very much needed. A start for town was finally made about seven o'clock, and we got back at about half-past eight, with the consciousness of having spent a very pleasant afternoon indeed.

March 8, 1869. PAKEHA.

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from *Otago Daily Times* 10 April 1869, reprinted *Otago Witness* 17 April 1869

RAMBLES ROUND DUNEDIN
PORTOBELLO, HOOPER'S INLET, PAPANUI

Taking advantage of one of the late steam trips, the writer made a short run over part of this interesting and beautiful locality. It was over five years since he had been last there, and he was very much pleased and surprised to see the progress made by the settlers in the way of clearing the land and making roads. Instead of the muddy narrow bush track, through which it was difficult to make any but the slowest progress, there is now a

series of well cut and well formed roads, with tolerably easy grades, opening up the district in all directions. And what was then a tract of almost impenetrable bush, with only a few small clearings, has been cut into right and left, and farm houses and all their accompaniments, and fields of heavy-looking grain crop, now stud the landscape.

From the jetty at Portobello, the road proceeds along the harbor side for a short distance, and then joins the main road from Dunedin, which goes on to the lower bay, and thence (eventually) to the Heads. But the road to Hooper's Inlet turns off to the right, and conducts the visitor over the hill to a very fine piece of scenery. The distance from high water mark in the Harbour to a similar point in the Inlet is about a mile; the road being cut and formed and practicable to any sort of vehicle, though not yet metalled. On reaching a slight turn at the foot of the hill, the whole of the inlet comes into view, and a beautiful scene it is indeed. The entrance from the ocean is not visible, and the sheet of water has just the appearance of a fine inland lake. At the time of the visit it was just full tide, and the water, agitated by a strong westerly breeze, rolled in short curling waves up to the grass on the shores. At low tide, however, quite a different scene is presented; instead of water there is a large expanse of shelly sand, with here and there a patch of mud, the only water being a number of little streams coming from the gully creeks on the hill sides, which join into one large channel near the outlet.

On arriving at the foot of the hill, the road appears to end in the water; but this is not so. The settlers have constructed a most convenient bridle path, running the whole way down the eastern margin of the inlet to the sandhills near the Ocean beach. It follows the line of the beach about high water mark, and is of course very sinuous, running into all the bays and round all the points. But this sinuosity gives a visitor a much better opportunity of observing the beautiful scenery which surrounds the Inlet than he would have had if the track had been straight. On the way down a good look out was kept for ferns, but nothing very rare or new was got. Some fine specimens of adiantum, asplenium, lomaria, and others were gathered, however, as well as some rather odd-looking mosses. At the last bay before reaching the sandhills, the road strikes straight across, the engineer seeming to have thought the chord better than the arc in this instance. It was well that the tide had fallen somewhat before this point was reached, as the strong wind had driven the water over the track in several places, and it had just fallen far enough to allow of a dry passage across. This last bit of the track was very rough; and the writer was not at all sorry when he left the path for the grassy hills, over which he soon made his way to the beach, proceeding downwards to tide mark. There were no shells about, the only specimen of any sort observed being an odd valve of a mactra.

The writer then retraced his steps to the top of the sandhills, from which a most magnificent view was obtained. The sea was very heavy, and breaking with tremendous force high up on the beach. To the left a long range of high cliffs ran out, ending in Cape Saunders. On these cliffs the sea was dashing with a noise like thunder, and throwing clouds of snow-white foam twenty, thirty, and even fifty feet high. A short way out from the beach is a small island, covered with turf on the sloping summit. On this island, every now and then, would dash a big wave, and the spray rose clear over the rocks and on to the grass at the top, like a cloud of steam from a boiler, or the smoke from a gun. Above the cliffs rose the high ridge of Mount Charles, 1500 feet up, and covered with thick bush to the summit. Turning to the right, and looking along the beach, the view was bounded by that most singular of all the hills in our neighbourhood—Sandymount. This hill is over 1000 feet high, and a large portion of its surface is covered by deposits of loose sand, which are carried about by the wind whenever it blows strong. At this time, quite a cloud of sand was flying over to the lagoon side, and adding to the already extensive surface covered by the sandhills on the beach.

Looking inland the scene was very beautiful. On either hand ran a long undulating line of wood-covered heights, culminating in that regularly shaped eminence Harbour Cone; while through the gap, between it and the hills above Lower Portobello, were to be seen Mount Cargill and its attendant Mihiwaka, towering over all the others in the neighborhood. By this time, however, it was necessary to begin the

return march, and the sandhills and the view were reluctantly left behind. Contrary to the usual state of things, there was no fresh water near the beach, the creeks all falling into the Inlet, so a line was struck for the nearest house. On asking for water, a kind invitation to come in and have some refreshment of a more solid nature was given, and as heartily accepted, for walking in the fresh sea air is certainly a good thing to stir up the appetite. After resting a little, and having had a short talk with the settler about his prospects, the land, the roads, &c, we started off to walk up the bay side again. About halfway up a point is reached where a deep bay in the Inlet is met on the other side by a corresponding bay, so that the neck between is little over half a mile wide. A track leads over through some clearings, and a very few minutes brought us in full sight of the Papanui Inlet, and its surroundings. It was intended to have gone up this side and over to Portobello by the other track, but on referring to the time, it was found that too short an interval remained between and the starting of the steamer, so we turned back to Hooper's again, but in order to save going round one of the points turned to the right so as to hit the next bay. The top of the ridge was easily got to, but getting down the opposite slope proved one of the toughest jobs the writer ever undertook. The distance was not great, quite a trifle; but the bush was so thick, so interlaced with fallen trees and above all with supplejacks, which latter were exceedingly plentiful, that progress onward was simply impossible. It was only by creeping, climbing, squeezing, and cutting his way with the tomahawk that locomotion could be effected. More time was lost in crossing through this piece of bush than in walking the whole way up, and the sight of the clear water of the bay and the bridle-path were very welcome after the delay. So much time was lost by this detour, that it became necessary to use all possible speed in order to reach Portobollo before the steamer started; the tomahawk was put in requisition to cut a supplejack with a handy crook, and by its assistance the remaining distance was soon traversed, but on arriving on the harbour side of the hill found the steamer had not arrived, nor would for about half an hour. The interval was spent in watching the effect of the wind, which had by this time increased to a strong gale, on the waters of the bay. There was a heavy chopping sea running, and every now and then the wind would drive the water before it in clouds of spray. Some smart showers of rain also fell, and most of the excursionists were driven to seek shelter, and it was amusing to see them squatted all round, on the lee sides of bushes, banks, fences, buildings, wherever there was any shelter from the bitter wind. Every one was glad when the steamer arrived, and no time was lost in getting on board.

There still remain some other districts to ramble over, particularly Sandfly and its neighbourhood; but the season is too far gone, the weather too broken, and the days too short, to warrant much being done for a few months. So, till then, &c.

PAKEHA. April 5, 1869.

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from *Otago Daily Times* 13 October 1869, reprinted *Otago Witness* 16 October 1869

RAMBLES ROUND DUNEDIN
WOMAN'S HEAD

This is a bold rocky headland projecting into the ocean at the north-eastern extremity of the Otago Peninsula. In the hope that it may be interesting to some, I purpose to give a short description of the locality which is well worth a visit. And first, how to get there. It is easiest reached by boat to the Kaik, thence across the great sand bank and over the hill which bounds it to the north, and towards, and indeed over, which hill the sand is making its way at a remarkably rapid rate. A few details regarding this series of *dunes*, as these moving sand banks are called, may not be out of place. This one appears to me to owe its origin to a slow rising of the land, so that at every ebb tide there is left a pretty large expanse of bare sand. The prevailing winds here are either from N.E. or S.W., both of which blow large quantities of sand from the beach on to the land. It very rarely happens that a wind from any other point blows strong enough to lift any of the sand back again. In this way, little by little, has the present enormous quantity of loose sand accumulated. The process may be seen going on any fine day when there is a breeze blowing. Once on the bank the sand keeps shifting backwards and forwards, but always inward and upward,

and never back to the beach again. In this way a very large extent of good land has been covered, and rendered perfectly barren. At the upper end the tops of big trees may be seen sticking out, and so recently have some of them been enveloped by the advancing flood that they are yet growing; but the great majority of the trees so covered are quite dead and dry.

However, on this dry subject I am forgetting Woman's Head. On arriving at the upper end of the sandbank, the way lies past the houses and whares inhabited by the natives, who, unless they can live on well-sanded food, will very soon have to shift their camp, the same being close up to one line of houses. Beyond this, the way lies through some old clearings, where the acclimatised weeds may be seen growing in great luxuriance; then over a fence (a Maori one, pig-proof and quite a curiosity in its way), through a small piece of cultivation, in which some potatoes look very healthy, and then enters the bush. This latter is thin, and consists of the usual trees—hinau, mapau, and pukatea, with a few tree ferns. The track goes along the side of a shallow gully, and very soon the roar of the surf breaking on the rocks below becomes audible, and then, after descending a few hundred yards, the bush ends and the ocean comes into sight. The view from this point is very fine, comprising a large extent of the coast, sandy bays and rocky headlands alternating, the white surf forming as it were a frame in which they are enclosed. We now proceed down a grassy spur, which very soon ends in the rocks at high water mark. These rocks are of igneous origin, and from the action of the weather and the surf are worn into the most fantastic shapes, and rendered very difficult and troublesome to walk over.

One peculiarity here must not be passed over. About halfway between high and low water marks, from a little recess in the rock gushes out a strong spring of beautifully clear fresh water. It is curious to observe the change of the vegetation growing in the little pools in the rock which are affected by the freshwater. Those which are nearest the spring contain water which is so nearly fresh as to be quite drinkable, and the algae growing in them are of a vivid green, the plants being of a species having long thin filaments like hair; farther down, the water contains more salt, and the plants have broader blades; still farther, and the water is nearly salt, the plants change into the common chlorosperms and rhodosperms growing all round.

While resting here and enjoying a few mouthfuls from the cool spring, let us look about us and note a few of the more prominent objects in sight. Beneath and in front is a beautiful semicircular bay of hard white sand, sweeping round to the high precipitous head. On the left is a bold rocky precipice, springing from the rocks on which we are sitting to a height of about 300 feet, nearly straight up and down. A little way along the front there stands out a sort of shelf or buttress, and on the top the turf slopes smoothly and gently towards the cliff. On this slope a fatal duel was fought some years ago. The combatants met on the top, and after some preliminaries, rushed to the encounter; they fought a long time, with varied success, till one of them proving strongest gradually pushed his opponent towards the edge, and after some frantic struggles drove him over the cliff; but the impulse he had given proved fatal to himself, for he followed his adversary, and they both alighted with tremendous force on the shelf already mentioned. Both were instantly killed. They were bulls.

Proceeding now towards the other horn of the bay, a few steps lead down the rock to the hard sand below. Walking here is very pleasant after the rough ground hitherto traversed, the surf is tumbling in on the beach in regular succession, and the high walls on all sides give the roar of the waves a peculiar hollow sound. There are few shells about, the most abundant being a Rotella, which is very plentiful; the Cardium is fairly represented, there being several species to be found, but mostly broken; a small Haliotis occurs now and then, and after a gale the large one (Pawa-pawa of the natives), can be had plentifully enough. At the base of the cliff at the end of the sand, a wide cave opens, into which the sea has beaten when the land stood at a lower level than now. Away high up on the cliff, to the left of the cave, there is a curious patch of white rock, of an irregular oval shape. Among the boulders and debris at the foot, small pieces of a similar rock may be picked up. It is very hard, and seems to be a metamorphosed sandstone, approaching quartz in appearance, and has been probably

torn off some underlying bed of sandstone, when the trachytic rock of the cliff was elevated, and altered by the heat. Beyond the cave the path becomes very difficult, the beach being here covered with hard black boulders of all sizes.

A little way on a projecting rock seems to bar further progress; but there are two ways of passing, either by climbing over the rock (the safest way), or by going round outside. As the surf is always beating heavily against the rocks here, this requires some nerve; but by clinging to a number of small protuberances which stick out of the rock like so many door knobs, it is not very difficult to pass round. The farther side is a very strange place indeed. Large tabular masses of rock have fallen from the cliff, and lie about in picturesque groups, inclined at all angles. Some of them are lying quite flat, and the edges of these form the favourite places of the Maoris when they go crayfish catching. Towards low water mark, all the rocks are covered with thick strong-stemmed tangle; but at the favourite spots it has all been cut away, so that no obstacles can be offered to the rapid hauling of the hoop nets which are used to ensnare the desiderated crustaceans. Crayfish are very plentiful here, and it is no uncommon thing to net ten or twelve dozen in the hour before and the hour after low water. The surf, after that, renders standing on these rocks a rather dangerous matter; indeed, it is only in tolerably calm weather that crayfishing is possible under Woman's Head.

Beyond this point, farther progress is impossible, as the rocks become quite perpendicular, the surf breaking high up out of deep water; so, after looking at the beautifully green waves as they come curling in in rapid succession, and wondering if they will ever stop, we turn to the rocks again, and begin our retrograde journey, stopping every now and again to poke about in the pools left by the tide. There are some very pretty algae in these pools—green and red, one of the former resembling very closely a string of green beads. They have the disadvantage, however, of not being possible to preserve green. As they dry the green colour disappears, and they become brown, and then black and ugly. Now and then a big cuttle-fish gets imprisoned in a pool, and looks a rather repulsive object as he lies huddled together in a corner, with his eight arms all thrown loosely about. It is worth while, if the pool be big enough, to set him at liberty, for the sake of seeing how Mr Octopus behaves. Whenever the water covers him his arms straighten, his mantle inflates, and almost before you know what he is about to do, with a sudden shoot he dives tail first into the nearest recess, from which it is impossible to rouse him, as the peculiar and most uncomfortable feeling which is experienced when the skin touches any of the numerous sucking discs make handling the cuttle-fish very unpleasant.

In this way, poking and prying about, a very pleasant hour is spent; but we must not stay too long, as the advancing tide would make it a very difficult matter regaining the rocks at the other extremity of the bay. So working backwards we soon gain the sand, and on reaching the rocks find that there is just time to climb up dry footed. A short rest by the spring, and a few mouthfuls of the clear water, and we are ready for the steep ascent of the hill to the Maori houses, and thence over the sandbank to our starting point. However, instead of going direct over the dunes we will diverge to the right, and go down its upper edge. For some distance the way lies over irregular ground, the sand having been blown into ridges and hollows of varying extent; but about halfway down the scene changes. The sand is here crossing a gully, and the slope it forms in doing so is one of the most beautiful objects in the vicinity. The bank varies from 40 to 60 feet in depth, and is as smooth and regular as if made from the strictest philosophical principles, there not being a stone or twig to break the regularity. By pushing with the foot, a large quantity can be set in motion, and it falls over and over like as much water, only very much slower. This gully will soon be filled up, and then it will be level with the breast of the hill on the opposite side. A short distance farther down we reach the sea shore, and our journey ends for the present.

Oct. 5, 1869. PAKEHA.

RAMBLES ROUND DUNEDIN
OVER FLAGSTAFF TO WHARE FLAT

Partly with the object of seeing the district, and partly in the hope of discovering a fern which is now becoming somewhat rare in the neighbourhood of Dunedin—the *Gleichenia Cunninghamii*—the writer and a friend undertook this journey a few days ago. The distance direct is not very great, but as the way lies over Mount Flagstaff, which is over 2,200 feet high, progress is necessarily slow and rather fatiguing. Taking our way up Ross's Creek, past the Water Company's Reservoir, and across the Waikari district, we enter the bush which covers all this side of the mountain, and for a thousand feet or so toil steadily up the steep ascent. The trees met with here are those generally distributed over the locality, comprising the pines, here and there a totara, plenty of pukatea, mapau, and hinau; while the undergrowth abounds in lawyers and supple-jacks, with a liberal sprinkling of lomarias, Dicksonias, cyatheas, and other sturdy growing ferns.

On emerging from the bush, a gentle slope is met with, covered by a thick growth of' flax, nearly every tuft of which had one or more flower stalks, and we spent some time in sucking the nectar from the flowers. This was very provocative of thirst, and when we reached the spot where the ruins of Drysdale's house stand, a rest and a drink from the fine cool spring which trickles out of the ground there, were very refreshing. As this was the last water we were likely to meet with before reaching some of the creeks on the other side of the hill, we thought it best to lay in a good stock, so after resting we had another drink and then tackled the ascent of the steep portion of the hill which yet remained. This was soon got over, and from the summit a magnificent view was obtained of the country inland, the Taieri plain, Waihola lake, &c. Dunedin and its vicinity, however, were completely hidden from view by a dense fog which filled the valley, covering the Peninsula hills, and Signal Hill, and rose high upon Mount Cargill. The hills on the outer margin of the plain were also enveloped in fog, and though all was clear where we stood, we felt its cold breath on our cheeks ere we left the hilltop and began the descent on the side towards Whare Flat. This took us first over some very rough rocky ground, then down a long flax-covered slope, thickly interspersed with large tufts of speargrass (*Aciphylla squarrosa*), which rendered walking a matter of extreme circumspection, as the least approach to their bayonet-like leaves was resented in a manner which would put the hardiest thistle out of countenance. At the foot of this slope, we went across a small stream, over some curious ridges, down another slope, and then we were on the Flat. The word, however, is quite a misnomer, for although there is undoubtedly some level ground, the Flat is made up of a series of narrow ridges with small irregularly shaped valleys between them.

When fairly on the Flat, we found we were on a very different sort of country from that which prevails on the Dunedin side of the mountain. The igneous rocks had been left behind, and the tertiary system prevailed. All around were broken cliffs of a white friable sandstone, in streaks of various degrees of brightness, and one of them showed a thin seam of lignite. Another section was capped with a thick stratum of coarse gravel; some of the stones were of large size, and it looked very odd to see the rough boulders lying high up over the smooth layers of sandstone: it was just as if the strata had been reversed. Proceeding onward, we crossed another stream, the bed of which was covered with large boulders of a black basaltic rock, showing that igneous rocks were not far distant; indeed, a little way down the stream we observed a bed of basalt underlying the sandstone, which it had thrown up with a dip to the south. The water in the stream was very cold and pure, and the banks were clothed with thick scrub, in which tutu and manuka were the most prevalent plants. Leaving this creek behind, we crossed some rough boggy ground, covered with coarse grass, rushes, and flax, and then ascended a low ridge, which seemed to continue down the flat as far as we could see. One side of this ridge was a gentle slope down to another creek, the farther bank of which was covered with beautiful trees, rising high over the water; the other side o£ the ridge continuing broken and irregular, and clad with the common bracken (*Pteris acquilina*). Continuing our

way, we found that the right and left hand creeks met a short way ahead, and their united waters ran through a narrow gorge, under the name of the Whare Creek, until they joined the Silverstream a mile below. The lower part of the ridge was composed of a material which, would have made the fortune of the settler on whose land it is situated, had it only been within a moderately easy access by dray from Dunedin. It was a fine snow-white quartz gravel, just the very material for covering garden walks, and could be supplied in any quantity, it may come to be available yet. On a little level at the junction of the two creeks there is a commodious school and schoolmaster's residence erected. The teacher had gone off to town in the morning, but on enquiry we found that there were eighteen children who regularly attended school at present, a number which will naturally get larger every year. At this point we turned aside to call upon a settler who resided on the opposite slope, and were kindly invited to stay till tea was got ready. In the interval we had a pleasant yarn on things in general, and the district in particular, and started afterwards very much refreshed indeed.

Before resuming our march, we examined the banks of the crack for some distance below the junction, in order to ascertain if there were any specimens of the desiderated fern to be had. But we were too high up, and did not find any, so we returned, and crossing the creek above the school, struck away round the hill, and along a fine tract of level country, across another creek, a fence or two, and then found the beginning of a district road, intended in time to traverse the flat from one end to the other. There is a good deal of cultivation going on at this point, and the fresh green of the oats looked lovely amid the dull brown of the fern-covered slopes. There is a large surface of land in course of being broken up for cultivation in the flat, and this will yet be a fine agricultural district. A flax mill is being erected in the neighbourhood, for which there is every facility, there being plenty of flax and water-power; but one of the settlers said he would rather see a flour or a meal mill, as it would give them a better outlet for their produce. This may come in time, and there is no doubt that the large amount of water-power now running to waste in the various creeks will be utilised some day.

After spending a little time in exploring the banks of another creek, we turned our backs on Whare Flat, and addressed ourselves seriously to the return journey, it being by this time well on towards seven o'clock. The road runs up a long spur which proceeds in a westerly direction from Mount Flagstaff. There is a considerable amount of formation on the roadline, but there is no metalling yet, at least in the lower part; a little higher up we found simply a track. For the first mile or so of the ascent it was very pleasant. The views of the Taieri Plain and the adjacent country were magnificent; but by and by as we got higher, it became colder, and the fog, which had been hanging about the hilltops all day, came down and completely hemmed us in, our view being limited to a circle of a few yards in diameter. Nevertheless, we plodded steadily on up the hill, only remarking now and then how singularly large the stones and bushes near the track looked. Some boulders that a few yards off looked as big as houses, were found to be only three or four feet high. Every ridge we crossed we expected to see the houses at Halfway Bush in the valley below; but no sooner had one ridge been surmounted than another appeared beyond. In this way we had travelled considerably longer than we expected, when all at once, as if by magic, the fog cleared away, and we saw the sun shining beautifully. We instinctively stopped and looked back, and a grand sight lay before us. We had got above the fog, and the Taieri Plain and all the land about was covered from view by a great sea of milk, from which protruded as islands Maungatua, Silver Peak, the hill on which we stood, a summit away down towards Tokomairiro, and far away to the west the long range of the Lammermoors, here and there streaked with snow which glittered in the rays of the setting sun. The scene was both strange and lovely, and the effect of the slanting rays of the sun on the mottled surface of the cloud was very peculiar. But it did not last long; for, as we looked, the view became obscured, and the fog closed round us again. We were at this time on a partly level piece of ground with a long rocky-looking ridge on our right, and my companion wished to get to the top of this ridge to look over. But judging from the way the fog was coming that nothing could be seen, it was thought best to stick to the track. It was evident to both of us that we were on the wrong track—we had passed the

proper line in the fog—and there was nothing left but to go ahead until we reached some landmark; and we had not far to go, for after climbing another few hundred yards, we found ourselves on the top of the hill, on the very spot we had crossed some six or seven hours before. This was agreeable. But from this point the way down was familiar to the writer, so we plunged into the fog and down the rough slope as rapidly as possible, considering the light was fading, and reached the Waikari road shortly before dark, and from thence to town was easy work.

December 22nd. PAKEHA.

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from *Otago Witness* 19 March 1870, reprinted *Otago Daily Times* 22 March 1870

A WALK TO OAMARU

It was with a light heart and a week's holiday that the writer, one morning lately, turned his back on town, with the intention of reaching Oamaru before the week was out. The weather was very favourable for an excursion of the sort, being cloudy and dull without being sultry, and the roads were in very good order. The first twelve or fourteen miles of the road felt very dull and wearisome, having been travelled over numerous times; and it was not until he had got round the head of Blueskin Bay, and began the long ascent of Kilmog Hill, that something of his former elasticity came over him, and the changes in the scenery which every turn in the road brought before his eyes helped to render progress rapid and everything cheerful. The scenery at this part of the road is very beautiful indeed, and will well repay a visit. On the right of the road rises a high sloping hill, covered with timber, among which there is some large manuka, a good deal of which is being cut down for fencing, &c. To the left lies a deep gorge, the stream which runs through it being quite invisible; both banks are richly clad with trees of many sorts, and here and there is a high perpendicular rock jutting boldly out; one in particular looks as if covered with snow or formed of chalk, it being quite overgrown with a white lichen. Near the top of the hill are some high rocks which have quite a picturesque appearance, resembling the ruins of some old fortalice.

A short way beyond this, after passing the summit, the view becomes more extensive, and embraces a very wide expanse of country. And what a country! Long ranges of brown hills, intersected in every direction by deep gullies; not a yard of level ground to be seen, but narrow ridges of every size and shape, extending to the north and west as far as the eye could see. The writer had often looked upon this country from the top of Mount Cargill across the Blueskin valley, and had wondered what natural cause could have produced this great network of hills and ridges and gullies, and now that he had a nearer view the wonder was still the greater. But looking at the country did not shorten the distance, the afternoon was waning, the higher peaks of the surrounding hills were beginning to be enshrouded in fog, and the weather looked threatening, so he pushed rapidly on his way northward. The road from Kilmog winds along the north-west side of a series of low undulating hills, and then over a sort of saddle into the Merton district. By the time he reached this point heavy rain had begun to fall, and he was not at all sorry when the Merton Accommodation House hove in sight, under whose hospitable roof he at once determined to pass the night, and was very soon seated at table discussing a most substantial tea.

Next morning was bright and fair, and a start was made immediately after breakfast. Nothing particular was noted on the way, except that among the grassy swamps near Waikouaiti several specimens of the native turkey (the Pukeko, *Porphyrio melanotus*) were seen stalking about among the rushes. The swamps and lagoons near the mouth of the Waikouaiti river are very extensive, and would become very fertile were it possible to drain them. But they are very near the tide level. Cherry Farm was the next point of attraction, and the reapers were busy cutting some very fine looking wheat. A good deal of damage had been done to the crops on this and other farms in the district by the wet weather; the wheat in consequence was dark coloured, and even sprouting in some cases. The road then crosses the river and enters the township, which, though supposed to be labouring under the excitement of a contested election, was found very dull indeed. After visiting Hawksbury, and walking through the town,

Beach street was followed down to the sands, and along part of the way towards Matanaka. Nothing but the ordinary shells were found on the beach, which was very lonely, and rain coming on a retreat was made to the houses for shelter. The weather soon cleared up, and passing through the town by a different line, the Main Road was soon found, and Waikouaiti left behind. Hitherto the road had been in splendid order, but the five miles between Hawksbury and Flag Swamp, where it was proposed to pass the night, were in exceedingly bad order, so much so that it that it took about two hours to do the distance, the way being very soft, rough, and muddy. Next morning, got up early and went up to the top of the hill, and had a general look round. Flag Swamp has evidently been a lake or lagoon at no distant period, before the river or the sea broke through the narrow gap in the coast range, by which the river finds its way out and the ocean occasionally finds its way in. The view was very extensive and varied, hill and plain, from Mount Watkin to Mount Royal; even the hills at Otago Heads were in view, and a long stretch of fine agricultural country all the way to Goodwood. Turning the other way, the really appropriately named Pleasant Valley came under the eye, all the land apparently in cultivation and bearing crop of one sort or other, though not much can be said for the work of the farmer, which bore marks of carelessness.

Took the road again shortly after breakfast, and found that the fine morning had considerably improved matters; walking, which yesterday afternoon was both difficult and disagreeable, was to-day quite the reverse. On reaching the bridge over the river, it seemed very much out of proportion to the small stream which meandered away below; but a remembrance of the big flood of two years ago showed how necessary was the large space for water way. The bridges all along the road seem very substantial constructions, though they have generally too many piers in the river bed. A peculiarity in the scenery of the district must not be forgotten, and that is the number of conical hills which are to be seen all about. From Mount Watkin on to Puketapu, which shortly came in to view as the range dividing Pleasant from Shag Valley was crossed, some eight or ten of these singular eminences were in sight. Mount Watkin is the highest, but Puketapu, rising as it does from the plain, is decidedly the most imposing. To one accustomed to the wooded country about Dunedin, the first look of the country about Shag Valley, as seen from the top of the dividing range, is rather disappointing. The hills look bare and cheerless, and the valley, though a splendid agricultural district, seems monotonous. The river is not wide enough to form of itself a feature in the landscape, although it can be seen winding about here and there in the centre of a wide bed of shingle. There are a good many houses scattered about in the lower part of the valley, which serve to give a little life to the scene. The coach was just starting for Dunedin as Gilligan's Hotel was reached, and then the road leading up the valley to the right was taken as far as Meadowbank. Here the remainder of the day was very pleasantly spent rambling about the station, looking at the shearers in the woolshed, &c., and a long stroll was made in search of a quartz reef which had been lately discovered among the ranges some three miles off. However, although a leading spur was followed, which was said to go direct to the spot, it did not lead the writer to the reef. On his way down again he inspected several places where outcrops of rock occurred, and although plenty of quartz was observed lying about none was found *in situ*.

Here and there, on the previous day, a few thistles were observed growing by the wayside, but a district was now about to be entered on in which, for over forty miles, this acclimatised weed seems to have fairly taken possession of the land. Now, aesthetically considered, a thistle is a tolerably handsome plant, and has an air of independence about it possessed in an equal degree by no other thing growing; but there is a place for everything, and no doubt the farmers in this part of the country have every reason to complain of the apathy which allowed the thistle to become such a nuisance. Spreading from a small point to the north of Hampden, where it is said to have been introduced by a flock of sheep, the thistle is now to be found all over the valleys of the Shag, Otepopo, and Kakanui, comprising some of the finest agricultural land in the colony; and not only in the valley but up to the tops of the hills, not a spur or a gully which the writer crossed in his journey but had hundreds. This nuisance has now reached a point where all the

Thistle Prevention Ordinances in the world will fail to prevent its spread; slowly but surely it will work its way to the southward and westward until it has overrun the province.

But it is time to resume the journey. The course to-day lay from Meadowbank, across Shag Valley and the ranges to the north. The river here winds about in a broad bed, which bears unmistakeable evidences of the frequent severe floods to which it is subject in the long ridges and heaps of gravel which border the stream. There was not much water, but the necessity of wetting the feet was obviated by the kindness of a gentleman who lent his horse to cross the ford. From the bed of the river a rise of six or eight feet leads to a level grassy terrace, of varying width, evidently within the reach of floods; beyond this there is a rise of about 25 feet, and then another terrace of great extent, consisting of fine arable land, is met. A large portion of this is in cultivation, and the track lay through the stooks, without having to cross a fence, for over a mile and a half—the first half mile in oats, the second in wheat, and the third in oats again. Beyond this, but slightly out of the line of route, was another large paddock, in which the reapers were busy working round and round a large patch of oats. From the end of cultivation in this direction the way led across a gully, and then at once began to ascend the fern covered slopes of the Horse Ranges. The first points of interest here were a limestone quarry and kiln, which were being worked by Mr Hutcheson of Coal Point. The lime is crystalline, hard, blue and white streaked, and would make a very fine marble for ornamental purposes. Any quantity could be had, as the top part of the hill is wholly composed of it. The kiln is placed on the side of the hill a short distance below, at the side of a gully having a gentle slope down, which enables drays to be easily brought to the place for loading. The kiln is partly of brick and partly hewn out of the rock, and appears a most substantial piece of work, doing its work well, judging from the burnt lime as seen below. No fossils were visible in the stone.

Taking instructions from the lime-burner, we turned to the left up the gully and then up a spur which led by a steep rise to the top of the hill. The view was very extensive, but the more distant outlines were very indistinct on account of a blue haze which covered all the hills and the sea. The wide valley below looked beautiful, and the amphitheatre of hills seemed just the frame of the picture. Turning northward, a steady though very rough walk of about a mile brought the other side of the range into view, and in a short space the telegraph posts lining the North Road were seen; and after a few hundred yards of scrambling through tall ferns and other bushes, we emerged on the road at the head of Trotter's Gorge. Trotter's Gorge seems formed expressly by nature to afford an easy grade for a road down from the top of the hill. It is a narrow cleft through the hard rock, and is as romantic a place as is to be found in all the district. The sides are in many places quite perpendicular, and approach each other so closely as to leave only room for the road and the small stream which trickles through the bottom. Every adjunct of fine scenery is there save water. The rocks are piled above each other in high broken terraces—now coming quite close to the road, and then retreating so as to form a bay or gully. Some of the slopes are covered with bush, while at several places a little way up from the road are caves running back into the hill. In one of those visited there is a small spring of water dropping from the roof, having formed a thick stalactite rising from floor to roof like a pillar. The floor was mostly overgrown with that pretty fern the *Adiantum Cunninghamii*. A little further on there is another cave of much larger dimensions, which is quite dry and much used by wayfarers as a camping place. At the time of the visit, a man was sound asleep on a bed of ferns, pillowed on his swag, while the smoking embers of a fire showed where he had boiled his billy. High up on the terraces were other caves, but want of time prevented their examination. Altogether Trotter's Gorge is an interesting place, and a couple of days or so could be spent very pleasantly in rambling about and exploring its various recesses. Beyond the Gorge the country opens out, and a straight level road meets the eye, with finely cultivated land on both sides; the road then bends slightly, descends a small hill, crosses a stream, passes the Kartigi Hotel, and then ascends the rise on the north side of the valley. From the top of the hill the Moeraki district comes into view. Four or five miles further on, just before entering Hampden, the writer turned aside to a district road, and

after about a mile stopped at a very pleasantly situated farm house, where he had a message to deliver, and was kindly invited to stay tea. Among the objects of interest to be seen here is a vestige of the great floods of two years ago. A small stream runs down the glen, generally about a couple of inches deep, but on that occasion it acquired such volume and force as to entirely change its course, and cut a new channel through a high bank, exposing to view several of those interesting boulders for which Moeraki is famous.

In the evening went on to the township of Hampden, and stayed there all night. Next morning was fine. Got up early, and went down to the beach to see the boulders, &c. Many fine specimens were lying about, and many more were to be seen protruding from the clay bank, waiting till the action of the tide would wash them out, and bring them down beside their fellows. Numbers of those on the beach were broken, and splendid sections were thus obtained, giving a good idea of their structure. From the examination of a good many, the writer inclines to the idea that they may be coprolites; their internal appearance bearing a strong resemblance to those singular masses which are dug so plentifully out of some of the carboniferous shales at home. Some distance further along the beach, a good view was obtained of the "Seven Sisters," as a group of very large boulders is named; but the tide was coming up so rapidly that a retrograde course had to be taken without a nearer inspection. Though a keen search was made, not one small enough to be taken away could be found, and the writer had to content himself with a few chips from one which was lying split. Climbing to the top of the bank, returned to Hampden by the terrace above the beach. After breakfast took a long stroll into the recesses of Moeraki Bush, to see if any peculiar ferns were to be had. None but the ordinary sorts were to be seen, but on the open land round the township the *Botrychium cicularium* was of common occurrence. On account of the great abundance of thistles, progress in the bush was very disagreeable and tedious. A very neat Presbyterian Church is erected at Hampden, of brown and white sandstone, which is a decided ornament to the locality.

But northward ho! was still the word, and early in the afternoon Hampden was left behind. The first few miles of the road run through a fine open undulating country—every yard of it fit for the plough, though at present only grazing a few sheep. About six miles from Hampden a fine bridge has just been erected over the Rookery River. The bridge has four beautiful arches, and looked at from the ford a little way up, appears quite grand; but when examined on the level, it is found to be far too narrow, so much so that it appears a matter of impossibility for anything beyond an ordinary dray to pass over without damaging the parapets. Men had started to work at the formation of the approaches, and when finished, a very great improvement will be made in the road, as well as some saving in distance. A short mile further on is the Otepopo River, which is not yet bridged, though apparently it wants it quite as much as the Rookery. It was at very low level, and no difficulty was found in crossing by leaping from stone to stone. The Otepopo is a very beautiful stream, flowing broad and clear over a pebbly bottom, and very much resembling the upper Clyde in Scotland. The road then crosses a low range of hills, and after passing Herbert enters on what is undoubtedly the finest agricultural district in the province. The view from near Herbert is very extensive; not a tree is in sight, but on both sides of the road extends a fine rolling open country, nearly all in cultivation and bearing heavy crops of grain, most of which was in stook, and the machine busy with the remainder. Altogether, this is a magnificent farmers' country, and this part of the tour was a very enjoyable one. On nearing the Kakanui, however, heavy rain came on, and continued for some time; this rendered immediate shelter advisable, but having an introduction to a farmer in the district, the main road was left at Island Stream, and the district road to the mouth of the Kakanui taken. About two miles of this road and the farm house was reached, and hospitality at once extended. It was a busy time, as the crop was all cut, and the uncertain weather necessitated speedy housing. Next morning, started for Kakanui harbour, about a mile and a half below. A township is laid out here on a fine piece of land for the purpose. Two churches—a Wesleyan, built some time ago, and a Presbyterian building—stand on a fine flat at the edge of the town; a school is also in course of organisation, and from all

that could be learned is likely to be very successful. There is a large population scattered about, and the district contains within itself all the elements of success.

The Kakanui is the largest river in this part of the province, and expands, some distance from its mouth, into a spacious lagoon, having from ten to twelve feet of water at ordinary tides. Proceeding to the water's edge, a "cooey" was sent across, and speedily a boat came over and we were ferried to the other side by Captain Matheson, harbour master. A pleasant hour or two were then spent in rambling over this interesting locality. The entrance to the harbour was nearly closed at the time by a bank of shingle which had been thrown up by a late storm, and on proceeding along the spit to the mouth the tide was found to be rushing in at a great rate. The contrast between the heavy surf outside and the calm, smooth surface of the lagoon inside, was very remarkable.

Turning back towards the portion of the sea-wall lately constructed, it was found to be a strong, though very rough, piece of work, consisting of large blocks of stone laid one on another, and projecting into the sea a short way. This wall is to be extended obliquely some hundred yards or more outward, so as to form a protection against the surf, and with another piece of work which should be carried on at the same time, the straightening and clearing of the channel, so as to aid the current in keeping the bar down, ought to make Kakanui harbour accessible nearly every tide, the whole year through. As it is, it seldom remains open any length of time, the constant action of the surf always tending to bank up the shingle again. Were the harbour made available for the entrance of moderate sized craft, there can be no doubt that a very large trade would soon centre here; for in addition to the agricultural capabilities of the district, there is abundance of the finest building stone in the world, and plenty of lime. There are a flour mill, a flax mill, and two large boiling down establishments, as well as other industries—all of which will be wonderfully helped if the harbour were made available. Turning inland, the next objects visited were the flax mill, the boiling down works, the lime kiln, and the quarries. The limestone here is very different from that found in the Shag Valley. This stone is full of fossils, mostly a variety of terebratula. After knocking off a few specimens, the quarries were visited. Down towards the beach, a bed of stone is worked of a different sort from the usual white stone. It is a hard conglomerate, and judging from the sea wall, seems to stand the weather well; the colour, however, is not good, being of a dirty brown shade. The white stone is got on the tops of the hills, and is very easily worked, blocks of any size being possible. The limestone is also up on the hills, but the elevation is low and the grade easy.

From the lime kiln the road to Oamaru runs along by the beach, on a terrace some 20 to 30 feet above the tide, and is a very pleasant road to travel over, the scenery perpetually changing. About half of the distance is beside one of the big farms of the New Zealand Land Company, the size of the paddocks being something remarkable. In one of these (wheat) the workmen were building the crop into large ricks, two at a place, for the convenience of the machine when thrashing. As something new, in the same enclosure were women and children gleaning, quite in the home style. A short rest was had at the Awamoa Creek, and Oamaru was reached at five o'clock, just in time for tea. Next morning a visit was paid to the ruins of the jetty, a walk along the esplanade, &c. There was a heavy lumpy sea running in, and the p.s. *Wallace* was heaving and rolling in a manner highly suggestive of sea-sickness. There were a good many passengers, and when the time came to embark, some little difficulty was experienced in getting the surf-boat off; but after the usual *desagremens* of such a mode of shipping, everyone was got safe on board the steamer, which started at once, and after a smart run of six hours over a heavy ground swell, got inside Taiaroa Heads, the passengers reaching Dunedin shortly after eight o'clock.

March 8, 1870. PAKEHA.

RAMBLES ROUND DUNEDIN
PORTOBELLO, HARBOUR CONE, LIME WORKS

Taking advantage of the pleasure trip the other day, the writer paid another visit to this beautiful locality. In this opinion of the place he is not singular, as was abundantly evidenced by the large number of people who landed there, all of whom seemed to enjoy themselves thoroughly in wandering over the district. It is a wonder Portobello is not much more visited than it is, for it contains within a moderate radius from the jetty some of the finest scenery to be found within a day's ride of Dunedin. It was the intention of the writer to travel up the Dunedin road as far as M'Donald's Lime Works, and prospect some of the gullies for ferns, &c, on his way. For this purpose he turned to the right up the road, leaving the crowd of excursionists behind. The country here is covered with heavy timber, comprising totara and all the pines, and some of the trees are very large. The undergrowth is very dense, the supplejack being particularly plentiful, rendering progress through the bush at times very tedious. There are some very pretty shrubs scattered about, particularly an Olearia, with long light green leaves, which looked as if it would bear transplanting well, and would look pretty in a garden. Some of the pines in a young state look very well, but they are difficult to get to grow out of the bush. Ferns were plentiful enough, but only the ordinary sorts were present, at least none were met with that at all are rare. In one gully the *Hymenophyllum dilatatum* was found in great plenty, some of the fronds being about a foot long. In this way, working along, sometimes on one side of the road and sometimes on the other, the writer had got as far up the road as the southern side of Harbour Cone, when it occurred to him that he might as well go to the top.

Harbour Cone is that beautiful hill which forms so prominent an object in sailing up or down the harbour, standing a little way back from the water above Portobello. Till within the last couple of years or so, it was one unbroken forest from base to summit, but the march of settlement has somewhat marred its beauty on the harbour side, as some large clearings have been made on it, reaching from the road to a short distance from the top. On the southern side, however, there has been much less clearing, although there too, it has begun, and the axe and fire are busy at work destroying the natural beauties of the locality. It was from the south side the ascent was made, and passing across a small bit of cleared land, the bush was reached, and the shade of the trees was found a great relief from the hot glare of the noontide sun. Once in the bush, and civilisation seemed as far away as if there were none within a hundred miles. Everything was very quiet at first, but then a mokomoko began to warble its rich full notes, which made the hillside seem quite lively. The ascent, though not very steep, was difficult on account of the supplejacks; but a cattle track was found which made matters easier, and by its means a point was reached where a number of voices were heard. Pushing through a thicket of veronica, panax, and stunted totara, the top of the hill came into view, and there were found the Portobello schoolmaster and a number of his pupils, who had come up here to spend their holiday in a pic-nic, and have a look round at the charming prospect. And a charming prospect it is indeed, as the hill forms the centre of a district having a very diversified surface. It is not so very high, only 1028 feet up, but if some of our local photographers could manage to get their instrument placed on the summit, a series of eight magnificent views could be taken, which would form quite a unique panorama. The first might comprise the Lower Harbour, the Heads, &c.; then turning to the right, Papanui Inlet, Wycliffe Bay, with the black funnel of the wrecked steamer Victory visible over the sandhills, and the coast on to the Rocky Head, would form a capital picture; turning still further, there lie Hooper's Inlet, Mount Charles, and the long line of rocks out to Cape Saunders; then there is Sandymount, and the beautiful wooded gorge up to the Lime Works. Looking up the harbour, a portion of Dunedin comes into view, with Saddle Hill, Maungatua, and other hills beyond in the distance; then to the west, Signal Hill and Flagstaff, with the other hills around; across the harbour Mount Cargill seems to rise up from the water at Sawyer's Bay, with its attendant Mihiwaka; and, to finish the round, we have the islands, the shipping at

Port Chalmers, the wooded hills above, with Mopanui peeping over them, while far away can be seen Mount Watkin and other eminences to the north and west of Waikouaiti. Altogether the view from the summit of Harbour Cone is one which must be seen to be appreciated properly. After exchanging a few words with the Dominie, and another glance around at the prospect, the writer dived again into the bush and soon emerged on the road below. There is a quartz reef in this neighbourhood, but not being aware of the exact locality, and not haying time to search for it, preference was given to the Lime Works, which were seen from the top of the hill.

