

ART. 48.—*Miramar Island and its History: How Motu-kairangi was discovered and settled by Polynesians, and how, in Times long past, it became Miramar Peninsula.*

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THE history opens with accounts of episodes in the adventurous lives of four famous old Polynesian voyagers, named Kupe, Ngahue, Toi, and Whatonga. These old-time ocean-rovers were members of a race that produced the most daring and remarkable neolithic deep-sea voyagers of whom we have any knowledge. We do not know at what period the Maori people entered the Pacific region, but we do know that for many centuries they ranged far and wide across a vast ocean area of some four thousand by six thousand or seven thousand miles in extent. The Maori claims close kinship with the natives of Hawaiian Isles, as shown in common traditions, ancestors, myths, language, and many other parallels. Moreover, should the Maori land at Nukuoro Island, in the far-away Caroline Group, he would assuredly claim the folk of that island as brothers, so closely allied are the dialects of Aotearoa and Nukuoro. Westward and southward from Nukuoro, separated by a sea-path of some seven thousand miles, lies the remote Easter Island, held by an outpost of the far-spread Polynesian race speaking the Maori tongue.

The men who ranged the vast Pacific Ocean in their lean carvel-built craft, who explored its far-flung archipelagoes, and settled so many of its innumerable islands, were the men who discovered New Zealand. Century after century they sought the unknown, and forced lone seas to give up their secrets. Ever lusting to the lure of Hinemoana the Ocean Maid and to the call of the unknown, ever prompted by love of adventure and the mysterious beckoning influence of far sea-horizons, they hoisted their rude mat sails on primitive craft, and rode down the endless liting sea-leagues of half a world.

These were the men who laid down the sea-roads we still use, who followed the rolling *ara moana* with a fine faith in their own powers and in those of their old-time gods. They lifted unknown ways before the steady trade-winds; they followed the regular roll of the waves beneath clouded skies; they drifted down the long rivers of the ocean as others drift down earth-bound rivers. They held their course by the shining sun and by pale Hina; they lined their path across the heaving breast of the Ocean Maid by the world-old stars above; they swung their reeling prows south of Canopus, and Venus, and the red sun, and so discovered these isles of the hidden south.

A thousand years ago—forty long generations of men—two deep-sea voyagers named Kupe and Ngahue left their far-distant homes in eastern Polynesia and sailed down into the unknown Southern Ocean. Their vessels were named "Matahorua" and "Tawiri-rangi." During this voyage they made the land near the North Cape of New Zealand, where they sojourned a while. The first sign of land seen was a white cloud that overhung it, and this was first seen by the wife of Kupe of

“Matahorua.” She drew attention to it by crying out “*He ao! He ao!*” (A cloud! A cloud!)—and so New Zealand gained its earliest name. The North Island was named Aotea (the White Cloud)—often called Aotearoa.

The voyagers ran down the east coast of the North Island, sojourned a space at Castle Point and Palliser Bay, then came on to Port Nicholson, where they landed at Seatoun, a place that seems to have been formerly known as Maraenui. At that time Miramar was an island, the sea flowing across the present isthmus at Kilbirnie: on this lone island the explorers camped. Several place-names commemorate the name of the chief man of the expedition: thus the foreshore at Seatoun is Te Turanga o Kupe; the Pinnacle Rock is Te Aroaro o Kupe; Barrett’s Reef is Te Tangihanga a Kupe, also Te Rarangi a Kupe. Somes and Ward Islands are said to have been named Matiu and Makaro, after two of Kupe’s daughters; two other daughters, Mohuia and Toka-haere, having their names perpetuated in two isolated rocks near Te Rimurapa (Sinclair Head).

Moving on from Seatoun, the voyagers camped at Sinclair Head in order to lay in sea-stores of dried fish and shell-fish. They then moved on to Porirua, thence to Mana Island, and across Raukawa, or Cook Strait. They visited the west coast of the South Island, where they are said to have discovered greenstone at Arahura—a discovery that was of great benefit to the Maori of later times. They are also said to have slain a *moa* at that place. Eventually these courageous navigators sailed for Rarotonga and found their way back to the Society Islands. There the story of their voyage, with sailing directions for these islands, was preserved by succeeding generations, which enabled voyagers of later times to find their way to the land of Aotearoa.

It is unfortunate that no data have been collected as to the aspect of this harbour at the time of Kupe’s visit. Surely the *moa* must have ranged these solitudes in those far-off days, for its bones have been found here under conditions that seem to show that it had furnished a food-supply to early inhabitants. Other disappointments of this nature have been experienced—for what interesting notes would have been gained from Cook had he entered the harbour on the 2nd November, 1773, when he anchored for two hours one mile from Barrett’s Reef; or from D’Urville, who attempted in vain to enter in 1827!

There is no evidence to show that the Mouriuri folk, the first inhabitants of New Zealand, ever occupied this district. If they did, then it would probably be at a time subsequent to the arrival of the first Polynesian colonists. When the latter arrived here, the Mouriuri people, we are told, were living as far south as the Wai-ngongoro River.

