



Heritage Assessment:
Cape Maria van Diemen Lighthouse
Motuopao Island

June 2011
Alan Macrae



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Department of
Conservation
Te Papa Atawhai

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Kaitaia Area Office

2011

Peer Reviewed by: Maria Butcher

Cover Image: Lighthouse tower after cladding repairs and prior to placement of roof in 2002, in the background is the ruins of the Principal Lighthouse Keepers house. (Photo credit Alan Macrae)

1. Site Overview

The Motuopao lighthouse is a rare example of its kind, designed by the noted Marine Engineer John Blackett in 1879. Lighthouse keepers and their families lived on the island, tenuously connected to the mainland via an aerial tramway. Living on an isolated island was a mixture of at times an idyllic island lifestyle and the harsh realities of being a Lighthouse Keeper. The wooden framework of the lighthouse remains, clearly visible from the mainland. The lighthouse and associated ruins have a high degree of historic heritage significance.

Land Status: Nature Reserve (RANR).

Administered: From Kaitaia Area Office.

Access by: Boat or helicopter.

Annual visitor numbers: Nil, all visitors require a permit.

Heritage Status: Actively managed historic place (AMHP 7).

Site Area: 29.1373 hectares

AMIS No: 100073120.

Amis Site: Historic, building, government, lighthouse.

Legal Description: Motuopao Island, Blk XIV Reinga SD, North. Auckland Gazette notice 1962 Page 2118.

Functional Location Number: DN-61-300-3046

Far North District Plan: N/A

NZHPT Registration: No 3289 Category II Includes Light tower and all of the surviving components of the Light House settlement, including house sites, remains of other buildings, the tramway, derrick and winches.

2. History Description

Paul Shirley describes the history as follows:

In pre European times the island was used by the Maori as a fishing camp and hangi stones are still evident today. Numerous pa sites on the adjacent mainland indicate a large early Maori occupation. Cape Maria van Diemen acquired its Dutch name from Abel Tasman in 1643. He named it in honour of Maria, wife of Anthony van Diemen, the Governor of Batavia. Captain Cook aptly described this sandy region as 'The Desert Coast' (sic.). Neither Tasman or Cook sighted the island. It seems certain that the French navigator De

Survive was the European discoverer of Motuopao. Following colonisation it soon became apparent that a safe system of coastal lighting was necessary around the New Zealand coasts. The coastline at the top of New Zealand is a dangerous area, complicated by the meeting of two oceans and the outlying Pandora Bank and Columbia Reef.¹

Dave Pearson continues the story of the Maria Van Diemen Lighthouse:

As early as 1861, the Marine Board considered that a lighthouse should be erected as a priority in the far north [...] The initial suggestion was to locate a lighthouse on the Three Kings Islands, how ever this was rejected due to difficulties of construction in such a remote location.

A comprehensive coastal survey in 1874 identified the island off Cape Maria van Diemen as a suitable location in preference to Cape Reinga, the former having a wider arc of visibility and easier access by water. The Government acquired the land from its owner Samuel Yates and ordered the lantern and light apparatus from the United Kingdom. The apparatus, including an eight panel Fresnal lense system, made in France, was then shipped to New Zealand on the Arari in 1876. A work party began construction in August 1877, materials being landed on the beach from the Government steamer Stella. A derrick was erected for hoisting equipment ashore and a tram way laid up the islands central valley.

The lighthouse was designed by John Blackett and was identical to one erected at Centre Island in Foveaux Strait. The Motuopao lighthouse was formally illuminated on 24th March 1879, the sweep being visible from a distance of 40 kilometres. A fixed red sector was displayed from the tower to warn of the dangers of the Colombia Reef. Total construction costs were £7028.14.8.²

The island was connected to the mainland via an aerial ropeway, as described by P. Shirley:

An aerial rope way was built in 1886 in a bid to improve deliveries of mail and fresh meat. A wire rope was stretched across the channel. Attached to the main cable was a hauling wire with a big wicker coal basket attached. The basket had to be wound across and back by hand. Salt spray and storm damage meant the cable had to be replaced on a number of occasions over the years. The Marine Department issued specific orders that the keepers were not to use the aerial conveyer for personal transport, though this order was not always obeyed.³

The bosun's chair was useful and sometime terrifying:

¹ P. Shirley. 1985. Ghost Lighthouse of the Far North, Historic Places (Magazine), p 6

² D. Pearson. 2001. Cape Maria Lighthouse, Heritage Assessment and Condition Report Internal File Note, Department of Conservation.

³ P. Shirley. 1985, p 7

Occasionally fresh meat was brought, along with the mail, by packhorse from Te Paki Station, fourteen miles away on the mainland. Such items were winched across to the island by flying fox. At first this consisted of a bosun's chair, but was later changed for a cage. This alteration came about because on one occasion when Ken was being winched across (on an unofficial crossing) he slipped off the seat and hung by his arms, which (fortunately) were securely tied to the ropes. A drop to the sea below would have meant certain death.⁴