A smart walk of about a couple of miles along a fine road, and the vicinity of the lime was reached, and after a little search found on the side of a picturesque gully. There is a good deal of clearing going on on both sides of the road at this point, and the beautiful bush is fast disappearing, to be laid down in grass or cereals. The lime crops out from the side of a bluff or spur coming down from the high ground to the south, and the bed is of considerable thickness. The stone is hard, dense, and of a greyish blue colour, containing very few fossils—an occasional mussel or oyster, of large size, being met with. However, in a stratum of stone of a slaty texture, which underlies the lime, fossil shells are frequently got. The kiln was charged, and men were busy at work breaking out stone from the quarry. This has to be done by blasting in the usual way, and then the stone is broken small enough by hammers, so as to assist the process of calcining. The enterprising proprietor, Mr M'Donald, was present, and he obligingly showed all the operations, and explained the action of the kiln, which has some peculiarities about it. The kiln is about 30 feet in height, and seven feet in diameter at the upper end, built of limestone, but lined throughout with firebrick. It answers its purpose thoroughly, being able to turn out 150 bags a day, or even double that if necessary. There is a peculiar arrangement of shoots at the bottom of the kiln, by which the draught is very easily regulated, and the stone can be drawn from any part of it that may be necessary. Instead of the mouth of the kiln being exposed to the air it is covered in by a substantial house, which serves as a store for the lime, and also preserves it from the weather. There is abundance of firewood close to the works, and with a good road to Dunedin, Mr M'Donald ought to be able to supply very readily all the demands of the trade.

After spending a short time searching for fossils, which, however, were very scarce just at the time, none of the blocks split open revealing any, a retrograde course was taken and the Lime Works left behind. On the way down to Portobello, some very good building stone, of a sort similar to that now being quarried so extensively at Port Chalmers, was observed in the side cuttings, and very well placed for purposes of utility. Some pretty nodules of iron pyrites are sometimes got in this rock. From the Lime Works to Coney's Hotel at Portobello took rather less than an hour of easy walking, and on arrival there found the excursionists gathering, the steamer being in sight on her way over from Port Chalmers. All were soon on board and a pleasant run up to Dunedin brought to a close a very pleasantly spent holiday. There still remain the Sandymount and Sandfly districts to ramble over, and to visit these an early opportunity will be taken.

PAKEHA. March 26, 1870

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from *Otago Daily Times* 18 June 1870, reprinted *Otago Witness* 25 June 1870,
also published *Trans Proc NZ Institute* Vol 3 1870, pp 263-269

ON THE SAND HILLS OR DUNES IN THE NEIGHBOURHOOD OF DUNEDIN

Read before Otago Institute, May 31, 1870.

These sub-aerial formations in this vicinity are very extensive, and present a series of phenomena of a very interesting character. It is not the intention of the writer to go very deeply into the causes of these phenomena, but to give a few rambling notes descriptive of the present appearances of the dunes, which may perhaps serve as data for future observations. These may be divided into three heads: first, their locality; second, their extent; and third, the rate at which they are progressing, if it can be made out.

Beginning with those to the south, beyond Green Island, we find that at the

Brighton end of the beach, where the schistose rocks crop out above the surface and run out into the sea, giving some very curious examples of wave action, the line of sand is very thin, the grass approaching, here and there, quite close to high water mark. As we proceed northward, the sand gradually widens, forming a long flat or slightly undulating expanse of about a quarter of a mile in width, with a line of low hillocks on the inner side. At the mouth of the Kaikorai river, there is a curious shifting bar, which is driven upwards by the force of the surf in fine weather when the river is low, and then when the water inside has acquired volume enough, it washes away the sand, and scoops out a deep channel, which remains until the water has all run off, when the surf commences to re-form the bar. North of the Kaikorai the beach assumes a slightly different character—the line of sandhills becomes more regular, and from the mouth of the lagoon gradually approaches the beach, until, about half-way from the rocks at Green Island, the line of hills is the same as high water mark. Along this part of the beach the hills present a bold irregular front, rising at a very sharp grade to a height of from 30 to 40 feet. Inside this line the surface is very irregular, and is worn by the action of the wind into the most fantastically shaped hills and hollows. Here and there the hollows are deep enough to show the original clay bottom, and some of them usually contain small lodges of fresh water, the drainage of the surrounding hummocks. Crossing direct through the sand to the fields on the inner side, and a most fatiguing walk it is, a pretty good idea is got of the depth of the formation, as well as of the general direction of its motion, for the sand is found encroaching on the grass in many places; and as we get nearer Green Island bush, the trees are being gradually covered from sight. Indeed, on going down again from the district road towards the beach, through the bash, the rate at which the sand is invading the land becomes painfully evident. Large numbers of trees and bushes are completely buried, and the contrast between the dazzling white sand and the dark green of the vegetation is remarkable. Trees do not seem to live very long after they are covered to any depth by the sand, and in this way a sort of gauge is got by which to estimate the progress inland of the sand bank. After a broadleaf (Pukatea— *Grisellina littoralis*) has been buried to a depth of five or six feet from the ground it begins to decay, so that in a season or two the tree dies, and the branches protruding above the sand become quite brittle and dry. From a repeated examination, the writer thinks that the sand is advancing into the thick scrubby bush in this quarter about 10 or 12 feet a year. From this point northward there is properly no beach, the coast line being occupied by a series of high cliffs, and it is not until we approach Dunedin that the sand becomes again the boundary between land and water. This part of the coast, however, is so well known, that nothing need be said about it, so we will at once pass on to Lawyer's Head and Tomahawk.

Lawyer's Head is a low spur, running from the hills at the back of Anderson's Bay out to sea a short way, and is composed of a hard black basaltic rock at the bottom, and a softish reddish-coloured rock at the top. Before leaving Lawyer's Head, however, it is worth while observing that there is no such accumulation of sand here as there is at the corresponding end of Green Island beach. The cause is not difficult to find. The south side of the Head is a long gentle slope, offering little resistance to the wind, which sweeps up with great force at times, ranging the sand in long irregular ridges parallel to its course, and carrying a great proportion over the Head to the other side, where it lies in a steep bank against the precipice, accumulating until it is carried off by the first high tide and distributed over the rest of the beach. The phenomena presented on Tomahawk beach are very much the same as those already described, the sand is gradually travelling northwards, and covering all the space between the lagoon and the ocean, rising over the low hill in the middle of the beach, and even finding its way into the lower part of the Tomahawk valley. From this part northward, the coast line is composed for a long distance of a line of high shelving cliffs, running up to a height of 700 or 800 feet, and no sand is met with until the Sandfly Bay district is reached, where a line of sandhills bounds the beach. At the extremity of this beach stands that very singular feature in the scenery of

the district —Sandymount—which is partly covered with patches of moving sand, but as the writer has never had an opportunity of travelling over this part of the coast, he will reserve his remarks on Sandymount until he has done so.

North of Sandymount lies that very beautiful locality, Hooper's Inlet, which possesses, in common with all the harbours on this coast the writer has seen, the fact of having on the right or starboard side, as you run in, a sandbank or spit; on the left, or port side, rocks, more or less high. Oamaru, Kakanui, Waikouaiti, Blueskin, Purakanui, Otago, Papanui, all present the same appearance as Hooper's on entering. In a strong sou-wester the writer has seen the sand flying from the shoulders of Sandymount in thick clouds, which are deposited on the beach at the entrance to the Inlet. The line of sandhills continues here for about a mile, when the bold promontory of Cape Saunders is met with. Of course there is no sand here, the coast being again a line of perpendicular rocks all the way round the forest covered Mount Charles to the entrance of Papanui Inlet. About a mile and a half from the ocean at Hooper's, however, the distance between the two inlets is less than half a mile from high water mark to high water mark. Taking our way across this neck, and then across the wet flat of Papanui, of course at low tide, it is easy to arrive at the sand banks on the Wickliffe Bay side. Proceeding towards the ocean we find two distinct series of dunes, one of a much older date than the other, covered with green turf, while the one nearest the sea is only the usual loose drifting sand. The beach at Wickliffe Bay is about two miles in length, a line of sandhills running all the way. Though composed of such a loose material as dry sand, these hills maintain a character of permanence which is wonderful. For instance, when people were working at the wreck of the Victory steamer, some seven years ago, a sort of telegraph was erected on the top of one of the hills, which retains its contour and elevation very much the same to this day; and any one looking at the long line of hills which mark the ocean beach near Dunedin, must have remarked how permanent they are, very little, if any, change having occurred in their general appearance for many years.

At the north end of Wickliffe Bay there is a high perpendicular precipice, and the coast continues rock-bound for a considerable distance, there being only two small bays with sandy beaches all the way to Taiaroa Head at the entrance to Otago harbour. Neither of these bays presents any peculiar feature, so we will at once proceed to the great accumulation at the Maori Kaik. This sand bank is by far the largest in the district, extending in a north-easterly direction from the rock at Korako's house for about two miles, while its breadth from tide mark is more than one mile. All the characteristic features of sub-aerial formation are here to be met with— long parallel ridges, smooth flats, high hummocks, and gently sloping surfaces. Even that rare phenomenon, musical sand, is occasionally present. In dry calm weather, at certain spots, when crossing the sand, a peculiar sound is occasioned by the feet in walking, a sort of "weef, weef," as if the sand were being struck by something sharp. In general, however, the sand only emits the usual crunching sound. Some portions of the surface of this bank are quite hard, and easily walked over; but as a rule the sand is very soft, and walking over it is a very fatiguing matter. From about high water mark the sand slopes upwards, at first rather steeply, and then at a more gentle grade, for a long way, the only break to the uniformity being that here and there stands a small hillock, on the sides of which grow a few straggling plants of a coarse hard grass, the roots of which serve to maintain the form of the hillock, in spite of the efforts of the wind to carry it away. The tendency of the sand here is upward, and to the north and east. At times, during a strong southerly burster, the writer has seen the sand raised in thick clouds, and carried onward in tons, and spread over the grass and among the trees at the upper edge, where it lies, never to go back, but to be covered over by another layer by the next storm. In this way the bank has attained its present huge dimensions, and will sooner or later reach across the hill and over the declivity to the outer beach. The rate at which this is going on is surprising. On one occasion, after one

of these blows, a long stretch of grass, some 70 or 80 yards wide, by 250 or 300 long, was covered by the sand, just as snow would have done, but with this difference: that whereas the snow would have disappeared with next day's sun, the sand remains, and the land is rendered totally barren.

The depth of this sandbank varies considerably, according to the inequality of the surface of the land underneath. Near the middle, where it has crossed a gully, it is probably 40 or 50 feet deep. At the northern edge, where it approaches the hills, it has at one part formed a very beautiful bank or slope, of from 30 to 60 feet in depth, the grade being very steep, so much so that one would hardly think that so incoherent a material as dry sand would maintain such an acute angle. Standing on the edge, and pushing the sand away with the foot, it falls over and over in small waves until it reaches the bottom, just like so much water, only not quite so fast. The opposite hill is very steep and rocky, so that when the sand has filled up this hollow, its further progress in this direction will be checked. Farther east, however, the hill is much lower, the slope more gradual, and the sand is steadily advancing up the incline. A few of the Maori houses located on the flat land above will have to remove, or they will be encompassed by the flood of sand, and the lives of the inmates rendered very miserable.

Hitherto we have seen the sand travelling in an easterly or northerly direction; let us now turn to another part of this same beach, and we will find the prevailing motion exactly the reverse. On the other side of Korako's house is a little flat, where the old settlement of Otago stood. The buildings have long since disappeared; indeed, a pretty broad slice of the land on which they stood has been washed away by the sea, and what was once a pretty green flat, with a few old Ngaio trees on it, is now a sandy waste. A little farther on, Harwood's house stands on the beach, and a short way in was a fine garden, with fruit trees and bushes in plenty. But the sand has put horticulture to flight, and the garden is now reduced to very small dimensions; the tops of the bushes may be seen sticking up through the sand. If it goes on as it has been doing, a very short interval will elapse ere the whole flat become as barren as the beach below.

Proceeding now to the other side of the harbour, we find an extensive flat or spit, nearly covered at each spring tide. The sand does not seem to accumulate here, for the spit lies freely exposed to the wind, both out and in; what the north-easter blows on is just blown off again by the south-wester, and in this way a sort of uniformity is maintained. A little way round the corner, however, towards Hayward's Point, the sand assumes a shape which merits a word or two in passing. The beach here is hemmed in by perpendicular rocks, rising some 200 or 300 feet over the tide. Standing near the water, and looking upward, the sand seems to lie against the rocks. But this is not so; for on getting up to the top of the bank, a most singular fact is discovered. Instead of the sand covering the base of the precipice, there is a long, narrow valley, with numerous trees and bushes growing luxuriantly in it; the sand, which slopes gently up from the beach, ending all at once in a steep declivity.

To the westward of Hayward's Point there are three beaches, divided from each other by precipitous bluffs jutting into the sea, viz., Kaikai, Murdering, and Long, all of which were formerly occupied by a numerous Maori population, now quite extinct. Beyond Long Beach the coast at Purakanui is very bold, continuing so till Blueskin is reached, where there is a sandy beach and spit of considerable extent. Northwards, for a good many miles, the coast is again rockbound; and it is not until Waikouaiti Bay is reached that much sand is found. Northward of this bay the beaches are mostly composed of a hard shingle or gravel more or less fine.

I have now, in a very brief way I must admit, gone over and described the leading features of all these beaches. Two questions now occur for consideration, viz.:— Where has all the sand come from? and, How long has it taken to accumulate? In reply to the first, the writer ventures to propose the following hypothesis:— Away down the coast two large rivers run into the sea—the Clutha and the Taieri—both conveying large

quantities of sand and other detritus to the ocean. Now some of this, no doubt, is deposited close to the mouths of these streams, but a considerable portion must be carried off far enough to be taken up by the constant northward current which sets up the coast, and deposited gradually as it goes on, getting again driven up on the beaches by the tides and the surf. There is also, as a contributory cause, a long line of soft sandstone cliffs between Green Island and the Forbury, the material of which is very easily weathered and very rapidly acted on by the surf, which carries off large quantities every storm. On looking down on the sea from the top of the cliff, the discoloured water can be seen quite distinctly travelling northward. Now at Lawyer's Head the water is all clear again, or at least it is all one shade, so that some of the sand must have been deposited to form the dunes on the Ocean Beach and on Tomahawk. A large portion is no doubt carried on, some to be brought up by Cape Saunders and deposited about Sandfly and its vicinity—some to be carried past and dropped about Wickliffe Bay; but a large portion will still be in suspension and be carried into the various inlets, including Otago Harbour, with the tide, and then, whenever slack water occurs, it will fall to the bottom, to be worked up to the beach, and eventually blown ashore to form those large accumulations which are now to be seen all round. Still it is hard to believe, taking the big bank at the Heads for an example, that this huge quantity of sand can have been blown off such a narrow strip of beach as there is there, nowhere more than three hundred yards wide. And yet off that beach it comes, as may be seen almost any fine day when there is a little wind blowing. Very shortly after the tide has left the flats, the wind begins to lift forward small quantities of the sand, and they blow on and on until they reach the bank, there to remain.

The time these formations have taken to assume their present dimensions is not so easy to ascertain. Indeed, the whole phenomena seem to point to a slow raising of the land round our coasts. Old Maoris say that the Ocean Beach was once a shoal, and that the tides met. Indeed, there is one point of the Ocean Beach where it is not an unlikely thing that an extra high tide, accompanied by a heavy sea, would work a channel through to the St. Kilda flat inside. The hills are neither wide nor high, and there is very often a large shallow sheet of water left by the tide. But then all over the St. Kilda flat the ground is full of the trunks of big trees, which must have grown on the spot. To reconcile these two, there must have been a lowering and then a raising. At the Heads, when the first settlers came, the sand bank was much less in extent than at present. In front of Kelvin Grove there was a pretty large lagoon, frequented by ducks and other fowl, not a vestige of which remains. A number of natives used to live around the bottom of the bay; they have long been driven off to the higher ground, and from this in turn they seem likely to be driven still farther off by the sand flood which is slowly but surely advancing towards their clearings on the further side of the hill. It is about eight years since the writer first traversed this particular bank, and in that time it has grown considerably, both in length, and breadth, and depth. This part of the subject is one of very considerable difficulty, and the writer must leave its further consideration in the meantime, trusting that wiser heads than his own may give the matter some attention, with a view to the elucidation of the almost paradoxical phenomena which are presented by the sand-dunes around Dunedin.

When rambling about among the sandhills one day, my attention was directed to some very curious stones which were lying about in one of the permanent hollows. I collected a few samples, and showed them to various people, but to all they were quite a puzzle, though opinion evidently inclined to the belief that they were artificial. I was very agreeably surprised, on looking over the new volume of the Transactions, to find that similar stones had been found near Wellington, and described and figured in the volume. I lay a few specimens on the table for the inspection of the members, to give them, a better idea of what they are like.

from *Otago Daily Times* 12 October 1870, reprinted *Otago Witness* 15 October 1870

RAMBLES ROUND DUNEDIN
THROUGH PINE HILL BUSH TO THE NORTHEAST VALLEY

Now that the long wet winter has passed away, and the ground has dried sufficiently to allow of comfortable walking, it was with feelings of great pleasure that the writer found his way, the other afternoon, with a mate as good as himself, once more to the edge of the bush. The special object in view on the occasion was to explore a particular locality on the top of Pine Hill, to obtain some specimens of a fern which is rather limited as to distribution — the *Hymenophyllum aeruginosum*. Starting from Marshall's, we took the base line for a short distance, and then struck into the bush to the right, along a track which leads diagonally through the block to the first road leading up the hill. On our way we passed some beautiful patches of ferns, the young fronds of which were just unfolding. We found *H. demissum* and *H. bivalve* plentiful, with here and there, growing on the trees, *H. rarum* and *H. flabellatum*; but the most prevalent ferns were the *Lomarias*, particularly *L. procera* and *L. discolor*, which in places completely hid the ground. With the exception of a Totara, none of the trees passed in this quarter were very large, and were mostly the usual run of scrub. One small tree, however, was met with plentifully—the *Coprosma fetidissima*, which emits a most abominable smell whenever disturbed, something like a very bad breath, or as if one had been eating garlic. So strong did this become that both of were glad when daylight hove in sight on the cleared road line. Up this we made steady progress, only stopping now and then to watch the antics of the kakas on the naked branches of the cedars. We soon reached the top of the hill, and directed our steps to the gully in which we expected to find the desiderated fern. But though we searched high and low, out and in, through a very tangled piece of heavy bush, not a single frond rewarded our search. There were plenty of other ferns, some of them of great beauty, such as *H. pulcherimum*, and *Leptopteris superba*. This latter is perhaps the most gorgeous of all the ferns of the district, and may be had of any size, from fronds six inches long to two feet. After fossicking about in every direction for some time we gave up the search and made our way back to the road line again.

There are clearings at this point, right and left of the line, from which fine views of the surrounding country can be had, and turning to the northeast we enjoyed a peep at the lower Harbour, the islands, Portobello Bay, &c. We did not put off much time in this way, but pressed on towards the end of the cleared line, and here our troubles began. From the clear a survey track leads down the side of the hill, but there did not seem to have been a human foot there for years, for we found the track completely obscured by a strong growth of *Lomaria discolor* and *Aspidium aculcatum*, through which it was with the utmost difficulty we could force our way. The descent, at first gentle, became steep, and then steeper, until at last it was almost perpendicular, and locomotion was only possible by a series of jumps, holding on to branches, stumps, or fern leaves, so as to facilitate our descent. In this way, though not without some ugly tumbles, we at last reached the bottom, and found ourselves on the edge of a deep perpendicular gully, through which rushed a pretty little creek—the Owhio, that which runs down the Northeast Valley. It was our intention to follow this creek down to the open, but before doing so we staid and had a long look at the grand unbroken slope of Mount Cargill, which rose from our feet to the clouds above, covered with trees to the very top. It was a very impressive sight indeed. Hitherto we had a track to guide us, little used as it was; but before us lay a long tract of virgin forest, through which our only leader was the little creek, obeying the grand principle of gravitation, seeking the lowest level it could find, and plunging merrily ahead as fast as it could to reach the sea. For a short distance we proceeded along a sort of terrace, with the creek running in a wide rut or trough some 25 or 30 feet deep to our left. But the terrace soon ran out, and the hill came so close to the edge of the creek, that we were fain to get down into its bed, and so keep to its course. But we found this quite impossible; for the fall was so great that the stream, every few yards, was tumbling over a *linn* of from 10 feet to 30 feet in depth. Getting over these falls was occasionally a very difficult matter. It was easy enough for the stream—breaking its neck half a dozen times in a hundred yards did not put it about in the least—but for us, it was rather a serious business. After trying two or three places we at length got down, but in the process I had a rather awkward slip, and was caught by a branch, but let go my field book, which fell,

open, into the pool below; and so all the fine specimens collected on the hill above were scattered on the water, and most of them lost. However, no bones were broken, and getting down, gathered what could be had and spread them between the leaves again, taking the precaution to fasten the boards, so as to prevent a repetition of the like.

We were now in a most curious place. A deep rocky gorge with tall trees meeting overhead, and obscuring the daylight. The sides were clad with a profusion of ferns and shrubs of many sorts, the bottom where we stood being a mass of large boulders, over which it was no easy job to travel in the dim light. In front there was a high barricade of fallen trees, branches, and scrub, brought down by the stream in times of flood, so that we seemed to be quite hemmed in. On getting over them, we found the gully a little more open for a short distance, and then all at once we stood on the top of another chasm, over the edge of which the water jumped into a deep pool. The sides were quite smooth and perpendicular, but singularly enough, at some former flood a long tree had been washed down and now lay, roots up, at an angle with the fall. By means of this we found it just possible to reach a flat ledge which ran along by the side of the water, and so to the other end of the pool. After this we did not meet with much difficulty for a few hundred yards, but then we came to a twister. Not that it was so deep, as that it was so covered by fallen branches of trees as to resemble a basket. In crossing this I was so unfortunate as to fall through, slide down the mossy rock, and go plump into a pool of water over two feet deep. This was nice, but no use grumbling, and there was also no time to lose. We had now reached a place where, though the ground was still very rough, it was easier going, and we were able to look about us a little. Our first observation was that we had come upon some other sorts of fern. The one now most abundant was the *Asplenium bulbiferum*, with the young plants in all stages of growth, from the frond just showing to others with long aerial roots seeking the ground. In all the gullies we had ever been in, this fern had never been seen in such plenty. Another fern we found here in large patches—the *H. scabrum*. We gathered and stowed away a few fronds of each, and then made tracks. We kept steadily at it for some time, climbing, scrambling, and jumping, working ahead as we best could, till we were both thoroughly knocked up. We stopped to breathe a little, and for the first time I looked [at] the clock. To our great surprise it was 6.20, which accounted satisfactorily for the increasing duskiness of the last few hundred yards. This startled us at once into activity again, and we set off with the best speed we could manage, both of us rather anxious about the sight of a clearing. Once or twice the stream made slight bends, and to shorten the distance we sometimes tried to cut across, away from the stream. But this we found only wasting time, as we had to return to the gully, being completely baffled by the denseness of the vegetation. So we kept steadily to the course of the stream, determined to stick to it till we came to the clear ground below. Thus we kept hard at work, plodding along the course of the creek, sliding, scrambling, climbing, and even wading occasionally, and though we passed many beautiful fern-clad patches, and some large majestic pines, we had no time to spare to look for specimens. The light was now fast fading, and our progress was all the more difficult, when happening to raise my head for an instant, I spied, on the opposite side of the creek from where we stood, a pile of cut wood. Very welcome was the homely sight, for it pointed the way out of our difficulty, and scrambling up the side of the creek we abandoned its guidance for good. It was not very easy at first, for we had to make our way through tangled brushwood and stumps, but we soon found a tolerable bush road, along which we rapidly sped our way, and we got safe to the North-East Valley road shortly after darkness had completely set in, arriving home about 8 o'clock, pretty well tired out.

PAKEHA. October 7.

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from *Otago Daily Times* 16 November 1870, reprinted *Otago Witness* 26 November 1870

RAMBLES ROUND DUNEDIN
BLUESKIN, DOUBLE HILL, ETC.

Some time ago the writer heard that on the top of one of the ranges in the above neighbourhood there were large masses of petrified or silicified wood, so with the view of finding out “all about it," he determined to take his next ramble in this direction. It is rather a long step to the Waitati township, so a machine of one-horse power was hired for the occasion, which speedily whirled him and a friend over the intervening thirteen miles. Arrived there, and having put up the

horse, &c., the necessary information as to the whereabouts of the petrifaction was obtained from one of the residents, who had seen it several times, and had brought away some specimens. But, as we found to our cost, pointing to a spot on the top of a range some three or four miles from the flat on which we stood, and saying we would find the stone there among the tussocks, and getting on the range and searching about among the said tussocks for it, were two very different things.

After leaving the Waitati we proceeded along the main road for about a mile, and then turned up a steep, rough, partially formed district road. This was followed for a couple of miles or so, when we arrived on the summit of the range, a long flat-topped ridge, from which we had a good view of the surrounding district, from the Mount Cargill ranges on the south to the far away snow-capped Kakanuis on the north. We at once commenced a thorough and systematic search along the top of the ridge, crossing, and recrossing, and zigzagging in every direction for more than a mile, examining every patch of flax and long grass where we thought it likely the stone might be, but entirely without success. We therefore left the locality and found our way down to the village by a different and more pleasant way than that by which we got up, reaching town again in good time in the evening.

It was rather mortifying thus to have to return—the expedition being entirely fruitless, but a second attempt was resolved on, and the late holiday was devoted for the purpose. This time we were more successful, though we were more indebted to "a good Scotch tongue" than to the local knowledge of any of the party—three from town and Mr Porteous, the teacher at Blueskin, who joined us on horseback on the way up. We took the same road as before, and on arriving at the top of the range, broke into "skirmishing order," and traversed the ground backward and forward for some time, but still without any result. At last the writer spied a young man coming forward, evidently a resident in the neighbourhood, and going up to him asked if he knew anything of the petrified tree. He thought a little, and then replied that it had been in that field, pointing across a fence a little way off, but that it had been broken up and removed, as being in the way of the plough. However, he added, there was plenty of it lying about, and taking us towards the fence, there, sure enough, built into a low dry-stone wall, as a sort of supplement to a three-rail fence, were numerous fragments of the tree, of all shapes and sizes.

A shrill "cooey" soon brought the party together, when we at once saw the reason of our want of success. The ground had been cleared, fenced, and ploughed, and the stone broken up and removed since it was last visited. That grand civiliser—the plough—had ruthlessly destroyed all chance of finding out the size and shape of the tree, whether *in situ* or not, whether a trunk entire, or only a fragment. So we had to make the best of it, and selecting some of the better looking of the blocks, broke off a few specimens to carry home. Ranging these on the grass we sat down beside them, and undoing our wallets partook of some needed refreshment.

It being yet early in the day, we determined to extend our excursion as far as the summit of Double Hill, a singular eminence, 1440 feet above the sea, with two sharp peaks, one a little lower than the other, which project from the ridge about a mile or so from where we found the petrifaction. The ascent was steep, but easy. On the top we found the usual trig-station, and sitting down beside the cairn we feasted our eyes on the grand panorama which extended around us. Looking to the northwest we had a fine view of that singular range of hills—the Silver Peaks, the highest in the Dunedin district, running up some 2700 feet above the sea. They are very steep, their tops seemingly as sharp as a knife, with high rugged-looking projections scattered here and there on their sides and tops. By the aid of the binocular we could make out some of these rocks very well, and it required little stretch of the fancy to imagine them to be old ruined castles or forts of the feudal times. Over one of the saddles in the range we could see the top of another hill—an irregular group of rocks, having exactly the appearance, from where we stood, of a small town or village of grey stone houses. Turning to the north, the eye ranged over a long stretch of hilly country, with a few isolated peaks of a conical shape overtopping the rest, till the view was bounded on the far north by the high Kakanui mountains, whose summits, though

partially shrouded by a thin haze, could be distinctly seen to be still thickly covered with snow, notwithstanding the long tract of dry warm weather since winter past off. Then Mount Watkin and the other hills about Waikouaiti came into view, and further to the eastward the coast line running up as far as Brinn Point, with the ocean in the distance and the bay in the foreground, through the narrow entrance at the mouth of which the tide was rapidly running in, as shown by the long streaks on the surface of the water. To the south lay the high range of hills which form the main watershed of the Waitati, comprising Mopanui, Mihiwaka, Mount Cargill, &c. At the foot of the hills at the head of the bay, we could see the white houses of the village glittering in the sun, and to the westward lay the great wooded basin of the Waitati extending up to the summit of Cargill, as yet unbroken by a clearing. From where we stood we could see the saddle leading over into the Leith Valley, and it appeared to be much lower than the one over which the North Road passes. Will the day ever come when we shall see a railway line running across to Dunedin from the north? The country all round looks very difficult, and the section from Waikouaiti to town will be a very expensive one.

After having thus examined the prospect we prepared to return, and made our descent by the other side of the hill, up which there ran a long outlier from the great forest below. For the purpose of ascertaining the nature of the vegetation, we crossed this patch of bush, and found it a very tough job. The large trees had been felled long ago and a dense growth of veronica and kakomoka scrub has filled its place, through which it was almost impossible to make headway. We expected to find water in the gully, but in this we were disappointed, as it was quite dry, in common with many other similar places at the time. We found nothing particular in the bush, and proceeded down the hillside to the spot where we had left the stones.

Before leaving the locality we searched about among the other blocks to see whether any indication of the sort of tree could be made out. One block we turned over had very much the appearance of a piece of weathered broadleaf; while the fractures of another looked like red pine, partially rotten. But all the bits had been too much knocked about for us to ascertain anything precisely. So we stowed away our specimens and took the downhill road again. One large block was very securely, to all appearance, fastened on the saddle on the back of the horse, but after we had got about a mile down the road we stopped at a creek to get a drink, when we discovered the sharp edges of the stone had cut the flax and it had dropped off among the long grass, no one knew where. We soon made our way back to the hotel at Waitati, and after a little delay got our machine ready and started on our return journey. The evening ride was very pleasant, and we had a good look round at the country, and plenty of time to look at and speculate about the state of the crops as we leisurely toiled up the long hill from Blueskin. There are so many turns and twists on the road that it looks as if it had been laid out expressly to lengthen the distance from town, and afford travellers so many more views of what is certainly a most picturesque district. The part of the road which comes along the back of Mount Cargill, from the saddle between it and Mihiwaka, has perhaps as fine a look out as any similar stretch of road in the world. At this time of the year, too, the bush is very gay, the trees, high and low, being covered with a rich profusion of blossom, among which the bright star-like flowers of the clematis are the most prominent. When we got to this side of the hill, the view of Dunedin from the head of the North-East Valley was very grand. We soon rattled over the remainder of the road, arriving home shortly after six o'clock.

PAKEHA. November 12th, 1870.

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from *Otago Daily Times* 15 December 1870, reprinted *Otago Witness* 24 December 1870

RAMBLES ROUND DUNEDIN
THE PENINSULA, SANDFLY,
SEAL POINT, GULL ROCKS, ETC.

Some years have passed since the writer first endeavoured to reach the above district, which he did by way of Tomahawk and Highcliffe; but after losing his way and floundering about in the thick bush on the

top of the hill, he was glad to return, without success. Since then, want of time and other circumstances have interfered to prevent him from renewing the attempt, till the other day, when he tried—and succeeded. At the former time there were no buses or other means of assisting a traveller in getting over the ground; but now, by the aid of Garside's bus, he is saved a long and weary tramp round the head of the Harbour, as well as that very fatiguing part of the road up to the top of the hill beyond Anderson's Bay. It is a pity, however, these buses are not better patronised than they are, for on the occasion referred to the writer was the sole traveller. So, with all the accessories of a fine morning, good roads, and feeling perfectly fresh for his work, PAKEHA started on his task.

Having got fairly on the way, things began to be very enjoyable. When the ridge was crossed, the long range of Otago harbour came fully into view. From Black Jack Point out to Taiaroa Head, the whole north side of the Bay came under the eye. Some small craft moving about gave animation to the scene. For several miles there is a very fine succession of prospects, the road attaining a considerable elevation over the sea below, and commanding all the district, and the air being clear, everything was distinctly seen. On some of the clearings a large amount of labour must have been expended in order to bring them to their present state of fertility. Near where the road reaches its highest point, an instance of the damage done by the late bush fires was passed. Some trees had been set on fire on the lower side of the road, and the flames spread considerably, burning fencing and other things; then crossing the road, the fire communicated with the trees there, destroying a quantity of wood, a large barn, and the material of a new house, which was stacked on the ground. Even a thorn fence was consumed, a stretch of it being burnt off quite close to the ground. From the appearance of the charred timber, the road must have been totally impassable for several hours.

Another result of the late warm weather was very apparent on the road. There was no water. All the springs and little creeks were completely dried up, and not a mouthful to be had. It was not till well over on the Portobello side of the hills that a running spring was met, and very cool and refreshing it proved. A neat little church is passed at this point, then a house or two, and turning abruptly to the right, the main road is left and the road to Sandfiy taken. This latter leads down the hill about a mile or so towards the sea, but a slip panel in the fence leads off to Mr Robertson's place, which was soon reached, and a hearty welcome obtained. After the inner man had been refreshed and a rest had, Mr R. and the writer started out to see the many objects of interest in the neighbourhood. But as business must go before pleasure, Mr R. had to look after the starting of a flax mill he has recently set up, there being plenty of fine flax growing on his property. The mill is situated on a small stream a short distance from the house, and is driven by an overshot wheel of 14 feet diameter, the water proceeding from a dam a short way up. The mill is one of Wilson's, Dunedin, but the wheel, driving pullies, framework, &c., were all made and put together by Mr Robertson and his sons; and the flax is also gathered, milled, scutched, washed, &c., by the family, thus giving a good example to many of the settlers in various parts of the province, who could thus utilise the flax instead of burning it off, as is usually the case. The mill turned out the fibre pretty much as that sort of machine generally does; but I observed that instead of taking the bunches off to the washing place as they came from the machine, they were subjected to a sort of hackling, by which a good deal of the straw is removed and the ends left clean and tidy. I was also shown a process by which a considerable portion of the tow, nearly 50 per cent, was saved. The tow which is produced in the scutching process is usually sent to market just as it comes from the machine, and in this state it fetches a low price; but by this process a large quantity of beautiful fibre, nearly as fine as other flax, is produced. The tow is simply hackled, and the operation is so simple that it is worth trying by all concerned. Some other processes connected with the preparation of the fibre are being experimented on, but they are not yet complete enough to stand explanation. His method of cutting the flax leaves is also worthy of imitation. Instead of cutting away the whole plant, leaving nothing but the roots, the outer leaves only are removed, the young ones in the centre being left untouched. In this way a second cutting is

secured in a very short time. After looking at the machine and observing its mode of working for a little, we turned down the gully and up the opposite bank, then over a bit of rough ground, and we were in the open. The whole Sandfly district was now in view, extending from the perpendicular rocks of Highcliffe to Sandymount. The district is a very fine one, consisting of gently sloping spurs running down from the main ridge towards the sea. We proceeded along the coast till near a long extent of sand-dunes, which cover a large flat, reaching from the sea inland for a great distance, till checked by the rising ground on both sides. Most of the sand is quite bare, but some of the hills seem older than the others, as they are covered by a thin sprinkling of a coarse sort of grass.

After examining some rocks and gravel deposits in this direction, we turned, and retracing part of the way we had come, turned down towards the sea. There is a small inlet here, which is used as a boat harbour occasionally in severe weather. It is rather difficult of entrance, but is quite safe when inside. However, it was the scene of a very melancholy accident some two or three years ago, by which four fishermen were drowned. They had put in for shelter from a nor-easter, and on going out again by some means they had not looked out properly, for one of those treacherous rollers which tumble in on our coast two or three times in a tide caught the boat and it capsized, throwing the crew into the surf. Only one got out alive, the other four were drowned; and neither the boat nor the bodies ever came ashore.

The rocks on this part of the coast are all volcanic, very rough and sharp, dark in colour, and generally contain other minerals, small quartz crystals, fragments of chalcedony, &c, imbedded. They are nowhere very high above the water, and generally slope gently down from the high ground at the back and end in a low broken precipice. Some of them form low promontories, with deep gullies between, into some of which the sea runs a long way. One of these gullies has evidently been at one time a perpendicular seam of soft clay of very fine quality, nearly all of which has been washed away by the action of the waves, and the cavity remains open, a deep narrow recess, quite inaccessible without the aid of a rope.

Seal Point was the next object of examination. This consists of two promontories, one running out a little further than the other. When we were there the tide was low, and we were able to walk out a long way on the south rock, and had a good look at the heavy surf pounding away on the bluff face of the other one. The water is there deep close to, and the waves come up solid and dash themselves against the hard face with tremendous violence, sending clouds of spray up in the air twenty or thirty feet high. When a storm has blown home on the coast for a day or two, the scene here is indescribably grand, and can only be witnessed in safety from the hill at the back.

We turned back to the beach and explored some of the pools left by the tide. Some of them contained many varieties of animal life—from the zoophyte to the fish. After looking about a little we found a fine echinus in a nook among the rocks, some shells of various sorts were picked up, and some actinias of large size were noticed. A curious dyke was observed running away inland among the rocks, of a very different nature from the others, but no indications of minerals were seen. Climbing up to the grass again, we took our way along the coast, until the cliffs round Sandfly Bay were reached. Here we had a grand view of land and water. But time was running on, and moving away from the sea we proceeded through several paddocks, in which there was plenty of fine grass, rousing numerous rabbits as we passed along. These animals are thoroughly acclimatised in this quarter, and are of all colours and shades from black to white. They have increased considerably of late, though wild cats help to keep them down a little. A few are shot for the market and the table now and then.

It being now well on in the evening, we turned towards home, and arrived there in good time for tea, with appetites well sharpened by our long seaside walk. Next morning, after an early breakfast we started off to explore the recesses of Sandfly Bay. The track leads along by a sort of sheep-path on the top of the precipice, until a point is reached where the sand from the beach below has been blown up against the rocks, so that an easy passage is formed to the

water's edge. After examining the rocks, which, are black, hard, and contain numerous small, white pebbles, we proceeded along the beach towards Sandymount. No shells were to be found worth picking up. Indeed the only ones seen were a broken mussel or two, and the odd valve of a mactra.

On arriving at the other end of the bay, a thorough examination was made of a loose mullocky formation which is there exposed, for the purpose of seeing whether there were any fossils about. At the house I was shown some very pretty shells which had been found at this point, cardium, venus, &c.; but though we were very careful our search was not successful. We then climbed a short way up the rugged side of the hill, and had a good look at the Gull Rocks—two isolated stacks a short way out in the water, evidently a continuation of the rocks on which we stood. The sea was breaking high up the exposed sides and a great number of birds were flying about. The biggest rock has a grey venerable appearance from the quantity of guano which is deposited there by the birds. There is a third rock a good bit farther out, but it is low, and the waves break freely over it. After admiring the view from this point we turned again to the hill, and climbed up to the top of a narrow ridge, from which we looked down on a small bay, with perpendicular rocky sides, perfectly black, the contrast made by the snow-white surf dashing against the stones at the bottom being very marked. The view of the coast away south from this point was fine and extended to Cook Head, beyond Wangaloa. Taieri Beach and Island, the Green Island Peninsula and the white cliffs adjacent, were all in sight; while the whole of the elevated region of Highcliffe, from Tomahawk reef round, could be seen at once. We had intended to make the top of Sandymount from this point, but time would not permit, so we turned along the hillside to examine a drift bed, where some peculiar stones are to be found. On our way we had to pass some dense patches of scrub, so closely intertwined that it was quite impossible to force a way through. They were as smooth on the top as if they had been cut by a patent lawn-mower—a result of the constant, keen sea breeze. If we could have rolled down over the bushes, a considerable distance would have been saved; as it was, they were too weak to bear our weight, the leg sinking through, so there was nothing for it but to go round. Of the many pretty plants growing about, two must not be forgotten—one, the *Pimelea prostata*, which was in full flower, and growing in great abundance; the other is a very rare plant, the *Ozythamnus microphylla*, also in flower, a most singular production of nature, having no apparent leaves.

In making our way across the sand banks towards the drift-bed alluded to, we passed some very curious places. One in particular merits a word or two of description. It was a gully, down which came a small stream of water from the high ground farther inland. Beginning in a small flat, enclosed between high banks of loose sand, with long patches of water running slowly on the smooth bottom, alternately appearing and disappearing as the sand got firm or loose, the banks grew closer and closer, until there was only room at the bottom for the stream, which then ran prettily over loose black stones. Sticking out of the banks and strewing the bottom, were quantities of dead wood, showing that the ground must have been covered with scrub and trees before the advancing sand buried the surface to its present depth. From this point the gully ran up a steep incline, until lost in the scrub on the hill above. We then turned, and climbing up the loose bank, crossed over sandhills until we reached the foot of the drift bed, a steep stony slope, up which a thin stream of sand is being continually driven by the prevailing S.W. winds. The stones on this slope had all a peculiar glaze on their surface, as if they had been covered with a thin coating of metal, and glittered in the sunlight in a very singular way. Among them I found a few of those strangely shaped fragments, which have been taken for arrow or spear heads, the work of the Maoris, but which are really due to the cutting action of the sand, as they had the same peculiar polish on them as the larger stones lying about. Of the stones of which we came in search we found a few. They are curious little things, white like quartz, very hard, many of them hollow—one indeed floated in water—while others appear as if they had a small globule of water inside. They appear to belong to the class of minerals termed "geodes," and have been weathered out of a soft stratum of rock which is now covered by the sand.

After satisfying our curiosity on this question, we climbed up to the top of the bank, and took our way along Sandfly Bay in a direction further inland than the way we came. This gave us a good opportunity of observing the damage which is being done to the adjacent sections by the incursions of the sand. This, unfortunately, is being very much helped by the mismanagement of the neighbouring settlers, who, instead of nursing and encouraging the growth of grass and other vegetables on the sandhills, actually keep a number of cattle trampling over the loose surface continually; and not only that, but also burn off the grass and scrub, whenever they get a chance. A process more mischievous and detrimental could hardly be carried on, as the settlers on the inner side of the sandhills will very soon find out. Indeed, already the sand is encroaching on some of the clearings, and will continue to do so more and more unless means are adopted to consolidate the sand by means of growing some of the grasses, and so forming a sort of turf.