The next event connected with this district, as gathered from Maori tradition, is the coming of a party from the Mahia district with the intention of seeking a home in these parts. The story is that at a certain time, away back in the thirteenth century, a gale of wind sprang up somewhere off the western coast-line of South America, and swept through the islands of eastern Polynesia onward as far as Samoa. That gale it was that brought the first settlers to Miramar. The explanation is as follows:—

Whatonga, a resident of Tahiti, had, with a number of companions, been carried away from that island by the gale. His grandfather Toi sailed in search of the waifs, and visited many islands during his search. He found some of them at Pangopango, in the Samoan Islands, but not his grandson. Continuing his search, he at length reached Rarotonga, and, finding no trace of his young relative, he resolved to sail for the land

of Aotearoa, discovered by Kupe ten generations before. Said Toi to Toa-rangitihi, a chief of Rarotonga: "I go to seek my lost offspring at the land discovered by Kupe in far ocean spaces. Should others seek me, tell them whither I have gone, for truly I will reach that land or be engulfed in the depths of Hinemoana." The courageous old sea-rover swung the prow of his long-boat to the south-west, and sailed down five hundred leagues of open sea to the land of Aotearoa.

He did not make a true landfall; he missed New Zealand, but sighted the Chatham Isles. Eventually, however, he came to land at Tamaki, where the City of Auckland now stands. After sojourning for some time among the aborigines at that place, Toi and his companions, sixty in all, sailed to Aotea (Great Barrier Island); thence to Tuhua Island, in the Bay of Plenty; eventually settling at Whakatane. There, at Ka-pu-te-rangi, on the cliff-head overlooking the river-entrance, the disappointed, sea-worn old Polynesian voyager came to rest. Probably he did not feel equal to making another voyage across rough seas in the primitive craft of those far-back times. So Toi of Tahiti settled in the Land of Awa.

Meanwhile Whatonga had, after many adventures, found his way back to Tahiti, where he learned that Toi was still absent in search of him. He resolved to set forth in quest of Toi, and so sought a suitable vessel for the making of a deep-ocean voyage. He acquired from one Turangi a vessel named "Te Hawaii," renamed it "Kurahaupo," and fitted it for a long voyage. The vessel had three *haumi*—that is, the hull was composed of four pieces; it had twenty-six thwarts, two bailing-wells, and two anchors. Whatonga selected a crew of hardy seafarers inured to deep-ocean work, resolute wayfarers on the sea-roads of the wide Pacific. The top-strakes were lashed on, the splash-boards fixed, vegetable gum, shark-oil, and ochre being used to dress all the timbers. Fifty-and-two paddlers were selected, also four ship-tenders, two anchor-tenders, four sail-tenders to attend to the sails, two steersmen, and two fire-tenders. Thus sixty-and-six were the persons forming the crew of "Kurahaupo," and it is known that a few women were also on board. The canoe was hauled to a *tapu* place, and solemn ritual was chanted over her to place her under the protection of the gods. The symbols of the gods Maru, Tunui-a-te-ika, and Ruamano were placed in the stern of the vessel. Then, ere the sun appeared over the horizon, "Kurahaupo" was hauled down to the beach and launched, the crew took their assigned places, and with wailing song, and tears, and farewell cries, these gallant ocean-rovers left their island home for ever. Whatonga of Tahiti, the Seeker of the Searcher, he who was to be the first settler of Wellington and designer of the first village at Miramar, had lifted the long, rolling trail of three thousand miles that was to lead him to Maraenui on Seatoun beach.

He and his companions made their landfall near the North Cape, ran down the west coast to Tonga-porutu, and there heard that Toi had settled at Whakatane. Then they sailed northward, rounded the North Cape, and ran down to Whakatane, where the long double quest was at last ended in the meeting of the two dauntless traversers of the *ara moana*.

Whatonga did not settle in the Bay of Plenty, for it was held by many of the aboriginal Maruiwi. He led a party round the east coast, and eventually settled at Nukutaurua, in the Mahia district. Here he lived until he had become an old man, and his followers, by intermarriage with aboriginal women, had increased considerably in numbers. It was then that Whatonga sent his two sons, Tara and Tautoki, southward on an

exploring trip to seek lands whereon to settle with their followers. The two young men came down the coast with a party, examining the country as they came, to Castle Point, to Palliser Bay, and to Port Nicholson. They camped for some time at Para-ngarehu (Pencarrow Head), then moved on to Porirua, to Rangitikei, and so returned home by way of Taupo, Titi-o-kura, Mohaka, and Te Wairoa.

The description of Wellington Harbour given by Tara to Whatonga, as preserved in tradition, is highly interesting, but too long to be given here. Of special interest are two remarks concerning Miramar, or Hataitai, for they show clearly that it was an island at that time. Inasmuch as lines of descent from Whatonga show twenty-eight generations, we may say that the coming of Tara to Port Nicholson occurred early in the thirteenth century. In his report to Whatonga, Tara said: "The largest island is situated to the southward, where the two channels connect with the ocean. The two small islands are desirable places on which to live." Later on we come to this statement: "Then they went to examine the entrance of the ocean, and the big island between those two channels, after which they returned to Matiu (Somes Island)."