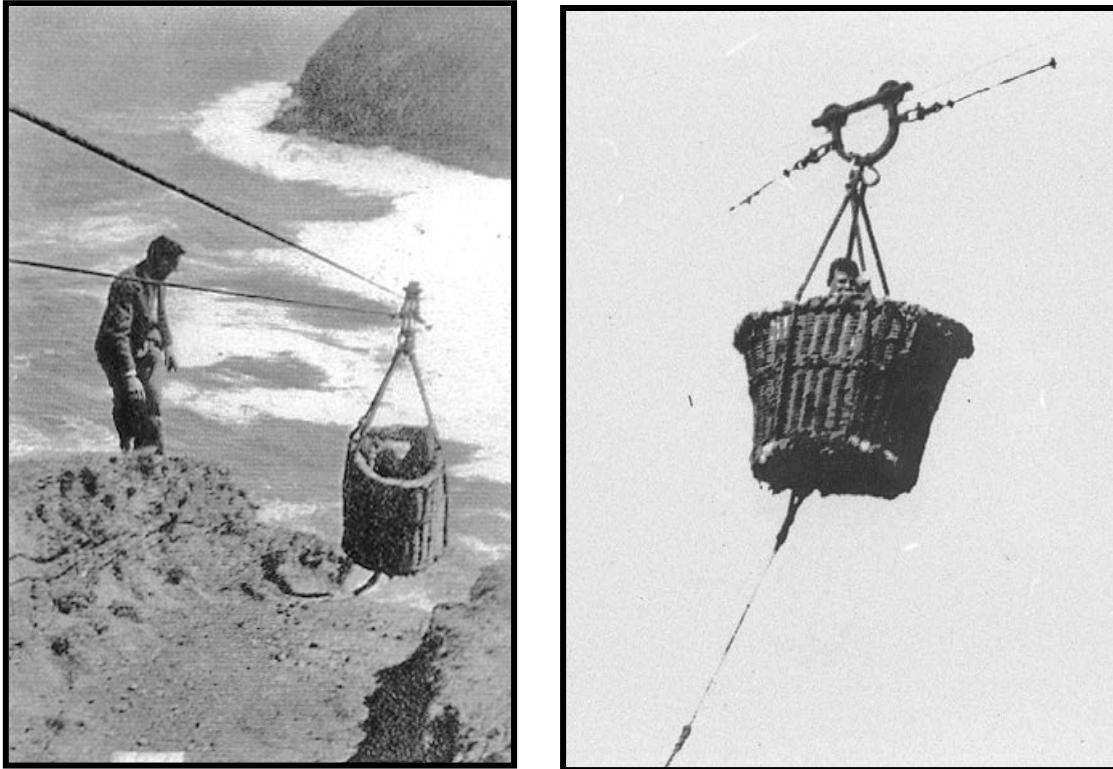


Figure 1a & 1b: The Aerial Conveyer/ tramway built in 1886 (photo credit unknown, copies held on file, Kaitaia Area Office).

In 1895 the lighthouse was connected to the telegraph system.⁵ Some of the telegraph poles still remain on the island and the mainland. In 1903 one of the cottages was replaced after continually being invaded by wind blown sand.⁶ The original landing stage and gantry were down on the rocks at sea level but the sea constantly damaged the tramway. The gantry was lifted up on a concrete plinth in 1908, and a new tramway was blasted into the rock higher up the slope.⁷ In the same year the light was upgraded from kerosene wick to an incandescent kerosene burner.⁸ Windblown sand continued to wreak havoc and the two assistant lighthouse keepers' houses had to be moved to the Southern end of the island in 1922.⁹

⁴ Kember M. *Life on a Leading Light*. Unpublished Memoirs compiled by Annette Brown. July 1994.

⁵ P Shirley, 1985, p 8

⁶ *Ibid.*

⁷ *Ibid.*

⁸ *Ibid.*

⁹ *Ibid.*

The lighthouse was not very effective in dense fog, and there were concerns about the possibility of further wrecks on the Three Kings. In 1922 the Marine Department began to experiment with radio beacons:¹⁰

*The beacon would only be effective if ship owners put receivers on their ships, and there was an initial reluctance to do this. However the Marine Department decided to proceed and a permanent beacon was installed in 1926. In the first three month period fog caused the beacon to be used 26 times, transmitting for a total of 169 hours. This was the first radio beacon to operate in the southern Hemisphere.*¹¹



Figure 2: Using a lighter (small boat) to unload from the supply ship (pre 1908)
(photo credit: Auckland Museum).

3. Fabric Description

The lighthouse is on the highest point of the island, with spectacular views over the wild west coast of northern New Zealand with its varied and beautiful coastline. The fabric remains are impressive, comprising a tower 6.15 metres high and octagonal in plan, with each face being about 2 meters wide at the base. The diameter of the base is about 4.7 meters, tapering to approximately 4 metres at the crown.¹² The building has two floors; on the ground floor was a bed and desk for the keeper on duty, with access to the light room above which gave access to the light apparatus. A set of stairs connected the two levels. Below the ground floor was located a well for the

¹⁰ Beaglehole, Helen.2006, p 159

¹¹ Beaglehole, Helen.2006, p 159

¹² Copy of Original Contract Plans, Drawing No2, held by Department of Conservation, Kaitia Area Office.

weight box. The original lighthouse glass and apparatus is gone, however the building exterior and the foundations remain intact.

The foundation for the lighthouse is made of concrete. A series of holding down bolts set into the concrete anchored the building to the ground. The main wall structural framing is believed to be Australian iron bark, the intermediate framing is New Zealand kauri. The external cladding/sheathing is kauri shiplap weather boards.

In the 60 years between 1940 and 2000 there has been a gradual deterioration in the state of the light tower. When the light mechanism and roof were removed for transportation to Cape Reinga in 1940,¹³ this allowed rain and salt spray to enter the building. Fastenings have rusted and allowed the external and internal sheathing to fall off, the wall bottom plates have rotted away and the large steel bolts that hold the walls down have significant rusting.

Several things have been done since the year 2000 to stabilize the building. All missing weather boards were reattached or replaced with 17mm plywood sheathing. A new roof was constructed and lowered on to the tower by helicopter. The rotten bottom plates have been replaced with temporary tanalised timbers and packers. Sixteen new stainless steel hold down bolts have been fitted to stop the building settling or blowing over. Sixty years of bird nests and detritus have been removed from inside the building and the interior has been sprayed with a biocide to combat the growth of fungus and mould. The weight box well has been pumped out and cleaned and air vents have been fitted to all walls to improve air flow inside the building.



Figure 2: The Lighthouse before the dome was removed in 1939 (left). **Figure 3:** The ironbark framework before re-cladding in 2001 (right).

¹³ P. Shirley 1985, p 9

4. Cultural Connections

Motuopao Island is part of an iconic landscape, which includes Cape Reinga (Te Rerenga Wairua), visited by 136,000 visitors per year.¹⁴ Although visitors cannot access the island, the lighthouse is easily visible to a substantial public audience who visit the cape. As well as being an iconic sight for tourists, the lighthouse has special meaning to the descendants of those who lived and worked there.