The central portion of Sandfly Bay was at one time an extensive flat, with a marsh and a small lagoon in the middle. But marsh and lagoon have long since disappeared, the sand is gradually encroaching on the level space, and in a few years it will be reduced to the condition of the gully already described—a narrow hollow with a small stream of water trickling down the middle. Leaving the flat we proceeded up a long smooth slope, being a bank of sand which lies against the line of precipices which at one time bounded the southern side of the bay. The sand comes right up to the grass and is of a depth ranging from 70 to 100 feet, extending inland from high water mark for about a quarter of a mile. We here left the sand altogether, and taking the nearest track through the bush to the house, arrived there with a very sharp appetite for dinner. I had rather overstaid my time among the sandhills, and as I was very desirous of reaching town early, my host very kindly accommodated me with a horse, and although a very indifferent outside passenger, I was enabled to get over the main district road to Anderson's Bay, and thence to town in good time, having spent my two days' sojourn among the sandhills with very great pleasure.

Nov. 29th, 1870. PAKEHA.

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from *Otago Daily Times* 27 January 1871, reprinted *Otago Witness* 4 February 1871

RAMBLES ROUND DUNEDIN
THE GORGE OF THE LEITH

Till within a few months ago, ramblers in this direction used generally to turn when Douglas's clearing was reached, and either retrace their steps to town by the way they came, or by crossing the ridge to the south get back to town by the Waikari road. If, again, the rambler was one not easily turned by a few difficulties, he might endeavour to work his way up the gorge by the bed of the stream, or by taking a surveyor's line which penetrated the bush there. But this was a task of such difficulty and labour, involving an immense amount of scrambling and climbing up and down, as well as the necessity of crossing and recrossing the river every now and then, that even the very boldest seldom made more than about a mile or so. It was very few indeed that ever made the foot of Morrison's Creek—a tributary that comes down off the Flagstaff ranges to the west. The whole of the valley is very picturesque, the scenery very often approaching the grand; and those who did encounter the labour of travelling up the valley were rewarded by beholding many a bit of rare beauty along the banks and in the deep recesses of the forest stream. Now, however, all this difficulty and labour have vanished, a fine road has been cut all the way up the gorge to the great flat which lies to the north of Mount Cargill, thence over the saddle and down the valley of the Waitati to the village at the head of Blueskin Bay. That this will become a favourite walk there can be no doubt; already it is being frequented by those who do not mind walking a mile or two, and there are not wanting evidences that the great game of life—love making—has been there carried on. Indeed, judging from the names written on the stumps and fallen trees lying about, not a few couples have taken advantage of the new track to saunter on, whispering their soft nonsense to each other.

With the view of making the track a little better known, and of pointing out a few of

the more remarkable spots on both sides as we ramble slowly up, these lines are penned. Presuming that the reader has already traversed the space between the mills and the clearing already mentioned, he will observe that the road inclines to the left, up the hill, past the house. Instead of doing that, however, let him turn to the right along the flat until a fence is seen. Passing through this by a slip panel, he will find himself on the track. For a short way in the road is pretty well overshadowed by trees, and he must not be discouraged if the first hundred yards or so prove rather wet and soft, but immediately the first portion is left behind, the road becomes dry and pleasant, and the prospect one of very great beauty indeed. The bush has been felled towards the river, which runs from 20 to 70 feet below, so that the view is uninterrupted by trees overhanging the path, and the eye finds plenty to look at on both sides. At first the path runs along the west bank, and the prospect presented by the opposite hill is very fine. Though almost perpendicular in many places, the hill is covered by large trees, so that only two spots are left naked, and these are places where the rock is too steep and smooth for the trees to grow. The variety of vegetation, too, is very marked. Nearly all the trees of the district, large and small, may be found here. In the early summer, when the kowhai is in bloom, and a little later, when the clematis covers every tree nearly with its bright white five-rayed stars, the hill is very gay. Even now—January—the convolvulus, with its white bells, makes the usually sombre foliage of the forest look really quite lively. Proceeding on for about half-a-mile, the path crosses Nichol's Creek, a small clear stream from the north side of Flagstaff. The scene here is very pretty, and the locality is further remarkable as being a famed spot for ferns. The vegetation on both sides of the creek is very dense, therefore favourable for the growth of those beautiful plants, so that many varieties are represented. The common tree fern—*Cyathea Smithii*—is plentiful, some of the specimens running up to a height of 20 feet or more, while some of the more humble members of the family cover the ground or the trunks of the trees. The *Aspidiun, Asplenium, Lomaria, Polypodium*, are numerously represented; while of the *Hymenophyllum* tribe many members are present. During a very brief search there were found *H. demissum, scabrum, bivalve, rarum, dilatatum, pulcherrimum, flabellatum, tunbridgense,* and *unilaterale,* as well as several others about which we were not quite sure. There are also large numbers of beautiful mosses and lichens. A short way up from the foot of Niohol's Creek the road bends slightly and then crosses the river. The view, looking up the stream at the crossing, is very lovely, and would make a fine picture. The path is now on the eastern bank of the river, and the view takes in the opposite range of hills. A large creek joins the main stream here, coming down from the north side of Pine Hill, through a densely-wooded gully—so thick, indeed, are the trees, that the water cannot be seen, only heard. The creek itself may be reached, and its recesses explored, by striking up to the right over a low spur, near the ford. Away above this the view is very magnificent—trees, rocks, and water. Turning to the river-bank again, and resuming the path, it begins to rise slightly, until about fifty feet or so above the stream, which level it keeps for some distance, until a rocky spur is rounded. The path is here rather rough, but only for a short distance. From the point of this spur, looking down the gorge, the view is magnificent. A little way further on, Morrison's Creek joins the Leith from the west. The path is here carried along the side of what must have been a moraine at one time, being composed of rounded blocks of stone of all sizes, pushed forward by a glacier which filled the opposite valley. The whole ground here is covered with very heavy timber, mostly pines. Cedars, however, make their appearance now, some of them very large. One tree, a very big one, which stood at the lower end of a long spur, has unfortunately been cut down in the process of clearing the line. It would have formed a noble landmark in the valley had it been left standing. On the stump and the end of the trunk, there have been inscribed a good many names and initials. I wonder who L.E. and his "dear Lilly" may be? as an inscription intimating the interesting fact of their visit to the locale is found on the tree.

After passing this point, the road bends a little to the right, and then approaches a spot, to reach which used to involve some three hours or so of weary, hard, fatiguing walking through the bush. It is one of the few places in the district where that beautiful fern, the *Gleichenia Cunninghamii*, is to be found. On approaching the edge of the rocky trough in which the river here flows, the fern will be seen growing on the perpendicular side from the top to the bottom. Considerable difficulty will be found in procuring good specimens, on account of the wood which was cleared off the road having been flung pell-mell into the bed of the river, and so preventing anything like easy access. But by reaching over a specimen may be had, and is worth preserving as a beautiful souvenir of a visit to the spot.

Some distance on from this the road and the river part company— the river bends away to the left, while the road inclines to the right, and enters on a long level stretch of country, very wet and boggy at times. At the beginning of this level an enterprising pioneer of civilisation has settled, built himself a house, cleared away a small patch of forest, and has planted a garden, as well as sown down a piece of land in oats. All honour to his pluck and perseverance. Some distance beyond this clearing the road crosses a small creek, and winds away along the flat towards the saddle. At the spot where the road crosses the creek, a fine specimen of the *Olearia ilicifolia* has been cut down, but is sending out some fine strong shoots again. A number of other plants are to be had here, of more or less rarity, as well as several ferns, particularly that fine one the *Leptopteris superba*. The *Hypolepis millefolia* and *Polypodium rugulosum* are also plentiful near the creek. Both sides of the creek are well worth examination. In the bush, a little way off the roadside, there are many fallen trees, testifying to the violence with which the winds sweep over these hills at times. But the afternoon is rapidly running away, and after a short exploration of the bank at a bend in the road a little distance up the creek, the homeward course is taken, and after a smart walk of an hour and a half, reach the northern end of George street. The above is a mere outline of what is to be seen in this beautiful valley; and all who are fond of a pleasant walk in the midst of picturesque scenery, will not regret a visit to it.

January 1871. PAKEHA.

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from *Otago Daily Times* 24 March 1871, reprinted *Otago Witness* 25 March 1871

RAMBLES ROUND DUNEDIN
OVER THE FLAGSTAFF RANGES TO BLUESKIN

Previous to the cutting of the North Road, over the eastern shoulder of Mount Cargill, via Mihiwaka, there was no other way of getting from Dunedin to any of the northern parts of the province—except by sea—but by the old track over the hills. The broad belt of bush which covered all the district immediately to the north of Dunedin, as well as its hilly nature, effectually prevented all intercourse between the capital and the northern districts, except in the ways mentioned. Travelling in those days was no easy matter, and very different from the smooth roads and easy running coaches of to-day. Even to reach Waikouaiti involved a laborious and in some respects dangerous ride of over 30 miles, along a series of ridges rising upwards of 2000 ft. above the tide. From their contiguity to the sea, and their almost peninsula character, the Dunedin group of hills is peculiarly liable to be covered by fog, which comes on very suddenly, and this constitutes the main source of danger in crossing this range of mountains. In travelling between Waikouaiti and Dunedin, it was usual to rest at "The Clump of Trees," an isolated patch of bush lying some distance to the north of the main bush which fills the valleys of the Leith and the Waitati. "The Clump" bears the character of being a sort of botanical "centre," as some rare plants are to be found there. It was to secure some specimens of these that the writer, and a mate, some days ago, undertook the journey, of which the following paragraphs are a few rough notes.

We left town about 9 a.m., taking the track over Maori Hill, by the Waterworks, and so on up to Ross's, and then through the

bush to the top of the hill. By taking this line, instead of going round by Halfway Bush, &c., we saved at least a couple of miles, and had the advantage of a much prettier and more interesting road. The day was one of the finest of the season, though the heat was felt rather strongly at first, until we got into the shade of the bush near Ross's, where we sat down and had a rest and a refresher by the side of a creek whose waters were pure and delightfully cool. A track leads up either side of this stream, and we chose the right hand one, as being the one which tended most in the way we were going. The ascent is rather stiff and the footing not the most pleasant, but we soon got over it, and on emerging on the open land above the forest found a fine cool breeze blowing that very much tempered the fierce rays of an almost vertical sun. The land here is covered with a strong growth of flax, among which we found growing in great plenty that fine fern *Hypolepis millefolia*. *Pteris scaberula* was also present, and we also secured some fine specimens of *Alsophila Colensoi*. From the edge of the bush at this point we took our way across a very rough, stony tract, overgrown with thick flax and scrub, when we inclined to the right along the clear open land of the hill top, until we found ourselves on the district road which has been recently formed by the local Board. It does not at first appear what could be the good of forming a road at such an elevation, for it is full 2000 feet above the sea where we struck it; but it is largely used by the settlers in Whare Flat and vicinity for the purpose of drawing their supplies of fencing, &c, from the bush on the other side of the hill.

Along the road our course was easy and pleasant, and we made rapid way, very soon reaching its present termination in the saddle between Morrison's creek and a small stream running into Whare Flat. The track at this point dips considerably, and then rises over the eminence to the north. The Flagstaff Range is now left behind, and the hill in front is Swampy Hill. Previous to tackling it, however, we thought it desirable to look after the wants of the inner man; so diverging a little to the right we soon found a cool shelter under some bushes by the side of Morrison's Creek. Here we had our next halt. After refreshing ourselves, and feeling very much the better for the rest, we started again, and soon reached a point from which we had a magnificent view—both north and south. Below us, to the south and west, stretched the Taieri Plain and the hills which surround it, the Waihola Lake glittering in the distance, while beyond it again could be seen the ocean, dimly through a haze. Turning round, through a gap between Mount Cargill and Mihiwaka could be seen a part of the Lower Harbour and the great sandbank near the Heads. Beyond, but more to the left, lay Blueskin Bay, and the ocean outside, with all the wonderful groups of hills, range after range; away to the north and west. Among the patches of *Cassinia* scrub which clothe the slopes in this quarter, we found some specimens of a rather pretty *Ranunculus*, and here and there, both in patches and isolated plants, we found plenty of that pretty shrub, the *Veronica vernicosa*. Proceeding onwards, over a series of undulating ridges, we found the walking remarkably easy and pleasant, quite the reverse of what we had been led to expect, Swampy Hill having been held out to us as a regular Hill of Difficulty. The excitement of being on new ground, the fine day, the cool breeze, the magnificent prospect which surrounded us, all combined to render the walk across this range one of very great pleasure indeed, and put fatigue quite out of the question. We made rapid progress, and soon arrived at a spot where there was an outcrop of rock, from which the land fell away rapidly with a grand sweep right down to Blueskin. Hitherto the ground had been perfectly dry, and the *why* of Swampy had been once or twice raised. But looking away northward along the range from this point, we noticed several patches of more or less vivid green before us. Numbers of cattle, large and small, were feeding about, and we observed that they had all a sleek, well-fed appearance, bearing testimony to the excellence of the feed. From the rocks, we struck away to the left, and very soon reached the edge of the nearest of the green patches. We found this to be one of the swamps we had heard so much about. But far from its being a difficulty, it was rather a pleasure to walk upon. It was like walking upon a large wet sponge, soft and cool to the feet, which sunk in it only a little way. With

the exception of a piece in the middle, where a black mud was apparent, we crossed with the greatest ease. These swamps, of which we had to cross several others, are rather singular in their way, not being basins, as we expected, but gently sloping portions of the hill-tops. They are grown over by a thick carpet of light green moss, which retains the water very much as a sponge would. From the lower edge the water trickled away to the nearest hollow or gully, to form one of the many tributaries of the Leith or the Waitati. Here and there on the rises we passed quantities of dead wood, which had long lain exposed to the weather, evidently remains of forest which must have covered the whole hill at a former time. At one place there is the appearance as if there had been a small clearing of an irregular rectangular shape, the trunks of the trees lying in different directions, but all very old, the grass having quite a different colour from the rest of the land. The vegetation was pretty rank at times, but not so as to interfere with free locomotion.

By this time we had got well over towards the north side of the range, and began to look out for our destination; but seeing no bush or trees in the distance, we looked down on a gully which seemed but a short way below on our left, and which was clothed with bush on both sides. Thinking this a likely place for ferns, we proceeded down the side of the hill, thinking we should reach the gully in a few minutes. But distance on these ranges is very deceptive: everything is on so large a scale, and the air is so pure, that what we thought only a short half mile off, and 300 or 400 feet below, turned out a long mile and over 1000 feet. When we got down we found a very rough bit of country indeed, and soon wished we had kept to the ridge. Some short time before a heavy land-slip had taken place. The soil had broken away from the bed-rock and slipped down the steep face of the hill with immense force, carrying everything before it—trees and boulders, and masses of clay, were all huddled together pell-mell at the bottom. We tried to get into the bush, but were completely beaten, the thicket was too dense, and the trees had been so mixed up with the undergrowth (mostly *Aspidium aculeatum* and the lawyer, *Rubus australis*), that it was with difficulty we got back to the bed of the creek again. We found the rocks exposed to be schist and large boulders of conglomerate, composed of quartz pebbles of various sizes, some of them being beautifully white and clear. Leaving this rugged locality, we struck off in an easterly direction along the flank of the hill, in order to regain the ridge. All the ground hereabout seemed to be in motion. Every few yards we came to a crack, more or less deep, some of them filled with water; and we had to exercise some care and to expend some strength in jumping across. In some places the ground had slipped away in long slices, leaving a perpendicular bank; while at others it formed knolls of more or less height, as well as producing swamps and lagoons of small size. We were not at all sorry when we found ourselves on the ridge, and our view extended on all sides again. This little detour just cost two hours. Once on the hill top, all was plain sailing, and we proceeded merrily on for a considerable distance. Away ahead of us we could see plenty of bush, but there was nothing which might be called a "clump," so towards the trees we directed our steps. We crossed a wide flat, which from a distance had a peculiar colour; this we found to proceed from the moistness of the ground. Though quite passable at present, in winter this must be a very difficult place to get over. There were plenty of cattle and sheep grazing all round. The edge of the bush was, as usual, very thickly grown over with flax, though it was nowhere very tall; but we soon worked through, and crossing a small gully, found ourselves in the shade of the trees, mostly cedars. After resting a little, we proceeded to ascertain what ferns were to be met with. The bush was very thick, and much encumbered with fallen trees, and at first we did not find anything of much note. But after getting a little further in, we came across some large specimens of *Leptopteris superba*; on the trunk of a fallen tree some tufts of *Hymenophyllum tunbridgense* and *H. unilaterale*; some fine *Gaultherias* were growing here and there, as well as some shrubs of the myrtle family; on a cedar trunk we found a large colony of *Hymenophyllum multifidum*; but beyond these there was nothing out of the way, or which we could not have obtained

considerably nearer home, on the other side of Mount Cargill. Wriggling our way out of the bush as we best could, we addressed ourselves to the road again, and after turning the end of the trees, round a little hill, found, right in front of us, the Clump of Trees, whare, stockyard, and all, just as it had been described by one who had not seen it for many a long day.

We immediately pushed our way in among the trees, and commenced looking about us. But sad was our disappointment. There was nothing to be found more than we had got in the bush we had just left. We separated, and worked through to the clear in different directions, but neither found anything worth noting. Outside, among the flax, I found *Pteris incisa*, of a rather peculiar form, and in very good order. *Alsophila Colensoi* was plentiful, as was also *Hypolepis millefolium*. An Asplenium was said to [be] abundant, but though we looked hard we saw none. The "Clump" is somewhat triangular in shape, and we met at the apex, both rather crestfallen at our nonsuccess, but we sat down on the braeface and consoled ourselves with the remains of our refreshments.

It was now five o'clock, and we had still a long way to walk before we could reach the inn at the Waitati township, so we started off at a good pace, our next landmark, Double Hill, being straight before us. We soon fell in with a beaten track among the grass, and we trotted merrily on, keeping the track, although I thought it led on the wrong side of the hill just named. But imagining it would save some time we stuck to it until it gave out at a fence. This was no obstacle, and after crossing a piece of cultivated land, and another piece in the process of being cleared, we reached the edge of a gully, on the farther side of which there were more clearings. This gully was filled with dense bush. The big trees had all been removed long ago, but the scrub and branches were all there, and through and among them had grown up a thick undergrowth of *Veronica salicifolia* and lawyers, that made us wish ten times we had rather gone round the north shoulder of the hill. However, it would not do to turn, so we went at it, and by a process of worming and climbing, after endless huggings and scratches from the tenacious *Rubus*, we emerged on the clear, breathless, hot, and tired. From this point our way was easy plain sailing, and all down hill, reaching the Waitati Hotel at seven o'clock. Here we ordered tea, and not knowing of any opportunity of getting to town, and being too tired to think of walking the 13 miles, had made up our minds to stay all night. But just as we were beginning to discuss the good things of mine host Souness, a coach rattled along the road and drew up in front of the inn. We at once made the necessary enquiry if we could be taken on, which being affirmatively replied to, and a promise made to wait a few minutes for us, we soon were ready, and shortly were bowling away for town, which we reached at 10.30, not a bit the worse of our long tramp.

PAKEHA February, 1871

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from *Trans Proc NZ Inst* Vol 4, 1871 pp219-223

A ROCK POOL AND ITS CONTENTS

Read before the Otago Institute, 18*th April*, 1871.

FROM some remarks made by our vice-president about the wants in our local museum, and the difficulty of getting them supplied, I am inclined to think that the best means of doing so, as well as an excellent means of making our members practically acquainted with out-door science generally, would be by the establishment, in connection with our Institute, of a Field Naturalists' Society.

Such associations are not unfrequent in the home country, and have proved of considerable benefit, not only to the districts in which they labour, but to the members themselves. They generally meet once or twice a month during the summer, and fix upon some locality over which to extend their researches, the scene of the next excursion being generally fixed before the breaking up of the last one. During these excursions each member is free to follow his or her peculiar branch of study. While one may push his way into a thicket to look for some fern or other plant, another may have come provided with net and other apparatus for catching moths, butterflies, or

other insects. Another, again, may have found the outcrop of some rock, and, with hammer in hand, will go chipping off specimens; while another still may explore the thick bushes for birds' nests, etc.

It is rather late in the season now for initiating such a society as that proposed; but even yet a good deal may be done. At all events the society may be organised, so that work might be begun at any time. There are numerous localities round about Dunedin which abound with interesting objects of every kind. I need only mention the shores of the harbour, the ocean beach, the valley of the Leith, the Pine Hill bush, Flagstaff, etc., to show that a Naturalists' Society has plenty of scope for variety of study. By way of illustrating what may be seen in a very small space, I venture to lay the following remarks before the Institute, premising that they were written several months ago.

It is a well-known fact, that though all men have been provided with eyes, it does not follow that they all make the same use of them. Some men walk through the world with their eyes pretty widely open, yet after all they see very little; while others are perpetually finding something to interest them. It is given to some men to be curious or inquisitive, not to be content with merely looking at a thing; they must see into it, see what sort of a thing it is. Other men are content with knowing that a tree is a tree, a rock a rock, and so on. Place two men on the sea beach: one sees only tumbling water on the one hand, and rocks or sand on the other; while the other sees a difference in every wave that comes rolling in to his feet—its force, its colour, its height, are all noted; while the sand tells its story of pounded shells or disintegrated rock. It is with the view of noting what may be seen by careful and minute observation, even in such an apparently trifling thing as the subject of my remarks, that I proceed to tell of what may be found in one of the most familiar objects that meet the eye on the sea-shore—a Rock Pool. I may say that the idea of writing this paper occurred to me during a recent visit to the Heads, in company with one of those men who have not the faculty of observing.

We were standing on a low point of rock looking at the ebbing tide rushing past, when he complained of weariness, and there being nothing to see. Against this I exclaimed, stating there were thousands of things all round us well worthy of study, and, casting my eye around, fixed on a little pool at our feet as an illustration. My friend was rather startled when I made him sit down on the rock beside me while I tried to describe to him the microcosm contained in the little pool of water left by the tide. It was a depression in the surface of a flat piece of rock, about two feet or so above low water mark, about fifteen inches in length by eight or nine wide, of an irregularly oval shape, and might contain two or three gallons of beautifully clear water.

The first feature noticeable was that the pool was fringed with vegetation, and on a narrower inspection there were found three distinct sorts. The first and most beautiful was a bright green broad-bladed plant—the green laver—which belongs to the class of Chlorosperms; there were also some tufts of a grassy looking plant, belonging to the same class. In the darker nooks grew several plants of a hard tough texture, of a dark red colour, belonging to the Rhodosperms, not unlike the dulse of the old country, but harder and not at all palatable. There were also some tufts and patches of that common and very pretty plant, the Coralline or Rosetangle, a plant which is more than one half lime. It was also observed that on the borders of the leaves of these plants there were crowds of little globules of air—this being oxygen gas, which the plants elaborate from the carbonic acid given off by the animals which lived in the pool.

Carefully removing some of the vegetation, so as to allow of more light getting into the water, we disturbed a small brown fish, evidently a member of the Goby family, from its bluff-shaped head, and from a habit of attaching itself to the perpendicular sides of the pool, the ventral fins being shaped something like a sucker. The little fellow eluded capture very cleverly, and glided hither and thither until it was finally lost in a dark nook at one end.

Below the weed at one point there was a colony of those pretty animals the *Serpulæ*, which live in calcareous tubes, twisted like a snake. They are annelids, and have a number of beautiful feather-like tentacles round their head, protruding from their shell, by which they grasp their prey. One of these tentacles is swelled out, and placed on a slightly longer stalk than the others, and forms a sort of cork, by which the animal shuts itself into the shell when alarmed. The *Serpulæ* are said to have no

eyes, but they must have something which serves them quite as well, for if the hand is drawn quickly across the surface of the water so that the shadow falls upon them, they instantly disappear. After waiting a little the cork will be seen to protrude, slowly followed by the rest of the organs.

There were plenty of the common Barnacle in the pool, the rock being studded with them here and there. They are cirrhipeds, throwing out a number of bent arms covered with fine hairs, placed something like the fingers on one's hand; these they are constantly opening and shutting, of course conveying to the stomach whatever articles of sustenance they may happen to inclose.

Adhering to the rock were some small molluscs, much resembling a *Nerita*, and one Limpet (*Patella*). These are gasteropods, and creep over the rocks on a broad foot; their mouths are furnished with a very peculiar tongue, rough like a file, and with it they scrape the surfaces of the rocks and plants as they travel hither and thither, so keeping down the growth, of plants, which would otherwise fill the pool to the exclusion of all else.

Carefully lifting and turning over a stone which lay at the bottom, quite a crowd of crustaceans was discovered. However, they mostly scuttled away so rapidly that they were lost sight of; but one sort remained: this was the Porcelain crab, of which there were several specimens. These crabs are very peculiarly constructed, and are so named from the under sides of the bodies resembling porcelain. They mostly inhabit dark places, under stones, etc., and are armed with large powerful nippers, though they are quite harmless, and may be handled with impunity. These little creatures are wonderfully adapted to the circumstances in which they live. Their bodies are quite thin and compressed, so as to be able to wriggle themselves into any hole or under a stone, where they lie quite out of the reach of any harm. A very minute crab, with a carapace about the size of a pea, was discovered on the mud at the bottom where the stone had lain, and when taken out of the water was found to be a very pretty object, having light red legs; it was very active, and escaped back to the water again.

On examining the stone, its lower surface was found to be partially covered by a species of sponge, of a yellowish colour, rising here and there into tubercles, each of which had a hole communicating with the interior. Close beside the sponge were several small semi-transparent globules, evidently the ova of some animal.

Turning now to the other end of the pool, under the clear water were seen a number of those interesting animals, Actinias, which form a link as it were between the animal and vegetable worlds. They much resembled a small single *Chrysanthemum*, of a pale whitish shade, with here and there on the tentacles a bright red spot. Some of them were very little, not over a quarter of an inch in diameter, while others measured about an inch across. To test their voracity we dropped one of the *Neritas* on one of them, and though nearly as big as itself, it closed its tentacles on it, and soon gorged it out of sight.

There were several other singular organisms in the pool, particularly a long worm, with what looked like fringes on its sides, probably a *Nereis*; but as we had no means of carrying anything away for further investigation, it was impossible to say definitely what they were. Anyone who may wish to explore for himself in this direction should take with him a clear sided glass dish and a magnifier, and he will find plenty to interest, amuse, and instruct him in any one of the numerous pools on the rocky parts of the coast.

In recapitulating the contents of this little patch of water, it will be observed that we found representatives of all the great divisions of the animal world. Beginning with the lowest—the sponge, we have a member of the fifth sub-kingdom—the Protozoa. A stage higher and the *Actiniæ* represent the fourth—the Radiata. Then the Mollusca—the third sub-kingdom—are represented by the *Patella* and the *Nerita*; while the second—the Articulata—claims the various crabs, etc., and the highest—the Vertebrata—claims the fish.

Over this little pool my friend and I spent a very pleasant hour, and on leaving the spot he honestly confessed he had no idea that these pools contained anything but water; and said that he had arisen not a sadder but a wiser man. After all, I do not think I have mentioned more than half of what was contained in the pool; but have ventured to run the foregoing remarks together with the view of showing that even the commonest things are worth investigation.

Now to compare the contents of this pool with a similar one in the old country, I find that there is very great resemblance. The plants are nearly identical, the *Serpulæ* and the Barnacles are exactly so; the fish, or a near relative, the Blenny, would be sure to be found; while the *Nerita* would be represented by a *Trochus.* The Porcelain crab is the very same as the one found at home, both as to colour and size; while the *Actiniæ*, though differing in colour, very much resemble the *Actinia mesembryanthemum,* which studs the rocks so plentifully along the coast in the neighbourhood of St. Andrews.

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from *Otago Daily Times* 6 July 1871, reprinted *Otago Witness* 15 July 1871

RAMBLES ROUND DUNEDIN
UP A GULLY ON FLAGSTAFF

Any one looking at the eastern slopes of the Flagstaff Range from off the rising grounds in the neighbourhood, will observe that the surface of the hill is deeply scored by gullies, down which run the small streams that drain the swampy places and springs on the hill sides. The bush which covers the mountain to about three-fourths of its elevation being very dense, and the declivity being generally very steep, it is not every one who has the courage to face the difficulty experienced in penetrating the deep recesses, bold precipices, and tangled jungles of some of these watercourses. With the view of supplying a few particulars about one of these creeks, and describing a few of the chief points in the scenery and vegetation, so that any lover of the picturesque may follow in his footsteps, PAKEHA ventures to pen the following lines.

The creek he means to describe runs into the Leith about half a mile up the gorge from Douglas's paddock, and has been named after a settler (Morrison) who owns some land on the upper part of the hill from which the creek descends. Access upwards from the mouth of the creek appears at first to be almost a matter of impossibility, as it is completely covered over by a network of fallen trees, through which no one could penetrate; but by going back for a few yards, the obstacle can be turned, and after a rough scramble of a score of yards or so the bed of the creek can be reached. The first thing which is noticeable is the profuseness of the vegetation. Wherever a plant can find holding ground, whether on rock, trees (alive and dead), or the soil, the whole visible surface is occupied. Some of the ferns, which in other places are only moderately high, are to be seen of large size. Tufts of *Polypodium pennigerum* grow plentifully with fronds six feet long; *Aspidium aculeatum,* and *Lomaria discolor* are generally about shoulder high. Some of the fallen trees are profusely covered with members of the *Hymenophyllum* family: one, in particular, which lies right across the creek, and has to be crept under on our way up, contains sufficient fronds of *H. scabrum* to stock all the collections in the world. The surface of the ground is very irregular, large blocks of stone abounding everywhere; while the trees grow so thickly together that the place is always enveloped in gloom. It is therefore best to take our course up the bed of the creek, although it entails the necessity of jumping from stone to stone, and crossing and recrossing the water every now and then, and it requires a quick eye and a sure foot to escape getting the feet wet. Proceeding in this way, sometimes on the boulders or the shingle, sometimes obliged to get out of the creek bed and up on the bank, or scramble over or under the huge trunk of a fallen pine, for about a quarter of a mile, the gully becomes more abrupt, the sides close in and become precipitous, while here end there a small waterfall is met with, but nothing but what can be easily got over. A short way on, however, the stream makes a slight bend, and then comes a place which can be compared to nothing except one of those canons [sic] which are so frequent in California, only, of course, on a very much smaller scale. The rocky sides of the gully come closer and closer together, till they are only some ten feet apart and running straight up forty or fifty feet, the trees meeting overhead. It is noticeable that every projection on one side has a corresponding indentation on the other, showing that the opening has been produced by a crack or earthquake.

Pursuing our way upward, it is soon discovered that all further progress in this direction is summarily stopped. The

opening ends in a nearly circular basin of about thirty yards in diameter, the bottom of which is partly occupied by a shingle bed and the remainder by a pool of water. The sides are smooth and perpendicular; over the top of the rock in front tumbles the stream, in a beautiful cascade, falling in spray into the pool at our feet. Turning round it is at once seen that we are completely shut in by the bend before mentioned, the stream running away under the rocks on the south side where it has worked a deep channel. This is really a magnificent little place, and well worth a visit by any one who has an eye for the beautiful, as some fine pictures could be made of it. It also presents some hard nuts to crack for the geologist, as its production is due both to aqueous and igneous agency.

When this point had been reached on former occasions, Pakeha had nothing for it but to retrace his steps down the gully to the track at the side of the Leith; but, one day lately (June 22, rather a short day for an excursion into the unknown), when up there, it occurred to him that he might make an endeavour to get into the creek above the cascade by climbing up the rocks till above its level, and then along the hill side till it was safe to get down again. So, after trying two or three places, he at last got up on the rocks, and then up among the trees to a height he thought equivalent to the depth of the fall. But after worming his way horizontally for a short distance, he unexpectedly found he was again at the edge of the precipice, which went plumb down for about sixty feet. What between the wet and slippery ground, the interlaced branches of fallen trees, and the thick scrub, altogether made progress along this part of the gully side a very difficult and risky matter; but eventually, after two or three tries, the obstacle was conquered, and the bed of the creek regained some little distance above the fall. Here he sat down on a stone to rest and look about a little, and had not sat long when a flock of those pretty and inquisitive birds—the native canaries [yellow-heads] (*Mohoua ocrocephala*) came down to see what he was about. From the noisy way in which they called and chirped to each other, flying about from twig to twig, it seemed as if they deemed his presence in the gully an intrusion, and were heartily scolding him for being there.

While watching the canaries some bits of bark were observed dropping near the roots of a big tree on the other side; sometimes one, sometimes two pieces fell together. On shifting position a little so as to see the upper part of the tree, the cause of the bits of bark was found out. A pair of those rare birds, the Saddleback (*Creadion cinereus*), were seen at work, busily seeking for grubs in the cracks and openings in the bark of the tree. It was wonderful the way they held on, even when the trunk was quite perpendicular, or even overhanging. Round and round, up and down, poking their long bills into every crevice, with their head sometimes looking up the tree and sometimes down, breaking off a bit of the bark and peering carefully into the place, every now and then picking out a grub, and giving utterance to a loud and musical note. Sitting watching the birds was very pleasant, but the gully was yet to explore, so to the work he turned, and stepping out into the open, the bird at once made off.

The upper part of the gully was much more rugged and the fall greater than the part travelled over below the precipice; it was not without difficulty, too, and progress upward was both slow and toilsome. But a very short distance was made when another waterfall and similar precipices appeared to bar farther exploration in this direction. However, the fall was not so high as the lower one, only about fifteen feet, and the rocks were more broken, so they were more easily climbed over. From this point upward there was a change in the rock—a reddish conglomerate began to appear, the rocks below having been the usual hard blue basalt so plentiful in the district. With the change the rocks became more and more broken, and waterfalls and pools more frequent, rendering a climb up from the bed of the creek and along the hill above necessary every now and then in order to get past these difficulties. Some of these little *linns* are very pretty.

The red rock gave out after a little, and was succeeded, apparently, by the basalt again for some distance; but it was not easy

to make out where the one began or the other ended, on account of the vegetation on the slopes and the debris in the channel, which was very much obstructed with large boulders, among which could be seen occasional pieces of a soft sandstone. After scrambling onward for some distance, the source of the latter stone was discovered. The stream traverses a thick bed of it. The stone on the surface appears of a soft friable nature, very like that quarried at Lookout Point, Caversham, and other places, of which bed it is probably a continuation—no lignite being visible. Previous to reaching the sandstone, however, a formidable difficulty had to be overcome. The stream made a leap of some twelve or fifteen feet into a deep pool, which barred progress again. All around were high smooth rocks except at one point. To go back was impossible in the slippery state of the ground, for it was very much easier to get up than to get down again. So here was a fix. Time was precious too. Wings were wanted badly. To reach the point where the rocks were broken, and where also the trunk of a dead tree had got logged, involved the crossing of a pool of water about four feet deep, at least it could just be bottomed with a walking stick. Had it been summer the dip might have been taken, but the weather was rather cold. On casting his eyes about for a means of getting out of this trap, a quantity of drift wood was observed to have lodged in a corner. One of the pieces was just long enough to reach the other side, and by placing others on this a sort of bridge was made, strong enough to stand on, and to enable the foot to get firm hold of the rock, which being done, the rest was easy.

Above this point, the gully assumed quite a different character. Instead of the step like jumps made by the stream while running among the basaltic rocks, there commenced a series of basin shaped hollows, some of them nearly circular, from the lower edge of the lip of which ran the stream. Some of these basins were three or four feet deep, and the water ran round and round with a constant motion, to which, with the friction of stones and shingle in times of flood, is due this circular form. Hitherto, in getting this distance up the gully, PAKEHA had managed to keep his feet dry; but now, in attempting to get across one of these smooth-sided pools, he slipped and went in up to the knees. Pleasant, rather, in a hard frost! Picking himself out again, and getting past the obstacle, he had not gone far when in swinging round a corner by the aid of a hanging branch, it broke, and he went in again. It was no use bothering, so he dashed through "regardless," as some one says. It became exciting, too, and once or twice his knees shook a little, as if the work were beginning to tell, so he sat down on the bank to rest a little, cold as it was. Close by, there was a large bed of the *Asplenium bulbiferum*, the fronds of which were quite covered by the young plants in all stages of development. Patches of *Davallia* were also growing here and there.

By this time it was close on four o'clock, and after ascending the creek fur another hundred yards or so, to where a small feeder joined it from the south bank, he determined to abandon the gully. So, turning up the branch, he followed it for a little, and then turned up the spur. This was very steep and slippery, and he got sundry tumbles, as well as numberless scratches from the lawyer, which plant became now unpleasantly common, having been very rare in the lower part of the bush. It was his intention to make for a track which led down the other side of the spur, from the clear land on the top, towards the clearings; and for this purpose he pushed on up towards the hilltop, and was very glad when some manuka trees began to show here and there, and then patches of daylight some distance ahead. On emerging from the trees the ground was found covered with snow to such a degree that the track could not be found, two or three essays having resulted in failure. There was therefore nothing for it but to tackle the bush again, so selecting a point where the ground dipped smartly, he boldly dived into the shade of the trees, intending to find the stream which flowed down the gully, and so get down to the clear. But the light had failed so much and the ground was so wet, that this was a very difficult and painful matter; what between being caught by the lawyers and tumbling over sticks and stones, his bones and skin both suffered severely. After getting down a considerable distance, all of a sudden the ground fell away

perpendicularly into a deep black pool, completely stopping further progress. There wag no other course left than to get over the hill to the other track; and glad he was, after a short but difficult scramble, to see before him the bright snow covered track leading down the hill. It was a real pleasure to be able to throw the legs out without the fear of hurting the shins against a stump, and though the lower part of the track was very muddy the clearing at Ross's was soon reached, and eventually the Waikari district road, down which, as far as the bridge above the Water Works, he very soon sped, reaching home by the Reservoir before six o'clock.

June 27, 1871. PAKEHA

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from *Otago Witness* 23 September 1871, reprinted *Otago Daily Times* 28 September 1871
also published *Trans Proc NZ Institute* Vol 4, 1871 pp138-141

WORK FOR FIELD NATURALISTS

Read before the Otago Institute, 16th Sep, 1871.

It must be evident to all the members of the Institute, that in a district like this, with such a diversified surface, where mountain and valley, hill and dale, land and water, forest, scrub, flax, and grass, are to be found in almost every possible condition, there is a very extensive field for the study of nearly all the natural sciences, and more particularly those which require work in the field. In the vicinity of the town, and within the reach of an easy hour or two's walk, lie many scenes of considerable beauty and grandeur, while the views to be had from the various hilltops are not to be surpassed anywhere. In laying the following remarks before you, it is my object to specify a few of the more interesting localities in our neighbourhood which present facilities for out-door study. Without making any pretence to exhaust the subject, I will merely mention a few of the things to be seen in the different places. And first, as to the Geology of the district. Some very fine sections have been opened along the line of the Port Chalmers railway, and the line of the Southern Trunk promises some very interesting cuttings through the Caversham and Lookout Point hills, as well as that more distant range the Chain hills. Some very curious sand deposits have been lately cut into at Anderson's Bay; and along the beach at Vauxhall, the igneous rocks have overlain the clay and turned it brick red in the process. (This phenomenon may be seen in a small cutting in the Town Belt, nearly opposite the foot of Howe street.) In the valley of the Leith there are many curious places. About two miles from town there is a long steep-sided mound, probably a terminal moraine, and about two miles further up, opposite the foot of Nichol's Creek, there is another very large accumulation of rolled stones, evidently the result of a similar cause. In the Town Belt, at the back of Royal Terrace, there are some very large peculiarly worn rocks, which look as if they had long been exposed to the wash of water. About an hour's walk from Anderson's Bay, there is, right on the top of the hill at the righthand side of the road, an immense block of stone, the "Big Stone," from the flat top of which a magnificent view is had, worth all the labour of getting there. Then there are the various quarries in the neighbourhood of Cavcrsham, in which fossil shells and sharks' teeth are occasionally found. Farther off is the grand section of the sandstone rock exhibited in the line of cliffs which bound the coast near Green Inland, the cliffs themselves bounded in turn by the noble promontory of Green Inland Peninsula, which shows, in a most beautiful way, the varied phenomena of basaltic pillars. In the same neighbourhood are the coal pits, and a little further out is the quartz reef at Christie's. Beyond Anderson's Bay is Lawyer's Head, with a fine cave under its northern face, and at Tomahawk Bluff there are several others, all of which can be visited at low water. The Green Island cliffs also boast of a cave; and on the estate of Lauriston, near Saddle Hill, there is a singular cave, in which a large number of Moa bones were found some year or two ago. Underneath the trap rock of Bell Hill there is a bed of sand, which also underlies that bold rock face at the southern end of Princes street, passing through to the Glen road. At the head of Pelichet Bay there is an extensive bed of pipe clay, and another which contains singular concretions of

ironstone, as well as small masses of a bright white substance which turns blue on exposure to the air. At Kempshell's quarry, up the North-east Valley, beautiful specimens of dendritic iron and manganese are plentiful. There are places farther off, such as Whare Flat, the Heads, Portobello, Blueskin, &c, which are well worthy of a visit. But, to be brief, I have surely said enough to show that a wide field exists in our neighbourhood for the study of Geology; although, at the same time, it is to be regretted that there are few fossiliferous localities near town.

Turning, now, to Botany. Perhaps there is not in all New Zealand a town so favourably situated for the study of this science as Dunedin. The immense tracts of forest which extend to the east and north are now intersected in every direction with tolerably good roads, so that the student has little difficulty in penetrating with his field book to almost any given point. Most of the members of the Institute are aware, through our late Vice- President, Mr Webb, that the collection of flowering plants in the Museum is deficient in a good many species, so that here is a capital chance for the Field Naturalists to supply those desiderata. At the same time, I must, as a caution not to be over sanguine, say that it is no easy matter going into the bush with a list of wants in one's hands and expect to come out of it again with little more than one, or, may be, half-a-dozen. It is possible to traverse the bush for hours and not find a single example of the plant wanted, and yet it may be almost stumbled over in the first few yards. In addition to the flowering plants wanted, there are extensive families of plants which are totally unrepresented in the Museum—I mean the Mosses, Lichens, &c. Some of these are very interesting, and nearly all are very beautiful, and will well repay the trouble of collection. There is one thing in connection with our bush which not only the botanist but every lover of nature must regret, and that is the rapid rate at which it is disappearing. A few short years and the only forest left will be patches here and there in inaccessible places, where it would not pay to remove the trees. It is an interesting subject for speculation, too, as to what influence this clearing away of the forest may have on the climate of the country.