When Tara and Tautoki came south with a considerable party of followers to settle at Port Nicholson old Whatonga came with them. They came down in the month of Akaakanui (December) by sea, and put in at Castle Point, where they sojourned a while. Their next stopping-place was at Okorewa, in Palliser Bay, where the party took one of their canoes up to the Wairarapa Lake to facilitate the examination of the surrounding lands. They then came on to Port Nicholson, which was nameless at that time, and camped on Somes Island; and the lone shores of this harbour were never again to know primeval solitude, for man the rover had arrived. So it was that, seven hundred years ago, a wind sweeping westward from South America had brought about the coming of Whatonga the sea-rover, and the settlement of Wellington Harbour.

The first task of the migrants was the erection of houses on Somes Island and the planting of crops. The materials for the houses were obtained on the mainland, and three framed houses (*whare whakanoho*), named "Haere-moana," "Aotearoa," and "Te Pu o te tonga," were erected. Each of the brothers had a following of one hundred, so that these first settlers of Wellington were two hundred in all. Whatonga remained here until the autumn, when he returned to his northern home. Prior to his departure he advised his sons to settle permanently on the largest of the three islands—the one we may now call Miramar Island, for it has not yet been named. The old sea-rover accompanied his sons to this island, where he selected a site for a fortified village on the ridge above Te Puna a Tara (the Spring of Tara) in Worsler Bay. He marked out the lines of the stockades, and gave his sons detailed instructions how to build the *pa*, and also much advice as to their future activities. All this has been preserved in tradition, and is of much interest. Having seen his sons settled at Port Nicholson, Whatonga returned to his home at Nukutaurua, and so passes out of the story.

The first band of Wellington settlers now set to work to erect the *pa* on the Seatoun heights. The necessary timbers were procured up the Hutt Valley, were hauled and carried to the river, and then floated down and across the harbour to Miramar Island, then dragged to the site of the new village. The defensive works consisted of three lines of stockades—for earthwork defences were almost unknown in this district, there being too much rock for the wooden implements of the Maori. One of the lines

of stockades was a *pekerangi*, in which the palisades are lashed to the rails, but do not reach the ground, there being an open space of about 1 ft. below them. Next came the *matahao*, a stockade erected in a slanting position, leaning outwards. Inside that was the *katua*, or main stockade, composed of heavy timbers. The main posts were 5 fathoms in length, and the secondary posts 3 fathoms, while the palisades were 2 fathoms. The *waharoa*, or entrance-passage to the *pa*, was stockaded on both sides. There were two fighting-stages above the entrance gateway, and others on either side of the *waharoa*. The approach to the water-supply was also defended by stockades. Possibly this water-supply was the spring on the western side of the ridge. The two principal houses in the village were named "Raukawa" and "Whare-rangi"—the first after the Maori name of Cook Strait, and the second after the site of "Wharekura," a sacred building in the land of Uru, the original homeland of the Maori race.

This fortified village was named Te Whetu-kairangi, and Miramar Island was called Motu-kairangi. The eastern channel (the present entrance to Wellington Harbour) was named Te Au-a-Tane, while the western channel, that flowed across the present Kilbirnie Isthmus, was given the name of Te-Awa-a-Taia. In much later times, when Motu-kairangi became a peninsula and another people occupied the district, this peninsula was known as Hataitai. By this name it was known until the arrival of Europeans, when it was named Watt's Peninsula, and later it became known as Miramar—so named after a place on the shores of the Adriatic.

Wellington Harbour was named after Tara, son of Whatonga, who was the son of a Mouriuri woman, an aboriginal. Many of the crew of "Kurahaupo" had married aboriginal women at Maketu, the place where Rua-kapanga, brother-in-law of Toi, had been so amazed by the sight of a number of *moa*, a creature that was not then extinct. For the euphonious name of the harbour, Te Whanga-nui-a-Tara (The Great Harbour of Tara), we have to thank Te Umu-roimata, wife of Tara. He himself intended to call it Tawhiti-nui, after one of the old island homes of the Polynesian folk.

Te Whetu-kairangi was held to be an important village, hence it was placed under the protection of the gods Tuhinapo and Tunui-a-te-ika. The *mawri* of the *pa* was represented, as usual, by a stone, which served as a talisman, and as the shrine or abiding-place of the gods. Such symbolic objects were much used by the Maori folk. In the case of a *pa* they were either buried at the base of one of the principal stockade-posts or concealed elsewhere. This is the material *mawri*: the immaterial *mawri*, as of man, is the physical life-principle.

Some time after the erection of the village, Tautoki left Tara in possession, and moved across Te Au a Tane to Para-ngarehu (Pencarrow Head), where he and his followers built another *pa*, and there lived. Tara was the eponymic ancestor of the Ngai-Tara tribe that occupied this district for centuries. Rangitane, son of Tautoki, was the eponymous ancestor of the tribe of that name that originally occupied the Wairarapa district and the southern part of the Hawke's Bay district.