The light mechanism and apparatus of the old lighthouse now form part of the current lighthouse at Cape Reinga.¹⁵ This is the only physical link on the mainland to the Cape Maria van Diemen to the history of the light.

Today, New Zealanders have an image of their pioneering forefathers as being hard working, independent, fearless, adaptable individuals pitting their skills against nature, isolation and anything the world could throw at them. Lighthouse keepers were at times all of these things.

From lighthouse keeper Norm Miller, after reading the stacks of correspondence of his predecessors:

*The letters made sad reading. Here was the record of the lives of these old keepers, and what did it reveal? Chiefly day in day out unremitting discharge of duty summarised in the monthly report. This was relieved by an occasional flare up. At a distance the disputes seemed silly, and the things that caused trouble didn't really matter much. The tone of the letters was chiefly serious, sometimes a little pompous or awkward in style. But from the books one felt that these old keepers were a race of men apart.*¹⁶

¹⁴ DoC Destination Management Framework, A new approach to managing destinations. 2010

¹⁵ P. Shirley 1985, p 9

¹⁶ J. Sutherland & E. Miller. 1979, p 40



Figure 4: Winching stores along the tramway, circa 1902 (photo courtesy Auckland Museum)



Figure 5: Remains of Northern Tramway terminus winch. 1989 (photo credit unknown).



Figure 6: Motuopao Lighthouse settlement circa 1902 (photo courtesy Auckland Museum).

Living on an isolated island was a mixture of at times an idyllic island lifestyle and the harsh realities of being a lighthouse keeper. Motuopao has numerous stories of isolation, water and food shortages, storms, heat, buildings being buried by sand storms, drowning, incompatible lighthouse keepers, the drudgery of the constant routine, and the ongoing battle to keep a poorly designed lighthouse functioning.

On the other hand:

Westward the sun was sinking behind a few fair weather clouds. Over on the mainland the yellow sand hills and scrub desert fell away into darkness. The sea was a deep, chilly blue capped by the white of the breakers. A few gulls cried. A wisp of smoke drifted from the funnel of the Matai. Breaking seas sighed on the beach, and the breeze rustled in the flax and cassima bushes and set plumes of toetoe waving. Before beginning the scramble down the sandy slope I stood on the hill and looked out over the sea at the setting sun. The colour in the sky was reflected in the sea and on the sand. Just then Motuopao was beautiful.¹⁷

¹⁷ J. Sutherland & E. Miller. 1979, p 33

Motuopao Island is now a Nature Reserve and a permit is required to land on the island, this combined with the dangerous access and remoteness means most New Zealanders will not get a chance to visit this island. The closest you can get to experiencing this is to read the interpretation at Cape Reinga and gaze at the light tower, the only remaining part of the lighthouse settlement still visible from the mainland.

Before European intervention the island was occupied by Maori. The availability of water on the island is limited to a small seep on the Western side of the island and as result of this occupation may have been intermittent. Seven pre-European Maori archaeological sites have been recorded on the island, including a find spot, a stone heap, midden, and four hangi pits.¹⁸ Today, the landscape is dominated by the lighthouse; however it is important to note that Motuopao is also of significance to Maori.

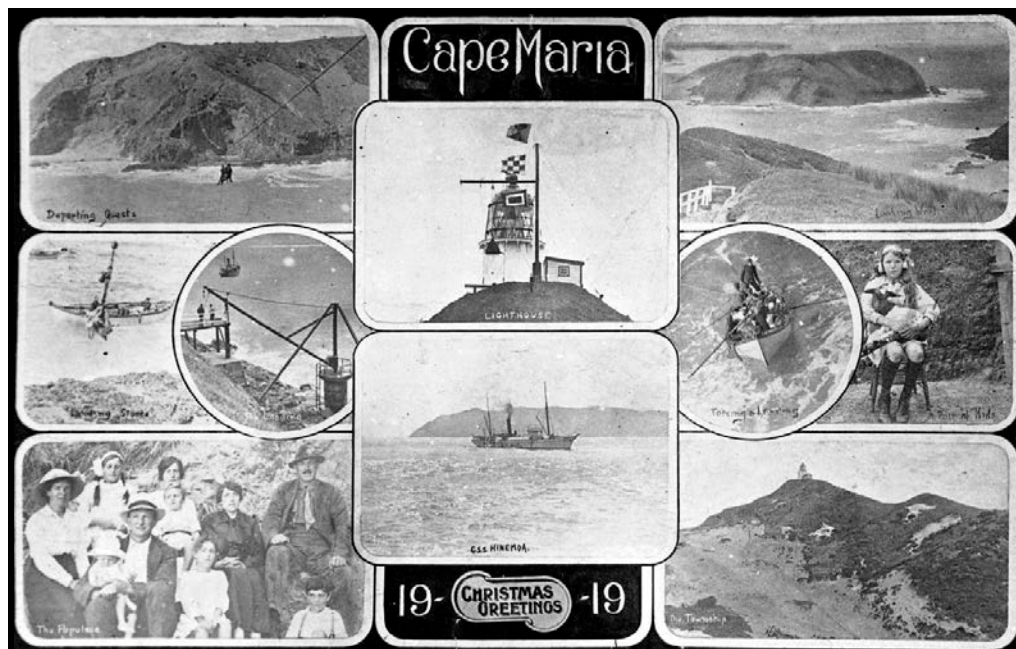


Figure 7: A Christmas card created by Lighthouse keeper Roy Lovell for his family to distribute to relatives in 1919.¹⁹

¹⁸ J Robinson. 2006 An Archaeological Inspection and Update of the Previously Recorded Archaeological Sites on Motuopao Island, Te Pahi, p 2

¹⁹ Kember M . *Life on a Leading Light*. Unpublished Memoirs compiled by Annette Brown July 1994, p 21



Figure 8: A fireplace, foundations, and water tank at the site of one of the relocated lighthouse keepers houses at the southern end of the island..

