



HERITAGE ASSESSMENT SERIES 1

The *Grafton* wreck and Epigwaitt hut site, Auckland Islands

Heritage assessment

Peter Petchey



New Zealand Government

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Cover: The hull of the *Grafton*, Carnley Harbour, Auckland Islands, 2003. Photo: Henk Haazen.

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The *Grafton* wreck and Epigwaitt hut site, Auckland Islands

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Abstract

The schooner *Grafton* was wrecked in Carnley Harbour, Auckland Island, in 1864. The five crewmen all got safely ashore and built a hut (which they named 'Epigwaitt') from materials salvaged from the wreck. The men resourcefully survived for eighteen months during which time they modified the ship's boat. In July 1865 three of the men (including the Captain Thomas Musgrave) made a daring voyage back to Stewart Island. The remaining two men were rescued several weeks later. This was the earliest and most successful of the various Auckland Island castaway stories and was significant in prompting the New Zealand Government to provide castaway depots on the subantarctic islands. The site is a Department of Conservation Actively Conserved Historic Place. This heritage assessment summarises the *Grafton* story and provides a physical description of the site including the remaining archaeological evidence of the wreck and the hut site and associated structures (such as the boat run up the beach and the site of the forge). It also assesses the place of the site within the context of shipwrecks on subantarctic islands and New Zealand and the significance of the site in terms of its cultural associations, history and archaeological fabric. The site is seen as having high significance based on its uniqueness in subantarctic shipwreck history and influence on Government policy, its detailed first-hand documentation and its influence on other writings of the late 19th century, including those of Jules Verne.

Key words: *Grafton*, Epigwaitt, Carnley Harbour, Auckland Island, shipwrecks, castaways, survival, resourcefulness, Actively Conserved Historic Place, New Zealand

1. Site overview

Department of Conservation AMIS Functional Location number: DS-84-200-0612

The wreck of the *Grafton* and associated site of the castaways' hut 'Epigwaitt' are located in Carnley Harbour at the southern end of Auckland Island. The *Grafton* was wrecked in January 1864, and is the great success story of the Auckland Island shipwrecks, as all of the crew survived and eventually returned to civilisation, which lies in stark contrast to some of the other wrecks on the island, where many people died both in the sea and on land. The publication of the accounts of both the captain (Musgrave 1866) and first mate (Raynal 1892) have ensured that the events surrounding the castaways' time on the island are well documented.

The Auckland Islands are managed by the Department of Conservation (DOC) as a National Nature Reserve under the Reserves Act 1977, and are part of the New Zealand Sub-Antarctic Islands World Heritage Area. Entry to these islands is by permit only due to the sensitive ecological values present—tourism operators have permits to take a total of 600 tourists each year to specific locations in the islands. In addition, the waters around the island group are a marine reserve, protected under the Marine Reserves Act 1971, with particular provisions for shipwrecks. It is an offence to disturb any archaeological site (including all shipwrecks) or historic building of any age in the Auckland Islands without a permit from the Minister of Conservation under the Reserves Act. The Heritage New Zealand Pouhere Taonga Act 2014 makes it unlawful for anyone to destroy, damage or modify any pre-1900 or gazetted archaeological site, including shipwrecks, without an Archaeological Authority. The uplifting and removal of artefacts and other movable objects are also prohibited, and the export or trade of some items may be restricted by the Protected Objects Act 1975.

The wreck of the *Grafton* and Epigwaitt hut are:

- Situated within the Auckland Island Group National Nature Reserve, which covers an area of 57 102.9 ha. The Auckland Islands were declared a National Nature Reserve in 1986.
- Recorded as archaeological sites in the New Zealand Archaeological Association (NZAA) Site Record File: *Grafton* wreck site AU/42; Epigwaitt site AU/43.
- Actively conserved historic places managed by DOC, which are listed as nationally significant (DOC 2013).
- Limited to a maximum of 50 visitors per day and 150 visitors per year (DOC 2013).
- Located in the New Zealand subantarctic Islands, which were declared a World Heritage Site by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1998 due to their ecological values (<http://whc.unesco.org/en/list/877>).

The draft Conservation Management Strategy for Southland Murihiku (DOC 2013) stated that:

The Department is responsible for managing an array of historic sites within this Place (the Subantarctic Islands). These sites represent a broad range of history and culture, from utilisation by Maori, early European sealing and settlement, through to the dramatic stories of ship wrecks, New Zealand's southernmost sheep farm, and the coastwatch era of World War II. There are 21 actively conserved historic sites within this Place, a number of which straddle the land-sea boundary.

2. Setting

The following information has largely been taken from Dingwell et al. (2009).

The Auckland Islands are located some 450 km south of the South Island of New Zealand (Fig. 1), and are one of five subantarctic island groups lying in the Southern Ocean between the New Zealand mainland and the Antarctic continent. Although the islands have an interesting human history, today they are uninhabited and are protected as nature reserves harbouring important indigenous communities of plants and animals, including countless numbers of seabirds.