When the Ngai-Tara folk increased in numbers some family groups settled on the mainland, and these lived in three stockaded villages on the range known as the Ranga-a-Hiwi—the range extending from Point Jerningham and Mount Victoria to Island Bay. The Wai-hirere *pa* was situated on Point Jerningham, the native name of which is Omaru-kai-kuru—which name seems to denote a remembrance of the breadfruit of Polynesia. The Akatarewa village was built on the summit of the ridge

south of Mount Victoria, while the *pa* called Uruhau was on the hill overlooking Island Bay. The old name of Mount Victoria was Matairangi, but in after-times it came to be known as Tangi-te-keo. Possibly this *keo* should be *keu*, an old name for wind: certainly the winds may frequently be heard on that exposed peak. The cultivations of the people were situated at Kirikiri-tatangi, at Maraenui, both on the shores of the Au-a-Tane; also on the mainland west of the Awa-a-Taia; at Huriwhenua (Te Aro Flat), and elsewhere.

At this period the Muaupoko tribe was living in the Otaki district. One Whiri-kai marched north with a party of raiders to attack them. On his return he brought three captives—a woman named Hine-rau, and her two children: these he handed over to Pakau, chief of the Uruhau *pa*, as a relish, to impart a flavour to his *kumara*. Te Rangi-kai-kore, chief of Wai-hirere, was present at the time, and was indignant at this action. He said to Pakau: "Man! should a person be doomed to die three deaths—the ravished home, the treatment as merchandise, and being eaten by you? Surely this is unjust." Then, turning to the slave, he said: "Young woman, arise; let us and your children seek the shelter of Te Whetu-kairangi, the refuge of mankind." On arriving at that place, Te Wakanui, the chief thereof, said: "O friend Te Rangi-kai-kore! Go; conduct the woman and her children to their home. You are right; shall a person die thrice? [*i.e.*, suffer grievously]. They are yet alive; let them remain so; do not enslave them."

The above raid on Otaki led to serious reprisals. Te Kopara of Muaupoko sought assistance from Taranaki tribes, assembled a force of his own warriors, and marched southward to attack Ngai-Tara. When the *kowhai* was in bloom they reached the Harbour of Tara, and from the Wharau range, above Kaiwharawhara, they saw smoke rising at Te Wai-hirere, Te Aka-tarewa, Uruhau, Te Whetu-kairangi, Pae-kawakawa, Motuhaku, Makure-rua, and Wai-komaru. It was decided to march first to Uruhau.

Meanwhile two men, named Mohuia and Kaipara, had detected the invaders and given the alarm. Scouts were sent out, and, it being a moonlight night, saw the invaders marching along the beach at Kumutoto (now Woodward Street), their rear being at Waititi (Charlotte Street). Later, from Kaipapa (Viceregal residence) they saw them take the track to Uruhau.

Meanwhile the folk of Wai-hirere and Te Aka-tarewa had joined forces, and, shortly after the raiders opened their attack on Uruhau, they reached the scene of action and assisted in repulsing the enemy. Knowing their own inferiority in numbers, the local people then crossed Te Awa-a-Taia and fell back on Te Whetu-kairangi. All non-combatants were sent across Te Au-a-Tane to Para-ngarehu, while the fighting-men of that place came over to assist in the defence of Te Whetu-kairangi. The invaders, having burned the villages of Uruhau, Te Aka-tarewa, and Te Wai-hirere, and cremated the bodies of two of their slain chiefs at Haewai (Houghton Bay), betook themselves to the making of rafts whereon to cross the channel to Motu-kairangi.

The invaders invested Te Whetu-kairangi, one hundred men being stationed at Takapuna, one hundred at Kirikiri-tatangi, one hundred at Mirimiri, and one hundred at Kaiwaka, on the western side of the *pa*, near the lagoon. Efforts were made to burn the defensive stockades by piling masses of dry fern against them and firing them, but so diligent was the garrison in hurling whip spears from the elevated fighting-

platforms that this scheme failed. After the lapse of some time the invaders were much distressed during a severe southerly storm, for they were unable to procure food-supplies from the ocean. The defenders of Te Whetu-kairangi took advantage of the miserable condition of the raiders and attacked them at dawn. They succeeded in defeating them, and the invaders fled to the mainland, a number perishing in the crossing of Te Awa-a-Taia. So ended the famous raid of west-coast tribes on the land of Tara.

Such is the story of the original settlement of Port Nicholson, and Seatoun folk can claim that their corner of the realm of Tara was the temporary abiding-place of the heroic old-time Polynesian voyagers who sailed their open canoes for two thousand miles from far Tahiti to discover these isles, and also that it was the site of the first permanent settlement in the district. Truly, things have changed since the days when the stockades of Te Whetu-kairangi stood on the Seatoun heights, and bare-limbed barbarians looked down upon the restless waters of Te Au-a-Tane.