5. National Context

From Stuart Park:

The creation of a system of lighthouses around the New Zealand coast was an important aspect of development of communications, trade and economic development in nineteenth century New Zealand. As the most Northern light in this network and the first lighthouse erected north of Auckland, Cape Maria van Diemen was significant because of the need for ships from Australia and the Northern hemisphere to round North Cape and because of the treacherous nature of the waters and reefs in the vicinity.²⁰

The Motuopao Island Lighthouse is the one of only two of its design known to have survived.²¹ The other is located on Centre Island in Foveaux Strait at the bottom of the South Island. Other examples of timber lighthouses do exist, such as the Bean Rock lighthouse in Auckland Harbour is an example.

The Motuopao Island Lighthouse is believed to be the only manned lighthouse in New Zealand where supplies were transported by cable from the mainland.²²

²⁰ S Park. 2007 Cape Maria van Diemen Lighthouse 3289. New Zealand Historic Places Register of Historic Places, Historic Areas, Wahi Tapu and Wahi Tapu Areas , Registration Report, p 4.

²¹ D. Pearson. 2001. Sec4 Assessment of Significance

²² D. Pearson. 2001. Sec4 Assessment of Significance

6. Significance

The significance of historic places can be assessed against criteria set out in Section 26(2) of the Historic Places Act (1993). The criteria, of which there are eleven, fall roughly into three categories: historic significance, fabric significance, and cultural significance.

The historic heritage significance of the lighthouse is exceptional in terms of its fabric and history. It is associated with important events and interesting people, it has high aesthetic and landscape qualities, and the radio beacon represents a technological achievement.²³

The significance of the lighthouse is recognised by the NZHPT,²⁴ by its registration as a Category II Historic Place under the Historic Places Act 1993. The registration includes the lighthouse tower and all the surviving components of the settlement, including the house sites and remains of other buildings, the tramway, derrick and winches.

Historic Significance

The history significance as described by Stuart Park:

The Marine Department personnel who selected the site for the lighthouse during a wide ranging survey were all significant individuals in the history of the Marine Department and the development of lighthouses in New Zealand. John Blakett played a significant role in a number of aspects of engineering in the development of New Zealand between 1859 and 1892. In particular, he is renowned for his engineering work in the design and erection of 14 lighthouses around New Zealand. Blakett's use of timber for the construction of lighthouses was an innovative response to the relative impoverishment of the Colonial Treasury, and the abundance of timber in New Zealand. The designs he developed to enable the use of timber attracted worldwide attention from lighthouse engineers, and achieved for him membership of the Institution of Civil Engineers in 1878.

[...]

The Three Kings Islands have historic links to Abel Tasman, James Cook, Marion du Frense and other early European navigators. The turbulent seas of the Pandora Bank, the Columbia Bank and the area out to the Three kings have been the scene of a number of significant shipwrecks, notably Elingamite in 1902, Kaitawa in 1966 and Iron Maiden in 2004. Lighthouse elements in this cultural landscape include the lighthouse at Cape Reinga, which replaced the Cape Maria van Diemen lighthouse.²⁵

²³ D. Pearson. 2001. Sec4 Assessment of Significance

²⁴ New Zealand Historic Places Trust

²⁵ S Park. 2007 Cape Maria van Diemen Lighthouse 3289. New Zealand Historic Places Register of Historic Places, Historic Areas, Wahi Tapu and Wahi Tapu Areas, Registration Report. p. 4.

It is also important to note that the lighthouse was the first in the Southern hemisphere to use radio beacons as a navigational aid.



Figure 9: Hedly Budd,s last official date stamp at the Cape Maria van Diemen Post Office^{6th} October 1940²⁶

Fabric Significance

The Motuopao Lighthouse has significance as a complete structure, given that it is one of two known examples of its type. Certain elements are of particular interest. Conservation Architect Dave Pearson considers the iron bark and kauri framing, external weatherboards, corner boxes and the weight box well to be of exceptional significance. The sub floor and first floor framing, wall linings, even though parts are missing, are deemed to be of considerable significance.²⁷

The surviving fabric is of value as it provides information about the construction techniques of heavy ironwood lighthouses.²⁸

The remnants of the cable way are important, as the Cape Maria light is a rare instance where supplies were transported by cable from the mainland to a manned lighthouse.

²⁶ P. Shirley . 1985. p 7

²⁷ D. Pearson. 2001. Sec4 Assessment of Significance

²⁸ D. Pearson. 2001. Sec4 Assessment of Significance



Figure 10: Looking west towards Cape Maria van Diemen and Motuopao Island, the “Cape Maria van Diemen” lighthouse tower remains can still be seen on the highest point of the island. (photo credit, Don Hammond 2011).

7. Management History

- c. 1875: The government acquired the island as a suitable lighthouse location.
- 1879: Lighthouse becomes operational.
- 1940: Lighthouse permanently extinguished.
- 1962: Motuopao gazetted as a flora and fauna reserve. Managed by the Department of Lands and Survey.
- 1987: Management passes to the newly formed Department of Conservation.
- 2001: Cladding repairs.
- 2002: A new roof fitted.
- 2007: The lighthouse was registered as a category II historic place by the New Zealand Historic Places Trust.

8. Management Recommendations

Because of its rarity and the information it can provide regarding the lives of lighthouse keepers and construction techniques, the light house should be preserved for the future.²⁹

Measures to ensure the lighthouse is preserved should include:

- Continue to maintain the fabric using recognised best practice.
- Continue annual inspections of the lighthouse structure, note any work that needs to be carried out on next visit (see AMIS).
- Carry out work identified on previous visit and any other minor repairs where possible.
- Note any major works that may need doing. Plan for and seek funding.
- Continue to collect any historic accounts, photographs, and plans etc to assist management and the development of interpretation.