It is rather singular that here we have no native mammals to look for. In various places, rabbits, rats, and mice, and their natural enemy the cat, are not infrequent; but for the aboriginal rodent, the Kiore, we may now look in vain. In the early days of the gold rush, they were not uncommon in the interior, and used to be caught and eaten by the diggers under the name of Maori rabbits; and if any yet exist, it can only lie in the far away mountainous country of the south-west. The only mammals now to be found are marine—seals, porpoises, &c. Two species of seal are represented in the Museum, specimens having been beautifully mounted by Mr Purdie; but a couple of porpoises would be a decided acquisition, and now that whale fishing is revived on the coast, the skeleton of one of the smaller sorts would be valuable as a type of the rest. While I am on this head I may here allude to one of the most patent wants of the Museum —neither the Crustacea, nor the Mollusca have a place there. There are a few shells—a Pinna, a Turbo, and Haliotis, and there is a small collection made by Dr Buchanan, I think at Lyell's Bay, Wellington. Crustaceans abound on our coast, from the active and predatory crayfish down to a minute shrimp, there are many that sport a long tail; while the short-tailed ones, from a large solitary-living spider crab down to a little mite of a thing, no bigger than a pea, are abundant everywhere. The edible crab—the partan—so large and plentiful in the old country, is represented here by a little tasteless thing about three inches by two, but of precisely the same colour and habits. With regard to the Mollusca, the shells are neither so remarkable in colour or form as those found on the islands to the north; but nevertheless there are many beautiful species, and a collection for the Museum should form one of our earliest attempts. It is a pity that there is always so much surf breaking on our shores, as by this means many of the finest shells are seldom got whole, being pounded to pieces in coming ashore. Still, after a storm, and the heavier the better, when there is a lot of kelp thrown up, there are always a few of the deep water shells to be got among the roots. There are

also a few in the fresh waters of the district, and a rather fine lobster inhabits most of the streams. The Museum contains only two specimens of Radiata—a sunstar and an echinus; there are many others to be got; while of the hundred and odd fishes that inhabit the sea on our coast, there are only about a dozen specimens on the shelves.

I am afraid these details arc rather dry and wearisome, but the importance of the subject must be pleaded as an excuse. Enough has been said to show the breadth of the field of study which lies before us; but one other thing I would like to enjoin, more particularly on those of our members who happen to live near the coast, and that is to keep a careful look out for those shoals of fish which every now and then come in on the beaches in such numbers. An effort should be made to get as perfect a specimen, or two if possible, as can be got, for preservation in spirits or otherwise. Every now and then, too, one hears of "odd fish" turning up, all of which should be secured for presentation or comparison. In short, all the members of the Institute ought to be Field Naturalists, and never to lose an opportunity of securing specimens, whether for the Museum or their own collections.

I have hitherto said nothing about the personal effect of such work on a man, both mentally and bodily; that is, I think, too obvious to need remark. I will bring these notes to a close by formally moving the establishment of a society having for its objects work such as I have attempted to describe above, to be called The Dunedin Field Naturalist Club, to consist of all the members of the Institute who are willing to join. Their first meeting to take place—weather permitting—at the north end of George street at one o'clock on the afternoon of Saturday the 16th instant; the field for exploration to be the Leith Valley.

P. THOMSON Sept. 1871.

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from *Otago Witness* 30 September 1871

The Field Naturalist Club held their first meeting for the season on Saturday afternoon. The attendance was rather limited on account of the superior attractions offered by the Muscular Christians at the other end of the town. The scene chosen by the Naturalists for their ramble was the valley of the Leith, and as the day was one of the finest of the season, the scenery of this beautiful locality never looked better. Opportunity was taken at every turn to explore the bush for ferns and other rare plants, and some very fine specimens were obtained. The track up the Leith was kept till the foot of Morrison's creek was reached, when the party turned aside, and made their way up the gully, through the gorge, and on till the waterfall was attained, one and all exclaiming, as it came into view, that the scene was worth all the labour of getting there. After feasting their eyes for some time, the party retraced their steps down the gully, botanising all the way, and on arriving at the Leith track again, proceeded up the valley to the "Crossing," where there is some very fine scenery. Here a short stay was made, and then the homeward way was taken down the road. Town was reached shortly after six o'clock, every one having enjoyed himself thoroughly. Before parting, it was arranged that the next trip should be, weather permitting, to Lawyer's Head and Tomahawk Beach, that day fortnight, October 7th.

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from *Otago Daily Times* 8 January 1872, reprinted *Otago Witness* 13 January 1872

RAMBLES ROUND DUNEDIN
THE SPIT TO PURAKANUI, AND THENCE TO PORT CHALMERS

By the kindness of Captain Edie, of the p.s. *Wallace*, we were landed on the Spit at the entrance to Otago Harbour shortly after 10 o'clock one morning lately. Our intention was to traverse the various beaches, and cross the high rocky bluffs which divide them from each other, all the way from the Spit to Blueskin. But our intent turned out only another reading of Burns's famous line, "The best-laid schemes," &c. The weather had been very fine for a good many days, but the particular morn in question broke

gray and threatening, and rain seemed imminent. However, we held to it, spite of various croaking weather prophets, and were landed as already stated, starting at once across the wide level stretch of sand which intervenes between the harbour and the high wooded cliffs ending in Heyward Point. Our attention was immediately attracted by the large flocks of birds—gulls, terns, and snipes—which rose into the air as we approached them, some of the gulls following our steps for a long way, uttering the peculiar guttural laughing cry which distinguishes the Laridae family, as if they were angry with us for intruding on their domain.

The wind was blowing strong from the nor'-east, and we had a good opportunity of seeing the rapid rate at which the loose sand is driven along the flats. A constant thin stream, like snow, was skimming over the surface, covering stones and other objects lying about, and filling up all depressions, until the whole surface was one uniform level sheet of a dazzling white. The first object we had to visit here is a large cave, the work of the sea when the land stood at a somewhat lower level than it does now. The cave enters from a high vaulted opening, partly filled up with the loose sand that prevails everywhere, then descends slightly and winds away through the rock, coming out at the other side into daylight in a patch of tall scrub; its shape resembling a huge funnel with a wide gaping mouth, and a long narrow channel contracting gradually to the other end. There are some very curious pieces of weathered rock in this vicinity, worn into all sorts of fantastic shapes; there is also a strange perforated rock, which from a distance looks like some huge batrachian reptile creeping up the top of a narrow ridge. High up in the cliff there is a huge mass of white sandstone enveloped in the tufaceous and basaltic rocks which form the bulk of the cliff. Though we did not see any, there are plenty of rabbits here, as we found their footprints nearly everywhere on the sand. Altogether this is a very interesting locality, and will well repay an hour's inspection at any time.

After examining the various objects we proceeded along the base of the cliff and round the corner to the beach, then along towards Heyward Point, visiting, by the way, the curious valley which separates the sandhills from the rocks. This cannot be seen at all from the sea side, and has to be got into before its singularity can be realised. Here we found, growing plentifully, that most formidable of the whole New Zealand flora—the *Urtica ferox*, the tree nettle, or ongaonga of the Maoris, an innocent-looking plant, with dark green leaves, covered with numerous white spines, a slight touch from which will give cause to remember the plant for many days. Beyond this, the tide being up, our progress was rather difficult, on account of the boulders which line the base of the cliff; but we soon got over them, and arrived at the end of the beach—a small semicircular bay, bounded by cliffs of about 250 or 300 feet high.

All progress seems stopped; but there is an old Maori track leading up a part of the cliff not quite perpendicular, and after a little rest we tackled this by no means easy job. Within thirty feet of the brow was reached when (I here change the number) my mate, not being in the habit of cliff-climbing, lost his head, got sick, and refused to proceed any farther. This was an emergency totally unlooked for, and there was no time to be lost; so I made my way to the top of the cliff, removed some impedimenta I was carrying, sliddered down again to where my mate was hanging on, and by dint of persuasion and example, induced him to follow me to the top, where we both arrived, hot and breathless.

The land is here covered with scrubby bush, and we scrambled through to the other edge of the Point as best we could, intending to get down to the beach below at the first practicable spot. But the experience of the ascent was enough for my mate; he resolutely refused to tackle the descent. So a long detour was necessary in order to reach a spur with a grade something less than ninety. This we were not long in reaching, and soon stood on the level sand of Kai-Kai beach, covered with bidi-bidi to the shoulders. By this time it was raining heavily, and a nasty cold wind had set in from the sea. So we took the track inside the sandhills, as direct as we could for the next

point—Purehurehu, the crossing of which is by no means so difficult as that of Heyward, as a good well-beaten track leads over to Murdering Beach, on which we were not long in finding ourselves - and made our way direct to the house of Mr Hunter, where we were very hospitably entertained, and got our wet clothes dried. While here, for some time, the rain fell very heavily, and it was discussed whether the rest of the expedition should not be abandoned for the day at least. But the uncertainty of any clearing up with the wind as it was (S.E.) determined us to go on and endeavour to reach Blueskin. So after enjoying our dinner and a crack by the fireside, our clothes being well dried, a slight stoppage of the rain determined us on starting, and we accordingly put our best foot foremost after parting with our worthy host and hostess.

But we had not proceeded half a mile when the rain set in again as heavily as before. It was no use turning, so after crossing the flat we entered the bush and proceeded to cross Pilot Point. A fairly defined track leads over this hill, the top of which, at the highest point of the path, we found by aneroid to be 240 feet over the tide, and we soon found ourselves off the hill and on the flat sandy ground of Long Beach. It was a great pity it rained so, as we thereby lost what is about one of the finest views to be had anywhere near Dunedin—we could just make out Waikouaiti and a few of the hills, all the rest was shrouded in fog. Mopanui, one of the hills on our right, towards Blueskin, had a most peculiar look—its black head peering above the clouds as if it had been a ghost, and did not belong to the earth at all. Long Beach was once the site of the habitations of a numerous hapu of Maoris, and we intended going over to where the whares had stood, in order to look for some of the stone tools and ornaments used by the departed race. But the pelting rain prevented this; and we plodded steadily on till past the mouth of the lagoon, when a diagonal line was pursued till we reached the foot of the track leading over to Purakanui. The rain had just begun to melt the mud, and to make walking up the slope anything but pleasant; but it was done. On arriving at the top of the hill things did not look at all inviting for a walk over the bay and up the long grassy hill on the other side, so after a little consultation with each other we determined to keep the side we were on, and proceed over the hill to Port Chalmers.

This line of road is a very interesting one, and many fine glimpses of beautiful scenery are had every now and then. The view of the flat from which we had just risen, with the lagoon winding through and round it, like a huge black snake, is very fine, and would make a very grand picture, having all the accessories of beauty about it, in the shape of a very diversified surface, woods of every shade of green, white sand, and the ocean tumbling in in long lines of breakers. After resting a little, we faced the long road in our front like men, and though walking was very disagreeable, on account of the softness of the footing, very good progress was made, and no stop until well up on the ridge. The bush here is very close, and we felt correspondingly warm and thirsty, but could find no drinkable water; though there were plenty of puddles on the road, none of the little creeks crossing the track had any running water.

As we neared the top of the ridge, we became enveloped in fog, and the rain began to take off. Now and then we could see, away on our right, the high rocky peaks of Mihiwaka and the Hump, the mist driving past them with great speed, though we hardly felt a breath of wind on the road. Once on the ridge, our progress became more rapid; soon clearings became more frequent; and at last we emerged on the open at the head of the long slope leading up from Deborah Bay. From this point, we had a most magnificent view of Port Chalmers and a large portion of the lower harbour, Portobello, and the hills beyond it, the islands, &c, while the fleet of wool ships we admired so much when passing them in the steamer in the morning, now lay at our feet like so many models on a sea of glass. The scene was very beautiful, and we could not help stopping now and again to gaze on it, while the fog blew away.

Turning again to the road we proceeded some distance, and observing a house a little way off, went over to obtain some water.

On knocking at the door we mentioned our wants to a blooming young Hebe who came, and she most obligingly brought us a jug of capital milk, laughingly observing it was better than water. To this full justice was done, and after thanking her for her kindness, we proceeded. A short way on from this, the Purakanui road joins the one from Port Chalmers to Blueskin, which is mostly carried along a series of sidlings cut out of the hillside, whereas the former road is formed on the top of a spur nearly all the way, with very little cutting indeed.

We found water more plentiful along this section, several very fine running streams crossing the road. As we neared the long spur running down to Port, the weather began to clear up, and we could see the sun shining here and there away down below. A large amount of land has been cleared in this vicinity, and many smiling gardens and neat wooden houses stud the landscape, while fine grass parks with fat cattle browsing lazily in them attest the richness of the pastures. Nearly every house we passed had a colony of children playing about the doors. Our way being now all downhill our progress was correspondingly rapid, and we soon rounded the hill above the quarry, from which a very fine view of the township is obtained; striking down a byepath past the new church, we soon found ourselves in the Provincial Hotel, where a substantial tea was done ample justice to. After resting a bit, we started to walk to town, and as the evening was fine we enjoyed the long pull up to the Junction very much, and still more a refresher in the hotel there. On our way down to the valley we experienced the first puffs of the gale which did so much damage next day, and arrived home pretty tired before ten o'clock, having been nearly twelve hours on the way.

Dec. 27, 1871. PAKEHA

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from *Otago Daily Times* 19 February 1872, reprinted *Otago Witness* 23 March 1872

HOLIDAY RAMBLES I
PALMERSTON, SHAG VALLEY, PUKEIWIC, COAL POINT, KARTIGI

In selecting the scenes for these rambles, the writer was guided by a desire to see as much of the country in as short a time as possible—the period placed at his disposal being very limited. He was also desirous of visiting various interesting localities which, on former occasions, he either did not know of or had not the time to go and see. Having been offered by a friend, who resides at Flag Swamp, a drive over the localities named at the head of this paper, he made his way there by the North coach some days ago. The weather was delightful, if anything rather hot. On arriving at the summit above Blueskin, the effects of the heat were everywhere apparent in the enormous destruction caused in the forest on both sides of the road. On that particular morning the fire which had begun in the bay below Port Chalmers was then blazing away on the top of Mihiwaka, some 1500 ft above the place where it originated; and all round the hill fire was more or less visible; while in the great bush on the north side of Mount Cargill a line of thick smoke, extending for miles, could be seen. The destruction of the timber in this locality is much to be regretted, as year by year the hills are getting barer and the clearings larger; and so far as the writer knows no attempt to replace the forest by planting other trees has been made by the settlers. A few blue gums are, indeed, to be seen, here and there, round some of the residences o£ the more intelligent of the cockatoos, but as a rule no attention is paid to this very important matter. The result of this will be seen by-and-bye, in the increased price of firewood, which will bring the matter home to most people in a very tender part. This question of bush burning should be put under proper regulation, so as to prevent, in some measure, a repetition of the wholesale devastation of the past month or two. Meanwhile the coach, under the skilful pilotage of the well-known Devine, dashed through the smoke, and kept rolling along, up hill and down dale, until in due time the writer was dropped at the gate leading to his friend's house. It was too late in the day to start on the proposed round, so arrangements were made for the following morning, and the afternoon was spent very pleasantly in the field stooking oats.

Next morning we were up betimes, and after a substantial breakfast got under way, and were soon rattling merrily along towards

Palmerston. It was while passing up Pleasant Valley that the effects o£ the prevailing drought forced themselves most unpleasantly on our notice. The river had completely stopped running, and existed only as a long string of water holes and shingle banks. But it was the road itself that was prominent in forcing the dry weather before us. The metalled line was a long narrow track, from which the wind had blown away all the smaller stones, leaving only the large ones, over which the machine jolted and rattled in a most uncomfortable way. The side tracks were simply dust puddles, from four to six inches deep, and were generally selected by waggons and other heavy traffic, and it was amusing to see the big horses with their heavy feet stamping and plashing in the dust just as if it were so much water, till every waggon was enveloped in a cloud, which moved slowly along the road, enforcing closed mouths and eyes till they were fairly past.

We were not sorry when Palmerston was reached, and after a short delay, the road down the valley was taken. This road was found to be a vast improvement on the one on the south side of the ridge, there being no stones; and when the main road was left for the branch one which leads to the coast, the improvement was greater still, and the travelling became really pleasant. The wide expanse of the valley, covered with crop as far as we could see, from which in every direction came the cheery rattle of the reaping machine, the fine road, and above all the glorious sunshine, made the trip in this quarter the most enjoyable possible, and we spanked merrily along as fast as the horse could take us. The crops were all good—much better than at any other part of the district—and nearly all were ready for the reaper.

After proceeding along this road for a good distance, we passed on the right Bushy Park, situated away up on a rise; and on the left, in the centre of the valley, we could now and again see the dry bed of the river, with its long banks of shingle. After nearing the coast the road makes a sharp turn to the left, and proceeds across the valley towards the opposite hills. A short way down is a steading, with a few blue gum and other trees growing about it, and on arriving opposite my friend stopped the horse and bade me listen. I heard nothing at first; but soon a strange yet familiar sound was apparent. "Chirrup, chirrup," came from the trees; and on looking narrowly there were the birds—the well-known sparrows of the home country—flitting about from the houses to the trees. My heart warmed to the little strangers. They are the progeny of those imported by the Acclimatisation Society, and seem to have taken kindly to the locality, as they are increasing and will soon spread over the district.

Shortly after passing the sparrows the road crosses the river, which was here found running in a small shallow stream. To give the horse a drink he was driven into a pool just above the ford, where he was let stand for a little. After getting up to the road again we kept on and had to cross another branch of the river quite dry. The road now began to wind a little and we came full in view of that singular eminence—Pukeiwi, the last hill towards the sea of the Horse Range. The word means one-sided, and the hill could not be better named, for it is just as if some great convulsion of nature had cut the hill in two and carried away the one half, leaving the other standing as we now see it. It is a fine geological section, presenting the strata lying one over the other, as regularly as the leaves in a book, and all dipping the same way—to the eastward. The weather and other causes have wasted away all the softer strata for a good depth, leaving the harder ones standing out high and abrupt. The precipitous front rises between 600 and 700 feet over the plain, so that it forms a most attractive object in the prospect.

The road winds away round its base, among a number of low grassy ridges, and after a mile or so comes suddenly out upon the sea, turns abruptly, and runs along a terrace with the sea on the left, until a board is seen bearing the following device: "Coal sold here. Cash: no credit." We had arrived at Coal Point, or Shag Point, as it is variously called. This is the scene of the labours of that enterprising and persevering colonist, Mr Hutcheson. Leaving the machine at the top of the cutting leading to the harbour and the pit, we proceeded down and found ourselves in a queer little place. In front lay the harbour, open to the sea, but protected by some outlying rocks. A fine quay has been built along one side, with cranes, &c, for loading purposes, the depth of water being sufficient for moderate sized

vessels. A tramway has been constructed along the quay, on which the waggons are run direct from the pit. To the left of the road are sheds for storing the coal, and other buildings, &c. There was no one about, so we walked out to the end of the quay, and had a look at the entrance to the harbour, &c. The seam of coal could be seen cropping out among the rocks, and had a dull brown colour, with a greasy feel, as is usual when exposed to the action of the weather. Turning back towards the pit, we entered the mouth, and found one of the miners coming towards us with a light. Telling him our purpose, he courteously put himself at our service, and bade us follow, explaining everything as he went. The dip is very gradual, and the floor quite dry, so there was no difficulty in following the steps of our guide, who bore a small lamp in the front of his cap. All went well enough while in the daylight, but a short way in the tramway makes a curve, daylight disappears, and total darkness reigns. At this a boy who was being led by the hand lost his courage, and began to scream, so he had to be taken back and left in the sunshine. Our guide told us how, on a previous occasion, when a number of the settlers and their children had been having a pic-nic there, he got a dozen children into a waggon and rolled them down the incline, but whenever they got into the darkness, a united yell was set up, and he had to bring them back. On arriving at the "face," we found the miners at work cutting out the coal, which is eight feet thick, and of first-rate quality—hard, black, and glittering. The working is about 80 yards from the mouth, and about 60 feet under sea level, though not under the water, as the dip is the other way. Very little water is met with, and what there is is led into a hole on one side, and when full is baled into a tank on wheels, which is drawn up by a horse and emptied. The tramway is continued down to where the miners work, so that there is no loss by breakage, the trucks being loaded at once and drawn out. The roof requires support here and there, which is done by wooden props.

After seeing all that could be seen below, our steps were directed to the light again, and from the pit mouth proceeded over a ridge to visit two small bays on the southern side of the harbour. These were found curious little places, containing large quantities of fine white quartz gravel, enough to cover all the garden walks of Dunedin, could it be only got at. There were very few shells, but a great accumulation of sea-weed, of many different sorts, some of them of great beauty and quite new to the writer. One he had found on other beaches, but very rarely, was here common. It is of the glutinous sort, and so almost incapable of preservation, and resembles nothing more nearly than a string of emerald beads, and may be had in pieces from six inches long and upwards. With the proper means and appliances, there could be no better spot chosen for making a collection of the algae, as all the divisions are to be found in plenty—rhodosperms, chlorosperms, and melanosperms. On the sides of the low cliff above the beach; *Celmisia coriaceum* was growing plentifully, but not in flower. Before returning to the machine, the writer made a detour along the beach on .the other side of the pit. Here the strata are lying almost flat, and consist of hardened clays and shales, with thin seams of slaty-looking rock here and there. The clays contain many large boulders of a sort similar to those found so plentifully on the beach a few miles farther north, at Moeraki. Some of these boulders are hollow, and have been broken by the surf, and now form most singular objects as they protrude here and there from the water. One is like a huge round table, another a large basin full of clear water; one unbroken fellow is like a large terrestrial globe, with the lines of longitude and latitude deeply engraved on its surface.

After proceeding along the beach for a good way, a deep gulf was met with, up which the water dashed from the sea outside, completely preventing farther progress. So scrambling up the bank towards the road, he found the machine waiting, his friend having kept him in sight all the time. Getting in again, we all rattled along the road to the point where it turns to leave the coast, but instead we turned down to the beach, and took a drive along towards Kartigi, in order to reach a spot where the sea has washed out a number of boulders, and try and pick up one or two small enough to fetch away. This beach of Kartigi is a very pleasant one, extending away in a semicircular line to Whaler's Home Point, Moeraki. Unfortunately for us the tide was rather far up, for when we reached the bluff where the boulders are found, the surf was rolling far

in, and after a good deal of searching we could only find one round enough and small enough for transport. So, carrying it round, we put it in the bottom for ballast, and retraced our way along the beach. The coal miners have effected a very great improvement on the road leading down to the beach where it leaves the terrace, by cutting a sidling at a decent grade, so that the settlers to the north can now have the coal brought to them without risking the limbs of their horses, as was the case over the old road, which is about the ugliest seen, being at an angle of nearly 45 degrees. By this time the day was pretty far advanced, so, after regaining the terrace, we rested a little, and had a fine cool drink from a spring in a deep gully near the road, and then started. We found the heat, while passing through among the low hills, tempered by a fine sea breeze; but whenever we turned round the base of Pukeiwi we got the full glare of the sun and a hot nor-wester blowing down the broad valley from the interior. The heat was almost unendurable, and both man and beast were glad when the ford across the Shag River was reached, and all hands were able to get a good cooling. On regaining the bank and looking round we could see that the workers in the fields were also suffering from the heat, rendering necessary frequent visits to the river bank to replenish the bucket of drinking water.

After making a call at one of the steadings near the road side, and a short stay to listen to the sparrows, we proceeded up the cross road, and were soon speeding along the district road to Palmerston. Though hot, the air was clear, and we had a fine view of this splendid agricultural district, the crops, and indeed the farming generally, of which, are really very creditable to the settlers. Some of the fields are very large; in one we counted over 100 stooks in a row, and then failed, on account of a dip in the land. The crops were pretty well distributed between wheat and oats, perhaps the latter predominated. Very little barley, and potatoes and turnips just a sprinkling. Most of the steadings have a few trees about them, and all have gardens. The land in the valley is all under crop, and cultivation is gradually creeping year by year up the hillsides. On arriving at Palmerston, my friend and I parted, as I intended to stay over night with some friends, arranging that we would meet again at church the following day, and after driving up the valley for a few miles, return to Flag Swamp, so that I might be in good time for the next section of my ramble—the ascent of Mount Watkin.

PAKEHA. Feb., 1872.

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from *Otago Daily Times* 26 February 1872, reprinted *Otago Witness* 2 March 1872

HOLIDAY RAMBLES II
ASCENT OF MOUNT WATKIN

Most travellers by the North Road will have observed, when well clear of the Dunedin hills and running down the slopes towards Blueskin, a range of conical hills lying away off at the back of the Waikouaiti district. They are divided from the Silverpeak range by the valley of the North Waikouaiti river, and run north-east, gradually falling off towards Shag Valley. Watkin is the highest and most southerly of these peaks, and is very difficult of access. Not that it is so very high, it being only 2050 feet above the sea; but it lies away back in a most bewildering labyrinth of ranges and gullies, among which it is almost impossible for a stranger to make his way. From Flag Swamp, where the writer was living, Watkin is only distant some seven or eight miles, but of course the actual distance is very much greater, on account of the circuitous and indirect road which has to be travelled. On the morning previous to starting, a very careful survey of the hill was made with a good glass, in order, if possible, to discover, by means of the shadows of the clouds as they slowly glided over the surface, whether any one of the numerous ridges visible could be considered as a "leading" one. It was thought that if the shadow made a pause in coming down the hill, that there was a gully, but the intervals, if any, were so brief, that no dependence could be placed on this mode of judging the surface inequalities. Indeed it was afterwards found that the gullies were too steep and narrow to make the interval of a shadow's crossing of any account to an observer at a distance.

The writer started on his task immediately after breakfast, about 9 o'clock, and took the line of a ridge which forms the northern boundary of the broad fertile valley which runs up from the swamp to the foot of the hill. Harvesting was going on busily on all sides, and nearly every field had its group of workers in attendance on the reaping machines, running rapidly round, and leaving behind their four-foot swathe of ripe grain to be tied up into sheaves. The morning was very fine, though warm, and the landscape looked very pleasant under the bright sunshine. This ridge runs about east and west, and after attaining a moderate elevation, sinks gently into the valley. Another ridge rises beyond, but it leads off the direct road, and is more rugged, so a descent was made into the valley, and the district road adopted for a considerable distance. Farther onward, the valley narrows a little, and the road bends to the right, and leads up to the top of another ridge, which closes in the head of the valley altogether. This ridge is narrow and steep-sided, and rises regularly for a long way, the hills closing gradually in upon it on both sides. Civilisation is soon left behind, the houses become fewer and farther between, and at last, at a point where there is a curious break in the ridge, the last house is reached, and the writer made his way toward it to enquire his way. In common with most of the pioneer houses it was rather primitive in its architecture, though standing rather prettily on a braeface, with a fine lookout in front. On knocking at the door, no one was found within; the inmates were all assisting at the harvest in the flat country below. The crops in a field at the back of the house looked very well, and nearly ready for harvesting. Pushing across the lower edge of this field, a small meadow was seen in front, and immediately beyond were the ranges. In front of one of these a tolerably well beaten track was seen winding upwards, and seeming to proceed right into the heart of the hill. So, crossing the meadow (in which the vegetation was waist-deep), and the dry bed of a creek, this track was taken. The ascent was steep and very toilsome, but it led well up the hill, and it seemed as if Mount Watkin was not going to be so very difficult of access after all. But jubilation was short, for after getting to the top of the ridge and proceeding onwards a bit, all at once the ridge sloped off rapidly into a deep rocky gully. Taking a good look at the hills beyond, as a guide for the next climb, the writer sliddered down the hill, passing by some steep rugged schist rocks, which pushed their sharp edges through the surface, otherwise smooth enough. At the bottom was a dry gully filled with stones that had fallen from the rocky *scaur* above. The sides of the gully, for a few yards up, were clad with a dense growth of fern, toot, and lawyers, through which it was very difficult to make way. But down he got, and feeling too tired to tackle the opposing hill, kept up the gully for some distance, crossing and re-crossing, as either bank seemed the smoothest. But latterly the gully became so narrow and rocky, that it had to be abandoned altogether, and the hill to the left was climbed to the top, which was found tolerably level. But the heat was intolerable. The rays of the sun seemed concentrated and reflected from all sides on that particular ridge, and, after proceeding a little way, the heat made him giddy, and he staggered forward and got under the shade of a big Phormium bush. After resting here for some time the giddiness went off, but sickness came instead, and he was very bad indeed—even unto vomiting. After getting up a mouthful or two of nasty sour stuff, all was well again. But water was an immediate and pressing want; so, pushing along the ridge, it was found to end almost precisely as the other had done. But the gully below seemed wider, and to lead more directly towards the main ridge which towered ahead. A descent was therefore made, and after some little difficulty from rock and scrub, the bottom was attained, and water— running water— was found plentifully. After refreshing and a rest, the gully was taken for a good way, but it wound about among the hills in a most bewildering manner. The mountain itself, too, could not be seen; so after keeping up the course of the creek for a few turns— during which the gully alternately widened out into a little well-grassed flat, with a few wild-looking cattle grazing on it, and then contracted again till little more was left than afforded passage for the creek, which must carry a large quantity of water in wet seasons, though at this time a mere dribble —he abandoned the creek for good.

This alternate climbing over and descending the sides of steep hills was very fatiguing, and besides consumed a good deal of time, the top of the mountain looking as far off as ever. On getting well up on this last spur, a cutting was seen a short way ahead, so towards it PAKEHA's steps were turned. It was a sidling cut in the clay, and evidently the beginning of a line of road. One would have almost as soon looked for a boat to pull up the creek as a road among these desolate inaccessible ranges. But a road it is; and on getting a little further along the hillside, a peg, with the familiar broad arrow and the letter R branded on it, was met with. I ascertained afterwards that a road has been surveyed from the settlements below round the north shoulder of the mountain to a large bush containing some fine timber, clothing both sides of a valley running into the North Waikouaiti river. The road may be surveyed, but it will be long ere it be serviceable, even to a bullock-sledge. Keeping the line of this road, I soon had the satisfaction of finding that it led nearly straight up the spur towards the top of the hill, which now loomed directly ahead; it was only a question of time and a steady slog at the long incline, covered with thick tussock grass and occasional clumps of phormium, toumatakoura, and spear grass. Thistles, too, were abundant both on the slopes and in the gullies; and I found Taieri tweeds but an indifferent protection against the sharp spines of the Scotchman, the Spaniard, and the Irishman, as the three plants are named in the district.

When well up towards the top of this spur, a curious phenomenon was met with. On passing over a stony bit of ground it rung to the footsteps as if hollow, and a little further up the same thing was repeated. Then, again, near the peak there is a small flat, on which I flung myself to take a rest before tackling the remainder of the hill, which is very rocky. I had not lain long when singular sounds, as if proceeding from persons talking loudly and gruffly, were heard. I started to my feet, and looked all round, and would have been only too glad to have met a chum in this mountain solitude. However, there was not a soul near me, and I lay down again. But the same noise was heard, even plainer than at first, and I looked round as before; but there was no one to be seen. I learned afterwards that there are large caverns in the hill, and that the sound of falling water can be heard in the heart of the main ridges. I was sorry for this, as an opportunity for exploration was lost, which may not occur again for a long time.

After lying for a little, listening to the strange noises, I started to complete the ascent of the peak, which is an abrupt rocky eminence, springing at once from the point of meeting of several long spurs. The spear grass was very troublesome, and the large loose stones which covered the hill made walking, or climbing rather, a little dangerous. But after a short spurt I had the satisfaction of standing on the summit, holding on to the trigpole, at three o'clock, having occupied just six hours in the task. Very slow work, but a large portion must be put down to my ignorance of the locality. The view from the top was very extensive. Away south were the hills of the Dunedin Peninsula, smoking here and there from the bush fires then going on; the hills about Blueskin, and the coast on to the Heads, the white sandbank forming a sort of relief to the black rocky hills and bluffs. To the east lay Waikouaiti, the houses, farms, and the fine agricultural country away off to the Kaik, with the ocean glittering in the bay beyond. Then came the Hawksbury Hills, and beyond them the Flag Swamp district, with many a field dotted with stooks; and a whole labyrinth of gullies and ranges in the nearer distance coming right up to the base of the hill on which I stood. More to the left stood Mount Royal, Puketapu, and that queer little eminence, Smilers, which looks so like a lion *couchant* when seen from the North Road. Farther over could be seen the lower part of Shag Valley, and that rugged-looking heap of hills, the Horse Range. From this point away round by north to north-west, there was nothing visible but the nearer ranges, Mount McKenzie, Trotter, and so on, and then a great cloud of smoke or dust, which completely prevented me having an opportunity of seeing the high mountains in the interior, which should have been visible past the end of the Rock and Pillar Range. From the west to the south-west there was nothing to be seen but ranges

upon ranges, brown, bare, and desolate, on to the Silver Peaks, beyond which I could just see the outline of other hills, but very indistinctly on account of the smoke.

Turning now to the top of the hill itself, I found it to consist of a basaltic dyke, the pillars lying on their sides, and dipping to the west at a low angle. In front, to the east, existed a great *talus* of fragments which have broken or fallen from the dyke, and containing metal enough for all the roads in the Province. The western and southern slopes were more gradual than the other, and went gently down into a large extent of what appeared to be very fine bush. Among the stones on the summit a number of straggling, stunted bushes were growing, principally Miki-miki, dwarf broadleaf, and lawyer, mixed with tussock grass, fern (*Pteris aquilina*), and two sorts of spear grass (*Aciphylla Colensoi* and *A. Munroi*), toot, &c. After feasting my eyes on the extensive panorama spread all round, the wants of the inner man began to make themselves felt, so sitting down under the lee of the trig-station, an attempt to eat a little was made, but it resulted in utter failure, on account of the absence of moisture—not a bit would go over. After leaving a memorial of my visit under some stones, I began, at 3.30, to retrace my steps over the basaltic pillars and down the steep slope among the loose stones. This was a good deal worse than the getting up, and required very cautious dealing, and it was not without one very severe tumble which nearly shook me to pieces, that I at last stood on the terraced flat among the flax bushes. From this my steps were directed as straight as possible towards a point I had marked out while on the summit, as appearing to give the easiest access to the cultivated land beyond the ridges. Being all down hill, progress was rapid, and very glad was I when the gully appeared, and at its bottom a little water running. The gully was struck at a point where it opened out into a flat of irregular shape, on which were grazing a number of young cattle, which, from their inquisitiveness, did not seem to be troubled with many visitors. On sitting down beside a small pool and proceeding to undo my small store of eatables, the cattle assembled on the bank above me and appeared to watch my doings with very great concern. When I was done, I rose up, rolled a lump of paper into a ball and threw it at the nearest, on which they all turned tail and scampered off down the glen as hard as they could gallop.

The gully, some little way below, contracted very much, and became very rocky, so to avoid this a course was taken which led over a low fern-clad spur and down into the valley again by an easy grade. Here a pretty level and well-trodden path was met with, which alternately took the one side and the other of the little stream, and down this path I stepped steadily, carefully eschewing any attempt at going over the spurs again. Though apparently circuitous the path turned out the most direct, for after a little I found myself approaching the other side of the spurs which so much troubled me in the early part of the day; and very soon I was close on the meadow where I left the cultivated ground. A little way back from this the water in the creek had stopped running, being either dried up by the heat or absorbed by the thirsty ground, and where the little pools had been there were numbers of small fishes dead. I struck off to the right, and held up over a bank, and soon saw near me the house I had called at in the forenoon. As before, there was no one inside. Climbing up the side of the spur which here bounds the glen down which I had been travelling, I was soon on the straight road for Flag Swamp, where I arrived at 6.30—just three hours from the top of the hill, and half the time occupied in going up. Of course on any future occasion the time taken in getting to the top would be very much shortened by keeping to the glen until the main spur is found, after which all is plain sailing.

Looking to the geological formation of the district, there can be little doubt that coal will be found in some of the lower ranges, for the strata very much resemble those exposed at Pukeiwi, near Shag Point, which overlie the coal seam worked there. The top of the hill, as I said before, is basalt, the middle portion is coarse quartzy sandstone or conglomerate, while the lower part is the hard slaty schist rock of the district, and under that again lie the coal measures; but the whole district is very obscure, and would

want a much more prolonged examination than I was able to give it. Though very tired and rather sore when I arrived back, I was very well pleased at the result of my journey, and will not soon forget my visit to the top of Mount Watkin.

PAKEHA February, 1872.

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from *Otago Daily Times* 28 February 1872, reprinted *Otago Witness* 2 March 1872

COAL IN MOUNT WATKIN

TO THE EDITOR. Sir—Your correspondent "PAKEHA," in his interesting account of his laborious ascent to the top of Mount Watkin in yesterday's Times, says, near the end of the article—"That looking to the geology of the district, there can be little doubt that coal will be found in some of the lower ranges." That, I think, Mr Editor, is most likely, without considering the resemblance of the strata to Shag Point. And again, "the top of the hill is basalt, the middle portion is coarse quartzy sandstone, while the lower part is the hard slaty schist rock of the district, and under that again lie the coal measures." Now such a statement as contained in the last sentence, coming from your correspondent, who enjoys the reputation among the country folks generally of being a man of undoubted scientific attainments (botanically and geologically speaking), is calculated to mislead some of our enterprising settlers who feel inclined to prospect for seams of coal, as they, not being generally possessed of much geological knowledge, will take it for granted that there can be no mistake in searching for coal under the schist rock. 'Tis not the first time that money and time have been uselessly wasted in various enterprises on the strength of a statement which may have been inadvertently made by one looked upon as knowing well his subject; and as I believe your correspondent's statement has been made inadvertently, I take the liberty of troubling you to hear something further from him on the subject, as I think the question is beyond a doubt, that if coal is not found above the schist, it will never be found at all.—I am, &c, G.,

Hawksbury, 27th February.

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from *Otago Daily Times* 7 March 1872, reprinted *Otago Witness* 9 March 1872

HOLIDAY RAMBLES III
NORTH, WEST, AND EAST TAIERI, WAIHOLA, TOKOMAIRIRO, BALCLUTHA, PUERUA, GLENOMARU

Rather a long round, I think I hear some one say. But it occupied three days, and various means of locomotion. I started early in the morning via Halfway Bush and Silverstream. Fine weather again favoured me, and the walk over the hills between the town and the plain of the Taieri was delightful. The new road constructed here is a vast improvement over the old dangerous track which led down from the hills to the Plain, and must greatly facilitate the farmers' access to the town with their produce.

On arriving at the new bridge across Silverstream, that erection was found to be in a ruinous state, its approaches having all given way on one side. It is another example of carelessness on somebody's part, or perhaps only of penuriousness on the part of the Government. The walk along the Plain was very pleasant; there was little wind and no dust, which gave good opportunity for observing the state of the crops, the farm houses, and improvements generally, on the line of road. Live fences are common, and the planting of trees has received some attention, as is evidenced in the rows and clumps of blue gums and other trees to be seen frequently, particularly in the vicinity of the church at North Taieri. My progress along the Plain was very slow, there being so much to look at, the district being altogether new from the Racecourse, so that it was pretty far on in the afternoon ere the Taieri River and the famous bridge over it hove in sight. At the first look, West Taieri and its township Outram, with the river, the bridge, and the surroundings generally, present a very pretty picture, which does not lose by nearer inspection. At the time there was very little water running, the bed of the river at the bridge being quite bare, with the exception of a small stream in the middle, the rest being a wide expanse of dry shingle. The approach to the bridge

from the eastward is very awkward, and is susceptible of great improvement. The bridge was undergoing repair, and bore an inscription that waggons crossing were not to carry more than a certain weight per wheel. The gorge through which the river bursts on the Plain is a singular place, and makes one wonder at the provision of nature by which the stream finds its way through that long range of hills from the plains to the north. After having a good look round, I took a stroll through the village, and then down into the river-bed, up which, on a broad shingle bank, I was able to walk for a long distance. On this bank were numbers of the shells of the fresh water mussel, the *Unio fluviatilis*, which used to be largely eaten by the Maoris.

Next morning, instead of proceeding down the western side of the Plain, I started across to the Main South Road, via Scroggs Creek Ferry. This was a very pleasant walk, level all the way, and through, perhaps, the most fertile part of the whole Taieri district. The crops were magnificent on both sides of the road, and nearly all were ready for cutting, or in course of being cut, machines going busily here and there. At Scroggs Ferry, a "Cooey, boat ahoy!" brought a female Charon to the opposite bank, and unloosing a boat, she speedily pulled it over, and transferred me and my fortunes to the other side. Plenty of Unios with the animal inside were lying about on the shingle, and picking-up as perfect a specimen as could be found, I sped up the steep bank, over a low hill, and then found myself on the side of the main road at a most opportune moment, for a friend was just passing in a buggy bound for Tokomairiro. To his kindness I was indebted for a ride over what might have proved rather a toilsome walk, and catching the coach at Tokomairiro, was deposited at Balclutha in the course of the afternoon. In the evening, I sallied out to have a look at the bridge (which had been erected since I was last in the locality), and the noble river rushing away beneath, as full of water as if there had never been a day's drought all summer. An attempt to utilise this powerful current is to be made a little way above the bridge. A flour mill is being erected there, the machinery of which is to be driven by a submerged wheel, on the principle lately made public by Mr J. T. Thomson of Dunedin. The races were coming off in a few days, and I found nearly every body in the township talking horse.

Next morning I set off for Puerua. This was a very pleasant walk, over a gently undulating country, nearly all in a fair state of cultivation. The further I got south I found the crops further back, though here and there there was a patch nearly ripe. As a rule, the drought had nearly as great an effect in this district as elsewhere. The crops generally showed a shortness of straw, turnips and potatoes very blanky, and the creeks all dry. After travelling a few miles, while crossing the valley of the Waitepeka, I stepped off the road and went up the creek side to get a drink, but the only hole I found with water was so covered with drowned grasshoppers that I could not stomach the liquid. I tried a house a little further on but there was no one there, so had to tackle the opposite hill with my thirst unsatisfied.

But my patience was amply rewarded. I was approaching the most beautiful stream in all the Clutha district—the Puerua—and came upon it quite unexpectedly. I saw a bridge on the road, but thought it only crossed a dry channel, like one or two others I had passed on the way. But when I got near enough, there was a fine clear stream, rattling quite musically over the stones in its bed, with a real home look about it. If the flax bushes on its banks could have been replaced by alders, hazels, and such like plants, it would have been an exact facsimile of a Scotch "water." The road from Warepa, &c., comes down here, and up it lay my way. Passing the church where the Rev. Mr Bannerman preaches, and crossing a small hill, I came in sight of this very beautiful place. The river comes through a wooded gorge from the high ranges behind, and then flows in a fine wide open valley. A belt of bush extends some distance from the gorge, and forms a screen or frame, in which are set the two houses—Major Richardson's and the Manse—the whole forming a really beautiful picture.

After my call was made, I sallied out to have a short ramble over the environs, and first inspected a suspension bridge across the Puerua, built by Major Richardson for the convenience of the people about the place. That gentleman has also executed a great many improvements. In particular, large numbers of trees have been planted in

clumps and belts, which will in future add greatly to the resources of the district. From the bridge I was taken through the gardens and nurseries attached to Willowmead, where I found many fine trees, both native and foreign, in all stages of growth. The dry weather rather detracted from the appearance of the plants, but all seemed healthy and vigorous. I was then conducted through the belt of bush behind the house, and away up the river side for some distance. The scenery here was lovely. The water comes down over a series of rocky ledges, with a high bank on one side, covered with trees of many sorts. Every turn made by the stream forms a picture complete in itself, with all the accessories of rocks, trees, and moving water. I spent some time rambling about the banks and among the trees searching for ferns, but found none peculiar to the locality. I was quite delighted with the Puerua, and left its pleasant streams with regret.