As with most Maori traditions, there are certain unsatisfactory features connected with the above story. The most prominent of these is this: If the district was uninhabited when Tara and Tautoki settled there, why should they have gone to the trouble of erecting defensive works round their villages? The clear statements that Miramar was an island at that period form the most interesting part of the legend. On the 2nd November, 1773, Miramar was a peninsula; at some intervening period Motu-kairangi had become part of the mainland. Was this due to a gradual rising of the land, or to an earthquake-shock lifting the land, as it did in 1855? Certain evidence brought forward by malacologists seems to point to a sudden upheaval. I obtained from Maori sources a story to the effect that, in the time of Te Ao-haere-tahi, who flourished eighteen generations ago, a violent earthquake-shock so lifted these lands that the Awa-a-Taia channel became dry, and Motu-kairangi a part of the mainland. We have no means of verifying such oral traditions, but it may be correct, and the shock may have been the cause of the raised beaches that form so marked and interesting a feature of the adjacent coast-line. The earthquake referred to, if it occurred in the time of Te Ao-haere-tahi, must have occurred in the fifteenth century. There is, of course, abundant evidence showing that the Kilbirnie channel or entrance has existed, and that the sea has flowed over Miramar Flat. At that time the island must have been somewhat in the form of a horseshoe—the Orongo ridge, extending from Point Hippiah of D'Urville's chart to the signal-station and onward, curving westward at Puhirangi (near Fort Gordon), and then southward to the Rongotai ridge, at the old Crawford homestead.

Miramar has been occupied by several different tribes, and has served as a refuge for harassed clans from the north, clans fleeing from wrath to come—or, rather, wrath that had come. Thus it was that Ngati-Mamoe, Ngai-Tahu, and Ngati-Ira sojourned in this district. Some of these folk moved across Raukawa (Cook Strait) and settled in the South Island; many of the Ngai-Tara folk did so. Owing perhaps to the fact that there were good fishing-grounds outside the harbour, Miramar and the coast-line on to Owhiro (Happy Valley) were ever favoured places of residence in pre-European times. Te Aro, Thorndon, and the Hutt were places of minor importance as regards Maori occupation. The evidence of this statement was very clear in the earlier days of European

settlement, when the visible signs of old-time Maori occupation were very numerous about Miramar Peninsula; and even now a number of signs are to be seen. There are the remains of a small *pa* on the toe of the spur at Worser Bay, and a number of small terraced hut-sites on the hills. There are the remains of an old *pa* on the hill at Tarakena, just west of Palmer Head, showing small terracings and an eroded earthwork. This was probably the Rangitatau *pa*; but, as already stated, stockades, not earthworks, were the usual defences of local villages, hence it is now often impossible to say whether a formerly occupied place was a *pa* or an open village. The most numerous signs of Maori occupation in this district at the present time are the small linchets, diminutive terraces on hillsides—the hut-sites of neolithic man. Those who have examined such places know that some of them are situated in places that could scarcely have been defended. Similar evidence is given by some of the shell-middens, such as the one at Tarakena (the old pilot-station).

It is disappointing that Cook gives so little information concerning what he saw in this locality. If the Oruaiti *pa*, on Point Dorset, was occupied at that time he must have seen it, and the same may be said of the old fortified villages at Tarakena and on the eastern headland of Lyall Bay. The latter is marked "Point Hippah" on the Barnett chart published with D'Urville's narrative—a pretty good proof that a fortified village was seen there in the "twenties" of last century, either by Barnett in 1826 or by D'Urville in 1827.

The lagoon that formerly existed on the Miramar Flat was in olden times known as Te Roto-kura, but in later days as Pārā. Colonel Wakefield named it Burnham Water. It was drained by the late Mr. Crawford in 1847-49.

Of the various clans that migrated southward to Wellington, the first we have any knowledge of was that known as Ngati-Mamoe. These folk were descendants of the original people of the island, the Mouriuri, of unknown origin, though probably mixed with the later-coming Polynesians. They had long resided in the Hawke's Bay district when pressure from other tribes caused them to move southwards. On reaching this district they seem to have been well received by Ngai-Tara, who gave them the use of lands extending from the coast inland to Karori. They occupied two villages, named Komaru-nui and Makure-rua, at Sinclair Head. Eventually they moved on to the South Island, where a very few of their descendants may still be found.

Another people who came down the east coast of the island was the Ngai-Tahu clan, descendants of Tahu-potiki, who flourished twenty-two generations ago. No satisfactory account of their movements has been collected, but some of them seem to have lived at Miramar. They too crossed to the South Island, conquering and almost exterminating the Ngati-Mamoe.

Yet another people, a portion of the Ngati-Ira tribe of the Waiapu district, marched south and settled on the shores of Palliser Bay. As time rolled on, these Ira folk extended their settlements and occupied the Wellington district, probably by intermarriage with Ngai-Tara, for we know of no fighting between them. These people came down the coast ten generations ago, and in Cook's time the population of the Land of Tara was known by the tribal name of Ngati-Ira.

In the second decade of the nineteenth century troubled times obtained in this district. It was about 1819 that the folk of the Wai-mapihi *pa*, at Pukerua, saw afar off, at Wainui, a long line of men marching southward over the sands of Manaia. Those sons of Ira the Heart-eater knew not

the portent of that dark, straggling, slow-moving column, but of a verity it was the beginning of the end of the *mana Maori* in the land of Tara. For this was no ordinary *taua*, or war-party, armed with spears and stone weapons; it carried the might and cunning of the *pakeha*, the man who deals death from afar, and no man seeth the falling of the blow—they were gun-fighters from the far north.