9. Management Documentation

Current DOC management files numbers: HHA-10-01-04, PAR-01 04-03

Copies of Original Contract Plans, Sheets 1-5 and one unnumbered sheet detailing Wire Rope Tramway design

Robinson, J. 2006. An Archaeological Assessment of a proposed emergency hut site on Motuopao Island, Te Pahi. *For DOC Kaitaia Area Office.*

Robinson, J. 2006. An Archaeological Inspection and update of the previously recorded archaeological sites on Motuopao Island, Te Pahi. *For DOC Kaitaia Area Office.*

Pearson, D. 2001. Cape Maria Lighthouse, Motuopao Island, Northland. Heritage Assessment and Condition Report.

Park, S. 2007. Registration Report. *For Historic Paces Trust , Northland.*

10. Sources

Clark, J.A. 1963 .*The Sea Is My Neighbour . A Lighthouse Keeper's Story.* Whitcombes and Tombs.

Brown, Annette, 1994 . *Life on a Leading Light.* A self published compilation of storey's, photo's and reminiscences.

²⁹ D. Pearson. 2001. Sec4 Assessment of Significance

Shirley, P. 1985. Ghost Lighthouse of the Far North. *N. Z. Historic Places Trust Magazine*.

Sutherland, J.H and Miller, E.D.N. 1979. *Green And Golden Island And A Lighthouse Dog Named Prince*. Morrinsville Sutherland.

11. Additional Source Material

MOTUOPAO ISLAND, BIBLIOGRAPHY AND SOURCES

Some additional sources are cited in an annotated bibliography compiled by W. Spring-Rice for Department of Lands and Survey, Auckland July 1984:

Published Accounts

Clarke, T.A. 1963. *The Sea is my Neighbour*. Whitcomb and Tombs. p. 97-101 (very inaccurate and unreliable)

Budd, Hedley (in prep.). Book on his life at Motuopao 1933-1935 and 1938 -1940, and at Cape Reinga after 1940.³⁰

Auckland Weekly News. 18 October 1933. Cape Maria van Diemen lighthouse. p. 42.

New Zealand Herald. 23 January 1965. Article in 'Susan's Week'. Hedley Budd's reminiscences of life on Motuopao and the moving of the light to Cape Reinga.

Miscellaneous Sources

Lands and Survey, Auckland, Files 8/5/151 : NP. 133

Wildlife Service, Whangarei, File. Report (internal, for private information) on visit to island 26-27 November 1981, by Dick Anderson, Mark Bellingham, Alison Davies and Wynne Spring – Rice. Report covers wildlife, invertebrates, reptiles, vegetation, introduced animals, human occupation, management and status, 3 maps.

Auckland Institute and Museum Library, Cape Maria van Diemen Letter Book (Marine Department) p.151 – re vegetable garden.

Appendix to the Journal of the House of Representatives. 1893 A-4 p.18 ; 1895 A-4 p.4 ; 1899 H-15 p.30 ; 1908 c-6 p.4 ; 1911 H-15.

W. Spring-Rice, Analysis of Literature regarding Placostylus in North Cape area and bibliography (ms.)

³⁰ This manuscript has not been re-located

National Archives, Wellington, Marine series incl M 8/18/31, 8/63/1, 8/18/24, 3/18 /38, 8/18/9, 8/26/2 (*numbers transcribed from unclear photocopied lead pencil notes, may not be accurate*).

Photographs

Ministry of Works, Aerial Photo's A 986, A987, A988

New Zealand Aerial Mapping (1947) 1035/1,2 (1957) SN1016/ D1, 2, 3

Auckland Museum – Henry Winkelman collection. (Hinemoa Cruise 1902)

Alexander Turnbull Library Collection – indexed under “Mangonui County”

Hedely Budd collection – Tudor Collins photo showing houses 1935, also others from various sources.

Wynne Spring-Rice collection - 1981 colour prints O/2-10, Q/2-20

Paul Shirley collection- photos from many sources, photographs from visit 1984.

Whites Aviation – photo 3835 – aerial 1935 – island from the north.

Norman Miller collection – Sydney – may still not be available (contact Hedley Budd).³¹