In the evening I started to complete the remainder of my day's work, and instead of proceeding by the road up which I had come, I struck over the ranges so as to hit the road a good bit farther on—at the district Post Office. Here there is a garden on which the owner has spent a good deal of labour and no small amount of taste in forming beds and walks, protected from the winds by live fences, which he has cut into numerous fantastic shapes, quite in the old Dutch fashion. There are some rare plants, too, and the place is well worthy of a visit. From this point I had two or three miles farther to go, the road running through a series of ridges, lying parallel to the main range to the westward. These ridges have mostly a more or less extensive patch of bush on one side or other, and the hollows and slopes nearly all carry a heavy crop of Phormium. Cultivation is progressing here and there, and a good many improvements are in course of execution.

After proceeding, as I thought, about the distance my destination was said to be, I met a man on the road who told me I had yet a good half mile to go. But as if to exemplify the vague idea that many people living in the country have of distance, though I stepped out pretty smartly, this good half-mile took me just forty minutes to travel. My directions were to look out for a house on the roadside with some trees near it. Not seeing any such house, I kept pegging away until I did come to such a place, and on making enquiry, found I had gone considerably past the proper spot. However, it's an ill wind, &c. I found here the only party who was living at my destination. On making myself known, I was at once made welcome, and my new-found friend proceeded back with me, and soon made me as comfortable as circumstances would permit. On making my intention known to him—that I wanted to proceed as far down the country as the Nuggets he entered *con amore*, into my plans, and we sat down before the fire to talk the matter over, with the following result: As the Nuggets were 13 or 14 miles away, it would make it a rather hard day's work to walk all the way there and back, my friend was to get up smart in the morning and catch a couple of horses, then grazing in the paddock, and we were to make the journey as outside passengers.

PAKEHA. Feb. 1872.

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from *Otago Daily Times* 12 March 1872, reprinted *Otago Witness* 16 March, 1872

HOLIDAY RAMBLES IV
THE LIGHTHOUSE AT THE NUGGETS

Saturday, the 3rd February, broke dull and hazy, and for a time the promises of its turning out fine were rather doubtful; but by the time breakfast was over and the horses caught and stabled, the clouds broke up and the sun shone out pleasantly. It was not without a good many misgivings that PAKEHA attempted the feat of getting astride a horse, and when there felt uncommonly nervous and uncomfortable at his unusual elevation. But his Rosinante was a quiet steady-going animal, and after a few minutes' gentle walking down the road, his diffidence disappeared, and he felt more at ease, less critical with the saddle and other appurtenances, and able to look about him. The first mile or two of the road lay through a ridgy, undulating country, and it was often puzzling to a stranger how the road was to get out of one hollow to another; but there was always a low place somewhere. After passing a creek called the Paratta, and mounting a small rise, the sea appeared in

front, and the river Clutha, the intervening ground being an extensive swamp, dotted over with a few houses, the representatives of the future township of Port Molyneux. After calling at the Port we turned to the right, and after a short ride over a roughish road, emerged on the beach, along which we had to proceed for some distance. This gave a good opportunity of seeing the mouth of the river, and the long tongue of sand which divides it from the sea. The tide was low, and the breakers very nearly covered the whole of the bar, over which there seemed to be a strong current running.

A short way further on there is a small diggings, where very good wages have been made by different parties for a long time back; but unfortunately the creek which supplied them with water had stopped on account of the drought, and the men had knocked off work. We, therefore, lost the chance of seeing how a beach diggings is wrought, further than inspecting the holes, races, wheels, &c, employed in the process. The Maoris who live on the adjacent reserve also have a claim, but they, too, were idle from the same cause. The creek, one of them informed us, had never stopped running before in the memory of the oldest man.

From this point our course lay along what is known as Wiltshire Bay. Wiltshire was an old settler here, who belonged to what may be almost termed the pre-historic period of Otago. He introduced cattle to the district and had them running on a flat behind the bush which here lines the coast, and they very much deteriorated in course of time from want of a change in the blood, until they became very small and peculiar-looking animals. It is long since he left the place. What a history some of these old worthies could tell of the early days, if they could only be got to tell it. We rode over to the Kaik where the Maoris live, and had a look at them and their surroundings. They were about an average lot as Maoris go—some fine young men among them, and some pleasant looking children, but the rest were no beauties. They live in what might be made a very pleasant place, and able to produce everything they require in plenty; but it is sadly neglected.

Our way from this lay along the beach, sometimes down on the sand as we crossed the bays, and then up on the edge of the bush, or in among the trees, as we had to cross the various little headlands, more or less rocky, which come down from the high land beyond the bush. Down to one of these bays, from a beautifully wooded valley, came a small stream, and we rode our horses some distance up in order that they might get a drink. Some of the land here is fairly situated for settlement, and no doubt will support a few farmers and their families in ease and comfort. Certainly the bush is very dense, but it is not more so than many other places, and they would always have a good road to Port for their produce. Further on from this the coast becomes somewhat more rugged, and the road occasionally leaves the beach and goes a good way up into the bush. This gave me an acquaintance with some trees I had never seen before—in particular the Rata (*Metrosideros lucida*), which was then in full flower, and gave those parts of the bush in which it grew a very fine appearance, the flower being a bright red. What seemed to me a new variety of the *Schffleria digitata*, was noticed here and there, having a large rough leaf, but having no means of preserving large specimens it had to be left behind. The Birch, too, was common, some of the trees being very big; but its flowering season was over. Botanising on horseback, however, was rather a difficult operation; besides, it detained my companion unnecessarily, his horse not being so patient as mine, so we pushed on, trusting to get a few specimens on the way back. After crossing several other headlands and small bays, the storehouse where the materials for the use of the lighthouse are landed hove in sight, and as the lighthouse seemed but a short distance off, we here dismounted and tied our steeds to trees.

Fish of various sorts are very plentiful in the bay outside, and landing is generally easy, some outlying rocks acting as a breakwater, so a couple of fishermen have located themselves here, erected a smokehouse and other appliances, and mean to go in and work up a trade in dried fish. From conversation with them I learned that they had tried the green fish trade, taking the

fish to Port Molyneux, and thence up the Clutha to the Ferry, &c. But the long distance these places are from the fishing ground, and the very small encouragement given them by the residents, had fairly driven them from a continuance, and they had determined to try the other line, for which they thought a steadier market might be had. I wish them all success.

From this bay the lighthouse is apparently only a small distance off, but is really more than a mile, a long narrow gully having first to be headed ere the top of the ridge on which the buildings stand is attained. The ridge is here quite narrow, and the other side goes almost plumb down into what is well named Roaring Bay, a continual heavy swell rolling in among the rocks beneath. The view from this point is a very fine one. In front is the ocean—misnamed Pacific here, for it is never quiet—and to the right rises a bold rocky line of coast, running up into pretty high hills, covered to their summits with very dense bush, the trees standing close together, and the tops all lying the one way, being kept as closely cropped by the prevailing S.W. winds as if they formed an ornamental hedge in a garden. It seemed as if, once on the top, one could have travelled over them without touching the ground at all. Away down the coast the bold rocks at the entrance to Catlin's river could be seen, with a long expanse of tumbling water round to the point on our left. A short way up from this a small clearing is passed, where the lightkeepers grow what vegetables and other things they require in that line. Passing round a corner from the garden, the building in which the lightkeepers live came in sight, and a thoroughly substantial well-finished place it is; everything about it clean and in first-class order. While admiring the outside, who should come forward but an old acquaintance in the person of the principal lightkeeper—Mr Cunningham—who most cordially made us welcome to his house and all that was in it. A mutual fire of questions and answers was carried on while something to eat was made ready and partaken of, our long ride and the sea air having produced very sharp-set appetites. Our next object was, of course, to see the lighthouse, and here our obliging host introduced us to quite a world of wonders. The lighthouse stands about a third of a mile from the dwelling house, communication between the two being kept up by means of a telegraph, which is used to call up the relief watch during the night. A well-fenced footpath leads up to the point where the light stands, at the extreme edge of the precipice.

On entering, the first thing that strikes the visitor is the great cleanliness and order in which everything is kept—no dust, no litter. Many a housewife in the country might go to the Nuggets and take a lesson in that department. After a general look round, the first thing explained to us was the machinery by which the oil (colza) is pumped up to the burners; a most ingenious piece of mechanism moved by clockwork, which also keeps in motion a small hammer for the purpose of striking a bell, a continuous "ting, ting," being kept up all the time the light is burning, the regularity of the stroke and its tone being guides to the man on watch, that all is right or the reverse. Every possible means and appliance that science and forethought can procure is here to be found, all with the single object in view that the light be kept burning bright and clear. The burner is on the argand principle, having four circular wicks, one within the other. The light is reflected, magnified, and thrown outwards, by a system of lenses, of great number and many shapes. It is of the first order, and can be seen twenty-three miles off at fifteen feet above the water. The system of lenses was invented, by a Frenchman, named Fresnel, and improved upon by Messrs Stevenson, of Edinburgh, the makers of the present apparatus—the lenses having been manufactured by Messrs Chance, of Birmingham. The whole apparatus is so arranged that there is the smallest possible loss of light. The pumps throw up a considerable quantity of oil in excess of what is actually required to feed the lamp, the object of this being to keep the burner and its connections cool—the overflow running into the cistern beneath. The whole arrangement is a perfect marvel of neatness and economy.

After having explained the lighting machinery, Mr Cunningham pointed out to us a most peculiar effect produced by the

lenses in looking at the scenery outside. Just below the lighthouse are some ten or a dozen large isolated rocks (the Nuggets), the waves continually washing round about them. On looking through the lenses at the rocks, they are seen in reverse—upside down— with a fine display of colours round each of them; wherever there is broken water outside, there is a rainbow on the lense. The whole scene looked like a highly coloured photograph in motion. The phenomenon is produced by the lenses decomposing the white light thrown up from the breakers.

After seeing all the arrangements in the interior of the lighthouse, Mr C. took us to the store room, where the oil, wicks, glasses, duplicate apparatus, &c., are stored for use; and then pointed out to us a number of things outside, the lightning conductor, telegraph, &c. Generally, the view from this point is very fine and extensive, embracing a large section of the Clutha district, Kaitangata on to Tokomairiro, Maungatua, and the hills about Dunedin, and a long stretch of the coast up to about Quoin Point. But on this particular day, the fog of the morning had not altogether disappeared, and the horizon was blurry and indistinct, preventing us seeing the more distant places, though those near at hand were plain enough; so after lingering a little, and watching the ceaseless dash of the waters below, we turned and proceeded down the path towards the house, both of us immensely pleased with all we had seen.

Bidding adieu to our kind and intelligent guide, we retraced our steps towards where our horses were left, examining the bush as we went down for ferns, &c. There were a great many birds about—tuis, mokas, and others; and as we passed down by the gully mentioned before we were startled by hearing a bird-call neither of us had ever heard before. It was loud, clear, and shrill, and so near at hand that we threw stones among the trees in order to raise the bird; but we did not succeed in making it show itself. We learned afterwards, however, that the bird was the Saddleback— *Creadion carunculatus*, and that it has the shrillest note of any bird in the New Zealand bush.

Our horses were found all right, and after exchanging a few remarks with the fishermen as to their prospects, we started for home, my mate leading the horses, that I might have an opportunity of getting some flowering plants, particularly the ironwood. After securing these, I mounted, and we rapidly retraced the track through the bush and along the beach to a point where there were a great many shells. Dismounting here I searched the beach for whole specimens, as most of them were broken by the surf. A good many kinds were present, the *Haliotis*, all three sorts, perhaps the most plentiful; nearly equally so, was a small *Triton*, very prettily marked with red and yellow lines; cockles, mussels, and oysters abounded, but all very much broken. Filling my pockets with as many perfect specimens as they would hold, I got on board my animal again, and proceeded. The noise of the shells rattling in my pockets evidently annoyed the poor beast, and when crossing a bay a little way further on it took command and bolted. Keeping my seat with some difficulty, I managed to steer it up the beach to a bank of loose deep sand, which speedily brought it to, and for the rest of the journey it behaved itself as well as usual. After this, we made rapid progress homeward, which was reached about 7 o'clock, without further adventure.

PAKEHA, February, 1872

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from *Otago Daily Times* 14 March 1872, reprinted *Otago Witness* 23 March 1872

HOLIDAY RAMBLES V
PORT MOLYNEUX, BRUGH'S BUSH, GLEN-OMARU, THE CLUTHA, COAL POINT, KOAU BRANCH, BALCLUTHA TO DUNEDIN

Next day walked down to Port to church. The building in which service is conducted serves both the educational and religious wants of the district, and is rather shabby in appearance, wanting a coat of paint very badly. It does not say much for the district, considering it was one of the first settled in the Province, that a separate building has not been provided for divine service long ago.

After service, instead of going direct back, we made a long detour to the ranges to

the westward, in order to reach a place called Brugh's Bush, where there were said to be some rare ferns growing. As the day was fine, this proved a very enjoyable round. On reaching the bush, it was not very long before the fern was found, when it proved not to be so very rare after all—the *Gleichenia Cunninghamii*—though certainly beautiful enough to attract the notice of even the most careless in such things. Seeing that this fern was to be found here it was thought not unlikely that some of the same family might be found, probably *circinata*. So after calling on Mr Brugh, we, accompanied by that gentleman, started into the bush to the rear of the house. But, though we found the order *Filices* very well represented, nothing new was discovered—nothing more than can be found any day in any of the numerous gullies round Dunedin.

Between the general vegetation, however, and that near town, there was observed a very marked difference. There was very little Manuka to be seen, while there was plenty of Rata; of Broadleaf, so common near town, there were few, while Birch was plentiful. The pines were pretty well represented, and one noteworthy fact was this: that young Rimus, which can hardly be got near Dunedin at all now, were there in dozens, of the greatest beauty, of all sizes, from a few inches up. Some of the rarer Lycopods were also abundant. After a long ramble amongst the trees we returned to Mr Brugh's, and after looking over his improvements, started, after tea, across the flax ranges and gullies, to Glenomaru, to look at the flax mills, &c, reaching home just after dark.

Next morning was dull and damp, and after bidding farewell to my kind friend I started again for Port, with the intention of getting over to Coal Point, and thence working my way over the ranges to Tokomairiro. But the damp became heavy rain, and by the time I reached Port the weather seemed as if it had fairly broken. The steamer *Tuapeka* was about to start on her usual up-river trip, so getting on board, we were soon under way up the broad and placid bosom of the mighty Clutha. The steamer had to proceed up the Matau branch an opportunity of seeing more of the river than I had expected, and very beautiful it was, too, notwithstanding the rain. Every now and again could be heard the booming of the breakers on the other side of the narrow bank of sand which divides the river from the sea, and when the monotony of the sand gave place to a long, low, wood-covered island, the scene became more beautiful still.

On nearing the short jetty where the coal waggons are brought down, the steam-roarer (for it can't be called a whistle) of the boat was put in requisition to bring down the colliers, for there was no body about. And the echoes of the place had to be awakened time after time before any one put in an appearance. Meanwhile the people belonging to the steamer were busy putting on board what coal there was, rain falling steadily all the time, which prevented even a run across the narrow neck of land to the pit. More waggons full of coal were brought down, until the steamer's bunkers were full, and then turning round, the boat headed for the other branch. In our progress down, we disturbed a good many birds; in particular a pair of those now (alas!) rare birds—the white heron—rose from the wooded island before mentioned, and soared round and round as long as we remained in sight. Some broods of young ducks were also noticed, swimming among the reeds and long grass by the river side; while overhead small flocks of terns and an occasional grey gull were wheeling about. Indeed, I observed that all round the southern district birds were much more plentiful than in the north. Ducks, pigeons, kakas, pukekos, and others, were frequently met with whenever the ground was likely to favour their presence; while, in the north, I never saw a native bird—no matter what ground I was travelling over.

On reaching the south-west point of Inch Clutha, the steamer turned sharp round and entered the main branch of the river—the Koau. Here the current was somewhat stronger, and as a consequence the speed of the boat less, but it gave all the better opportunity of observing the shores on both sides as we steamed up. It was still heavily raining, so one was just as well on board the steamer as anywhere else; indeed, the farther up stream we got, the rain seemed to come down the harder. The river preserves a somewhat uniform width nearly all the way up, and the current is steady. The banks are low, and the country on both sides quite level for a long distance, so from the

wheelhouse of the steamer a clear and uninterrupted view is got. A course nearly mid-stream was mostly kept, but occasionally one side or the other had to be approached quite close, in order to keep in deep water. In this way, we kept vibrating, as it were, from one side to the other, which had the effect of changing the point of view, and giving something new to look at every time the course was altered. Here and there the stream is eating into the banks in a serious way, and large pieces of land are every year lost to the settlers from this cause. At various points, where trees have been growing on the land, they are sticking out into the water in different directions, and causing a heavy ripple. This is also a frequent cause of snags. Of these dangerous impediments to navigation there was none for a long distance; but after passing several of the reaches a big one hove in sight, with the water dashing noisily over it. It has been in its present position for a long time, and seems to have a very firm hold of the bottom. Islands, varying in size from a mere tussock of grass tip to many acres in extent, were passed every now and then, and occasionally farther progress seemed to be barred altogether by a belt of trees. But there was always a way out; on nearing the obstruction, what looked like a narrow creek opened out gradually, until on turning a point it was seen to be the whole width of the river, and the current running perhaps a good deal faster than at the other portion of the channel. In this way, passing many a pretty spot, the steamer kept steadily pushing herself up stream, until, after passing Finegand and one or two other places, Balclutha came into view, and almost simultaneously the rain came on harder than ever, and on looking away up the valley the hills were seen to be almost blotted out of the landscape. However, by this time we had been fortified by a good dinner, and consequently felt as jolly as possible under the circumstances.

Although the township was in view, it was not yet reached, for the river makes a great bend here, and it was a good hour ere the steamer was made fast to the old slip on the bank below the bridge. On getting ashore, everything was found wet and muddy, but the rain had stopped for the time, and after making a call or two, it was found best to take shelter in a hotel. The weather had got very cold, too, which, with frequent pelting showers, effectually prevented any outdoor doings for the rest of the afternoon; so, finding an unexpected store of literature on the shelves of mine host Dalziel, I speedily forgot all about the weather.

Next morning was much the same, a cold sou'wester blowing; so took the coach for Milton, the sole passenger inside for half the distance. Found the weather get warmer as we got north, and ere the Tokomairiro Plain was entered on, the sun shone out and all was mild again. After the great heat of the previous week or two, this change to cold bleak weather was felt very keenly. At Milton the usual short stay was made, and then the coach started for Dunedin, where we arrived at the regular time in the afternoon, without further incident.

PAKEHA. February, 1872.

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from *Otago Witness* 13 April 1872

AN OUT WITH THE FIELD CLUB

Hearing that some of the members of this Club were going to make a ramble over the country at the back of Flagstaff on Friday last, I repaired to the rendezvous and introduced myself and my wish to accompany them at one and the same time. No objection was made, and after a short delay, waiting for one who promised to come but didn't, we started. Our way lay up the valley of the Leith to the sawmill, and then up the picturesque glen that leads to the Water Company's reservoir. The day was powerfully hot, but our leader would admit of no delay, as the distance to be got over was very considerable. After passing the Reservoir—the level of the water in which was very low—we entered a patch of bush, the shelter of which was very refreshing. We then emerged on the district road, and began to look about us; a solitary beech tree, which stands a little way up from the road-side, affording a very convenient starting point for a most interesting discussion on trees generally, which lasted till we were a considerable distance up the road, near Mr A. H. Ross's property. Here we met that gentleman, who courteously invited us to rest a little.

On making another start, and passing through the clearing, we entered the bush, taking what our guide called the right-hand track. There are many fine trees on the steep hillside, and the track is carried nearly straight up for a good distance, the variety of vegetation giving plenty of scope for the predilections of my botanical friends, who amused me very much with the glibness and celerity with which they gave expression to strings of long-nebbed words—the names of the plants picked up every now and then. Polypodiums, lycopodiums, hymenophyllums, dacrydiums, epilobiums, and others, were bandied about with the utmost profusion, till a difference of opinion arose about the name of a fern. One maintained it was one thing, while another said it was only a more advanced stage of another growing plentifully further up the hill. So a frond was plucked and put away for comparison. Meanwhile, both by precept and example, our "boss" was urging us to step out, or rather up, as he thought we were wasting rather too much time.

On emerging from the bush among the flax on the hill-top, a rest was taken, a specimen of the other fern procured, and a comparison made. The two were very much, alike, certainly; but on applying a magnifier, a considerable difference became apparent, and the two species determined to be *Dicksonia antarctica* and *Alsophila Colensoi*. After this knotty point was settled, we started again, our way lying over a very rough tract, covered with heavy flax and other scrub, besides being very steep and stony, which made progress very toilsome. But we were kept at it, nor allowed to stop until we reached a spring which issues from a small hollow, and flows away down the hill until it reaches Nicol's creek. The water here is strongly impregnated with iron, a reddish deposit being laid down as the water runs away, but it is very cool and pleasant to the taste.

From this point the slope was much more gentle, and we got on a good deal easier, and after traversing a long stretch of ground covered thickly with snow grass (which I learned is not a grass but a sedge), the ridge was attained, and the country on the opposite side came into view. Indeed, the prospect from this point was magnificent, and I could not help stopping every now and then to look around, at the risk of being left behind, and having to walk hard to come up with my mates, who seemed quite accustomed to follow their leader over any sort of ground. However, after a little, walking got much easier, as we soon left the ridge behind, and began a down hill track, which was sometimes more steep than agreeable. But it was always down, and though a stop was made now and again to pick up some late flowering plant, it was not long until we were at the spot where our lunch and our longest rest were to be taken. This was at the side of the Whare Creek, a fine, clear, sparkling stream, running in a deep bed, covered with boulders of all sizes.

Here we sat and enjoyed ourselves, the previous fatigue making the rest and refreshment all the more acceptable. I observed that my scientific friends were like the famous St. Mungo of old, who drank water when nothing else was to be had. First one and then another pocket flask was produced, from which were served round small modicums of something a little stronger than the burn which was running by, and which helped to make our *al fresco* feast go very well.

After discussing the good things, my mates proceeded to botanise, and I learned that this locality is quite a famous one, two rare ferns being got here—one a little mite of a thing, the other like a miniature parasol. Indeed, the place seemed to me to abound in strange plants, other than ferns, for there were many odd things growing about. After exploring the place pretty fully, we proceeded on a little way, and turning a sharp corner over a low ridge entered on a most singular bit of country, abounding in all sorts of irregularities. Away up on our right rose a perpendicular face of hard sand, worn by the wind and weather into all sorts of lines and grooves, while in front were mounds, and hollows, and ridges, and gullies, intermixed together in the most admired disorder—the whole forming, I should say, rather a hard nut for the geologist to crack.

Our next object was to find out a seam of coal which had been discovered there lately, and proceeding over the rough ground above mentioned, during which progress we had two or three small swamps to get through, we attained a rough dray track leading towards the coal, the distance being, as we learned from some men who were fencing, a mile and a quarter. Like most country miles, this was rather a long one; but we soon got over it, and attained the summit of a high ridge, down the opposite side of which, and down a spur leading into the valley below, we could see the

track winding. Here our conductor declined proceeding any further, as there was not only the long walk back to town, but a long night's work before him when he got there, so he despatched the rest of us down the glen to the coal seam, while he remained on the ridge to get a rest. We were not long in discovering the coal, which crops out beneath a high bluff, quite close to the edge of a fine stretch of mixed bush, containing many fine trees. The coal, or lignite rather, seems of good quality, and can be obtained in any quantity, as the seam is about seven feet thick, and easily worked.

After looking round, and a talk with the solitary man who mines the coal for the engine at the flax mill on the other side of the Flat, we retraced our steps up to where we had left our companion on the top. From this point, after a short stay, during which the contents of the flasks were slightly diminished, we commenced our return journey to town. This we did by a different road to the hill tracks we adopted on our way out. Keeping down the dray road, past the fencers, we soon arrived at a fine bridge which has been constructed across the Creek by the local Road Board, and then up a cutting through another sandbank, we passed along the other part of the Flat, and then commenced a long and toilsome ascent over the western spur of Mount Flagstaff. Our guide seemed quite invigorated by the short rest he had had, and he pushed rapidly ahead, leaving the rest of us a good way in the rear. Close to the top of this spur we passed a small creek, when of course we had another drink, and after procuring some specimens of the spear grass, which grows plentifully here, started again along the hillside to the right. By this time the sun was nearly on the horizon, and we had a glorious view of the Taieri and the districts beyond—the lights and shades caused by the position of the sun being very remarkable. Just at sunset the rays of light came through a hole in a cloud, and the display of colour was lovely. We could not help stopping to admire the scene, although the glory and splendour nearly blinded us, and caused us, when we turned reluctantly away, to see suns glittering all round about. We were still a long way from town, and nearly 1800 feet above the sea, so our speed was increased slightly, until the fine district of Halfway Bush lay before us, the prospect getting grayer and more indistinct every minute. We at length reached the top of the long steep pinch leading down to the main road, along which we could just see a coach rattling, and a smart half-walk half-trot soon placed us on level ground again.

From Halfway Bush our walk into town was uninteresting, as the light had quite faded away into darkness, and none of us were sorry when the lights of Dunedin hove in sight from the top of the Kaikorai Hill, and the cab stand at Rattray street was reached at 20 minutes past 7. The distance we had traversed since starting from the north end of George street could not be estimated at less than 20 miles, over a rough hilly tract indeed, but rendered very pleasant and instructive by the lively chat of my mates, as well as anything but wearisome. I was sorry to learn that this was likely to be the last meeting of the Club for the season; the advancing year and the shortening day rendering an afternoon's excursion to any place at a distance almost an impossibility.

PAKEHA. April 1, 1872.

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from *Otago Witness* 3 August 1872

REPORT OF FIELD NATURALISTS CLUB
[Annual meeting of Otago Institute]

Mr P. Thomson read the Report of the Field Naturalists' Club, which was as follows:-

In laying the doings of this branch of the Institute before the members, the Honorary Secretary desires to congratulate them on the fair amount of success which has attended their labours during the past year. Almost as a matter of course, although other subjects have not been neglected, Botany has been principally followed in the various excursions, and pretty fair collections of plants have been made. An intimate knowledge of the district has been gained by some of the members, who have been induced to visit localities they would otherwise never have heard of.

During the season twelve meetings took place, in the following order. There was a good deal of wet weather at the beginning of spring, so that it was not until the 23rd September that the first meeting took place, after which they came off pretty regularly about once a fortnight. No. 1 was made to the lower part of the gorge of the Leith, and to a fine waterfall on one of the tributaries of that

river; the members enjoyed the visit to this interesting locality very much, as it was quite new to nearly all. Before parting it was arranged that the next meeting should be held that day fortnight, on the 7th October, and the district chosen was from Lawyer's Head along the beach to Tomahawk Bluff. The state of the tide and the surf did not allow of any objects of natural history being collected, nor were the party able to get into the caves. The third excursion took place on October 21, the locale being the Water Works gully, and the upper part of the creek on the slope of Flagstaff. No. 4, on 4th November, was along the line of the Port Chalmers Railway as far as the Brewery, and thence over Signal Hill, and so back to town. This was a very pleasant excursion, and a large number of plants were collected. The fifth one was made on December 14, to the upper part of the Leith valley, and was pretty numerously attended, as the day was a holiday. The locality was pretty thoroughly explored, and some rare ferns and mosses were collected. Some broken weather and the holidays intervened, and it was not until the 20th January that another meeting was held. On this occasion there was a good attendance of members, and the scene of their labours—the bed of the Owhio creek, at the head of the North-East Valley—was reached by cab. The very hot weather which prevailed about that time prevented a good harvest of plants being gathered, as most of the more tender species had become quite dry and shrivelled. The next trip was on the 10th of February, and was made to the Halfway Bush district, and from thence to the top of the Flagstaff Ranges. Some very fine plants were gathered on this round. On the 24th February, although the weather had been rather wet, and the roads were dirty, the members met and went over the works of the Southern Trunk Railway, as far as and including the Look-out Point Tunnel. They were accompanied over the works by Mr Blair, the Engineer, who most obligingly pointed out all that was interesting. Some fossils were picked up among the spoil at the mouth of the tunnel. The ninth excursion was made on March 9th, to the Forbury Head and neighbourhood; a few shells were gathered on the beach, and a number of ferns and other plants collected along the base of the cliffs. On Anniversary Day, March 23rd, came off the tenth of the Club's excursions. It was to the top of Mount Cargill, and was perhaps the most interesting and the most successful of the season. A large number of the higher growing ferns and other plants were collected, and the members enjoyed to the full the splendid prospect of the surrounding country obtained from the summit. The eleventh trip was also a mountain one, being over the Flagstaff ranges to Whare Flat, and thence among the gullies to a spot where an outcrop of coal had lately been discovered. This was reached, and specimens obtained, and the locality examined. The twelfth, and concluding excursion, was to the School Creek and neighbourhood, during which attention was given mainly to the tree ferns—some difficulty in regard to their recognition existing among the members. From the above brief statement, it will be seen that the Club has not been idle, but has performed a fair amount of pretty hard work. It is proposed during the coming season to do something in the way of making a collection of the mosses, of which the Museum does not contain specimens. The spread of acclimatised weeds is much noticed by the members—either the dock, cape weed, thistles, or chickweed being found everywhere over the district. On the other hand, some of the native plants are becoming scarce, and will soon be extinct—clearing the land, the grazing of cattle, and the ravages of fire, are the main causes of this. The larger native birds, too, are gradually dying out; there are now very few in the bush near town, while cats and rats are common. In conclusion, it is urged on the members to increase the attendance at those excursions, as a means of instruction in the natural history of the district in which we live.

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from *Otago Daily Times* 14 September 1872, *Otago Witness* 21 September 1872

RAMBLES ROUND DUNEDIN
THE TRACK UP THE GORGE OF THE LEITH

This is one of the most beautiful tracts of scenery in the whole Dunedin district, and since the above track was opened—now about two years ago—has been visited by

hundreds of people, all of whom have been delighted with the ever-changing views to be obtained from each winding of the path. The writer made his preliminary ramble for the season the other day and chose this path in order to see what damage had been done to the works by the late severe weather. Though several times up the track during the late summer, he had not been since the bush fires had ravaged the district, and he was not prepared for the terrible destruction which had overrun the locality.

By a very judicious improvement, the "glue-pots," which encumbered the path at the very outset, and which used to deter many from venturing past them, have been obliterated, and a new approach made past the high rocky bank, opposite Douglas's clearing, and on round the corner until fairly within the gorge. The new part is wide enough for dray traffic, and is a continuation of the road up the valley from Duke street, so that it is quite easy to take a cab from the stand and drive right into the mouth of the gorge. It is intended to carry the road right on, but meanwhile it is not formed any farther than the point named; however, as the track opens up a large district, covered with the most magnificent timber, it is to be hoped that the road will be carried on a little farther every year. A small sum was voted by the Provincial Council last session for the improvement of this track, and it is earnestly hoped that whatever authority has the power of spending it should set about it at once, there being the most urgent necessity for it, as the following lines will show.

From the point where the new made road ends, for a good distance onward, there is very little the matter with the track. The rains of winter have brought down a little earth and stones from the overhanging bank, and the stream has cut away some of the loose earth and caused a few slips, one of them narrowing the path to a rather dangerous ledge. Up to the point where Nichol's Creek joins the main stream, and from thence to the "Crossing," where the path shifts to the eastern side of the river, there is nothing required but what a couple of men could remove in a day or two with pick and shovel. Beyond the "Crossing," however, the difficulties begin. The fire which did so much damage last autumn has here come down to the bed of the gully and burnt all the timber over a considerable surface. There were many noble pines growing here, principally red and black, as well as a few cedars, and abundance of other sorts of wood, the whole forming a dense jungle, in which, among other plants, were many very fine ferns. Now, the way is blocked up with fallen trees, through which it is hardly possible to find a hole big enough to squeeze through. The trees are lying in every direction, torn, twisted, and broken; while others, still upright, are scathed and blackened to the very top. The soil, where pines are plentiful, is covered to the depth of a foot or more with the needle foliage shed from the trees; this in time consolidates into a sort of peat or turf, and when once fairly on fire is very difficult to put out, the fire creeping slowly but steadily along, and completely killing every living fibre or root it meets in its way. The bush in New Zealand seems very susceptible of fire, and never recovers a scorching, but dies away immediately, though the bigger trees remain standing a long time. After getting through the *chevaux de frise* which here barricades the path, there is little to hinder walking for a good distance, save that every now and then a large piece of rock or a boulder has tumbled from the hill side; but on nearing Rocky Point, nearly opposite the foot of Morrison's Creek, a landslip has occurred which has obliterated the track altogether for a few yards. Progress onward can only be made by taking advantage of some stones and roots which project a little from the clay bank, and a rather risky job it is, as a false step would incur the necessity of sliding or tumbling down some 25 or 30 feet into the bed of the river. This difficulty past, another little one of a similar nature is met with, the path having fallen away bodily into the creek below. Immediately beyond this the fire is met with again, and between fallen trees and lumps of rock the path is almost obscured. At the turn where the big Totara stood the destruct-ion has been very great, and immense masses of timber lie across the road in every direction. The fire here has been very strong, having been helped on by the large quantity of dead wood which lay on and about the bed of the creek. From the Totara onward, for a considerable distance, the path is interrupted by a succession of barricades, over or through which it is necessary to climb or creep. On reaching the level ground here, I was in hopes that the fire would have spared a spot well-known to fern-collectors—viz.,

that where grew the pretty *Gleichenia Cunninghamii*—the umbrella fern. To procure a specimen of that fern used to occupy nearly a whole day, as there was no other way of getting to the spot than through a surveyor's line from the Pine Hill road to the creek at the back of Pine Hill, and thence through the bush as direct as was possible. But since the track was opened the difficulty was removed, and the work rendered a pleasure. On my reaching the spot on this occasion, I experienced some difficulty in recognising it, so changed was everything. The place was one of great beauty, there being abundance of fine, large, well-shaped pines and cedars; but now, alas, *Ichabod!* its glory is departed. The trees are lying prostrate, higgeldy-piggeldy, at all angles. Some of them have their roots in the air, and their branches in the stream below. The ground has been on fire, and has burned down to the clay or rock, and everything living is dead and blackened, all the small wood having disappeared. Only the larger trunks and branches remain, and these are so twisted and plaited together that a passage is hardly practicable. The place where the umbrellas grew is a perpendicular cliff on the river side, some 14 or 16 feet high, and it used to be beautifully draped and festooned with that and other ferns—notably *Lomaria vulcanica*—down to the very water's edge. Now, it is a bare, blackened rock, with not a symptom of life about it, and any hope that the fern may spring up again must be a very forlorn one indeed. After spending some time looking round the locality, I tried to proceed a little farther on, but meeting with obstruction after obstruction, and my time being rather limited, I turned back on the path again. It was quite as difficult going down as coming up, and some of the tangles were even worse to get through. At one place I left the track altogether, and tried to get through on the hill above; but this was just as bad, and at length, getting into a labyrinth of half-burnt branches, I was glad to beat a retreat, and get back to the track as best I could. On arriving at the Crossing, I was not at all sorry to get the opportunity of washing my face and hands, which were both begrimed with soot from off the burnt trees and branches while scrambling through them. The remainder of the road was pleasantly gone over, and formed a complete contrast to the difficult walking on the upper portion.

Now, to conclude, this road cost a considerable amount of public money in its clearing and formation, which at present is as good as thrown away, on account of the circumstances I have attempted to describe above; the road has also proved of considerable benefit to the settlers in the vicinity, and also to the general public, to say nothing about the beauty and picturesqueness of the district through which it runs. Would it be asking too much if the Government were to employ a few men for a week or two to clear away the timber and other obstructions, and restore the road to the state in which it was before the late bush fires ? The amount voted would go a long way towards effecting all that is needed, and thus open up again for the public use perhaps the finest walk in the neighbourhood of Dunedin.

PAKEHA. Sept. 13, 1872.

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from *Otago Daily Times* 19 October 1872, reprinted *Otago Witness* 26 October 1872

RAMBLES ROUND DUNEDIN
MORISON'S CREEK

is that large tributary of the Leith which joins the main stream in the gorge opposite Rocky Point, about two miles above Douglas's clearing. It drains a large extent of surface on the northern end of the Flagstaff ranges—a series of small gullies uniting to form two deeper ones, which again converge into the deep rocky wood covered ravine down which the stream flows to join the Leith. Up this ravine the other day, the writer and a friend made their way in search of the picturesque generally, but more particularly in search of mosses, which grow in great luxuriance in these shady places.

Access to the "meeting of the waters" is not very easy at present, a landslip having occurred lately, which has blocked up a portion of the bank of the Leith at the junction, and compelled those who wish to get into the bed of the creek to go a little further up than used to be the case, and then, to have the additional work of scrambling over and through the rough ground and tangled jungle which form the tongue of

land, at the point of which the meeting occurs. Once in the bed of the creek, however, things are much more favourable for progress, as the stream has only to be followed up, and the difficulties are only those to be met with in all similar localities. These may be summed up in having to cross and recross the stream scores of times—the gully being so contracted that there is very seldom any room for a beach, and consequently walking alongside the water is impossible. The water finds its way down amid boulders and blocks of stone of all sizes, from a few pounds up to many tons in weight. These boulders, the debris, and the profuse vegetation which covers everything, render it quite impossible to ascertain of what material the bed-rock is composed; and it is not until a considerable distance up the creek has been made that any change in the material can be observed—all consisting of the hard basaltic bluestone washed out of the diluvial clay of the surface. Further up, however, frequent blocks of a reddish conglomerate are met with, containing fragments of many different rocks, and these are found to proceed from a formation through which the stream has worn its way, leaving here and there a perpendicular face of a few feet exposed. Above and beyond this again, there would seem to be a stratum of rock somewhat similar to that through which the Caversham Tunnel is cut, as rolled fragments were pretty frequent in the upper part of the creek-bed. One of these pieces, on being broken, disclosed a fossil, evidently of vegetable origin, two stems of plants, like two fingers, lying together, with faint traces of leaves, but too obscure and friable to permit of identification.

Our principal object in visiting the gully being the collection of as many varieties of mosses as we could find, we started to work a little way above the junction, and found, as we expected, that cryptogamic plants were very plentiful. Ferns, *Lomaria discolor* and *Aspidium aculeatum*, in particular, were abundant, and grew to a large size; while the leathery-looking *L. Patersonii* covered large patches of ground here and there. Our richest harvest of mosses was gathered from the fallen trunks of trees, which were more or less covered; but the ground in places, and stones and stumps, also yielded numerous specimens, and it was not very long before our available space for preservation of the plants was all occupied. We became a little more discriminating, and rejected faulty specimens for better ones, choosing those which showed the fruit as far as we could. We soon found, too, that though we fancied we were picking up new varieties every few yards, we were only duplicating, as it were, what we had already got, as a little comparison soon showed us the resemblance of the new ones with those already booked. While thus very pleasantly occupied, we had been slowly working our way up the stream, but a reference to the time soon informed us that if we expected to reach the clear land beyond the head of the gully, greater speed must be used. So we addressed ourselves to the task—and task it proved. There being nothing like level ground to walk upon, we had to hop, skip, and jump from stone to stone, crossing and recrossing the stream perpetually. Nor was this the worst of the job, for every now and then a fallen tree, or a quantity of scrub or branches would render climbing or creeping necessary, or squeezing through among the thick overhanging vegetation. By dint of holding on to anything likely to aid progress, and making use of every stone likely to afford a firm footing, we managed to ascend a considerable distance without having to leave the bed of the stream; but at length we came to a spot where the water was spread out into a pool, occupying all the space between the steep banks. In the middle, just within easy jumping distance, there peeped out of the water the top of a stone, but much too small to risk jumping on so as to again spring to the other side. Beside this stone, we threw a number of others, so as to make a small island, broad enough to stand on, and from which access across was easy. The fall of the stream is pretty rapid, tumbling and brawling among the stones in a very musical way, with here and there a small fall of a few feet high, sometimes forming, with the trees and the other accessories, scenes of the greatest beauty, at which we could have sat and looked for a long time without weariness.

But onward and upward was our motto, and we toiled away steadily among the stones, and trees, and lawyers, both of us

escaping so far even a wet foot. The upper part of the gully is considerably more picturesque than the lower, and the scenery improves with every turn. The trees began to get bigger, and large pines were growing close to the water side. Most of the bush was of a shrubby nature—fuschia, eini-eini, panax, tutu, and so on, with a thick growth of veronica wherever there was room for it. After making one or two sharp turns we found the gully contract again, the rock seemed to change to sandstone, and we came to an obstacle we could not surmount. This was a waterfall about 12 feet high, the stream coming down a sort of shoot or groove in the rock at an acute angle, and falling into a deep pool with smooth perpendicular sides there was no scaling. We overcame the difficulty by turning aside to the right and climbing up the bank some distance, and then onward till we passed the fall, which looked very beautiful from above. We then dropped down into the bed again, and resumed our upward way, which seemed increasingly rough and difficult the farther up we got. After a few hundred yards of this, the gully opened out a bit, and we were in hopes of being able to see some of the hilltops about, so as to ascertain our position; but all that became visible was a forest-covered slope in front and on either side. However, a little farther on we came to a point where the stream branched into two of nearly equal size, and we sat down on the bank and had a good rest preparatory to quitting the creek altogether, and taking the left hand spur until we came to the clear land beyond. The ascent of this spur we found a very difficult matter indeed. There was a very profuse undergrowth of fern, about waist deep, and we had to struggle through it as we best could, and the slope being very steep, our footing was treacherous to a degree. But by dint of perseverance and steady leg-work the obstacle was overcome; as we got farther up, the grade became less steep, the timber more open; ere long the welcome Phormium came into view, and we emerged from the bush into the bright sunlight.

It was our intention to have proceeded straight along the open hillside till we made the district road that runs along the top of the saddle; but a short way ahead some cattle appeared quietly feeding, and my companion, observing one turn and look towards us, fairly showed the white feather, and refused to proceed in that direction, insisting on our taking the other side of a ridge to our left, and he did not rest until he had put a good breadth of the ridge between him and the cows. This was amusing enough, but it entailed a good stretch of additional distance to walk over, and some very rough ground too, as well as taking us away from water. However, after a rest, we steadily plodded on, and soon left the ridge behind; striking to the sou-west, round the head of Nicol's gully, passing some fine patches of the pretty *Veronica vernicosa* and the larger-leaved *Cassinia*, and so reached the road. A short stretch of it passed over, we struck to the left again, and proceeded round the eastern shoulder of Flagstaff, and down by Ross's track to town, having occupied just seven hours on the road—from 11 o'clock till 6.