A mixed force of Ngapuhi, Ngati-Whatua, Ngati-Toa, and others, under Tuwhare, Te Rauparaha, and other leaders, raided the west coast, marched down to Port Nicholson, camped at Pipitea, Te Aro, and the Hutt, and desolated the district. Many of Ngati-Ira were slain; captives were killed daily to provide food for the raiders. The invaders marched on to Wai-rarapa, from which place they returned home. One of the party left us an account of the expedition, in which he says they marched southward a thousand strong, were absent a year, and that the party was five hundred strong when it reached home.

The Ngati-Ira folk had returned to their homes from Wai-rarapa, and forest solitudes to which they had fled, when, in the stirring "twenties," another calamity came upon them. The Ngati-Toa tribe, harassed by enemies, marched south to seek new homes, and with these home-seekers came a number of the Taranaki natives who feared the power of Waikato. They were afterwards joined by many of Ngati-Raukawa. These invaders took possession of the Manawatu, Otaki, and Wellington districts, killing many of the inhabitants, and expelling Ngati-Ira from the Land of Tara. Thus the descendants of Whatonga and Ira were swept from the district, and so ends the story of those old Polynesians, for Ira was a voyager from Tahiti twenty-four generations ago.

The Wellington district was settled by members of the Atiawa tribe of Taranaki, the people who made such a good stand against the Waikato invaders in their *pa* at the Sugarloaves, what time Dicky Barrett and his hard-bitten whalers loaded up their ships' carronades with nails, spikes, iron bolts, and suchlike missiles, and swept lanes through the attacking force. These folk settled at the Hutt, at the mouth of the river; at the Ohiti and Hikoikoi villages; at Pito-one, Nga Uranga, Kaiwharawhara, Te Awa-iti, Pa-kuao, Tiakiwai, Raurimu, Pipitea, Kumu-toto, and elsewhere. Their settlements at Miramar were but small hamlets at Karaka Bay and some other places. When Captain Kent, (known as "Amuketi" to the Maori) visited Port Nicholson, some Maori people appear to have been living at Worser Bay, and a place on Seatoun Flat was named, after him, Te Pou a Amuketi.

The Atiawa tribe was not strong in numbers, and at Wellington they were situated "between the devil and the deep sea." They possessed but indifferent friends in Ngati-Toa at Porirua, while the Wai-rarapa natives were actively hostile. In 1835 Atiawa were weakened by the migration of the Mutunga clan, under Pomare, to the Chatham Islands. At that time some of these Maoris were living on Somes Island, and the "Lord Rodney" was lying there in November, 1835, when the Maori seized her and compelled the captain to convey many of them to the Chathams, where they much enjoyed themselves in slaughtering and eating the unwarlike descendants of refugees who had fled from New Zealand twenty-six generations before.

When Captain Cook anchored near Barrett's Reef on the 2nd November, 1773, the Ngati-Ira folk held the Land of Tara. It is not known who was the next European to visit the harbour; early whalers might have entered it repeatedly without such visits being recorded. Geordie Thoms, the whaler, claimed to have been the first European to enter the harbour,

but nothing is known of the date of such visit. During a hearing of land claims one David Scott, a flax-buyer, stated that he came there in 1831, and lived in a hut about Lambton Quay. George Young, a whaler, claimed to have lived at Thorndon in 1834-35. When Colonel Wakefield arrived in 1839 the European population of this district numbered one—a man named Robinson, who was living with the Maori at the Hutt.

So far as we have any reliable account, the first vessel to enter Port Nicholson was the "Rosanna" (Captain Herd), in the year 1826. This vessel brought out from England about sixty would-be settlers. They seem to have been in search of a location where they could procure flax and spars. The "Rosanna" visited Stewart Island, and then came up the east coast of the South Island and entered Queen Charlotte Sound, after which she came to Port Nicholson. Evidently these places did not attract the would-be settlers and traders, and they sailed again for the north. The boisterous behaviour of the natives of those parts alarmed them, so they declined to settle in New Zealand, and sailed to Australia. While lying in this harbour Captain Herd named it Port Nicholson, after a sea-captain who had become Harbourmaster at Sydney. He also made an excellent chart of the harbour, and this chart shows many lines of soundings, and "Fresh water" appears marked at Nga Uranga, and at the small streamlet at Kilbirnie. For some reason this chart was not published when it would have been extremely useful to the New Zealand Company and others. It came into the possession of the late Mr. A. H. Turnbull, of Wellington, and is in the Alexander Turnbull Library. A copy is reproduced in the 1909 edition of *Murikiku*.