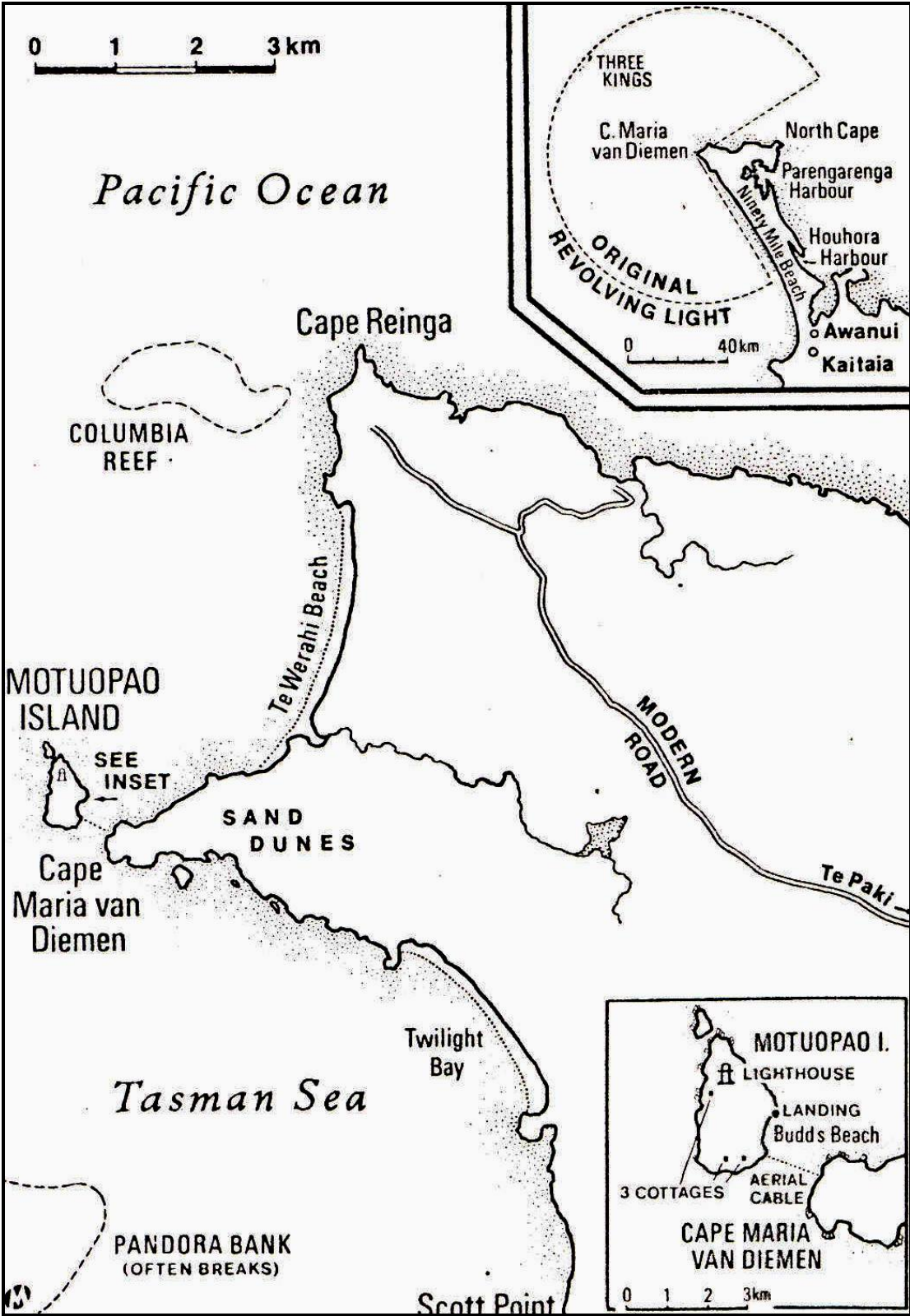
³¹ Annotation in original bibliography

12. Appendix A: Timeline of notable events

Date	Event
1643	Abel Tasman names Cape Maria van Diemen
1861	Marine Board consider Lighthouse in Far North important
1874	Marine Dept survey identifies Motuopao as suitable lighthouse location
c1875	The Govt acquires the land and orders equipment
1876	The apparatus including lens is shipped to NZ on the <i>Arari</i>
1877	August. Construction work begins
1879	March 24. The lighthouse is illuminated
1880	Heavy seas damage the tramway and landing area.
1886	An aerial cableway is constructed between the island and the mainland.
1895	Lighthouse settlement is connected to telegraph system
1903	One cottage is replaced when it becomes unfit for habitation
1908	Original Paraffin fuelled wick burner replaced with incandescent kerosene vapour lamp
1908	New landing area and tram track blasted out higher up. Derrick raised higher to keep it out of the surf
1920	Principal Lighthouse keepers house moved up the hill closer to the lighthouse to avoid drifting sand
1921	The two assistant light house keepers houses moved across valley on to firmer ground to avoid drifting sand . Tramway extended to the relocated houses (Note, there is some evidence suggesting two new houses were constructed, rather than the above)
1922	An experimental radio beacon is installed at Cape Maria.
1926	A permanent beacon is installed. First in the Southern Hemisphere
1937	Options to modernise station discussed, decision made to move station to Cape Reinga
1940	October 6. The last official date stamp of the Cape Maria van Diemen Post Office
1940	Nov 2. The Cape Maria light is extinguished
1940	Feb. All the light equipment removed, cableway cables removed (winches left behind). Tramway rails, cables and diesel winches removed. Some of the landing crane is removed. Radio masts dismantled, telephone line to mainland was cut.
1941	October 3. The light is first seen from Cape Reinga
1951	Assistant lighthouse keepers houses and other out buildings removed. Principal keepers house and lighthouse tower left
1962	Reserve classification changed from Lighthouse Reserve to a reserve for the preservation of flora and fauna
1981	Nov . R Anderson, M Bellingham, A Davis and visit island to conduct Fauna and Flora survey, are accompanied by Archaeologist ? W Spring-Rice
1984	Paul W Shirley , Hec Crene (L&S), Prickels De Ridder, visit island. Proposal to roof old light house tower is discussed
1989	Oct, A successful rodent eradication programme carried out.
1997	April 30. Joan Maingay and James Robinson (DoC Archaeologists) visit island to make photographic record of lighthouse settlement. Suggest stabilising the condition of the light house tower
2001	Feb. Peter Reed (Conservation Architect) Joan Maingay, James Robinson Alan Macrae (all Doc) visit island .
2001	May/June. Jonathon Maxwell, Alan Macrae, William Macrae, Nicky Sydall (all

	DoC) Bruce Ngauma (Ngati Kuri) visit island to under take exterior cladding repairs
2002	Mar 20-24. Alan Macrae, Jono Maxwell, Rodger Cawte, Richard Parrish, visit island to prep building to take roof , build internal scaffold and treat inside of building with Biocide .
2002	Aug, N Conrad, A Macrae, W Macrae, J Maxwell and C Barr go to island and fit new roof with the help of helicopter.
2007	May 2-3. Alan Macrae, Joe Herbert (Doc) and Steven Maisey (Builder) Erect emergency shelter, to be used by DoC Weed crews and Historic staff
2007	July. The lighthouse and all other buildings and structures including tramway, derrick and winch receive their final Cat II HPT registration
2008	April Replaced all galvanised shackles on roof hold down system
2008	Nov 5-13, Removed all bottom plate packers and wedges. Fitted 16 SS hold down / support bolts. Refitted bottom plates/ packers and wedges. . Located and cleaned 2 parapet drains.
2010	April .Annual maintenance check, Check drains, roof hold downs, flashings
2010	Weeds team construct roof on one of the old lighthouse keepers concrete water tanks, to collect water for weeds team to use when on island.