PAKEHA. Oct. 16, 1872

A VISIT TO SANDYMOUNT DISTRICT, OTAGO PENINSULA,
AND A BRIEF DESCRIPTION OF SOME OF ITS MORE PROMINENT NATURAL FEATURES

Read before the Otago Institute, 24th Apr 1873

Abstract available *Trans Proc NZ Inst* Vol 6, 1873 pp434-435

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from *Otago Daily Times* 18 March 1874, reprinted *Otago Witness* 21 March 1874

HOLIDAY RAMBLES
DUNEDIN TO BLOODY JACK'S BAY, CATLINS RIVER, OWAKE RIVER, OWAKE FLAT, HAUREDI BUSH AND FLAT, GLENOMARU, PUERUA, WILLOWMEAD, PORT MOLYNEUX, THE NUGGETS, KOAN BRANCH TO CLUTHA FERRY, TOKOMAIRIRO, HOME

The writer, with a friend of like tastes, having determined to put in course a long

expressed desire to have a run over the above-mentioned district, made arrangements with the agents of the s.s. *Wanganui*, to be landed either at Catlin's Bay, or at some point adjacent as near as possible. So we started per the steamer on a fine evening a few days ago. All was very pleasant until we got outside the Heads and well on our way to Cape Saunders, when a heavy sea began to roll in on the vessel's beam, and she commenced to roll exceedingly. A slight haze hung on the sea, through which the moon had just risen, giving us a view of the high bold, cliffs of the coast line. But the motion of the vessel soon put other thoughts into the minds o£ the passengers, who might be seen in various groups very intently studying the waves, and occasionally sighing deeply. This very soon gave way to actions of a more violent nature, of which the less said the better. The writer's mate had been boasting of his sea-going powers: but, alas! he too joined the sacrificial groups, and there was nothing but offering up going on all round. By this time, the vessel was well round the Cape, the night mild and fine, the moon shining brightly, which lasted till off the Ocean Beach, when the writer, who was lying on the cabin skylight, which formed a pretty comfortable couch, felt like to roll off, and laid hold of the edge of the frame to steady himself. But he had better have rolled off, for the affair gave way, and caught one of his fingers, tearing off the nail, and lacerating the point. This was bad, and put an end to his pleasuring. He went below, and the stewardess very kindly dressed the hurt, and wrapped the finger in cloth. But the pain of the finger, and the smells in the hot place below, turned his stomach, and for a time he was dead sick, and lay still.

Towards 4 o'clock, he was better, and went on deck to find the weather changed—a slight drizzle of rain falling, the sea still high, and the *Wanganui* just off the Nuggets light, which shone beautifully bright and clear. We shortly after ran into Catlin's Bay, and hove-to till daylight. The morning being dull, it was not till about 5 o'clock that we could see what like the place was, and the state of the surf. This latter was far too high to allow of our landing anywhere in sight, so the captain ran the steamer round the point into Bloody Jack's Bay, and let go his anchor. Things did not look very bright, but a boat was lowered, the three passengers - one a lady - got aboard, and were pulled in the direction of a fine sandy beach, a little way off. But, on nearing the surf it was easily seen there could be no landing there with safety to life. So the boat was pulled along the bay towards a rocky channel at the southern end, which divides the island from the main. Here a little nook among the rocks was noticed, in which the sea seemed easier than elsewhere, so the boat was run in and the passengers discharged dry footed, with the lady's baggage. Here we sat down to see how the boat got back. But there was little trouble—a bump or two, and she was off clear of the rollers, and on her way back to the steamer, which shortly afterwards up anchor and steamed off on her voyage.

So here were the three of us left, at an early hour in the morning, on a desolate rocky coast where neither had ever been before, with not the slightest idea of how to get through the thick scrubby bush which encircled the bay, and cut us off from the settlement at Catlin's River, some miles away. But here a little circumstance occurred, which helped us greatly. The lady had brought a dog with her, which got terribly frightened at the sea, and whenever it got on the land it bolted along the beach. We followed on its track, and on reaching the far end of the bay found the dog had left the beach, and gone into an opening in the scrub. On rounding the bay we found a large case, part of the cargo of the *Surat*. With some difficulty we turned it over to see the brand, which was RG in diamond, No.13____ , two figures rubbed off. (We reported this to the people employed at the wreck, and found it was a box of paper collars, melted to pulp by the water.) Following the dog's track led us up a steep bank into the bush, and then it was lost of course. But both my friend and myself felt at home among the trees, and it was not long ere we found a blazed tree and then another and another, till we struck a fairish track.

The vegetation was very different from the Dunedin bush, containing a great many trees which do not grow here—such as

ironwood, beech, bastard birch, and so on. We had not gone far through when we came upon a fine patch of *Hymenophyllum Javanicum*—a lovely fern now extinct about Dunedin. We secured a few specimens for our collections. Other ferns of the same family were very plentiful, particularly *H. Tunbridgense* which quite covered many of the tree ferns. Passing on from this, we crossed two or three dirty gullies, with fallen trees blocking the path, and then came on a place where a tree had been recently felled, from which a broad track led down hill. From thence our way was easy, and in a few minutes, tired and heated, we emerged from the bush at the tents of the *Surat* people, where our appearance excited no small surprise.

My first enquiry was for a doctor, as my hurt finger gave me great pain; but the reply was, "No, sir, there is no doctor, but I am the cook, and if you like I'll give you a cup of tea." I was in the act of thanking him for his kindness, when his eye caught our female companion, and he at once directed us to the Harbour Master's house close by, where we were made as comfortable as possible. A good breakfast was soon on the table, and afterwards my finger looked to and made right, with new bandages, by Mrs Hayward. We then started off with Captain Hayward to see the lions of the place. Passing the tents, we struck along the beach towards the Signal Station, where vessels entering the port are guided over the bar. A new house is being erected here for the Harbour Master and his family by the Government, and not before it was needed, for the present hut in which they live is quite miserable.

From this point we had a fine view of the unfortunate *Surat*, lying stern to the rollers, which were breaking over her whole length, sometimes the spray flying over her topmasts. It is not likely the ship will ever be got off. From the flagstaff we went down to a remarkable cave washed out by the sea in the stratified rock of which the hill there consists. We looked about for fossils, but were not lucky enough to find any, though said to be plentiful. Leaving this we turned up to the left, and through a very thick bush, to the top of a cliff, from whence we had a fine view of the coast down to Jack's Island, where we landed in the morning. On the edge of the cliff we found what to us was a new Senecio, but though we could see plants in flower on the shelving cliffs on both sides of us, we could not find one but was past flowering, and only the seed-pod remaining, and it was hardly worth risking life or limb for. We had hoped to see some birds in this bush, as the crow, saddle-back, thrush, and others, are not uncommon. But a thrush was the only one that fell to Captain Hayward's gun. Retracing our steps, we got down to the beach, and back to the houses to dinner, after which we began turning over the stones in the pools, and found four different sorts of crustaceans, of which specimens were stowed away. While so doing, we were terribly annoyed by clouds of sandflies.

We had intended going up the side of the lagoon to the new saw-mills, and thence across Catlin's River to the Owake. But we were hailed by some of the *Surat* people, and told that their boat was going up to the landing at the Owake with one of the men to take a message to town of the loss of the staging and diving apparatus by the heavy sea of the previous day. Of course we jumped at the chance, and bidding a hasty good-bye to our kind entertainers and our follow-passenger, we got on board the boat and were pulled up the lagoon to Catlin's River, and then round a sharp turn into the Owake River. This was really a pleasant sail, through most lovely scenery. The river winds along through the flat, covered with timber to the water's edge, and is about 100 yards wide, with a scarcely perceptible current. Our only regret was that it was too soon over; for just as we were thoroughly enjoying the scenery, the Old Mill hove in sight, with the schooner *Huon Belle* lying alongside taking in a cargo of sawn timber for Oamaru.

The landing place is on the opposite side of the river, where a good made road begins. Here we got ashore, and went up the road to an incipient hotel, where a buggy was to have been in waiting to carry on the man. While waiting here a little, we became acquainted with Mr Dutton, who manages the sawmill below. He very kindly invited us down to spend the evening with him. So we returned accordingly, and recrossing the

river, examined the sawmill, &c, and went up to his house, were introduced to Mrs Dutton, and had our tea. The evening was spent in the bush, up a long tramway which was used to bring the logs down to the saws. There are still a great many trees standing, both pines, ironwood, and beech; but all the best and most accessible have been cut down long ago. The land all round the Old Mill is of a first-class kind, and will eventually carry crops of every sort. As yet there is no cultivation near—not even a garden or a flower. The millers do not seem to have any time to spare for gardening, nor do they look upon a tree with any other idea than that of how many feet of timber there may be in it. As darkness came on we got back to the clearing, and had a look over the engine, a horizontal 14-horse power, which drives the saws; as also a miniature one, on the beam principle, made by the engineer, Mr Marshall, which went at a great rate by a small pipe from the other, and ground his coffee for him—a really first rate bit of work.

On getting back to the house, we found a concert going on, one of the daughters (Grace) playing sweetly on the harmonium. After some time spent thus we got to bed, and immediately after breakfast in the morning took to the bush again, working up the hill at the back, and over to the other side—back up another spur, and round to the Owake, getting back to the vicinage of the mills just as the whistle was sounding noon. This gave us a good idea of how the land lay, and we added many nice ferns to our collections. After a hearty dinner, we took leave of our kind hosts, were put across the river, and started again on our travels shortly after one o'clock.

Our way lay along the road we traversed on the previous day up to the hotel already mentioned, where we called for information as to our future course. This was freely given, and we proceeded over some flax and scrub-covered low hills with intersecting gullies till we arrived over an extensive level— the Owake Flat, which consists of some fine fertile land, most of which is settled on, and in course of breaking up for cultivation. The view here was very extensive, embracing a large extent of diversified country—hill and dale, bush and open, and capable in time of supporting a large population of industrious settlers. Up the Flat we could see a good deal of cut crop, and the stocks seemed standing pretty thickly. Starting again, we got down to the edge of the plain, which is here of a swampy nature, and proceeded over its surface a short way to gather some mosses. We found only one in fruit—a Sphagnum—but we found what pleased us better, the *Glychenia dicarpa*, growing plentifully in small tussocks. We lost no time in filling a few leaves of our books with specimens, which, however, are rather difficult to preserve well.

Starting once more, we got to the Owake River, here a nice clear running stream, and went down its banks for some distance to where a reef of fossiliferous rock crosses its bed. But not having a hammer or other implement for rock-splitting, our fossil hunt was rather barren. However, we got some impressions of ferns, &c, of which we carried off the best. The river is here crossed by a fine bridge, lately erected by the Government, connecting the Owake district with a fine road cut through a bush some three or four miles thick, leading over to the Hauredi Flat. This was a very pleasant walk, the scenery very varied; the hills now approaching, now receding, from the road, the bush entirely unbroken save by the road line. We did some exploring on our way, but found little difference between this bush and that we traversed in the morning. Plenty of fine timber of all kinds.

When we got through to the northern side of the bush, our time was pretty far gone. It was late in the afternoon, and we thought of tea and rest for the night. On enquiring of a man we met on the road, a locality was pointed out where he thought we might get accommodation. So we accordingly plodded on till the place was reached, and knocking at the door, made our wants known. But to our surprise, we were rather churlishly refused, and even a drink of water grudgingly granted. There was nothing for it but to push on for the next settlement, which was a long way off, over a rather rough tract of country.

But pluck and patience will work wonders, and after an hour or two's longer stiff walking, we found ourselves rapidly nearing civilization, in the shape of another

sawmill, Messrs Pollock and M'Vicar, Glenomaru. On addressing the latter gentleman, he at once sent us up to his house, where his wife kindly made us welcome, and had tea before us very soon. To this we both did ample justice, for our appetites were pretty sharp set with our long walk. We had not sat long when rain came on, at first gently, but afterwards heavily, and of course farther progress that night was out of the question. So a shake down was spread for us. Next morning the rain was incessant, and the day was passed in the best temper we could. Towards evening, the rain slackened, and I sallied out alone to find another friend who lived in the locality near by. Here, on making myself known, I was as heartily welcomed as it was possible, and sent off, after a crack, to bring down my mate, who was made as welcome as myself. After tea we went out to have a look round, and found a fine garden, with fruit trees and bushes, and all the etceteras belonging to the old settlers. The evening was cold, and there were frequent showers of sleet and hail, so we found an adjournment to the fireside a most agreeable change, where the rest of the evening was spent in sociable talk about "Auld Lang Syne" and things in general.

Next morning we proceeded down Glenomaru, amid some fine scenery, to Begg's flaxmills, where we diverged from the road, and crossed over several flax ridges, past Foswell, a little way up from which we emerged on the main road again. The roads were in some parts very heavy from the rain of the previous day, and walking was both slow and toilsome. Puerua was reached at 1 o'clock, and leaving our impedimenta at the inn there, we went on over the hill to Willowmead, the picturesque residence of the Hon. Major Richardson, where we were expected, and most hospitably received. After dinner we went out for a walk through the garden, and then round by the back of the bush to the River Puerua, a lovely stream here, flowing through wooded banks, and winding in and out, from light to shade, in a way that would gladden the heart of an artist. After going up the glen a good way, we crossed the river, and took a cut-line through the bush, where some ferns were found; among them, a new Alsophila. Getting back to Willowmead we got tea over, and then started back on our tracks, picked up our books, &c, at Whytock's, and then took the road to Port Molyneux—nine long miles. Of course it was dark long ere we reached the Clutha metropolis, so we at once made for the Alexandra (Paterson's), which we found nearly full of guests. There had been a schooner wrecked the day before on the Clutha Bar—the *Mary Van Every*—and her crew and a number of other people thronged the house. However, we found accommodation, and that was all we required.

In the morning, we began another stage of our journey—the walk along the coast to the Nuggets lighthouse. This is a much better walk than a ride, and we got along beautifully. We passed the place where the schooner lay, very much exposed to the surf, and then proceeded to the site of the Clutha Beach diggings. But all the workings were found deserted, the races all dry and crumbling back to their original surface; all that remained were the half-filled-up holes and mounds of black sand, with a wheel and a broken down Californian pump. Getting back to the beach again, we walked over the point and down opposite the Maori Kaik, along the sands of Wiltshire Bay, and it being low water, we had the fine hard sand to walk on, as well as the shortest curve of the bay to round. We soon got round into the next bay—Little Bay—and in it we found a dead porpoise, so well cleaned by the sand-hoppers, and others of Nature's scavengers, that it required little effort to disengage the bones. So carefully marking the spot that we might gather them up on our return, we went ahead again. Beyond picking up a few shells here and there in the next bay or two, there was little found. But in getting down among the rocks again to cut off a corner, we found another new fern—this time a Lomaria. We were rather surprised at this, for the district has been done again and again. We pulled a lot and stowed them away carefully. In the next bay porpoises were plentiful, and it was most amusing to observe them gamboling about and chasing each other in the waves. Sometimes they would come quite close in, and we could see them in the breaking wave, just as if set in a green frame. Farther out, we could see them leaping out of the water, and

over each other, as if fighting, the leaps reaching as high as ten feet out of the water.

We reached the lighthouse about midday, and were kindly received by Mr Cunningham, an old friend, who showed us over the lighthouse and explained all the various parts of the apparatus, as well as put the clock in motion to let us see how the oil was pumped up to the flame. The numerous lenses also came in for a share of our attention, with the singular view of the Nuggets and the sea outside, as seen through the glass refractor, as well as the funnily lengthened and distorted appearance of our faces. All was interesting. We lingered a little on the platform outside looking at the wild scenery away to the southward, where we landed a day or two before. To the north we had also good views, extending over the Clutha plain on to Tokomairiro and Maungatua. But a slight haze prevented our seeing the coast. The water beneath was beautifully clear and smooth, presenting a delightful contrast to that on the other side, which is well named Roaring Bay, the seas coming in there in long rolling surges with immense violence. On the hill above the path to the lighthouse we observed some good ferns and other plants; in particular *Asplenium falcatum*, which was of large size. On our return to the house, we found Mrs Cunningham had dinner ready, after which and a few yarns, we started on our return. The tide had risen considerably, and we had to take a much higher line for our walk back, and in one case got jammed altogether, having kept the beach too long. But we soon climbed up to the point and got on the road again. This we kept for a long time, and did not get to the beach until reaching Little Bay, where we left the porpoise. This we carefully gathered together, not omitting a bone if we could help it, and having shaken out the sandflies and hoppers, broke off the skin of the fins, and tied the whole up for carriage to Port, where we got a box and packed it for town. In the next bay to this, my mate noticed a peculiar-looking thing rising and falling with the roll of the sea, and said that it was a whale. I was incredulous, and replied "Very like." But on getting nearer, my companion proved to be right, for a whale it was, of the bottlenose sort, about 24 feet in length. It had hurt itself by hitting a rock a little way out, and the Maoris noticing this immediately took steps to secure it, in which they were successful, having brought it in and made it fast to a post on shore. We tried to open negotiations for the purchase of the skeleton for the Museum, but not knowing enough Maori our speculation did not go for much. We met the chief captor near Port and renewed the matter, but the same difficulty remained a bar to success.

The tide being well up as we passed the stranded schooner, we noticed that she was rolling about in a way that did not augur much success to any effort that might be made to get her off. We got back to the hotel about seven o'clock, ready for our tea, and for our beds too for that matter. Next morning we proceeded up the river bank, a little undecided as to whether or not we should cross Inch Clutha and get over to Kaitangata. But we felt tired, and the day was very warm, so we concluded to stick to the side we were on, and keep up to Balclutha, where we arrived just after dinner time, having enjoyed the walk up the river side very much. We spent the rest of the evening taking a walk about the town, the bridge, &c &c. Next day, took the first coach to Milton, where we staid a few hours, and left for town by the afternoon mail. We were just about a week away, and spent a most delightful time, only chequered by the unlucky accident to my unfortunate digit.

PAKEHA March 13th, 1874.

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from *Trans Proc NZ Institute* Vol 7, 1874 pp540-541

NOTES ON RARE FERNS.

Meeting of Otago Institute 28 May 1874

The two mounted ferns on the table were discovered by Mr. Purdie and myself during a walking tour we made to some of the southern districts of the province during the month of March last. They are believed to be new to the district, or at least have never been described before.

The first one is a *Lomaria*, and was found growing among *L. banksii*, but differs from it

in several particulars. The locality was a small rocky bay not far from the Nuggets, and the plants were growing almost within reach of the breakers at high water. It is to be regretted that neither of us were provided with anything for the safe carrying of botanical specimens, having left our usual impedimenta behind at the hotel at Port Molyneux, in order to lighten the walk along the beach. The specimens had consequently to be crammed into a bag, by which they were mostly a little damaged.
The fern above spoken of has been since determined to be *Lomaria dura.* The circumstance is very interesting, as the fern has not hitherto been found on the mainland, but was supposed to be entirely confined to the Chatham Islands.

The second specimen is evidently an *Alsophila,* resembling *A. colensoi.* It was gathered in a patch of bush on the north side of the river Puerua, not far from the residence of the Hon. Major Richardson, at Willowmead. It was growing in a rather densely crowded spot, the trees high overhead and close undergrowth. The fronds of the plant from which the specimen was taken were about four feet long, but the stem was short.

Since then Mr. Purdie has discovered another variety of *Alsophila,* which differs from the other in having the pinnæ forked or branched. From the midrib of the frond proceeds a short stem, which immediately divides into two pinnæ radiating from each other at a considerable angle, and, as the pinnæ are opposite, the variety is a very beautiful one indeed. The locality where this *Alsophila* was discovered is a small clearing near the top of Pine Hill, Dunedin.

Mr. Kirk remarked that although the ferns named could not be considered in any way new, yet the occurrence of *Lomaria dura* in the South Island was of great interest. Previously it had only been known as a native of the Chatham Islands, where it was first discovered by Archdeacon W. L. Williams about ten or eleven years ago, and subsequently collected by Captain Gilbert Mair, and afterwards by Mr. Henry Travers in his investigation of the flora and fauna of those groups. The structure of the fertile frond approached close to *L. banksii,* but it was of much greater size, while the barren fronds closely resembled those of *L. discolor.* The *Alsophila* was simply a fern with narrower pinnæ than usual; the ordinary fern had been discovered in the vicinity of Dunedin many years ago.

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from *Otago Daily Times* 6 March & 27 March 1875, reprinted *Otago Witness* 13 March & 3 April 1875

A HUNDRED MILES AMONG THE RANGES

Holidays are useful in many ways. They serve to break the uniform routine of one's daily labour, and are especially pleasant to look forward to, and, if well spent are equally pleasant as a retrospect. The writer's holidays have generally been spent in the neighbourhood of the coast, and he had never been far from the sight or the sound of salt water. On the present occasion he arranged to work his way inland, and as he had never seen the diggings, determined to make his way to some of the nearer auriferous centres. With this end in view, he proceeded by way of West Taieri, over Maungatua to Waipori, where there are some pretty extensive gold workings, and proceeded on over the ranges to Lawrence, in order to have a look at the celebrated Blue Spur. The following are a few notes of the route taken, places visited, &c. :—

KAIKOKAI HILLS TO WEST TAIERI

I started on my round from town over Maori Hill by Balmacewen to Half-way Bush, and thence over the Kaikorai Ranges to Silverstream. This was a very agreeable walk; a fine day, though there was a strong westerly breeze blowing, which at times blew up to a gale on the tops of the rises, and made progress ahead rather slow. But there was no hurry, and I was soon on the other side of the hills, and bowling down the long slope to the plain. This road has been immensely improved of late. Those who remember the dangerous zig-zags which had to be gone over in the old racecourse days, will hardly recognise the place now, so comparatively easy is the grade. I had a rest at Silverstream, and then proceeded along the northern edge of the plain, towards Outram. Harvest operations were nearly concluded in this portion of the Taieri, but there was still a good deal of crop out. Leading in was proceeding here and there, and it was pleasant to see the big loads of grain moving about towards the stacks. The thriving plantations of trees in the neighbourhood of Mr D. Reid's property, mark an improving sense of the utility of trees to ameliorate the climate, and form a pleasing contrast to the otherwise

bare appearance of the country in the vicinity. Very few of the Taieri farmers have any trees about their premises. Even a few blue gums about a place help its appearance wonderfully, while at the same time they pay for their space by the shelter they give, though they are too greedy to do much good to other trees planted near them. Jogging along steadily, I soon passed along the plain, and entered on the main road to Outram, arriving at the bridge shortly before 7 o'clock. The river was low, just covering the shingle beds, and looked dirty compared with the Silverstream I had crossed shortly before. Passing through the little township, I took up my quarters for the night in the old Outram Hotel, which I found a very comfortable hostelry. After a hearty tea, I went out to visit a friend, and on returning found rain had come on. The wind also piped up during the night, with frequent rain squalls, which made the prospect of a fine day rather shaky. However, when morning came the wind had subsided considerably, the rain had ceased, the sun shone bright, and everything looked rosy. After breakfast, I started on what turned out a very heavy bit of work indeed — the crossing of

MAUNGATUA TO EL DORADO

Turning to the right, the road from the plain is carried by a sidling up a rather steep spur for a mile or so, and then the track over the mountain turns up to the left. The ascent is continuous for a long distance, there being very little level ground. I was glad to find the track very well marked—quite plain in fact—so that there was not the slightest chance of losing my way. This was entirely new ground, PAKEHA's peregrinations previously never having extended thus far, and a bright look-out was kept for anything new in the botanical line; but it was soon found that it was far too late in the season— the flowering was nearly all over. It was notice-able, however, that some things common enough on the plain out of flower, were, as the elevation got greater, found flowering or just out. I passed the place where the "sticking up" took place in the early days of the diggings, when the track I was travelling over was nearly as well trodden as any street in town, and I could not help contrasting then and now, when I was the only wanderer within miles. As the top of the long ascent was neared the want of water made itself pressingly felt, and it was with the utmost difficulty I succeeded in getting a few mouthfuls from a deep hole at the side of the track. After getting above the trees a trig station was seen ahead, and I passed from the track for the purpose of getting a good view of the Taieri plain. And a most extensive view it was. The whole plain lay there, everything on it as well laid down as if on a huge map. Saddle Hill was right in front, while Flagstaff and the hills to the north bounded the view to the left. To the right I could see down to near Waihola, the view there being dim, as if seen through smoke. The wind here was very strong, and shelter under the lee of a rock for a little to get a rest was found necessary. Passing on from this, the track still kept rising, until an elevation of over 2000 feet was gained, when the road became somewhat level, and maintained that height for a long distance. I was now fairly among the ranges, and had left all known ground behind. All round, there was nothing but bare brownish green hills, as far as the eye could see. The track wound round and along these in the most wonderful way, and I could not help admiring the skill and tact of the early explorers of the route, in selecting what appeared to me the only spur which it was possible to use for the purpose. After what seemed a very long distance had been traversed, the track began to descend. But the day was warm, and water again became a want. Two or three gullies were tried, but, though found wet, there was none of the fluid available. Besides, the prevalence of spear-grass made leaving the track rather a painful matter, and I was glad to come back to it, my ankles smarting from the pricks of the abounding aciphylla. However, I saw some distance on, that the land was falling on both sides in such a way that the gully on the right side must cross the track; and accordingly, on getting down to the spot there was a beautiful clear stream of water running across. To throw off my impedimenta and kneel down beside the creek was the work of a moment, and I really enjoyed that water. It was delicious. I had a good rest here, and then proceeded on over a few more spurs, when I had the satisfaction of seeing away down the hill before me a road and a house. This was

EL DORADO

a well-known accommodation-house, of much repute in the days of the rush to Waipori, &c. I found it in rather a decayed condition, and ill-provided with the means of making a "square" meal. The house had been out of meat for some days, the shepherd not having brought a promised supply of mutton so I had to be content with tea and damper. After discussing this, I was sitting with the landlord getting some information as to my road westward, when a conveyance rattled up to the door, on

its way to Waipori. An arrangement was made with the driver, and I was speedily whirling on my way over the ranges. The road was very monotonous and lonely, not a single person being met going either way; and the only thing to attract attention was an occasional glance of the Sludge Channel works and some diggings in a broad valley far away down to our left as we rose to the tops of the many hills we had to go over. Sheep were the only inhabitants of this long tract of hills. The drive was just beginning to be wearisome when

WAIPORI

hove in sight, and I was dropped at the door of the Provincial Hotel, in plenty of time for tea. While this was being got ready I sallied out to have a look at the locality, and found it a queer little place indeed, built on a small flat at the junction of two streams, and on the northern side of a wide open valley, bounded on each side by low bare hills. The town consists of a few stores, dealing in all sorts of goods, a few hotels—one kept by a Chinaman, Sing Lee—and a number of private houses, &c. A neat suspension bridge leads across the river to a few stores on the other side. Peat is largely used as fuel; the place smelt just like an old Highland clachan. The whole valley, as far as I could see, was covered with mounds of white gravel, intersected by pits of all sizes and small runs of water. These, I was told, were the worked out claims, and had all been bottomed and some worked over twice. The river bed was filled with greyish-white tailings and sludge, and the water was dirty of the dirtiest. After tea, I went out to visit a large claim on the other side of the Lammerlaw Creek, where sluicing is carried on on an extensive scale. This was the first time I had seen the process of gold-getting, and was greatly interested. The face was about thirty feet deep, and over the front several streams of water were made to fall, while a huge pipe with a great nozzle at its end spouted up a strong jet of water at the foot among the loose stuff, the result being that large masses were falling down every now and then, and rapidly disintegrated by the action of the water, which flowed away in a long channel at the lower end. The water was pure enough when it fell over the face, but its state when it flowed out at the bottom amply accounted for the appearance of the river and streams around. I strolled leisurely back to the hotel towards dusk, passing numbers of Chinamen returning from their work up the valley to their lodgings in the town.

Next morning I started before breakfast to examine a quartz reef which has been recently opened in the hills on the south side of the main valley, about a mile and a half from the town. A battery of ten stamps has been erected, and everything is nearly ready for starting work, the fixing of the turbine, &c, only remaining to be finished. The manager, Mr Hill, accompanied me over the works, and obligingly explained everything very clearly. I went into the drive, which is carried a short way into the hillside, and found the reef to be a curious agglomeration of blueish clay and thin veins of decomposed quartz running through it. It was not known, what percentage of gold was in the stuff, but it was expected to be payable. All the appliances were very handy, and the whole affair would be very economically worked, the stuff being dropped from the mine mouth on to the machine.

I then walked back to the hotel to breakfast. After which, and a yarn with the landlord about things in general about Waipori, and some directions about my future course, I started on my journey westward. Crossing the river the track lay up a long spur, and round the side of the valley for about three miles to a point where there is another hotel—the Diggers' Rest—from which a good view of the whole Waipori district is obtained, and then turned along nearly parallel with the course of the river a long distance, rising rapidly. Fine views of the Lammerlaw range of mountains, and a range much farther inland, with snow-covered tops, were had every now and again at I proceeded onward. The road was by no means so solitary as that of the previous day, both horsemen and pedestrians, like myself, meeting me occasionally, all exchanging salutations, or giving directions in passing. I went down into the gullies now and then in search of water, but unsuccessfully, the terrible spear-grass forming an obstacle there was no getting over. A peculiar feature of the landscape must not be forgotten, and that was the water-races. Far away, on the hillsides, there was generally a white line visible, passing round the spurs and doubling the heads of the gullies on a nearly uniform level. These lines were the races, and were brought from great distances. The one that is to be used at the quartz mine spoken of above, is 25 miles long, and cost £100 per mile; while others were 30 and up to 40 miles long, and cost sometimes double as much per mile. The road still continued rising until the Waipori hills disappeared and a new range away to the south

appeared in view. I made another effort to obtain water (the day was very warm) and succeeded, finding in a gully an old prospecting hole full of fine, clear water, from which I had a good drink. Passing round a spur in the gully I came on a large patch of ground completely covered with the tikumu (*Celmisia coriacea*). This was the first plant out of the common I had yet come across on these ranges, and gave me hope that I might yet pick up something worth while. A little farther on a plant with a very curious smell was found growing, but as there was no flower I could not make it out. Some fine mosses were found growing in the wet part of the gully. Specimens of all I could find were stowed away in my vasculum. Shortly after leaving this gully the road began to descend, and it was not long ere the diggings in the neighbourhood of Tuapeka began to come in sight, and civilisation in the shape of numerous thistles, began to displace the spear-grass. About half way down the slope the road passes a small farm and a very prettily situated dam, which supplies the town of Lawrence with water, and then turning round a sharp corner, the celebrated Wetherstones Flat came in sight. For four miles the road had been continually descending, and I was not sorry when once more on level ground. A smart walk of another mile or so brought me to

LAWRENCE

which I found a nice little town, with some fine buildings, stores, hotels, &c. I took up my quarters at the Victoria, and after a good wash and a tea, turned out to see the lions of the place. However, there was really little to be seen. After a round through the principal streets I found my way back to the hotel, somewhat disappointed at the small amount of stir or business going on considering it was Saturday night. The round was repeated a little later, but with the same result. Next morning was fine, and after breakfast I walked off up Gabriel's Gully, which debouches on the Tuapeka close to the end of Ross place, on my way to the famous

BLUE SPUR

Gabriel's Gully, as is now well known, is filled up to a great depth with tailings, and the road is carried up on a comparative level, over the sites of what were only a few years ago the busy haunts of the digger. Perhaps nowhere in New Zealand has so great a change in the appearance of the country taken place as here. The path up the gully is sometimes down on the tailings, and sometimes on the bank of a race, past all manner of disused mining works, a small stream of dirty water occupying a channel which sometimes flowed to one side and sometimes to the other. I was not long ere I was opposite the claims, but beyond a rugged quarry-looking chasm in the hill before me I could make nothing of it. So after looking about a little I climbed a steep hill, for the purpose of finding some one who could put me up to the process. In this I was fortunate, for the first person I met was Mr M'lntosh, manager of one of the claims, who very kindly took me over the whole Spur and explained everything necessary, to my great delight. And not only so, but in passing through one of the claims he manipulated a handful of blackish mud, and showed me the precious metal for which all this turmoil in the district had been caused. After watching him for a little he put in my hand the "prospect," a small quantity of fine grains of gold like snuff, which I carefully put in a bit of paper and brought away with me. Mr M'Intosh took me home to dinner with him, and afterwards accompanied me to the house of a friend, where we had hardly arrived when heavy rain came on, and continued throughout the rest of the day and evening, compelling me to remain on the Blue Spur all night.

Next morning was fine, with a bright sun, and after breakfast I started to work the bush in the upper part of Munro's Gully, on the opposite side of the Spur. On the tailings below I found a ten-stamp battery hard at work, driven by a turbine, crushing the cement brought up from a drive into the hill. It did make a great row, and after looking on a little gave me quite a headache. From the machine, I proceeded across the flat and up the gully towards the remains of what had been thick bush at one time. This was rather hard work, as the scrub was thick and wet with the heavy rain of the past night, which the sun had not yet reached in the close gully. Except the beeches, which were growing abundantly, there was little difference between the plants here and those in any similar gully near Dunedin, and there were only 14 ferns noticed. I worked up till there was no possibility of getting farther without a ladder, and then turned to the left and climbed the bank into some very dense scrub, finding, on a small terrace, a spear-grass new to me, but of which I discovered another plant in the Botanic Garden, since returning home. Getting up the hill was a very tough job, and I was both hot and wet when I emerged close to a solitary house, standing on the hillside. I went in and sat down for a little, and had a much needed

rest and a drink, and, after some conversation with the inmate, continued my way up hill, till I reached the top of the range. From there I had a fine view of the country all round to the south and east, whilst to the west and north, there were only more ranges. Turning to the right, I descended the hill a good bit, and then walked along the bank of a race till I came to Hale's Dam, which was then undergoing repair, and was directed how to get back to the Spur. On my way, I had a good opportunity of seeing the immense water-power brought to bear on those works, for down in a deep hollow on my left were roaring and rushing two or three strong streams of water, side by side, on their way to tumble over the faces, or to drive the crushing machines below. This is an altogether strange locality. I was not long in scrambling down the Spur to the tailings again, which, by the way, are said to be about 120 ft deep opposite the workings. There are two batteries here, one at work, the other nearly ready. After having a good look round, I proceeded up the hill again to my friend's house, had dinner, and proceeded back to Lawrence by the hill road, from various points on which I had a good view of the Blue Spur and its surroundings.

In the afternoon I went to visit the

LAWRENCE COAL PIT

which is under the management of Mr K. Gunn, who met me at the shaft, and accompanied me down the pit and through the workings and galleries. The pit is 105 ft deep, and is situated on a flat a little to the south of the town. The coal is of pretty good quality, easily burnt, and contains a considerable quantity of retinite. The seam is of great thickness, but only seven or eight feet are worked at present. There is a brickwork on the premises, by which the small coal is utilised, and very good bricks are turned out.

In the evening, went to visit the

CHINESE CAMP

on the bank of the river below Lawrence. Though not so numerous as formerly, there are still a good many Celestials living here. Some of them are married, and I saw some children running about—funny little things. Went into a gambling house, and saw odds or evens played Chinese style. The player took up a handful of small counters at random off a heap, and those standing betted their coins on the handful containing an odd or even number. It seemed perfectly fair. From this went into the Chinese Empire Hotel, kept by Chinese, one of whom is married to an English woman, who served in the bar. Then up to Lawrence to the hotel, and to bed.

Next morning started off to reach Greenfield Station, near which there is a punt ferry over the Clutha River, fourteen miles to the S.W. of Lawrence. This walk was over a series of ranges almost similar to those I had traversed from Waipori. The track rose considerably over the level of Lawrence, until at a place called Breakneck it reached about 1000 feet. From this point the road neither rose nor fell much for a long stretch. Fine views of the surrounding ranges of hills were had from every turn. After I had proceeded some eight miles I was to look out for a shepherd's hut, where I was to get directions for the remainder of the walk. This hut I duly found, and received most precise and prolix directions; but as these all hinged on my finding an iron gate in a fence, and as I never found the said gate, the directions went for nothing. Consequently, instead of finding myself at Greenfield, I found my way to

TUAPEKA MOUTH

There are a few houses scattered about, some of them unoccupied. This was once a very stirring place, there being a large population scattered about, mostly diggers. But these have all gone long since, and the principal industry at present is an extensive sawmill a little way up the river, supplied from the great forest covering the Blue Mountains on the other side. The cutting of the logs and rafting them down to the mill, a distance of some six miles, employs a good many men; and as the mill turns out not only the ordinary sawn timber but planed boards, tongued, grooved, beaded, &c, for the supply of the townships on the diggings, a force of bullock drivers and team is always about the place. Next morning I went up to see the sawmill, and the manager, Mr Pearce, kindly showed me all the appliances at work. It is driven by a horizontal steam engine, and produces large quantities of timber of all sorts. After doing the mill I went up the bank to a patch of bush to see what the botany of the district contained. However, there was only the wreck of a bush, all the timber having long been removed, and nothing left but the usual scrub. Proceeding farther up, I came to a fine farm, with a house and extensive orchard, the trees loaded with fine apples, &c. Plenty of fine pot vegetables were also growing, as well as potatoes. There was no one about, and I might have helped myself. Just behind the house I had a very fine

view of the great gorge through which the river flows. There are several rocky islands in the channel, and the river comes sparkling and dashing through them in the most lively manner at about five miles an hour. The ground is high on both sides, and the great Blue Mountain range frowning down on all makes the place very romantic. Had time permitted I could have stayed all day admiring the scene. But I had a long walk yet before me, so returned to the saw mill, where I had dinner with Mr Pearce. Immediately afterwards I went off to see about a boat to put me across the river, as I had seven or eight miles down the other side to go. I found a Charon in the shape of a lady named Campbell, who agreed to ferry me over. So after getting my traps from the hotel, I went on board and was soon landed on a sandbank on the opposite side, from which I had no difficulty in making my way up to the terrace of varying width which forms the river bank all the way down to

CLYDEVALE

where I arrived before five o'clock. On making myself known to Mr Mitchell, the manager, I was at once made welcome. This station belongs to "The Company," as it is termed the neighbourhood, and consists of two establishments—upper and lower—the one devoted to the production of wool, the other is a large farm, employing 60 working horses, and having this year about 30,000 bushels of grain to dispose of. The station buildings are very pleasantly situated on a gentle rise a short distance from the Clutha, which is here divided into two branches by a long, rocky, bush-covered island. A very pleasant prospect is had from the windows, extending over a great extent of country, of very diversified surface. In the evening I had a very enjoyable walk among the fields, which was quite a treat after the bare barren hills I had been so long among. Next morning started early, and reached the Royal Mail Hotel at

CLINTON

or Popotunoa, as it is often called. I strolled off to explore the bush on Popotunoa Hill, on the other side of the valley from the township. Passing up between the wooded hill and a low bare one, I entered the bush, which I found very scrubby, the large timber having all been cut down long ago. Just inside the trees there is a house in ruins, beside a very nice garden, the position of which is very pretty, and commanding an extensive look out. This was formerly the residence of Mr Clapcott, when the surrounding country was occupied as a sheep-run. From the house a path had been cut, winding up the side of the hill, through the trees, but now so much overrun with a secondary growth of fuschia and mokomoko, that it was with difficulty I could make my way through it. I tried the bush at various places for plants, but found nothing worth carrying away, and there was only the commonest ferns. The undergrowth on the top of the hill was very dense, and this, combined with the tops and branches of fallen trees, made progress very difficult; so, after working in various directions without finding anything rare, I crossed the hill and came down on the opposite side to which I went up. The rest of the evening was spent wandering about in the vain expectation of some conveyance turning up, by which I could get down another stage. In the morning, I started immediately after breakfast, and kept up a steady slog till I reached the Waiwera Hotel.

BALCLUTHA

was my destination for the night, lying sparkling in the sun, with the Clutha appearing here and there in fine reaches. The view from this point is un-rivalled. I felt as if in sight of port after my week of wandering. I had not lain a couple of minutes when the rattle of wheels was heard behind me. I started up, and there, coming along a branch road towards me, was a buggy with one gentleman in it. Getting down to the side of the road and hailing the occupant, who was no other than Dr Smith, was the work of a moment. I was kindly asked to jump up, and was whirled off to the Ferry behind the Doctor's well-known fast-trotting ponies, and dropped at my friend's door in a very short time. I had not been long at the Ferry when heavy rain began to fall, and continued nearly all night, preventing any out-door work being done. In the morning the weather was quite changed, a cold S.W. wind blowing, with frequent showers of hail, which made the drive in to Dunedin in Cobb's coach a very disagreeable one. Some of the squalls were very heavy, and penetrated the curtains of the coach as if they had been made of paper. However, the longest road has an end, and Dunedin was reached at the usual hour.

I must add a paragraph about the paucity of animal life in the parts of the Province I had travelled over. I hardly ever saw any birds. Rabbits crossed the road on Maungatua; there were a few gulls at Waipori, Lawrence, and at various points on the Clutha; the weka was

seen in Munro's Gully, the ranges between Lawrence and Tuapeka mouth, and in the bush at that place; the grubbings of wild pigs were observed on the Clutha bank, among some fern land; a covey of partridges, rose from the stubbles at Clydevale; and there were some pigeons in the Popotunoa bush. These, with the exception of some smaller birds in the bushes, were all that I noticed—a very small variety, considering the distance, and the different nature of the country passed through. I now conclude, thanking all those who helped me over the various difficulties met with during my walk.

PAKEHA. March 5, 1875.

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from *Trans Proc NZ Institute* Vol 9 1876 pp484-490

FISH AND THEIR SEASONS

Read before Otago Institute, August 1st, 1876.

The following table had its origin in a conversational discussion which took place at one of the meetings of the Institute during last session. It was mentioned, among other things, that there was a good deal of doubt about the times when the ordinary food fishes were actually in season, and a few particulars as to the length of time they were to be caught might be useful. In the hope that the following may go some way towards supplying what was wanted, I venture to bring it before the members of the Institute. I may state that the mode adopted in gathering the information was by noting down the various sorts of fish exposed for sale in the windows of the fishmongers' shops, as well as by occasional enquiries elsewhere. The work was begun on the 1st August, 1875, and was continued daily till the 31st July of the present year. During a short absence from Dunedin the notes were taken by a friend, who adopted the same method.

NAME OF FISH.		NUMBER OF DAYS IN MARKET.												
Native or Common.	Scientific	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Totl.
Hapuka, Groper	Oligorus gigas	0	2	13	13	12	11	20	17	8	18	11	18	143
Kahawai, Salmon	Arripis salar	0	0	0	0	0	2	0	0	0	1	0	0	3
Tamure, Snapper	Pagrus unicolor	0	0	0	0	0	0	1	0	0	0	0	0	1
Kohikohi, Trumpeter	Latris hecateia	1	2	0	0	0	1	0	0	0	5	0	0	9
Moki	Latris ciliaris	0	4	4	7	12	8	13	12	3	0	8	11	82
Hiku, Frostfish	Lepidopus caudatus	2	0	0	0	0	0	0	0	0	0	0	0	2
Mangu, Barracoota	Thyrsites atun	0	1	1	18	15	20	11	11	3	9	13	4	106
Arara, Trevally	Chilodactylus macropterus	0	2	0	2	4	4	0	7	15	22	16	17	89
Haku, Kingfish	Seriola lalandii	0	0	0	0	0	1	0	0	0	0	0	0	1
Pakirikiri, Blue Cod	Percis colias	5	6	3	4	9	2	4	5	3	11	10	17	78
Red Cod	Lotella bacchus	9	6	3	14	10	7	1	8	9	19	11	14	111
Ling	Genypterus blacoides	1	0	2	1	6	6	9	9	16	20	23	16	109
Marare, Butterfish	Labricthys bothryocosmus	1	0	1	2	4	2	0	5	6	9	2	2	34
Aua, Mullet, Herring	Agonostoma forsteri	2	12	0	3	5	10	17	20	22	24	22	22	159
Ihi, Garfish	Hemirhamphus intermedius	0	0	3	4	5	0	0	5	1	0	1	0	19

Sandling or Eel	Gonorhynchus greyi	0	0	0	0	0	0	1	7	12	5	5	4	34
Patiki, Flounder	Rhombosolea monopus	7	12	5	11	12	17	19	20	21	26	25	26	201
Sole	Peltorhamphus, N.Z.	none	3	2	2	4	3	2	1	0	1	5	7	30
Skate	Raja nasuta	1	2	0	2	0	1	3	0	0	2	1	1	13
Days on which there were no fish		11	5	8	3		1	1	3					32
Prevailing weather		stormy dull, cold.	variable.	Stormy wet, cold.	fine, stormy at close	wet.	fine	Fine	fine. dull & stormy at close	Variable.	fine.	fine, wet at close.	cold, frosty, dull.	