Another excellent chart of the harbour was made by T. Barnett in 1826: this was published, with other maps pertaining to D'Urville's voyages, in 1847, seven years after Captain Chaffers made his chart of the harbour that was published in 1840. This must have been Captain Barnett, of the cutter "Lambton," a craft that accompanied the "Rosanna," though in what capacity I do not know. There are differences in these charts that seem to denote different surveys; though, if the two vessels were here together, why should two tedious surveys of the harbour have been made? It is possible, of course, that the two vessels had separated, and that both entered the harbour at different times. On the Barnett chart Miramar Lagoon is marked "Fresh water," and Somes Island "Isle of the North," both in French. The eastern headland of Lyall Bay is marked "Point Hippah"; so that evidently it was occupied by a native village at that time. The quaint word "*hippah*" was one of Captain Cook's corruptions, and represents the Maori words *he pa*, meaning a fortified village. French longitude is given on this Barnett chart. Apparently D'Urville, who passed through Cook Strait in 1827, seven or eight months after the Barnett chart was made, must have obtained a copy of that chart and inserted French longitude, &c. Among the papers left by the late Dr. McNab is a photograph of (apparently) the original Barnett chart. It is marked "Port Nicholson or Wangeneatera in New Zealand. Surveyed and Drawn by T. Barnett, May, 1826." At the foot of the chart appears the following: "To J. Nicholson, Esq., this Chart is respectfully presented by his most obdt. servt., T. Barnett.—Sydney, March 12th, 1827." Miramar Lagoon is marked "Fresh-water lake," and the word "Hippah" appears as on the D'Urville copy. "Fresh water" is marked at Nga Uranga and Kilbirnie, as on Herd's chart. Owing to differences in soundings, &c., between this and Herd's chart, we must conclude that they were separate surveys; also that D'Urville copied the Barnett chart, reduced the soundings to metres, and inserted French wording.

Some very curious maps of the Wellington district appeared in the first half of last century, and the harbour was shown in many weird forms. Cook's local chart is more correct than McDonnell's map of 1834.

In Sir J. Alexander's *Incidents of the Maori War, New Zealand*, we find a brief note concerning Miramar, as follows: "A sandy peninsula, over which Cook's boats once rowed before an upheaving from earthquakes took place." This myth was commonly believed by young folk of Wellington in my school-days of the "sixties," but no craft has rowed over Kilbirnie Isthmus since the days of the Ngai-Tara.

Tasman marked Cook Strait as a gulf on the coast-line traced by him, and named this country Staten Land. It was named New Zealand when Brouwer, in 1643, proved that the Staten Land to the south of America was not part of a continent, and therefore could not be identified with the Staten Land of Tasman.

One wonders if the Oruaiti *pa*, on Point Dorset, was inhabited when Cook lay off Barrett's Reef. In volume 7 of the *Journal of the Polynesian Society* are recorded some interesting notes concerning that place, and certain occurrences there in olden days. Of the old forts at Kakariki and Tarakena there are no records, nor yet of those on Somes Island. Of the three old *pa* on the Rongotai ridge we know the name of but one, Maupuia, on the southern side of the deep block cut. Butts of some of the old stockade-posts were seen there in former years. It was probably abandoned when Ngati-Ira were expelled from the district in the "twenties" of last century. The Puhirangi *pa* was situated on the ridge near Fort Gordon. I collected a fine *waiata*, or song, connected with this place. It is a lament composed and sung by a woman of a long-past generation for her dead daughter. The picture presented is that of the bereaved mother sitting on the hilltop, looking seaward over the defensive stockades of the village: "Wearily inclines the body, as, within Puhirangi, I look forth on Hine-moana surging restlessly afar off." This Hine-moana is the Ocean Maid, the personified form of the ocean. The mother mourns farewell to the soul of her daughter on its way to the spirit-world, bidding her pass over the vast ocean, back to Irihia, the old homeland of the Maori race, thence to the upper spirit-world, in the uppermost of the twelve heavens, there to be welcomed by the *mareikura*, or celestial maids. The composition is a fine one—a good specimen of the old-time Maori song:—

Pa rawa, e te tahakura
 E homai tohu ki au
 Kia oho ake e te ngakau.
 Ko wai rawa koe e tahu nei 'i a au
 Ka haramai e roto, ka kai kohau noa,
 Ka waitohu noa.
 Tenei tonu i a koe, e te kahurangi
 Ko wai rawa ka hua ko koe tonu, e Rangi, e!
 Whatatai noa atu e te tinana
 I a au ki roto o Puhirangi
 E rauwiri noa mai ra a Hine-moana i waho.
 Tena ia koe ka riro i te au kume ki Tawhiti-nui
 Ki Tawhiti-pamamao, ki Te Hono-i-wairua
 I runga o Irihia.
 Kia tika to haere ki roto o Hawaiki-rangi
 E mau to ringa ki te toi huarewa
 I kake ai Tane ki Tikitiki-o-rangi.
 Kia urutomo koe ki roto o Te Rauroha
 Kia powhiritia mai koe e nga mareikura
 O roto o Rangiatea
 Ka whakaoti te mahara i kona ki taiao
 E hine—e!

The following is a translation:—

Omens assail me with signs that disturb the mind. Who indeed are you who afflicts me, and causes with vague warning a formless fear and questing mind? It was indeed you, O cherished one! Who would have thought that you would go, O Rangī! Wearily inclines the body as, within Puhirangi, I look forth on Hine-moana surging restlessly afar. But now you have gone, borne on the ocean-stream to far Tawhiti-nui, to Tawhiti-pamamao, to Te Hono-i-wairua on Irihia. Fare on, and carefully enter Hawaiki-rangi. Grasp in your hand the *toi huarewa*, the gyrating way by which Tane ascended to Tikitiki-o-rangi, that you may enter within Te Rauroha, that you may be welcomed by celestial maids within Rangī-atea. Then shall all remembrance of this world cease, O maid!