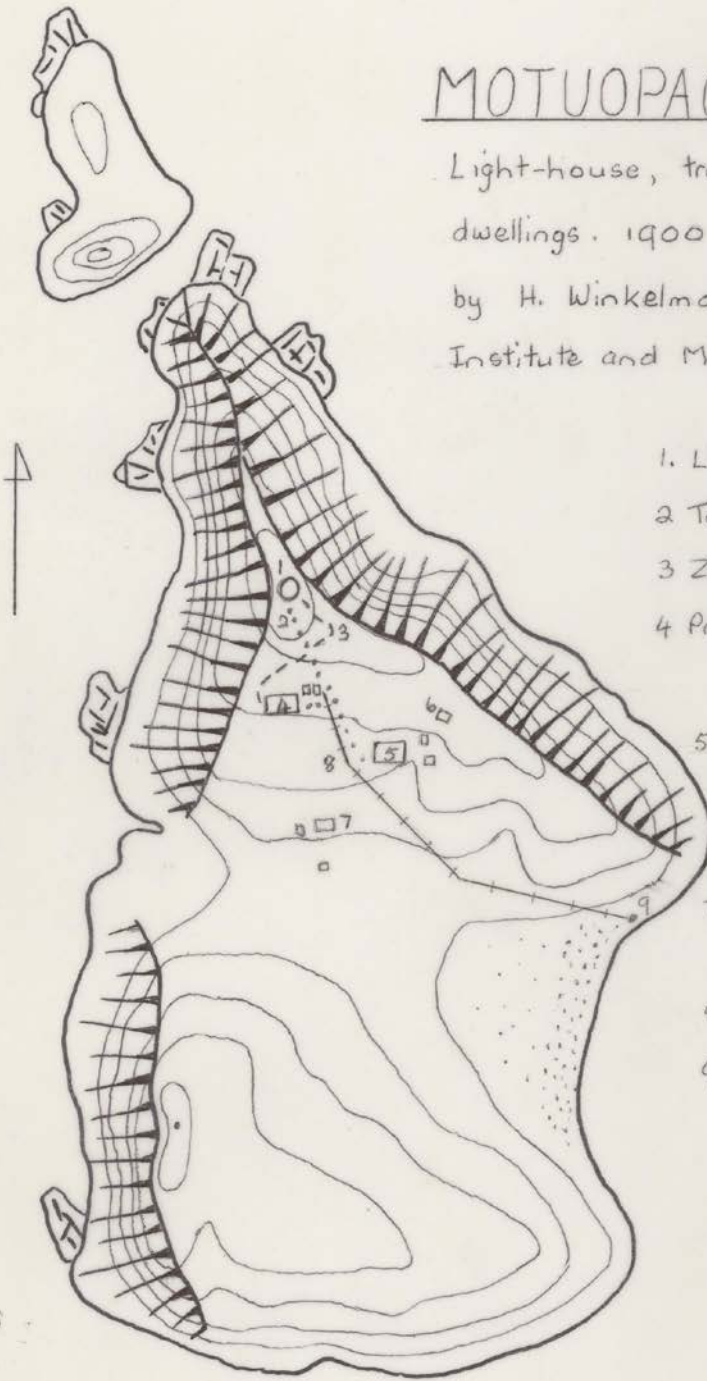
Appendix B: Maps and plans



Location map copied from G. Shirley. 1985. p. 7.

MOTUOPAO ISLAND

Light-house, tramway and dwellings. 1900. In photo by H. Winkelmann. Auckland Institute and Museum. (1097½)



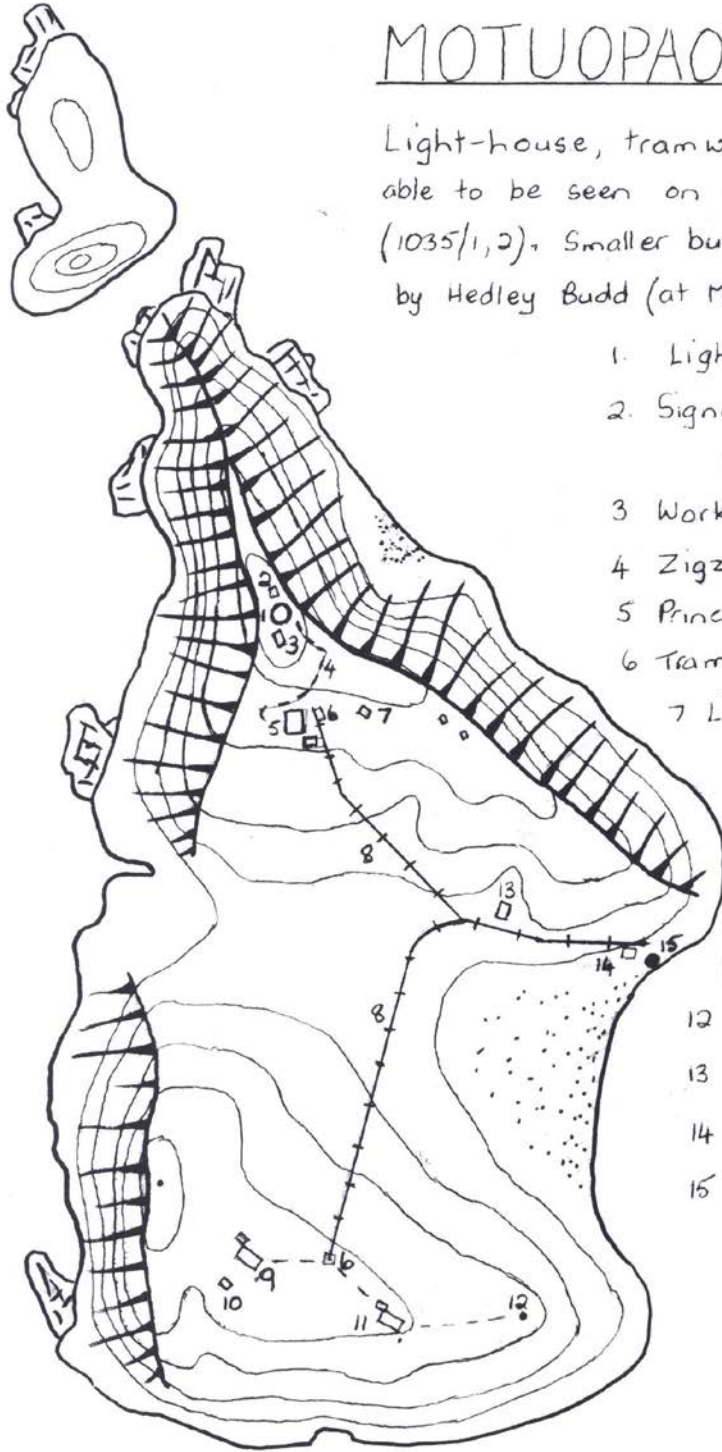
1. Light-house
2. Telegraph line
3. Zig-zag track
4. Principal keeper's house
5. First assistant's house
6. Kerosene store
7. Second assistant's house (single man).
8. Tramway
9. Wooden derrick