A few other fishes occasionally come to market, such as the Gurnard *(Trigla kumu)*, a pretty fish with fine long fins like wings, but it is seldom eaten, though of good quality, being very bony.

The Hardhead *(Kathetostoma monopterygium)* is also seen occasionally, but its forbidding appearance is sufficient to prevent its being eaten, though wholesome enough.

There is another fish, termed the *Agriopus leucopoccilus* (Leather Jacket, or Pig-fish), quite different from the fish of that name in the North, which is very palatable, with firm white flesh; but it is very seldom eaten, though common enough in Otago Harbour.

As supplementary to the table, I give the following particulars of the fishes there treated of:—

Groper was in the market 143 days, and might almost be said to be in season the whole year through. This fish is caught off the rocky points of the coast, in five fathoms and upwards of water, just outside the kelp.

Kahawhai is a rare visitor here, and only to be caught in the summer, a few being brought to market every year.

Snapper is also rare, and a summer visitor.

Trumpeter is never plentiful; a few are brought to market at irregular intervals.

Moki has been abundant nearly all the year. It is noteworthy that this fish used to be very seldom seen in our market, but of late the superior knowledge of the fishermen has been rewarded by a plentiful supply of this excellent fish.

Frostfish only find their way to market in winter time, and are very irregular in supply.

Barracoota have not been in such excessive supply during the past as in former years. This is owing, I think, in great measure to the reduced demand, not from any falling off in the amount of fish, which is as abundant as ever, but from other fish having been in better supply, and people generally in better circumstances and more able to purchase superior quality.

Trevally.—This fine little fish has been in fair supply, particularly towards the autumn,

Kingfish is only occasionally a visitor to our shores; a few are caught every summer.

Blue Cod is a very common fish, and to be caught all round the coast. Two different fishes are included in this term, and one of them is sometimes called Black Cod. They are very much alike in shape, but the scales are different. A good many Blue Cod are sent up from Stewart Island.

Rock Cod, or Red Cod, is very common, occurring in the Harbour in large shoals, and a favourite object of sport from all the jetties and piers as well as from boats in the channels. It is also caught outside the Heads in from five to ten fathoms of water.

Ling has a sickly look about it, which keeps people from fancying it much; but it is, nevertheless, a most palatable article of food, and, moreover, can be salted down with great ease. It is caught in the Harbour occasionally, but is mostly got off the coast.

Butterfish is a misnomer. At least the fish so termed here is not the same as the one known by that name in the North. It is pretty commonly caught in the Harbour, but is never very numerous, the seiners finding a few in the nets among Flounders, etc. A true Butterfish was exhibited in Mr. Melville's window on Thursday last; a very different fish from the one known here.

Mullet, or Herring of the fisherman.—This fish is very abundant at times, large shoals filling the bays in the lower Harbour, particularly during summer and autumn, and great hauls are often made. It takes bait, too, and is a source of pleasurable employment to many, from boats or from the jetties. A true Herring

visits the coast in immense profusion in the autumn, particularly off Green Island and Sandfly Bay, when the settlers generally manage to catch a few, but they are never brought to market. The time of their arrival on the coast is uncertain, and is only known by the great flocks of birds, etc., which attend the shoals.

Garfish are pretty common in the summer and autumn months, and are generally caught in nets. This fish is never very large, but is excellent eating,

The Sandling, or Sand-eel, is not an Eel at all. It is also a summer fish, and not uncommon.

Flounders are in the market all through the year; they are netted in the Lower Harbour and the various inlets up and down the coast, as well as speared in the shallows. Flounders are rather over-fished, and are neither so large nor so plentiful as they used to be.

Soles are now more plentiful than formerly, but are in very irregular supply.

Skate is common enough, but not very often brought to market. I wonder more attention is not paid to this fish, considering it is such a favourite article of food in the old country. I remember a pretty large Stingaree being caught, nearly four feet square. It was cut up and sold in Dunedin.

Subjoined are a few miscellaneous particulars regarding fish supply during the year:—

August was a rather stormy month, and there were eleven days during which there were no fish in the market. Crayfish were plentiful during the month.

September was characterized by steady weather, and fish were rather scarce all through; on five days there were no fish. Crayfish adundant. On the 27th, two Barracoota were brought to market—a long time in advance of the regular date. It is curious that odd Barracoota are caught now and then in the winter time, while Cod or Groper fishing outside. It happens generally when the hook is just about reaching the bottom, as if the fish were then feeding near the bottom, and came to the surface when the water became warmer and feed more plentiful.

Very changeable weather prevailed during October, and during eight days there were no fish. The Barracoota arrived in force on the 30th.

November was very stormy, with some cold wet days, but fish were in pretty good supply, except for three days, when there were none. On the 30th, a fine Sea Trout, weighing 10½ lbs., was caught in the Lower Harbour.

December saw the market well supplied, except for a few days towards the end, when thick dirty weather prevailed. A feature was, that a good many Blue Cod and some Granite Trout were sent up from Port Molyneux, having been caught near the Nuggets.

All the month of January there was a good supply of fish. On the 17th, a Swordfish, 10 ft. 4 in. long by 4 ft. 6 in. round, was caught near Quarantine Island. On the 24th, a Conger Eel, 4 ft. long, was exhibited in one of the shops, and another Salmon Trout, 10½ lbs. weight, was caught in the Lower Harbour.

On the 3rd February, a strange fish, resembling a Trevally, was brought to town. It was over 2 ft. long and 10 in. deep, sharp pectoral fin and forked tail, bright white round scales.

On March 2nd, a fish, called "Fiddle Head," was caught outside the Heads. It measured 6 ft. long by 4 ft. broad, and weighed 2 cwt. About the middle of the month a great many very small Flounders, Herrings, etc., were brought to market, too small for use, causing a good deal of remark as to the bad tendency of such a practice.

April was marked by a continuance of good weather, with but one break from "sou'-west," and fish were in good supply the whole month. On the 5th, a few fresh-water Eels were on sale, some of them large. Herrings were very plentiful, and about the middle of the month the supply of Ling was extremely good, the fish mostly large and of good quality.

During May the supply was good, except during a few stormy days.

Fish were in rather small supply during the first half of June. A large Conger Eel was shown on the 2nd.

July was characterized by a succession of calm frosts, and at times dull weather, till towards the close of the month, when there was a northerly gale. The supply of fish was liberal, and the variety and quality both alike good.

At the present time (July, 1876), and for some months back, there have been employed in the fishing trade, in the Harbour of Otago, 32 boats, employing about 80 men. In the net fishing in the Harbour, 16 boats are pretty regularly employed, worked by 36 men; most of the boats have only two men as crew. In the outside or deep-water branch of the trade, 17 boats are engaged, with over 40 men as the crews. Most of the seining boats are out at work nearly every tide, while the others are more dependent on the weather, the state of the sea, etc., which causes give rise to long spells of enforced idleness, and also prevent the boats

from venturing very far from the Heads, there being no place to run for shelter in case of emergency. As an example of this, the fatal accident of last week is a case in point: the men fishing near Cape Saunders were driven south, and ran their boat in on the rocks at Sandfly to escape drowning. The boat was lost, and one of the men killed attempting to climb the high cliff there.

Complaints have been frequently made during the past few months about the size of the fish brought to market. This is most apparent in the case of flat fish, particularly Flounders and Soles, which are often exposed for sale of a ridiculously small size. It is a wonder that this evil is not apparent to the fishermen themselves, for it is really destroying their means of existence. If the practice is carried on much longer, the Flounder will soon become a very rare fish in our waters. Legislative interference has been talked of, either by insisting on a close time, or by regulating the size of the meshes of the nets used. The first would be a very difficult matter to arrange, as the fishes are not all in season at the same time, so that a close time would simply mean a time when there would be no fish at all. Restricting the size of the meshes in the nets used would hardly do either, the system adopted in Otago Harbour and the various tidal inlets in the neighbourhood, being seine fishing, when a long narrow net with a deep bunt is used. This net is made to catch all fish that are to be found in the Harbour. The meshes in the nets vary from an inch in the wings to about half an inch in the bunt. A much larger mesh would do to catch even small Flounders, but all other fish—Herrings, Trevally, Sandling, Garfish, and the like—would pass through and never be seen; the small mesh in the bunt of the net is the very thing for catching the miscellaneous shoals of fish which come up the Harbour with the young flood tide. I have seen over a dozen sorts of fish in one haul, ranging from Barracoota and Elephant Fish down to Garfish and Herrings—the smaller sorts all meshed in the neighbourhood of the bunt, causing no end of trouble ere the net could be cleared again for another haul. Now, any alteration in the way of increasing the size of the mesh would prevent all those sorts of fish being retained in the net; they would all escape through the wide meshes.

Instead of meddling with the net, I would suggest that it be made illegal to bring fish under a certain size ashore for sale. It would be a very easy matter for the fishermen, when gathering the fish from the net, to leave behind all those under a certain prescribed size, and they would soon find their, way into the deep water again. Although a good deal of the seine fishing is done during the night, there is nothing to hinder this being done. A somewhat similar practice is carried out in the Oyster-dredging trade in the Old Country—all under a certain size are thrown overboard again. If the fishermen were to be fined so much for every fish under a certain size found in their boats, the evil would soon cure itself. I would further suggest that an Inspector should be appointed to look after the above and other matters connected with it; one thing in particular being the protection of the Salmon Trout which are now known to frequent the Harbour, and which will soon become extinct if the indiscriminate system of fishing be allowed to continue much longer.

In connection with this subject, there is another matter I should like to mention, though perhaps this is hardly the place for doing so—I mean the want of a Market-place for the sale of fish, where the consumer could meet with the fisherman directly, instead of, as now, through the medium of a middle-man or a shopkeeper. This has been a long-felt want, and has tended more than anything else to keep back the fishing trade; into which many enterprising men have entered only to be discouraged, and eventually disgusted, with the want of encouragement shown to them. Were a proper Market established in some convenient central position, put under proper regulations, and kept clean and tidy, I have not the slightest doubt that in a very short time such a thing as a scarcity of fish, except when caused by a continuance of stormy weather, would very seldom be heard of.

ON THE STONE IMPLEMENTS OF THE MAORI

Read at the Annual Meeting
By Murray Thomson's father

[as reported by *Otago Daily Times* 27 Sep 1876, the meeting was of the Otago Institute Field Naturalists' Club, on 22 Sep, and the speaker was Peter Thomson.]

The collection of stone implements and weapons before the meeting has been found by myself during the last dozen years or so, and has been gleaned from the various localities in the neighbourhood of Dunedin where the Maoris had their villages in former days. Beginning at the Ocean beach (Forbury end) where a few were found, the coastline round to Blueskin has been traversed, and specimens found here and there in all that distance. The richest localities however, were the Heads, (both sides) and the various bays between Heyward's Point and Purakanui. These bays are of rather peculiar formation, consisting of a line of sandy beach with long rocky headlands running out to sea, on which as a rule a heavy surf is continually breaking. Inside the beach is a line of low sandy dunes, and inside those there is an extensive flat, generally traversed by a long winding lagoon, fed by the stream or streams coming down from the high land above, which last is covered by dense bush. It will be apparent that these places present from a Maori point of view, the possibility of finding plenty of "kai" (food) and would therefore form eligible places of residence. And so it was, before the settlement of Otago every one of these places teemed with population, the remains of their whares, cooking middens, umus, etc being abundant. It is from among these middens, etc that most of these implements have been gathered, though some have been found where they had evidently been hidden by the original owners.

What are the causes that have led to the disappearance of these crowds of Maoris, it is not the purpose of this paper to inquire. But true it is that from the Kaik at the heads to the Blueskin there are only the three or four now living at the Kaik at Purakanui. All the rest are gone.

On looking at the stones before us they naturally classify themselves into two distinct varieties - the unpolished or flakes, and the polished smooth highly finished stones, on which more or less labour has been expended. It is held by some writers that the two sorts of stones were the work of two distinct races of people, one living long before the other. But I am in a position to prove that this is not the case, both rough and smooth stones having been used by the same people - the Maoris of the present day, or rather their immediate predecessors of thirty or forty years ago, for the Maoris now living have nearly all abandoned stone for iron. I have several times found flakes and unpolished stones in the same midden, at the same level; and on one occasion I found in a cache in the Ocean Beach sandhills near Dunedin, a finely polished adze, a rough flint spearhead, a chert saw, and two peculiarly shaped bone implements of large size, flat, with a square hole in the middle, evidently whalebone. These last were so much decayed that they tumbled to pieces on being handled. From the frequency with which chert flakes are found, the Maori seems to have been very well aware of the value of the stone for cutting and scraping purposes, and to have always kept a supply of it on hand ready for use, the I have not observed many cores lying about. The material most used for the polished implements is a dark coloured compact basalt, plenty of which is to be had from the hills and cliffs all along the coast. It is noteworthy that pieces of a shape resembling an axe or adze are not uncommon among the debris at the foot of the cliffs, and only requiring polishing and sharpening to be ready for use. Bits of the sandstone used for grinding purposes are to be had now and then, and must have been brought from the other side of the Horse Range, there being no stone of that nature in the immediate neighbourhood. The greenstone, as you are all aware, was brought from various places in the Sounds and rivers of the West Coast, and though occasionally brought round in canoe voyages was oftener the object of a special journey across the island. This journey was made by a party of the young men of the tribe, headed by one or two of more

experience, and great preparations were made beforehand in the way of food etc, for the journey sometimes occupied over two months, and was reckoned of a very perilous nature. It was generally undertaken towards the latter end of summer, when the creeks and rivers were near their lowest, and the saddles over the mountains in the interior freest from snow.

Looking at the hard intractable texture of most of the stones used by the Maori for their tools, it is wonderful the amount of patience and skill evinced in their manufacture when the rude nature of their appliances is considered. With nothing but a bit of slate tied to the end of a stick the Maori lapidary could drill a hole through a hard stone quite as truly as any modern workman with all the appliances of his day. Some of the lines and other ornamentation on the hilts of the meres are remarkably true and elaborate.

The large block in the centre of the board is a piece of greenstone in the preliminary stages of polishing before being shaped into an implement. It is a very fine piece of stone, of beautiful grain. It was found by one of my sons, and when he was showing it afterwards to a Maori, the latter offered him a horse in exchange for the stone.

The large round stone, no 13, is a beater, and was used in various stages of the preparation of the Phormium leaves for fibre.

Nos 15 and 23 are meres, both unfortunately broken, but enough is left to show the extraordinary pains and labour bestowed on these weapons, which are heirlooms in the Chiefs families.

Specimens of hei tikis are shown in nos 16 and 17. These are bosom gods, and are worn as charms to keep off dangers of all sorts. No __ has never been finished, as having been broken it has been repolished to bring out a new surface, part of the eyes of the old face remaining, giving a good example of the skill of the Maori stoneworker in producing a circle. The other one is of a much ruder form and has evidently been worn a long time, everything about it being quite smooth and all the angles rounded off.

No 19 is a very curious implement, having been used as a wedge for splitting purposes. One side has a curious worked hollow, for aiding the grip of the thumb of the left hand, while the top was struck by another tool, of which it bears plenty of evidence being much worn. The edge is very much broken, but still the original shape can be made out.

Nos 9, 22, 25, & 27 are also splitting or cutting tools, having both sides equally ground away, so as to produce a fine keen axe-like edge.

Nearly all the others are adze-shaped, that is the face is only produced on one side, so that the tool is adapted for chipping only. No 12 is a very fine specimen of this sort of tool, being of greenstone, and of considerably more length than is usual, and well finished. It has been made out of a thin flake.

No 5 is also of greenstone, and was dug up by myself while working in the garden. It had the wooden handle attached, but in so rotten a state that it broke to pieces on being moved. It was fastened on with very fine flax cord, the cast of which remained in the ground after the adze and its handle were removed.

The way in which these tools were fastened into wooden handles so as to be easily used was very ingenious. A branch was sought out having a bend or knee at the proper angle or near it. In the inner side of the angle was carefully cut a groove or hollow, into which the stone was fitted so that the but end of it rested against the handle. The tool was then secured by and very firmly lashed round and round with strong flax cord, and became thus a very handy and effective implement in the hands of a man with good arms and plenty of patience. It must have taken a long time for even a very strong man to cut down a moderate sized black pine (Matai) for instance. None of the tools exhibited are very large but there are some very heavy ones in existence some weighing ten up to fourteen pounds. From these they have been found of all sizes down to the small gouge now hanging to my watch, found on Kaikai beach some ten years ago. The angles of the

cutting edges seem to vary according to the nature of the stone, when hard and tough the angle is acute, when the stone is of a brittle nature the angle is more or less obtuse.

Some of the adzes have worked places at the butt end for the purpose of a more easy grip, as well as for more firmly attaching to the handle.

The attention of members is directed to the fine specimen on the table which has been lent to me by my friend Mr Smith, who obtained it at Wanganui some years ago. It gives a capital idea of how the stones were used, and the manner in which they were fitted into the handle, much better and easier than a whole page of explanation. The implement is in a fine state of preservation.

A curious circumstance in connection with these implements is the following:- About five years ago while a party of men were working a claim in the neighbourhood of Hokitika, they found a greenstone adze while engaged in the mining process known as stripping. The adze was lying on the surface of the washdirt, which was overlaid by about 9 feet of compact clay with stones, and two feet of a greyish sand with a thin band of hard irony cement intervening. The locality was on the banks of a lagoon, about 20 yards from the water's edge and immediately in front of a terrace about 25 feet in height. The whole of the surrounding ground had been covered with old heavy timber. It becomes an interesting speculation as to how long this adze may have lain before it was found. There is the couple of feet of sand - it may not have occupied very long time in being laid down, either by the agency of water, for there is a large river, the Totara, in the immediate vicinity, which once found its way to the sea by the lagoon; or by wind, in the way of blowing sand up so as to fill the space against the bottom of the terrace, of which latter some of the clay and stones may have slipped. But there is the forest, consisting of heavy old trees which must have occupied hundreds of years in growing and could not have begun to grow immediately the surface ceased to be moved by the wind or overflowed by the river. In any way we look at it, a very long time must have intervened between the time when the stone was picked up and the time when the original Maori owner dropped it or buried it where it was found; and moreover, it was polished, not a rough tool.

Turning now to the other class of stones, the unpolished we find they divide into three sorts - either saws, or knives or scrapers. The material of which they are made is mostly chert, a hard quartose mineral, which has the property of splitting readily when heated. The flakes thus produced are readily shaped for use as required. Flint is not so common, but there are a few specimens, with very sharp edges, knives or scrapers. There are a few of obsidian, a mineral brought all the way from the North Island, where it is got in the neighbourhood of the volcano Tongariro. Obsidian flakes are very sharp but exceedingly brittle, and of course will only serve a short time, they seem to have been in constant use for cutting and scraping purposes.

Some specimens of the sandstone used for polishing and sharpening the tools are also exhibited. The small board contains a collection of implements of various kinds - fish hooks, spearheads, needles, etc of bone, stone, shell etc, as well as a number of large and small flakes of different sorts of stone. There is also a small dish of steatite, supposed to have been used by the Tohunga or priest in incantations, or for administering medicine. It may also have been used for catching the blood of the chief while undergoing the tattooing process - matters in which great care as well as much ceremony were used. A number of bones are shown which are supposed to have been used as tallies or registrars from the curious markings on them; the short ones may have been used as charms, having been worn round the neck. A curious figure is also shown, unfortunately much mutilated, so that it is hardly possible to say what it may have been when entire. From the peculiar one-sidedness it is evidently Maori, and may have been a heitiki. The eyes have been made to hold either a bright stone or a shell.

A singular tool on the board is a saw made of a thin plate of slate, which looks more ornamental than useful.

HOLIDAY RAMBLES
DUNEDIN TO OREPUKI

I left Dunedin for Bluff Harbour per the steamship *Wanganui*, and arrived there after a 24 hours run, during 20 of which hours I was completely prostrated by sea sickness. I found the township at the Bluff rather a lively little place, with a good deal of stir going on, plenty of people moving about, railway engines whistling, &c. It was evening when the vessel arrived, so there was little opportunity of ascertaining what was to be seen, but next morning I was afoot early, and spent a really pleasant day in wandering over the Bluff Hill. The view from the summit was very fine, though a passing cloud hid some of the surrounding scenery for a time. All the Islands were visible, from Ruapuke to the Solander, the bold coast and the high hills of Stewart's Island forming a very picturesque framing for the view. I found the hill very wet, a stream of water pouring down from it in every gully. One side is open and scrubby, the other is clothed in dense bush—pines, ironwood, and karmahe, with a thick border of manuka scrub along the edges. The interior of the bush is very interesting, there being abundance of fine ferns, genera being well represented. On the wet parts of the open side of the hill several species of that curious family the Droserae are pretty frequent. From the Pilot Station there extends a boulder beach for a long way, the stones being mostly granite, of which rock the hill is composed. To those who are possessed of good eyes and plenty of leg power, a walk, or rather hop along the beach is both pleasant and interesting. The bush comes close down to tide mark, and the little rocky bays and promontories are very pretty pictures. From the rocks at the extreme point, a magnificent view of the Strait and the Islands is had. The return to Campbelltown may be made through the bush, which is extremely dense just above the beach, but open further in, and becomes pleasant to walk in. The weather during my visit was fine, and I enjoyed my ramble over the locality very much.

Next day I started per train for a place called Woodend. There are some extensive sawmills, and a tramway running some three miles into Seaward Bush. The land all round here is low and very flat, and there being little or no fall for water, the bush is very wet and difficult to traverse. I found the tramway a capital means of getting a good idea of the bush, as it led straight in, thus affording a complete section as far as it went. The mills were standing and in the market for sale, so there were no bushmen at work, but a great many trees had been removed, and large portions of the bush ruined, giving a fair picture of the wasteful nature of the present system of dealing with the timber-lands in the Colony. I made my way to the inner end of the tramway, and was much interested with the appearance of the bush, which is very different from the hilly country near Dunedin, though of course, with a few exceptions the trees were mostly of the same kind. I did not see any very large trees, I suppose they had all been removed to supply the insatiable saw mill. There are a good many other mills in the district, but trade was rather dull, and only some of them were at work.

In the afternoon I trained up to Invercargill, put up at the Prince of Wales, and spent the rest of the day walking along the principal streets, which I found delightfully clean and spacious. In the morning I took the coach for Riverton. This was a very pleasant ride, partly through bush country and partly along the beach. Before reaching the beach, a tract of sand of nearly two miles in width is passed over. The sand is driven before the prevailing S.W. winds, and is gradually encroaching on the arable ground. This locality would afford a fine field for experiments in reclamation, by means of planting trees and vines in the manner which has been so successful in the South of France. Riverton is a very pretty place, standing at the mouth of Jacobs River, over which there is a fine bridge, 800 feet long, connecting the two parts of the town. The river widens into a fine estuary, and when the tide is over the banks, the view from the bridge is really fine. After dinner I strolled down the beach towards Howell's Point, passing the sunken steamer *Express* on the way. The walk was a very pleasant one; there were a great many shells on the beach;

some of them which are very rare near Dunedin, could be picked up by the dozen.

My intention was to make for Orepuki from Riverton, but I had heard so much of the dreadful track that existed between the two places, that it made me rather timorous about starting alone. However, on returning to Riverton that afternoon, I found a large party of miners had come from Orepuki, and brought a sick man with them for medical assistance. This was a really noble undertaking. No fewer than 38 of these hardy fellows (all the men that could be spared) had volunteered to carry their mate on a stretcher, over 25 miles of what must be considered the very worst track in the Colony. It reflects infinite credit on their humanity. It is not the first time they have done so either. I had an introductory letter to one of them, and almost the first man met in the street was the gentleman. So arrangements were made for my accompanying the party back in the morning. We were to start at 9, but it was 10 before we were fairly on the road.

The first eight miles lay along the famous Western Railway, about which so much was said and written. A large amount of work has been done on this line, and it is melancholy to see the cuttings and fittings half-finished, culverts built, planking, barrows, waggons, dobbins, &c, lying about, going fast to decay. The work must have been stopped in a hurry, for there were waggons and barrows standing about filled or half-filled, run out to the bank and not emptied, and so on, as if some magician had cast a spell over the whole work, which, I suppose, in one sense, was the case. The walking over the track varied very much—sometimes it was very good, lying on a level railway embankment, which would end in a steep wet gully; and then the track would wind through numberless stumps for a long way, until a bit more of the formation was met. This was repeated again and again, the whole distance from Orepuki to Riverton being through heavy bush. The only opening the whole way is where the line crosses a curious piece of swamp, over which a sort of corduroy track of manuka scrub has been formed. Beyond the swamp a short way the clear line ends, and there is only a survey line for the rest. On this line nothing has been done, beyond making the space enough for the surveyors to see, and as it is carried straight through, over everything that came in the way, travelling is about as difficult as it could possibly be. One while we would be pushing through, thick underwood, knocking our legs against stumps and branches; then climbing up and down the sides of a steep gully, with obstructions of every sort in the way; or climbing under or over the trunks o£ fallen trees of all sizes, which were slippery in the extreme. All this was through a dense bush, in which we could rarely see the sun. The day was warm, and the fatigue told rapidly on me, but there was nothing for it but to hold on. I did not believe in turning back.

In the heart of the bush, about 10, or 12 miles from Riverton, there is a small digging township called Roundhill, in the neighbourhood of which there are some very good claims. The miners have made a small clearing here, erected huts, and made small gardens. To one of these huts we made our way on arriving at the clearing, and were most hospitably received by its owner, named O'Brien. I don't think I ever drank tea out of a pannikin with so much relish. Between the heat and the fatigue I felt nearly dead beat, but the rest and the drink of tea soon set me up again. Some dinner was set before us, and though the accommodation was rather limited for such a large party, we made the most of it, as we were made most welcome to the very best the hut contained.

After resting here for about an hour, the leaders of the party set us all agoing again. Our way was changed, for although the survey line is continued through to Orepuki, it was judged too difficult, and so the track to the Piahi Flat was adopted instead. This was a very great improvement on the other line, having been cleared about four feet wide for about two miles, and we sped over this bit quite pleasantly. The remainder of the track, however, is yet in its original state, and is very bad, muddy in the extreme, encumbered with all sorts of obstructions, and anything but direct. None of the party were sorry when the welcome daylight appeared, and we emerged hot and thirsty on the Paihi Flat. About a quarter of a mile

further on the track crosses a creek, and here a rest was had, while one of the party who had on thigh boots got down to the water and handed up drinks to the rest. There were yet a few miles to go before reaching Orepuki, including the crossing of another patch of outlying forest, so after a little delay all were on the move again. The ground was generally wet and swampy until the level open ground near the township was gained, when the party gradually dispersed to their several habitations. I was very glad when the Shamrock Hotel at last came in sight, and was surprised to see a substantial well-constructed house in such an out-of-the-way place as Orepuki. Everything was very comfortable, and fatigue was soon forgotten over the details of a well-spread table. In the morning everything looked smiling. The sun was shining, and the hills and scenery around were grand. I went out on the Flat a short way, and had a good look at the surroundings. Away to the westward lay the sea, and beyond it were a range of the grandest looking mountains I had seen—the Princess Mountains—running up into peaks of all shapes, about 5000 feet high.

(continued *Otago Witness* 12 May 1877)

Nearer hand was the broad valley of the Waiau, but the river itself was not visible. To my right was the Longwood Range, covered with timber to the top. On the other side the view was bounded by the bush, while round the township lay the Flat. After breakfast, I started on a round of the principal workings, which are mostly in the bush, at the base of the Longwood Range, on a terrace. The system adopted is the hydraulic, and the gold is very fine, and distributed thinly through a bed of gravel, lying at a varying depth from the surface, some of the claims being 40 to 50 feet deep. A tail race has been carried up from the sea at great expense, and the headraces are brought in from the Longwood and other ranges, and from the Waimeamea, a considerable distance off. About 120 men are employed in the various claims, and the yield for the year is something over 4000 ounces. There is a bed of capital lignite, about 18 feet thick, and of unknown extent, which was discovered in a race; and near it there is a thick seam of kerosene shale, so full of oil that a bit of it being held over a lighted match it takes fire and burns readily with a yellow flame and black smoke. Of course, the district is hardly known yet in a mineral sense, as gold is the only object of search. And until roads are formed to the locality, the mineral wealth of the district will remain undeveloped. A road, or the completion of the railway through the bush to Riverton, would give an immense impetus to industry of every sort at Orepuki, while the immense extent of timber only wants an outlet to be available to the rest of the Colony. The whole of the country from the Waiau to Jacobs River is a forest, abounding with valuable timber of every kind.

The next day was spent in making the ascent of the Longwood, a high broad range running away to the north from the coast, and parallel to the valley of the Waiau. The track led through among the workings, along the sides of races and claims, until the base of the mountain was gained, when the line of an old race, the water of which is now diverted to a newer line was adopted for a long distance. There was a multiplicity of tracks at first, and my guide, Mr Creasey, got a little doubtful of the one we were following, and one of the miners in a big claim kindly left his work and put us on the proper path to the top of the hills. The bush was very thick, and we could hardly see the sun, but at times we had a glimpse, when our direction was noted as north easterly. For a time we were continually crossing races, or old workings, dams, &c. but gradually all these were left behind, and the only sign of mining was the old race. This we followed for a long distance, gradually rising, and the mixed pine bush of the lower terraces got mixed with iron-wood; then the pines became scarce and the trees were nearly all beech. As we rose, the track got steeper, and the ground was pretty rough, but still the walking was by no means disagreeable, and we got on rapidly. At about two-thirds of the way up we came to an old hut, where the race-cutters used to live, and here we camped, lighted a big fire, and "slung" the billy. After a good meal and a good rest we started to the summit, and soon began to notice the trees getting stunted in growth, and a number of shrubs not seen below were growing about. At last we emerged from the trees into a small mossy glade, and here I

had the pleasure of collecting some plants I had never seen before. The whole surface of the hill above the bush was covered by a deep growth of mosses, with small patches of veronica and other shrubs, interspersed with large blocks of grey granite sticking up here and there. One curious thing was the presence of deep pools of water, little lakes, in the flat surface. I went to the edge of one and put down my stick but there was no bottom.

A little to the left of where we emerged from the trees there was a little rocky peak, and we made our way there, and got on the top in order to have an uninterrupted view all round, and a most magnificent prospect lay before us. To the east we could see the whole Province of Southland, right across to the mills beyond the Mataura, and the coast line at intervals from the Bluff to a long way to the west of Waiau, which river was visible in several long stretches, including the long sand-bar which divides the river from the ocean. The mountains to the west and north, however, were very indistinct, and soon were invisible altogether, as a thick fog settled on them. Riverton and the estuary of the Jacobs, with the Purakino, were apparently quite near, with all the country around for a long way. While we were enjoying the fine prospect, the fog we had seen on the western hills suddenly enveloped us and a smart shower of rain fell, which drove us to the lee of some big rocks for shelter, where we kindled a fire, there being plenty of dry sticks lying about. The shower did not last long, and we spent a very pleasant time wandering about on the hill top collecting mosses and ferns. The fog still hung on the hills, but after a little we got a good view of the Pahia, Orepuki, the Strait, Stewart's Island, &c. The top of the Longwood was a most interesting place, and had my time permitted I could have spent a couple of days on it instead of an hour and a-half, which was all that could be spared. We got back to the top of the track, and after getting a few of all the plants and ferns we thought interesting, packed up and started down again, reaching our camping place at the old hut in time to find the fire still burning. The billy was again slung, and after a feed and a good rest, the remainder of the long road was got over in good time, without any other disagreeability than what was caused by a heavy shower, which came on when near the foot of the hill. The hotel at Orepuki was gained shortly after 7 o'clock.

Next day was devoted to the return to Riverton. I was to be accompanied part of the way by my worthy guide, Mr Creasey, who had some business to arrange at Wakapatu, and we were to have gone so far on horseback, but when it came to starting the animals were not to be found, so we had to take the means of locomotion provided for us naturally. The first part of the way was pleasant enough, across the undulating open ground near the township for a mile or two. But after passing through about half-a-mile of bush, and getting down upon the Paihi Fat, then the trouble began. We took the precaution while passing some flax to tie the legs of our trousers tight round the ankles, and it was well we did so, for we had not gone far on the Paihi ere the mud was over the boots. It was a long and tiresome journey getting over these five miles of swamp, but it was done, though the change to the bush on the other side was only one from thin mud to thick mud. If anything the bush was worse than the flat, which here and there had some places which were firm; but the bush was simply detestable, and the walking turned to splashing through mud holes. I was lucky enough to escape plumbing any very deep place, but managed to get through without going over the knee.

At Wakapatu we had a good rest, and a dinner off wild pork. Here my friend and I parted: he to take a bee line back to Orepuki, I to take the beaches and bush to Riverton, where I arrived shortly after 7 o'clock, pretty well tired out, the distance being nearly 25 miles over the worst track in the Colony without exception. It is high time that something was done by the authorities to make a passable track from Riverton to Orepuki. Very little would please the miners, who are willing to help as far as they are able. But a simple foot track, with light bridge—a couple of sticks and a handrail over the creeks, could be easily and cheaply made, and would be a great boon to the population scattered about Round Hill and Orepuki, enabling them to get

provisions and stores of all sorts carried through at a much lower rate than is now charged.

I spent the next day about Riverton and its neighbourhood, taking a look at the sunken steamer *Express* and the operations going on for its recovery, a stroll round the Maori Kaik, and so on. The position of the *Express* is causing some alterations of the banks in the harbour, and the *Wanganui*, in trying to get out ran on the bank and lost a couple of days ere getting off again. Next afternoon the coach took me back to Invercargill, through a pelting shower of rain the whole way, which was the first bad weather experienced; and the next morning at 6.30 I was in the train to Mataura, from which I coached to Balclutha, arriving home again at 9.30, thoroughly well pleased with my rambles in the southern district of the Province. PAKEHA. April, 1877

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from *Trans Proc NZ Inst* Vol pp 324-330

THE DUNEDIN FISH SUPPLY.

Read before the Otago Institute, 7th Aug, 1877

In compliance with the request of the president and members of the Society, when I read the former paper on the subject last August, I now lay before you the result of my observations for the year ending 31st July last. I may state that my information was obtained in the same way as previously, by taking notes of the various fishes exposed for sale in town, in boats at the jetties, enquiries at Port Chalmers, etc.

The local fishing trade may be represented as follows:—During the year eight boats, employing twenty-four men, have been employed in the fishing outside the Heads; while twelve boats, employing twenty-four men, have been engaged in the seine fishing in Otago harbour and the adjoining inlets. This is independent of Stewart Island, where a number of cutters are engaged in the trade.

The supply has been pretty steady all through the year, though occasionally, when a term, more or less long, of stormy weather occurred, a scarcity would be felt. The Southland steamers often fetch to Dunedin a few boxes of fish, mostly blue cod, trumpeter, and moki, which abound in the bays of Stewart Island. In January last three new boats left this port for the trade there; and only the other day a fine new boat of fourteen tons was launched at Port Chalmers for the prosecution of the outside fishing trade.

The complaint of small fish has been made again and again. This is particularly the case with flounders, which are brought to market of a ridiculously small size. Very juvenile red cod are frequently caught by the seiners in large quantities. Some regulation as to the size of fish exposed for sale ought to be speedily made, in order to prevent their complete extermination. All under a certain size, on being caught, should be returned to the water. In talking this matter over with one of the dealers, with a number of specimens before us, a size of flounder was considered, and in his opinion, in which I quite concurred, all below eight inches in length from snout to tail should be rejected. Fish under this size are really not worth the trouble of cooking. Complaints as to other fishes are not so often made, even the red cod, though caught very small, being available for table use in a smoked state.

This latter mode of preserving fish is pretty generally used both in Dunedin and Port Chalmers, and large quantities of barracouta, ling, moki, trumpeter, blue cod, and red cod are cured and sent up country and to other towns for consumption. Some curing is also done in the southern district. This is a trade that is yet in its infancy, a very extensive market lying open for occupation, both in this and other colonies. The herring is cured extensively at Picton, and sold everywhere as bloaters; and it must be admitted they taste much like the real Yarmouth article. The mullet, which is common in Otago, and sometimes called herring, does not cure so well, as it is generally very fat, and consequently does not keep.

The table given below contains the names of the fishes, and the number of days they were in the market during the year, from 1st August, 1876 to the 31st July, 1877, both inclusive, with the number of days on which there were no fish.

From the figures in the table it will be seen that the supply has been much more steady and liberal than during last year. This is in a

measure due to the pretty regular shipments sent up from the Bluff. One or two welled boats have also been at work on the coasts adjacent to Otago Heads. These welled boats bring in moki, trumpeter, and other fishes to the port, and thus keep the market supplied with what used to be considered rare or scarce fishes. With the exception of ling and sole, all the other items in the table show a large increase on last year's returns.

There is one mode of fishing which has as yet received hardly a fair trial in our waters. I refer to trawling—a method which is largely employed in the seas adjacent to the British coasts. Some years ago a vessel was brought over from Melbourne for the purpose, but the scheme was abandoned before a fair trial had been given to it. I am convinced that, were this plan of catching fish properly gone about, a constant supply could be sent in nearly every weather. The vessels being welled could be kept cruising about till a sufficient cargo was got together, when the port could be run for, and the fish disposed of as required. A supply of soles in particular could thus always be depended upon, and there is no doubt that other ground-feeding fishes would be caught in quantity sufficient to make the enterprise pay.

NAMES OF FISHES		NUMBER OF DAYS IN MARKET													
Maori or Settlers' Name.	Scientific Name.	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Total.	Last Year.
Hapuka, Groper	*Oligorus gigas*	–	3	25	23	17	18	16	18	10	12	17	–	159	143
Kahawai Salmon	*Arripis salar*	–	–	–	–	–	1	–	–	–	–	–	–	1	3
Ling	*Genypterus blacoides*	2	2	10	6	8	8	5	–	3	10	15	14	83	109
Manga, Barracouta	*Thyrsites atun*	–	–	13	24	13	16	17	13	6	12	9	–	123	106
Hiku, Frostfish	*Lepidopus caudatus*	–	1	–	–	–	–	–	–	1	–	–	9	11	2
Moki	*Latris ciliaris*	6	6	22	12	5	13	16	10	10	15	6	15	136	82
Kohi, Trumpeter	*Latris hecateia*	–	7	11	4	1	–	3	4	5	2	2	12	51	9
Pakirikiri, Blue Cod	*Percis colias*	12	7	14	3	6	2	6	8	8	19	10	14	119	78
Granite Trout	*Haplodactylus meandratus*	–	–	–	–	–	–	–	–	1	1	–	–	2	–
Red Cod	*Lotella bacchus*	8	14	18	21	17	17	15	17	17	22	24	24	214	111
Kumukumu Gurnard	*Trigla kumu*	–	–	–	1	–	–	–	–	1	–	–	–	2	–
Haddock	*Gadus australis*	–	3	3	–	–	–	3	–	1	–	–	–	10	–
Parrot-fish	*Labrichthys psittacula*	3	3	2	–	2	–	–	–	2	–	2	–	14	–
Sandling or Sand-eel	*Gonorhynchus greyi*	4	–	6	2	1	4	14	5	3	7	10	–	56	34
Ihi, Garfish	*Hemirhamphus intermedius*		10	14	1	3	4	5	–	1	–	3	–	41	19
Butterfish (true)	*Coridodax pullus*	–	–	3	–	–	–	–	–	–	2	–	–	5	–
Spotties, Marare	*Labrichthys bothryocosmus*	–	2	11	9	15	15	15	21	14	10	7	9	128	34
Herrings, Makawhiti	*Agonostoma forsteri*	19	16	24	15	18	22	15	21	18	23	24	18	233	159
Herrings (true)	*Clupea sagax*	–	–	–	–	–	2	2	–	–	–	–	–	4	–
Whitebait	*Retropinna richardsoni*	–	–	–	–	–	–	–	4	1	–	–	–	5	–
Arara, Trevally	*Caranx geogianus*	11	4	2	4	12	12	17	6	14	21	8	13	124	89
Patiki,	*Rhombosolea monopus*	21	18	25	21	20	24	21	24	19	23	22	23	261	201

Flounder															
Sole	*Peltorhamphus n.zealandiœ*	1	5	1	2	–	–	5	–	1	–	2	3	20	30
Skate	*Raia nasuta*	3	4	5	–	2	–	1	–	–	–	–	–	15	13
Days on which no fish		4	5	–	1	3	2	2	1	3	1	–	–	22	32

It may not be out of place to give a few remarks upon the months, incidents, weather, and so on.

August was characterized by stormy and irregular weather, which had its effect in reducing the supply of fish; indeed, large fish were out of the market all the month. The only sort that were anything like constant were flounders and mullet. Though the weather was so severe there were no frost-fish brought to town. On the outer beaches they were not infrequent, though not so plentiful as usual. On four days there were no fish, and for several days only a few small flounders were on sale.

During the early half of September stormy weather was the rule, and fish exceedingly scarce; on several days none at all. On the 28th, some very fine trumpeter were brought in from the coasts, of weight up to ten pounds.

October was characterized by better weather, and the supply of fish was pretty steady. The barracouta made their appearance on the 17th, thirteen days earlier than last year, and were at once in large supply. Garfish were very plentiful about the middle of the month. The true butterfish was brought to market on one or two days.

November was an average month, and fish were fairly plentiful. Flounders, however, were scarce all the month. On the 3rd and 28th, several salmon-trout were caught in the harbour.

There was a good deal of wet weather during December, and for a few days at the beginning of the month fish were rather scarce, and many small flounders sent to town. The season allowing, a good many brown trout were on sale.

Through January fish were abundant. On the 15th several dozen of kahawai were brought to market, two days earlier than last year. They were said to have been plentiful outside the heads, but they were never caught again. No king-fish were caught this year. The herring (*Clupea sagax*) was brought to market in good quantity. Some specimens measured eleven inches long, the average were about nine inches long. On the 4th three cutters sailed from port for Stewart Island, to follow the fishing trade there, the produce to be sent to Dunedin.

February was a month of full supply, though the complaint of small flounders was again common. On several days at the middle of the month *Chupea sagax* was again in the market.

During March the town was well supplied. As a novelty a few whitebait formed an item in the supply for some days.

April was a rather stormy month, and there was in consequence a scarcity for some days.

May saw the market pretty regularly supplied. A fair addition was made by regular shipments of moki, trumpeter, and blue cod by the steamer from the Bluff. Seine fish were in liberal supply.