In how short a time may an ancient race be obliterated! In the *Wellington Independent* of the 22nd August, 1846, appeared the following: "Six large canoes, manned by about sixty natives, entered the harbour yesterday, laden with pigs and potatoes. Twelve more canoes are to follow, the Ngatiawas having crossed the Straits for the purpose of joining their tribe, if required, against the rebels under Rangī-haeata." What would be thought of a fleet of canoes sailing down the Au-a-Tane in the year 1921?

The name of the islet at Island Bay is Tapu-te-ranga, which is also the name of Watchman Isle at Napier. This was the name of a particularly *tapu* place in the old homeland of the race, the lost land of Irihia.

The late Mr. Travers, in 1873, stated that he had seen a family of cave-dwelling Maori living near Seatoun. There were six or seven of them, and they seem to have utilized the cave as a summer residence. This cave is said to be less than a mile from the pilot-station.

Seatoun, it is said, was named after a place in Forfarshire that belonged to the Crawford family. The late Mr. J. C. Crawford changed the name of the peninsula in 1872, dropping the old name of Watt's Peninsula and adopting that of Miramar. Mr. James Watt, after whom it was named, landed some cattle on the peninsula in the early days of the settlement, but is said to have had no further connection with it. In E. J. Wakefield's *Handbook for New Zealand*, published in 1848, we read that two cattle-farms had been established on Watt's Peninsula—one called "Glendavar," at the north end of the lake; the other, Tettecott Farm, among the hills at the south side of the peninsula. The former was established by Mr. J. C. Crawford in 1840, the later by Mr. Francis Molesworth, the farmhouse being constructed of stones rolled down from the surrounding hillsides. I believe that a portion of the stone walls is still in existence. The late Mr. James Taylor, of Tawa Flat, lived at Tettecott Farm at one time in the early days.

The remarks of Mr. Crawford on the finding of stumps and logs of forest-trees in the drained bed of Burnham Water seem to show that Miramar Flat has been under forest at some time in the past. Mr. Crawford was of the opinion that, after the disappearance of the forest, the wind scooped out the bed of Burnham Water. This is hardly probable; but sand-drift from the Lyall Bay side probably formed low sand-ridges or bars, and inland of these the waters of spring and storm became confined until a lagoon resulted. These waters destroyed the forest. It was in this way that ancient forests were destroyed north of Pae-kakariki, and the land between sand-ridges converted into water-logged swamps. When the forest on Miramar Flat was destroyed there were too many roots and stumps and too much humus in the soil for it to be affected by wind-action. The statement that forest containing *totara* and *rimu* grew on the Worser Bay face of Seatoun heights is a dubious one. The steep seaward slopes of this vicinity never supported heavy bush. When the early settlers arrived,

Miramar was covered with fern (*Pteris*) mixed with flax and small scrub, such as *koromiko*, *tutu*, &c. There was a patch of light bush in a gully at the head of Miramar Flat, and a few of the smaller trees at various other places. A number of *karaka* trees along the coast-line would certainly be protected by the Maori. A considerable number of them are still flourishing. Many interesting notes are contained in papers on Miramar Peninsula in volumes 5 and 17 of the *Transactions of the New Zealand Institute*.

We have now seen how Te Whanga-nui-a-Tara, or Port Nicholson, was discovered, explored, settled, and defended. We have seen how courageous neolithic sea-rovers, a thousand years ago, rode down six hundred leagues of rolling sea-roads in their string-tied craft, and opened up the Southern Ocean for all time. We have seen the later-coming adventurers from the far palm-clad isles of eastern Polynesia settle on Motu-kairangi, or Miramar Island, and look down from Te Whetu-kairangi, on the restless waves of Hine-moana and the fair landing of the Turanga-o-Kupe, or Seatoun foreshore. The changing centuries came and went for seven hundred years, until the day dawned when the sons of Tara and Ira saw on the waters of Raukawa the huge canoe of the pale-skinned sea-demons sailing over their ancient sea-roads.

ART. 49—*The Solubility and Hydrolysis of Calcium Carbonate.*

By H. O. ASKEW, M.A.

[Read before the Philosophical Institute of Canterbury, 6th July, 1921; received by Editor, 31st December, 1921; issued separately, 22nd June, 1923.]

FROM an examination of the literature of the solubility of calcium carbonate it was found that the effects brought about by the addition of salts to carbonate solutions had been only partially investigated, mostly in comparatively strong solutions, and chiefly in the presence of air. It seemed, therefore, that interesting results might be obtained by examination of the effects produced by very dilute solutions, air being excluded—more especially as certain work carried out by E. A. Rowe (1) tended to show that the effects were uniform—that is, certain types of salts gave similar effects, but each salt had a definite influence, in some cases giving apparent breaks in the solubility-curve. (Private communication.)

The work to be described was carried out for the following purposes: (i) To attempt to verify Rowe's results; (ii) to determine the degree of hydrolysis of calcium carbonate; (iii) to determine, if possible, the effect on the solubility product of calcium carbonate.

The solubility of calcium carbonate has been determined by a number of workers, but the results differ considerably.