W. Spring-Rice
1984

Map showing location of buildings, tracks and tramway in 1900, by W Spring-Rice 1984

MOTUOPAO ISLAND

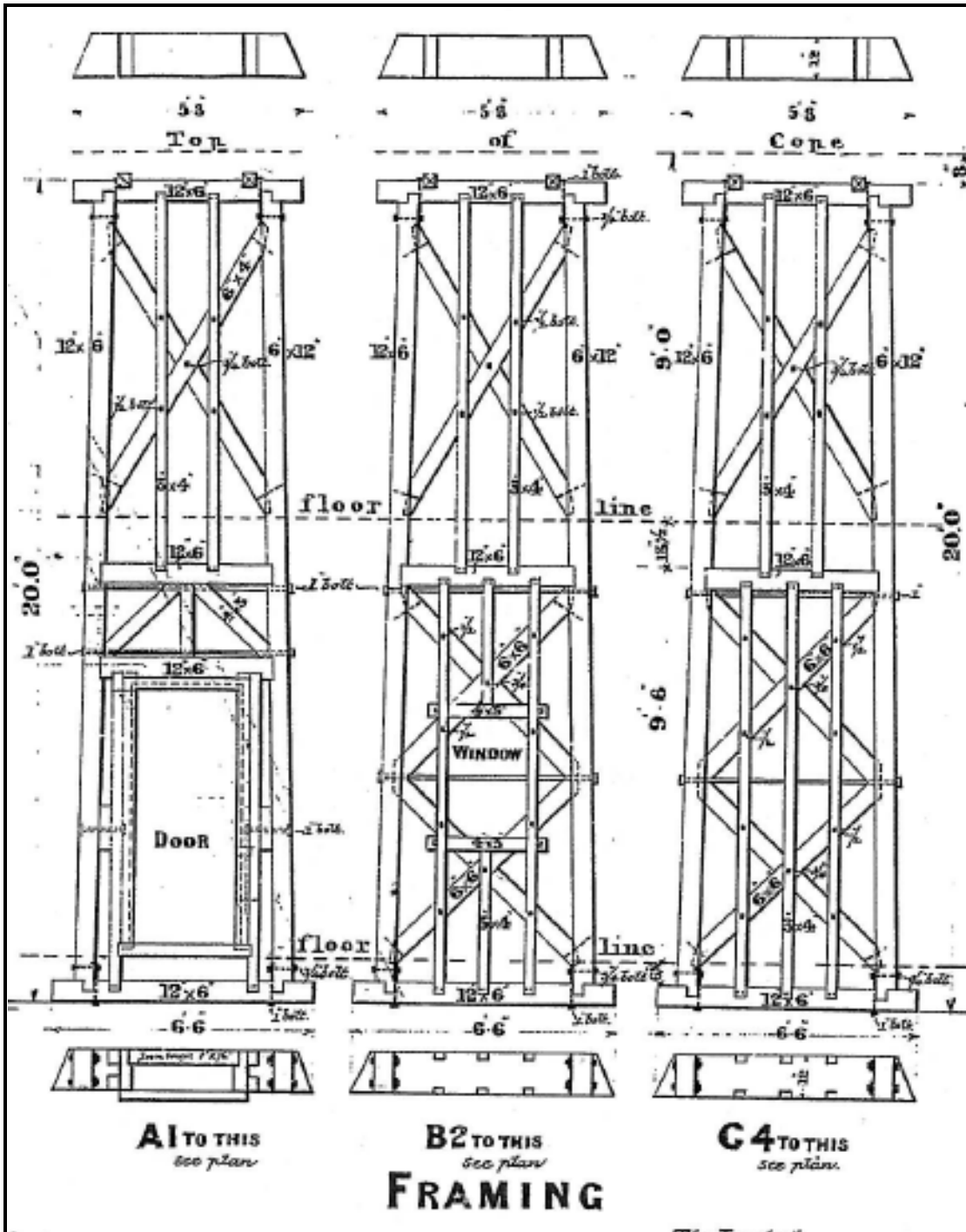
Light-house, tramways and buildings able to be seen on aerial photo, 1947, (1035/1,2). Smaller buildings identified by Hedley Budd (at Motuopao late 1930s).



1. Light-house
2. Signal hut and weather instruments
- 3 Workshop
- 4 Zigzag track
- 5 Principal Keeper's house
- 6 Tramway winch
- 7 Library and kerosene store
- 8 Tramways
- 9 1st assistant's house
- 10 Radio shack
- 11 2nd assistant's house
- 12 Cable terminal
- 13 Boat shed
- 14 Store shed
- 15 Concrete landing block and derrick.

W. Spring-Rice
1981

Map showing location of buildings tracks and tramways circa 1939 based on a 1947 Aerial Photo and information from S Budd, lighthouse keeper in the late 1930s



Plan of ironbark wall framing , Sht 2 (held on file at Department of Conservation Kaitaia Area Office).