During June fish were in steady and liberal supply, large fish particularly so. The barracouta disappeared on the 16th, having been on the coast since 17th October.

July has witnessed a good supply of fish. Ling of large size were plentiful, as were also red cod and mullet; a quantity of the cod were cured by smoking. Trevally were also very plentiful for several days.

Regarding the fishes themselves I give the following notes:—

1. Groper.—Excepting during the month of July and August, this excellent fish has been pretty constantly in the market. A few very large individuals were brought to town, weighing as high as fifty to sixty pounds, but from twenty to thirty pounds is the average size. Was in the market altogether 159 days, as against 143 last year.

2. The kahawai was only in the market on one day, in January, when upwards of forty were brought to town. They were said to be plentiful outside the Heads at the time, but they had all disappeared by next day.

No kingfish visited the coast this year.

3. Ling is present in the market more or less all the year round, save about the autumn, when it is generally scarce. This is among the best of our food fishes, and is sometimes of large size, up to twenty pounds. The young of the ling are sometimes caught by the seiners, and are very pretty, being curiously spotted. This fish was present 83 days and last year 109.

4. Barracouta were in large, though somewhat irregular supply, during the season, which began on the 17th October, about a fortnight earlier than usual. They were plentiful in the open water all along the coast. Were in the market 123 days, for 106 during last year.
5. Frost-fish have been scarce until the middle of July, when during some fine clear *frosty* weather, with a young moon, they were for a few days quite plentiful, some of the shops having from three or four up to twenty; nearly seventy were caught in one day at or near Purakanui. They were brought to market on eleven days. Settlers along the seaboard to the north have caught them pretty frequently. No further light has been thrown on the singular habits of this fish.
6. Moki is now a much more regular visitor to our market than in former years. Independent of the supply from our local fishermen, moki are brought by the Southland steamers from the Bluff, to which they are brought by the Stewart Island fishermen and shipped to Dunedin. This fish was in the market 136 days, against 82 last year.
7. Trumpeter has also been in increased supply, principally from the south. Was in the market on 51 days, 9 last year.
8. Blue cod has been pretty constantly in the market, coming also largely from Stewart Island. It is also to be had off any of the rocky points near the Heads. Was in the market 119 days, and 78 days last year.
9. The granite trout, though not a trout at all, is yet a very good fish, but only occasionally brought to market.
10. Red cod is perhaps the most plentiful of all our finny visitors, and is caught in large numbers, both inside and outside the Heads. Both large and small fish are cured by smoking, and sold as Finnan haddock, which they resemble very much, but far too many small ones are caught. They were in the market 214 days, against 111 for last year.
11. The gurnard is only an occasional visitor to our market, and can hardly be reckoned on as a regular food-fish.
12. The haddock is caught occasionally, but there are seldom more than two or three got at a time.
13. Parrot-fish were in the market on about fourteen days during the year.
14. The sandling or sand-eel is a very delicate fish, and is often in the market. It is not, however, very plentiful, and is irregular; was in the market 56 days, last year 34 days.
15. The garfish was very plentiful during the summer months, and is sometimes present in the town harbour in immense shoals; was in the market on 19 days last year, on 41 this year.
16. The true butterfish was caught several times during the year. It must, however, be considered as a very rare fish in our waters.
17. The spotty, or butterfish of our local fishermen, has been very plentiful this year, and has been brought to town in large numbers at times; was in the market 128 days, as against 34 for last year.
18. The herring or mullet is a very abundant fish in Otago harbour, and furnishes very good sport with a rod and line. It varies in size from six to fourteen inches in length. It is one of the best of our fishes, and was in the market 233 days, for 159 last year.
19. The true herring was brought to market on one or two days during the summer. This is a migratory fish, and does not stay on the coast more than a few days in the year, when it is present in immense shoals. Those brought to town varied from seven to eleven inches in length.
20. Whitebait were on sale for a few days in autumn. I think these are the young of more than one fish, perhaps both mullet and herring. They are caught in one or two places in the harbour, at the mouth of the Leith in Pelichet Bay, and in the steam basin.
21. That excellent fish the trevally was almost constantly in the market during the year. About midsummer some very large specimens were on sale; was present on 124 days, and 89 last year.
22. Flounders were in regular supply all the year. It is much to be regretted that the fishermen will persist in sending so many small ones to market, legislative interference will have to take place. But there would be no need for it if fishermen would only use their common sense and reject all below a certain size. The dealers would also help materially if they refused to buy small fish. The flounder was in the market 261 days, for 201 last year.
23. Soles are somewhat rare in our market, and are most plentiful in spring. Two varieties appear to be caught here, differing but slightly from each other; were thirty days in the market last year, and twenty this year.
24. The skate is not often brought to market, but is not a scarce fish, and as a food-fish has few superiors; was fifteen days in the market, against thirteen last year.

Some odd fishes now and then turn up in the market, such as the Maori chief, cat-fish, silver-fish, etc. but of these there is seldom

more than one at a time, and so I omitted them from the table. There is also the common leather-jacket or pig-fish of our harbour (*Agriopus leucopoecilus*) which is often caught, but very seldom offered for sale, though good eating. One schnapper was caught late in the season.

In conclusion, I have only to add that a great deal of pain and trouble have been used in order that the information may be as correct as possible; and when I state that the table is the result of nearly 4,000 entries, you will see that I have gone with some minuteness into my task.

During the year there were twenty-two days on which there were no fish on sale; during last year there were thirty-two such days.

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from *Otago Witness* 9 February 1878

OREPUKI DIGGINGS

We find published with the report for the season 1876-7 of the proceedings of the Dunedin Naturalists' Field Club, an interesting account of a trip to Riverton, Orepuki, and Longwood, which was read, at one of the meetings by Mr Peter Thomson ("PAKEHA"), the energetic Secretary of the Club, from which we take the following extract:— " I passed the next day in making a round of the principal gold workings, some of which are very extensive. The gold is principally obtained from seams of gravel, of varying thickness, lying underneath thick beds of a sandy loam or cement, sometimes pretty hard. The system adopted is the ordinary hydraulic, there being a good supply of water, the races being supplied from the Longwood Range above, or the Waimeamea, a river a short way to the westward. This is pronounced "Waimimmy" by the miners. The creek passing the township is called the Toanoa, but this has been altered into Townore, which is not at all a euphuism. Some of the races are long, and cost much labour and expense before they were brought on to the claims. The main sludge channel, or tail race, is a splendid piece of work, as it is carried up from the beach, and tunnelled here and there, costing about £3,000 to finish. I saw the prospect in several of the claims, fine gold, or in small rough particles. The miners generally seemed well pleased and contented with the results of their labour. Among other things I was taken to see was an outcrop of fine coal, about 18 feet thick, of great extent, only waiting a road to be made to it to be available for use. Quite close to the coal is a bed of shale, containing a very large percentage of oil, taking fire readily at a match, and burning with a bright yellow flame and thick black smoke. Whenever the district is made accessible to the rest of the colony by roads, this shale will form an important item in the industries of the place, and the oil figure largely as a product. Before concluding my notes on Orepuki, I must not forget to tell you of an extraordinary specimen of the *genus* Homo, variety digger, sub-variety hatter, I found at work on the beach. The diggings at Orepuki were originally what are termed beach working, the gold being got among the sand. This was gradually worked out, and the diggers retired farther inland, to where they are now located, on the terraces at the base of the Longwood Range. There are only two men now working on the beach, and one of these is the queer fellow I am going to speak about. He works at the northern end of the beach, all by himself; has a small stream of water from a gully, and has his apparatus placed where there is a good supply of the dark coloured sand to work upon. This sand is renewed by every tide, and of course when the tide rises, the digger has to carry off his sluicing apparatus out of the way of the breakers, nearly always heavy on this part of the coast, exposed as it is to all the full force of the S.W. sea. This man, Andrew, has got a craze about precious stones, and attaches some curious spiritual nature to them, quoting largely from the Bible. He goes poking about the beach, and whenever he comes across a whiter stone than usual, it is carefully picked up and stowed away.

He has names for them all, and they are amethysts, topazes, beryls, jaspers, &c, &c, as the whim strikes him, whilst all the while they are only the common milk quartz. We went down to the beach and witnessed the process of washing carried on, and after he had explained all that was worthy, he invited us up to his hut, situated in a queer little nook a little way back from the beach. This hut we found the storehouse of Andrew's

queer notions. On the table, the floor, shelves, everywhere, were to be seen lots of white stones; while underneath the table was pointed out to us a long iron-bound box, which contained, according to Andrew's estimate, no less than forty millions' sterling worth of precious stones! He had sent sample to the Governor, offering his whole stock, but after a decent interval a reply was received, returning the samples, and respectfully declining the generous gift. It was a singular sight to witness a man—otherwise intelligent—gravely narrating these particulars, and handling the stones, which he produced from a large quantity in a flour-bag, in a most reverent way. He said he could not give any away; but, throwing a few down on the table, he intimated that I might lift a sample, which I did, and then we took our leave. This man made on an average, week by week, in this way, an income of £3 per week, which, allowing for the tides when he could not work, and bad weather, was very fair wages for a solitary like him.

"I found the men of Orepuki a genial jolly race, intelligent and ready-witted, mostly of considerable experience in their profession, and always willing to answer my queries."

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from *Trans Proc NZ Inst* Vol 11 1878 pp380-386

OUR FISH SUPPLY.

Read before the Otago Institute, 13th August, 1878.

I beg to lay before the members of the Institute the third and concluding series of my notes on the Dunedin Fish Supply. I think enough has been done to show the times and seasons of the principal food fishes of this part of the colony; and if some one will take up a similar duty for a port in the north, say Auckland, and another for one in the middle of the colony, say Wellington, a very good idea may then be had of the whole question.

The most important event of the past year in connection with my subject, was the passing of an Act regulating Fisheries, by the Colonial Legislature. It may be thought presumptuous on my part, but I must take a little credit in having at least assisted in bringing this about. A little stir has been induced, both among the fishermen and the dealers, by the fact of some one being in their midst who was "taking notes." During the past year or two I have been in frequent communication with the dealers, as well as by paragraphs in the Press, urging the necessity of steps being taken to preserve the fisheries in the harbour from utter destruction, by either refusing to take from the fishermen any fish under a certain size, or agreeing among themselves to refuse dealing with those who persisted in bringing undersized fish to town.

The Act was rather a surprise, as no one here knew of its introduction to the House until it had passed its second reading, and in the hurry at the close of the session there was no time for alteration. A synopsis of the Bill appeared in one of the Dunedin papers, and I wrote pointing out what I thought objectionable features. When a copy of the Act was procured, it was found to be very general in its details, and as far as Otago harbour is concerned, almost unworkable. When Ministers arrived in Dunedin, after the close of the session, no time was lost by the dealers in waiting on them and ascertaining the intention of the Government in the matter. Deputations explained what was wanted, and arrangements were made for a conference of all concerned, fishermen and dealers, which took place on January 5th. After a number of those present had expressed their sentiments on the matter, a memorandum was drawn up, setting forth the sizes of fish which were to be considered marketable. These sizes were:—That no flounders should be sold under nine inches long; no red cod under ten inches; no mullet under nine inches; and no garfish under fourteen inches—a penalty to be incurred for contravention. It was not considered advisable to make any regulations about the outside fishing, as it was thought that risk, weather, etc., were quite sufficient protection. After this it was thought there would be no grumbling at any steps that might be taken to carry out the objects of the Act, which are, so far, of a merely tentative nature.

Nothing has yet been done in the way of establishing a fish market in the city, but as the matter has now been taken in hand by that active and influential body, the Chamber of Commerce, it is to be hoped that a market place for the sale of fish, etc., will soon be in full swing.

The following table gives the details of the various fishes, taken day by day from the

different shops in the town, as well as by inquiries at the jetties, Port Chalmers, etc. I have taken great pains with the table, and the information it contains may be taken as substantially correct.

NAMES OF FISHES.		NUMBER OF DAYS IN MARKET.													
Native or Settlers'.	Scientific.	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	TOTAL.	AVERAGE FOR THREE YEARS.
Hapuka, Groper	*Oligorus gigas*		4	14	21	16	19	16	19	18	23	7		157	153
Kahawai, Salmon	*Arripis salar*						4		1					5	3
Tamure, Snapper	*Parus unicolor*						1		1	1	1			4	2
Ling	*Genypterus blacoides*	2		1	4	2	12	3	7	9	17	7	15	79	90
Moki	*Latris ciliaris*	2	4	14	16	12	13	10	11	7	10	5	1	105	107
Kohi, Trumpeter	*Latris hecateia*		2	3	8	2	4	3	3		2	1	1	29	29
Mangu, Barracoota	*Thyrsites atun*			2	24	16	18	7	14	16	11	1		109	112
Hiku, Frostfish	*Lepidopus caudatus*	1								1		6	20	28	13
Pakirikiri, Blue Cod	*Percis colias*	11	9	6	15	1	5	2	1	1	5	5	4	65	84
Red Cod	*Lotella bacchus*	23	23	22	25	20	22	17	26	25	24	20	20	267	197
Sandling or Sandeel	*Gonorhynchus greyi*	4	5	4	2	1		1	3	5	4	2	4	35	41
Ihi, Garfish	*Hemiramphus intermedius*	2		15	13	1	5	1		1			1	39	33
Butterfish (true)	*Coridodax pullus*	1		5	6	1	1	1	3	2	2		1	23	9
Wrasse, or Perch	*Labrichthys celidota*			2	2	4	2						1	11	
Parrotfish	*Labrichthys psittacula*		3		3								1	7	7
Spottie	*Labrichthys bothryocosmus*	2	1	13	19	12	16	19	22	23	11	7	9	154	81
Makuwhiti, Mullet, or Herring	*Agonostoma forsteri*	11	4	7	18	10	11	13	22	14	16	5	16	147	179
Whitebait	*Retropinna richardsoni*			1						1				2	2
Arara, Trevally	*Neptomenus brama*	8	1	1	7	5	5	18	22	17	13	11	2	110	107
Patiki, Flounder	*Rhombosolea monopus*	24	20	24	25	23	23	23	26	25	23	22	24	282	181
Sole	*Peltorhamphus n. zealandiæ*	1				1	1		4		2		2	11	20
Skate	*Raja nasuta*	3	1	2	1	1				3	7	4	1	23	17
days on which there were no fish		1		1		3	2			1		1	1	10	21

Various other fishes occur, but at irregular intervals, and only one or two at a time. Among these I may mention the following as occurring most frequently:—The Whiting, *Pseudophycis breviusculus*, is got occasionally, as is also the Haddock, *Gadus australis*. The Granite Trout, *Haplodactylus meandratus*, occurs now and then. Quite a lot of Horse Mackerel, *Trachurus trachurus*, were brought to town in March last, only individual specimens being the rule previously. Occasionally a few Gurnard, *Trigla kumu*, may be seen in the shops, but they are very shy visitors. About the end of January, a few Tarakihi, *Chilodactylus macropterus*, were brought to market, so it must be enrolled as a summer visitor. That very dark-skinned fish, the Maori Chief, *Notothenia maoriensis*, of Dr. Haast, is not uncommon, but is rarely seen more than one at a time. The Herring, *Clupea sagax*, did not turn up during the past summer as usual. The Kingfish, *Seriola lalandii*, also put in no appearance this year.

Of the regular food fishes the following notes may be of interest:—

The Hapuka or Groper was in pretty regular supply from the close of September till towards the end of June. The demand for this

fine fish is not half so great as it should be. It was in the market 157 days.

Ling has been in rather irregular supply during the year. For a few days this fish would be quite common, and then for a week or a fortnight there would be none at all, and this quite irrespective of the weather. Was 79 days in the market.

Kahawai was in good supply for a few days in January, and occurred again in March.

Snapper was brought to town in summer and autumn, but the catch was limited to a few individual specimens, all of good sizes.

Moki was constantly to be found in the market, a few days at a time, all through the year, though most numerous in the summer months. Was in the market 105 days.

Trumpeter was in rather short supply during the year, very few having been received from the southward. 29 days in the market.

The Barracoota made its appearance on the 29th October, when a solitary specimen was caught, followed by abundance on the 31st. It continued in season till the end of May, although one was caught by net in the Lower Harbour on the 19th of June. Was 109 days in the market.

A few Frostfish were caught (I should rather say picked up, for the fish is never caught in the ordinary sense of the word) in August, and again in April; but towards the end of June and nearly all July large numbers of this fish were brought to town, one dealer passing no fewer than 109 through his hands in a fortnight, mostly brought from the vicinity of Purakanui. On all the beaches to the west of the Heads, and away to the north, particularly about Moeraki, large numbers were got. Nothing is yet definitely known as to why this fish comes ashore in the peculiar way it does, but I may give you the latest theory as it appeared in one of the papers here a week or two ago. The writer said:—"The stranding of these fish is accounted for from the fact that, not being well supplied with fins, they swim with an undulating motion, like that of the leech, the head being elevated. In cold weather they follow their prey into shallow water, and when the tail touches the ground they become helpless, and are washed ashore." The writer was very easily crammed. It is a noticeable fact that all the fish are about the same size—4½ feet to 5 feet in length. In the market 28 days, being the longest known.

Blue Cod.—This staple fish was in fair supply nearly all the year, with the exception of some weeks in winter, when there was some severe weather, which put a stop to outside fishing. The supply from Stewart Island was very irregular. Was 65 days in the market.

Red Cod.—Both from inside and outside fishings; was in very regular supply, the shops being seldom without a few. Indeed, this fish is always to be had, and is in finest condition during the winter months, when pretty large takes of good-sized specimens are got from the outside fishery, those caught by the seine-net in the harbour being as a rule much smaller. Red Cod was in the market 267 days.

Sandling or Sandeel.—This delicate little fish is never very plentiful, but a few are generally caught in the seine-nets. Properly cooked, this is one of our finest food fishes. Was present 35 days.

Garfish was pretty plentiful during the spring and summer. In October immense numbers were brought to town, large shoals being present in the Lower Harbour for several days. In the market 39 days.

The true Butterfish was more frequently brought to town during the past year than ever before. Some of them were of pretty large size, and mostly netted among the rocks along the coast, and near Moeraki. 23 days in the market.

Wrasse, Parrotfish, and Spotties were often in the market, the latter especially being a regular seine-fish, and got along with Flounders, etc. There are two sorts of Spotty—a big and a little. The Wrasse and Parrotfish are mostly caught outside among the kelp, and with the Spotty are indiscriminately named Kelp-fish by the fishermen, though the term Butter-fish is also given to the smaller sorts. Spotties in market 154 days.

The Mullet or Herring is to be had almost constantly, and is present in greater or less quantity the whole year round. At very irregular periods large shoals of the fish congregate in the Harbour, when they are caught by the net in immense numbers. This fish gives good sport with rod and line. Was 147 days in the market.

Trevally.—This excellent little fish is also a [*unclear:*] constant visitor, and may be had in quantity all the year round. Some pretty large ones are now and then to be seen. Was 110 days in the market.

That favourite fish the Flounder was in full supply nearly all the year. Latterly, I notice that the Flounders brought to town have increased in size a little; it is to be hoped that this will continue, and that the new Act will have some influence with those who catch them. 282 days in the market.

Soles are not very common, only those caught by the seine being brought to market. If trawling were introduced in suitable localities along the coast, the fish would be more plentiful. [*unclear:*] Was 11 days in market.
Skate was brought to market on 23 days. Those exhibited were mostly of small size.

I subjoin the following notes on the weather, incidents, etc., for the twelve months:—
August was characterised by cold and dull weather, with two or three storms. Fish, with the exception of small Flounders and Mullet, were generally scarce.
September had very stormy weather at the beginning, which moderated gradually towards the end. The supply of fish sympathised with the weather, being very scarce at commencement, and improved towards the close.
October.—The weather was fine at the beginning, but stormy and irregular towards the close. There was a good supply of fish about the middle of the month. Butterfish were pretty numerous. On the 25th, very large hauls of Garfish were made in the Lower Harbour, and this fish was very abundant for some days. On the 29th, a solitary Barracoota was caught in a net in the harbour, and next day the fishermen were out for miles off the coast, looking for the expected shoal, but were unsuccessful. On the 31st, they were met with in abundance. A new curing work was started this month in Horseshoe Bay, Stewart Island, to employ about 20 men, two large cutters, and several smaller boats.
November was a month of full and pretty varied supply, the weather mostly fine, with some dull and showery days.
There was some stormy weather during December, but the supply of fish was pretty liberal. A well-boat started to work the reefs off the coast between Waikouaiti and Moeraki, the intention being to bring the fish alive up to the town jetty.
Fish were in full supply during January, save during one or two days of rough weather, which kept the boats from getting out. On the 24th, a fine Snapper was caught, rather larger than the ordinary run of these visitors to our coast. It was 13 lbs. in weight, 29 inches long, by 24 inches in girth. On the 29th, some Tarakihi were brought to market, accompanied by some fine large Trumpeter.
February, except for a few days at the beginning of the month, was a time of full supply, both large and small fish being plentiful. On the 20th, a large Stingaree *(Trigon thalassia)* was caught and brought into town; and on the 22nd a Conger-eel *(Conger vulgaris)*, 6 feet 2 inches long, weighing 40 lbs., was on exhibition.
During March there was a fair average supply of all varieties. For some days near the beginning of the month a number of Horse Mackerel were brought to the market. On the 14th a Snapper, and on the 18th a Kahawai was caught.
At the beginning of April fish were abundant, but the supply fell off towards the middle, when severe cold weather prevailed. On the 20th two Frostfish were brought to town, and on the 23rd a big Snapper. An incident of the month was the imposition of a license fee, under the authority of the new Act, of £1 for each net in use.
Fish were in fair supply during May, except during a few days of stormy weather. Some exceptionally large Flounders were caught on the 7th; on the 8th, a fine Snapper; and towards the close of the month Trevally were very plentiful.
June was a month of very severe weather all through, but with the exception of a few days the supply was good and sometimes plentiful. On the 19th, a solitary Barracoota was caught in a net in the Lower Harbour. A market for the sale of fish, etc., was the subject of some discussion during the month.
July was characterised by a continuance of fine clear frosty weather nearly all through the month, winding up with a snowstorm on the last day. The great feature of the month was the abundance of Frostfish which were brought to town in greater or less number for 20 days. They were mostly brought from the beaches between Blueskin and the Heads, and formed quite a small harvest to the younger settlers along that line of the coast, as pretty fair prices were given for them by the dealers, who resold them at prices ranging from five to ten shillings each.

In accordance with the wish of the President and others, expressed at the time I read the paper last year, I wrote to Mr. Traill, of Stewart Island, for particulars as to the state of the trade there, but I never received any reply.

However, I am able to give the following statistics as to the number of boats and men engaged in the trade at the present time, August 7th, 1878:—
There are engaged in the fishing, outside of the Heads, 9 whale-boats and 2 cutters, employing

about 30 men. In the Harbour or seining branch there are 16 boats and about 40 men engaged. At Port Chalmers there are two smoke-houses with four men to each. At Stewart Island I have learned there are two smoke-houses, and about 30 men engaged in boating, etc.

Hoping that the figures and facts I have drawn together may be some use to the members, I now bring my three years' task to a conclusion.

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from *Otago Daily Times* 20 March 1879, reprinted *Otago Witness* 29 March 1879

A TOUR IN SEARCH OF HEALTH

The writer fell into a very bad state of health some time ago, and among other projects set up for his recovery those of a sea voyage and a residence at the hot spriugs of Waiwera were very strongly recommended. Accordingly he gave up his post, and taking advantage of the liberal offer of return tickets made by the U.S.S. Co., left Dunedin by the fine steamer *Arawata* for Lyttelton and Wellington. Sufficient time was given at the former place for a run through to Christchurch and a ramble over the delightful Domain, Hagley Park, &c, as well as a good look through the principal streets of the town. The Museum, unfortunately, was closed. Three days had to be spent in Wellington ere the steamer going North arrived, but the days were by no means wasted. There was plenty to see in the Empire City—the Museum, Botanical Gardens, &c, as well as some pretty places in the immediate vicinity. Even the tramway was a new experience of a most pleasant nature. The stay in Wellington included a run up the Hutt railway, which traverses a fine agricultural district for a long way. The difference in climate between Dunedin and Wellington made itself apparent in the growth of maize in the open field, and the frequent presence of the nikau palm along the edges of the bush. Progress further northward was made in the fine steamer *Wanaka*, which, however, was very much overcrowded. But this and the other consequent disagree-abilities were cheerfully submitted to, and generally laughed at. The first night on board was very rough, with a high tumbling sea, which caused a good deal of suffering to some of the passengers, but the weather cleared in the morning and the sea gradually went down till arrival off Napier. A good many went ashore here, but nearly as many came on board, so the crowding was no way diminished. The sail up to Gisborne was very pleasant—smooth sea and light head wind. The first part of the run to Tauranga was very enjoyable, groups of islands being always in sight. *The* sight, however, of this part of the voyage was lost, for the *Wanaka* passed White Island in the dark, and nothing could be seen of it but a big dark mass, with smoke issuing from its top. Tauranga we found a lovely place, with a fine capacious harbour, and some good scenery all round. A good many of the passengers went ashore and visited the cemetery, where are buried those who fell at the taking of the celebrated Gate Pa. There are many graves, both of officers and men. The remainder of the voyage was characterised by smooth seas and pleasant weather, passing again many fine islands. Cape Colville was rounded in the dark, and Auckland was reached between 3 and 4 o'clock in the morning. We waited on board till 6, and then drove to the nearest hotel.

Auckland [is] unlike other New Zealand towns in having the streets running away from the water instead of running parallel with it. Its principal business street, Queen street, is a fine one, but irregularly built, and possessing some very fine buildings. The upper part of the town is finely laid out, with plenty of room and wide streets; while the suburbs are really beautiful. One thing that strikes a Southerner is the great number of fine trees that are to be seen growing round the houses, mostly of sorts that are not indigenous to the country, the Norfolk Island pine particularly being very plentiful. The steamer by which we were to be conveyed the remaining stage of the journey started from the wharf at 11 a.m., and after a slow though pleasant run of 4½ hours, brought us opposite the landing place at Waiwera. We were very soon ashore, and ushered at once into the drawing-room of the hotel, where our names were entered in a book for the purpose, and we were taken off to our bedrooms and recognised as visitors. A light lunch was provided for the newcomers, and then we sallied forth to interview the

locality. I stayed three weeks at the Springs, and derived much benefit from the bathing. Perhaps the following short descriptive notes, as giving my experience of the place as a sanatorium, may he interesting to the invalid as well as to the general reader.

These springs are situated on the southern edge of a small bay about 25 miles from Auckland. They are reached by steamer, which runs three times a week—Tuesday, Thursday, and Saturday, returning on the alternate days. The voyage occupies about four hours in ordinary weather. From Waiwera the steamer goes farther on to Mahurangi, Kawau, and sundry other places in the vicinity. The water in the bay being shallow for a long distance out, passengers for Waiwera are taken ashore in the steamer's boats, which pull in as far as possible; a spring-cart then comes alongside the boat, takes the passengers in (six at a time), and they are speedily run up high and dry, or to the hotel door, the luggage being brought up subsequently. On arrival the visitors are conveyed to the sitting-room, their names entered in the visitors' book, and their bedrooms selected, to which they are immediately taken by the chambermaids. Everything is comfortable, and provided on a most liberal scale. The meal hours are: breakfast at 8, dinner at 1, tea at 6. The table is providored in most sumptuous style, both as to quantity and quality, everything first-class of its kind, the bedrooms are light and airy, with a fine look-out from nearly every window. The drawing room is a spacious apartment, with a fine-toned piano, which in the evenings is largely made use of by the young ladies, when songs, glees, choruses, &c, are poured forth in rapid succession, or interspersed with dancing. For the convenience of literary and professional people, and others, a post and telegraph office is within cooey of the house.

The baths are situated about 150 yards from the hotel, along a smooth shell-gravel path, overshadowed by trees on both sides, a most agreeable promenade. The baths themselves are contained in a series of buildings, on both sides of a small open square, and are either double or single. The water is admitted from a large iron pipe, with a handy tap. It is of an average temperature of 110° Fah., and is of unlimited quantity. Its chemical constituents consist of alkaline salts, the most abundant being chloride of sodium. It is not unpleasant to drink, either warm or cold, and has a peculiar sulphury smell, though analysis does not show any of that mineral in solution. Patients may stay in the water as long as they like, though 15 or 20 minutes is generally long enough. The bath induces copious perspiration, which patients (rheumatic particularly) are recommended to let flow as long as they can. On the beach, close to, there has recently been erected a fine swimming bath, with 4ft 6in of water continually in it. There are five springs impounded in this enclosure, and when the water in the bath is still the springs can be seen bubbling up to the surface. In mass, the water is delightfully clear, of a blue green shade, and only a degree or two lower in temperature than the small baths. A plunge and a swim in this bath after a long walk on a warm day, is the most delicious thing possible, removing all traces of the fatigue, and acting as a real "pick-me-up." There is a smaller bath in the other building, but only 3ft 6in in depth, so it is mostly given over to the ladies.

The scenery surrounding the Waiwera is most picturesque. Each end of the bay is bounded by a high wooded hill, containing many varieties of plants and ferns. At the northern end a small river runs into the sea, and a ferry gives access to a Maori pa and a German settlement at Puhoi, on the other side of the hill, on the flat adjoining a river somewhat similar to the Waiwera. A path leads up the bank of the latter stream, which opens out to a nice estuary, with water sufficient to take boats up some three or four miles, amid fine ever changing scenery. Some of the gullies running into the estuary are densely covered with vegetation, and contain many plants of great interest to the botanist. Some of the rarer ferns, too, are not uncommon in the locality. From the baths at the south end of the bay a path has been cut leading up the hill, which, though rather steep here and there, affords a series of magnificent views of the hotel and its surroundings; and when the top of the bill is reached a fine panorama is opened out, extending from the island bluff at the north end of the bay to Kawau and the isles adjacent, away off to the Great and Little Barriers, Cape Colville, Tiritiri, Rangitoto, Mount Eden, &c., and the long line of coast on the opposite side of the bay. From this

point the path leads through the bush on the top of the ridge to the new road which is at present in course of construction from Auckland to the districts farther north. Visitors may either proceed down the road to the hotel, or, crossing the road, resume the path just left, and proceed away through the bush for some miles, with enchanting views at every turn, and eventually work through the bush altogether to the open fern land beyond, from which a return may be made by the road just mentioned—the whole forming a nice forenoon's walk, with plenty of time to get a bath and wash away all the fatigue, and sit down to dinner with an appetite.

The bush in the vicinity contains many fine trees and shrubs, notably the karaka, with its large yellow berries; the noble kauri is not very abundant in the near vicinity, but there are plenty of fine specimens in the bush to the south, on the slopes of the hills overlooking the fern land. The characteristics of the kauri are well worth studying, and the tree itself makes a fine picture. Another tree—the pohutukawa—is well worth study, if it were only for the immense growth of parasites and epiphytes which it carries: that it is able to support the great weight of the huge branches of astellia alone is a proof of the prodigious strength of the timber. Some of the smaller trees have beautiful foliage, and would look well if transplanted to the open. One characteristic of the bush here is worth noting—there are very few "lawyers," and progress in any direction is made with comparative ease and freedom. Ferns, as a matter of course, abound everywhere; the bigger sorts growing strong, and holding their own against everything. Those varieties which bear filmy leaves, however, require to be gathered in the spring, as the summer sun shrivels up everything the least exposed to its powerful beams, so much so that it is hardly possible to make out the species.

The beach in front of the hotel also affords a pleasant promenade. When the tide is low, there is a long stretch of fine, hard sand, with plenty of snails. Indeed, about 100 species of mollusca may be collected from the beaches about the Waiwera. Some of these are both rare and beautiful. Sea plants are also well represented, and after a blow from the south or east many fine specimens may be gathered. Crustaceans are common, some of the smaller species being of great beauty. To those who are fond of oyster, the rocks at low water afford a never-failing feast. Provided with a strong knife or a chisel, the favourite esculent may be knocked off the rocks or opened as it lies in any quantity, a little dexterity being all that is requisite.

The routine of line at the Waiwera of course varies with the individual liking, but the day is spent very much in the same way by everyone. The first thing in the morning is bathing, which begins about 6, and goes on with little intermission till the first bell rings for breakfast, in plenty of time to allow of visitors getting ready by 8, when the second bell rings, and the actual business of the day begins. About 9 o'clock visitors generally are on the *qui vive* for something to spend the forenoon upon. Some go to billiards, others get up a game of croquet or tennis on the lawn. Some of the young men, with the assistance of a Maori or two, get in the implements and adjourn to a field at the rear of the hotel, where, although the ground is rather lumpy, they play a good single-wicket game of cricket. A boating party is preferred by others, the tide favouring; while others again start off for the bush, and spend the forenoon in fern-hunting. For those who are too lazy or too infirm to partake of outdoor amusements, there are numerous games provided—chess, draughts, cards, &c, &c. The bell rings again at 12.30, and immediately the stragglers may be seen rolling up from all points to get ready for dinner. This over, the afternoon is spent in much the same way as the forenoon was, though a greater proportion of the visitors stay about the house. A good deal of bathing is done in the afternoon, a constant stream of people passing to and fro. After tea nearly everybody adjourns to the drawing-room; where music is discoursed most pleasantly by one or other of the young ladies. The society is most pleasant, there being nothing of that absurd exclusiveness which some people affect to put on at places of public resort, so that everything goes on smoothly and sweetly.

I have thus in a feeble way attempted to describe the Hot Springs of Waiwera and their vicinity, as well as the general run of the place and the people resident there; and have only to add that for those troubled with rheumatic affection, or suffering from

overwork, there is no place in the Colony so well adapted for their complete recovery. In corroboration of this statement, I give my own experience. I had completely broken down, and my legs were so stiff and sore that it was with the greatest difficulty I could get up the short flight of steps in front of the hotel. With the help of my stick and the hand-rail I was able to get up a step at a time. Before I had used the baths a week I could mount the steps without a hold of anything, and come down with ease, though a little stiffly. This, I am glad to say, remained; I was able to walk comfortably to and fro all round the Waiwera, as well as to take several long walks through the bush in various directions, without any more than the usual fatigue, easily washed away by a plunge and a paddle about in the swimming bath on the beach.

I left the Waiwera after a residence of three weeks, very mush bettered indeed, and proceeded back to Auckland, where a stay of about 10 days was made, varied by visits to the Thames, Remuera, Takapuna, and the district round Auckland, including Onehunga, Mangarei, Otahuhu, &c. The top of Mount Eden was also visited, the Domain explored, the Museum—and, in short, everything was seen that was worth looking at. The route home was varied by going down the west side of the island from Manukau, visiting Taranaki, Nelson, and Picton, the beautiful scenery of the Sounds being enjoyed to the utmost. Three days had to be spent in Wellington rather unwillingly, the recent loss of the *Taupo* having disarranged the service. But the weather was fine, and with a congenial friend or two a couple of days were pleasantly spent in botanising over the Karori and Kaiwarrawarra districts. The expected steamer at length came into port, and after two very rough days' sailing, including a four hours' stay in Lyttelton, Port Chalmers was a welcome sight, for the writer was thoroughly tired out, and glad to be at home again.

PAKEHA. March, 1879.

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from *Otago Daily Times* 1 August 1879

DEATH OF MR PETER THOMSON

It is with unfeigned regret that we have to announce the death of Mr Peter Thomson which took place at his residence, Queen Street, yesterday. Mr Thomson has for many years held a responsible position in the office of this paper and his untimely death will be mourned with genuine and heartfelt sorrow by many of those who have been for years associated with him in the office; for his was one of those sterling, manly, honourable natures which command respect and admiration.

Mr Thomson served his apprenticeship in the well-known printing establishment of Neill & Co of Edinburgh, and rose to the position of reader for the press, a post requiring abilities of no ordinary nature, and in which he gave the utmost satisfaction to his employers. Mr Thomson afterwards visited the north of England and after several changes settled in Liverpool, where he established himself in business. After carrying on this business for some years Mr Thomson determined to emigrate to New Zealand, and he left for this colony in the year 1861, arriving in Otago in the same year. Shortly after his arrival he obtained employment in the office of this paper and after being a few months in the office received the appointment of reader, a position which he held until a few months ago.

As a permanent member of the Otago Institute and more particularly an indefatigable promoter and untiring leader of the Naturalists Field Club, Mr Thomson was widely known. His energy and vigour when heading the periodical excursions of the Club will ever be remembered by those who accompanied him. His botanical knowledge gave to the rambles of the Club a special value, and if a tramp of 8 or 10 miles was necessary in order to procure an uncommon specimen of fern or other plant, Mr Thomson was always to be found at the head of his little party ready for the search.

Among the interesting papers read by Mr Thomson before the Otago Institute was one relating to the varieties of fish which inhabit our coast and harbour, entitled "Fish and their season". This was a field for investigation which Mr Thomson made his especial study, and the interesting and valuable nature of his observations concerning our fish supply, as given in the paper we have alluded to, received ample recognition at the hands of his fellow members of the Otago Institute.

Under the familiar nom-de-plume of "PAKEHA" Mr Thomson regularly contributed accounts of his pedestrian excursions throughout the Province. These gave further evidence of his extraordinary vigour, and his capacity for taking note of any feature of interest in the districts through which he travelled. His yearly walking excursions embraced one trip to Oamaru, another to Clinton, and another to the Catlins River district. He also brought into prominence several of the beautiful places around Dunedin in a series of articles entitled "Rambling round Dunedin". The Nichol's Creek falls were generally known as "Pakeha" falls, being called after him.

One great journey he always spoke of making was to be landed at the West Coast Sounds by steamer and then to walk back from there, or Martin's Bay to Lake Wakitipu; but this he was not permitted to accomplish. It was during one of these walking expeditions that Mr Thomson contracted the severe pulmonary affection which has resulted fatally. About 18 months since he walked to the Orepuki diggings in the Southland district and during his journey continued to walk during a heavy rain, he got wet through. He unfortunately allowed his wet clothes to dry on him and a severe rheumatic attack resulted, accompanied by a distressing cough. This continued for some months and as matters were evidently getting serious Mr Thomson was advised to visit the hot springs of the Auckland district, which he did, and returned to Dunedin in February last, much improved in health. The seeds of that fatal disease, consumption, had however been sown, and although Mr Thomson was relieved of the night work which his duties necessitated and an appointment given him on the day staff, his strength gradually failed and sharp attacks of severe pain compelled him to relinquish work and take to his bed, from which he was destined never to rise.

Mr Thomson was twice married and leaves a widow and a numerous young family to mourn their irreparable loss.

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from *Southland Times* 6 August 1879

A Worthy Pressman, Mr Peter Thomson, long time connected with the Otago Daily Times: in capacity of reader, and also the originator of the Dunedin Field Naturalists' Club, departed this life last week, and was buried on Saturday.

The funeral cortege numbered 150, and the service was conducted, by the Revs. Dr Stuart and Lindsay Mackie. Mr Thomson was a clever man, and highly esteemed by a large circle of friends.

Miscellaneous

1880: from an address by Dr Hocken on Early History of NZ: "On this voyage Captain Cook was in the habit of distributing amongst the Natives copper medals as tokens, whereby his visit to New Zealand might be made known to any future voyager. The only one I know of in existence is this, kindly lent to me for exhibition this evening by Mrs Thomson, widow of the late Mr Peter Thomson, recently a valued member of this Institute. It was found in the garden of an old settler—Mr Hunter—at Murdering Beach, near the north head of Otago harbour. On the obverse is a head of George III., surrounded by an almost effaced and illegible inscription. "George III., King of Great Britain, France, and Ireland, I.C." On the reverse is the representation of two quaint ships, over them the words "Resolution, Adventure " and below them, "Sailed from England. May, MDCCLXXII."

2010: Otago Museum confirmed that the above medal is held in their collections, gifted in 1925.

From Te Papa website http://collections.tepapa.govt.nz/theme.aspx?irn=912

Resolution and Adventure medal from Captain Cook's second voyage

Medal 1772
William Barnett, Birmingham

This medal was one of a number that expedition members handed out to local people in various places during Cook's second voyage of discovery. Records of the voyage mention that they were distributed to Maori in three different locations in New Zealand when the *Resolution* and *Adventure* visited in 1773. This medal is one of eight found here that are known about.

The medal was designed for two purposes. Firstly, it was to record a significant event for people at home – after the success of Cook's first voyage, there was no reason to assume that the second voyage would be any less notable. Secondly, seafaring European nations were competing internationally to be the 'discoverers' of previously unknown lands. As Cook wrote in his journal in July 1772, ' ... their lordships also caus'd to be struck a number of Medals ... to be distributed to the Natives of, and left upon New Discoveried countries as testimonies of being the first discoverers.' (1). Clearly it was felt that the medals could be useful should governments want to claim the right to take possession of 'discovered' lands, and the use of any natural resources to be found there.

Creating the medal was the idea of the prominent scientist of the first voyage, Joseph Banks. It was part of his enthusiastic planning for his participation in the second voyage. King George III's image and titles appear on the obverse (principal) side. This tells us that the monarch approved the purpose of the medal. On the reverse are images of the two expedition ships. The wording records the ships' planned date of departure – March, 1772. However, because of the delays caused by building, and then unbuilding, the accommodation for Mr Banks' party, the ships actually left in July – without Mr Banks or his party.

Two thousand medals made of bronze or brass were produced, as well as 106 medals made of silver, and two made of gold. The medals are a tangible link with Cook's second visit to New Zealand. All of those found in New Zealand have been in the South Island, but in places far from where they were handed out. Perhaps this means that they had their own value to the local people and may have been used for trade?

Reference

(1) Beaglehole, J C. editor. (1961). *The Journals of Captain James Cook. vol 2: the voyage of the Resolution and Adventure* 1772–1775. Cambridge: Cambridge University Press and the Hakluyt Society. p 16.

TAONGA SERIES all ROB TIPA

The Story of Cook's *Resolution* medals

It was a Sunday afternoon in 1863 on a remote beach along the Otago coast. A slight, middle-aged woman stooped to pick up what appeared to be a large coin lying on the ground.

"I have found an old penny," she said, and handed it to a 12-year-old boy walking with her and her husband, John Washburn Hunter, across the sandy flat behind the dunes of Murdering Beach.

"My young eyes soon saw that it was not a penny," the boy, Murray Gladstone Thomson, later explained. It was much larger, thicker and heavier. He rubbed it on the sleeve of his coat and later polished it "bright and clean" with an oily rag.

It was obviously a medal. On the face was the inscription "George III, King of Great Britain, France and Ireland" wrapped around the classic profile of the British monarch of the time. On the other side was a finely crafted image of Captain James Cook's sailing ships the *Resolution* and *Adventure* in mixed relief above the words "Sailed from England, March MDCCLXXII."

This medal was unusual in that it was tumbled or "upset", a term used to describe a flaw in minting coins or medals where the head and tail are not vertically aligned.

For a 12-year-old lad, this find must have been pure treasure. It was direct evidence of Cook's second voyage of discovery of the Pacific. But how had it arrived on this remote beach so far from Cook's well-documented landings in New Zealand? To answer that question, we have to go back 91 years to 1772 and the origins of the medals themselves.