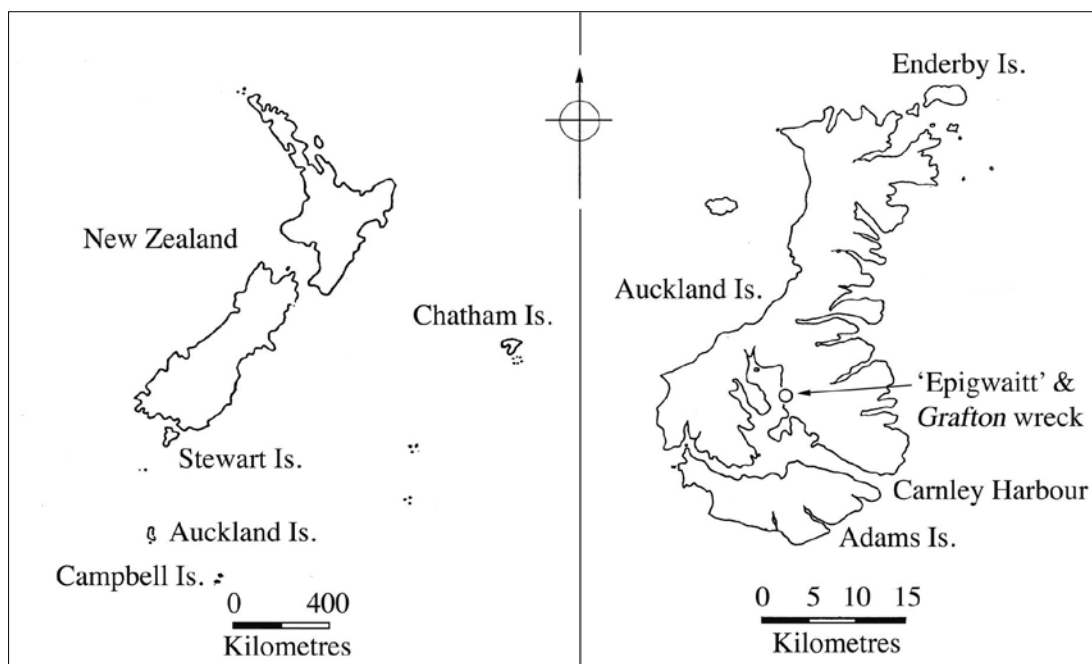


Figure 1. The location of the *Grafton* wreck and Epigwaitt in the Auckland Islands.

The Auckland Islands group is an archipelago with a total area of 62 564 ha, which comprises the main Auckland Island (50 990 ha) and five other islands, of which Adams Island (10 119 ha) and Enderby Island (710 ha) are the largest, along with many islets. The islands rise to 705 m a.s.l., and are the remains of two coalescing shield volcanoes formed between 25 and 10 million years ago, centred around Musgrave Peninsula in Carnley Harbour and Disappointment Island, respectively. Carnley Harbour formed from the sea-filled crater area of the southern volcano. Coastal erosion has removed much of the western sector of the volcanoes, particularly the northern one, forming a line of cliffs up to 400 m high along the western coast of Auckland Island.

Cloudy, windy and wet weather predominates. The wind, which is often gale force, is persistent and generally from the west. The mean annual temperature is 8°C, with an annual rainfall of 1000–1500 mm. There are light snowfalls in the winter, but the snow does not sit for long, and there is no permanent snow or ice. Peaty soils that are up to 8 m thick are widespread.

Isolation of the islands over a long period has produced a biota that consists of many endemic species, some of which are specially adapted to their oceanic island setting. A narrow fringing coastal forest extending to 50 m altitude is the southernmost forest in the New Zealand region. It is dominated by southern rātā (*Metrosideros umbellata*) (Fig. 2), accompanied in some sheltered places by the world's southernmost tree fern *Cyathea smithii* and the tree fuchsia *Fuchsia excorticata*. Upslope, this forest cover grades into a dense shrubland.



Figure 2. Coastal rātā forest near the site of Epigwaitt.

The *Grafton* was wrecked along the eastern shore of the north arm of Carnley Harbour, in an area where a shingle beach slopes up to the coastal rātā forest. The on-shore remains of the wreck are at the mouth of a small stream, and the Epigwaitt hut site is on top of a rise on the true right of the stream, c. 20 m back from the beach. The area was largely cleared of trees by the *Grafton* castaways and subsequent 19th-century visitors, and now the site is

surrounded by regenerating rātā forest. Evidence of clearing extends c. 100 m north of the stream and at least that far inland, and the area is distinguished by the predominance of much younger rātā trees, and the presence of numerous cut stumps and limbs. These cut stumps are in a more advanced state of decay than those of the 1939 Erlangen clearing, supporting the conclusion that they relate to a 19th-century event (Egerton et al. 2009: 133).

3. History of the wreck of the *Grafton* and Epigwaitt

3.1 Sources

The history of the wreck of the *Grafton* and the survival of the crew is extremely well documented, as two first-hand accounts of the events have been published. Thomas Musgrave, the captain of the *Grafton*, published *Castaway on the Auckland Isles* in 1865, which included a map of the islands (Fig. 3), while Francois Raynal, the second officer and representative of the backers of the voyage on which the *Grafton* was engaged, wrote *Wrecked on a Reef*. Raynal's work was originally published as a series of three articles in the French travel magazine *Le Tour du Monde* in 1869, and as a much longer book (also in French), *Les Naufragés des Auckland Iles*, in 1870 (Mortelier 2003: 234). The first English translation was published in 1874, and it went through numerous reprints, with the most recent edition being produced in 2003, transcribed from the 1880 edition together with an additional commentary by Christiane Mortelier. The versions used in this report are the 1866 edition of Musgrave's book and the 1892 edition of Raynal's work (both published in London), copies of which are held in the McNab Room, Dunedin Public Library.

Musgrave's and Raynal's accounts provide a great deal of detail regarding the wreck and subsequent events. Joan Druett (2007) has recently synthesised their two accounts (and attempted to reconcile any differences), and compared their experiences with those of the contemporary *Invercauld* castaways. The *Invercauld* was wrecked at the north end of Auckland Island in May 1864, but in contrast to the crew of the *Grafton*, only 19 of the 25 men aboard survived the wreck, and only 3 of these lived to be rescued. Although both groups were living on the island at the same time, they were unaware of each other.

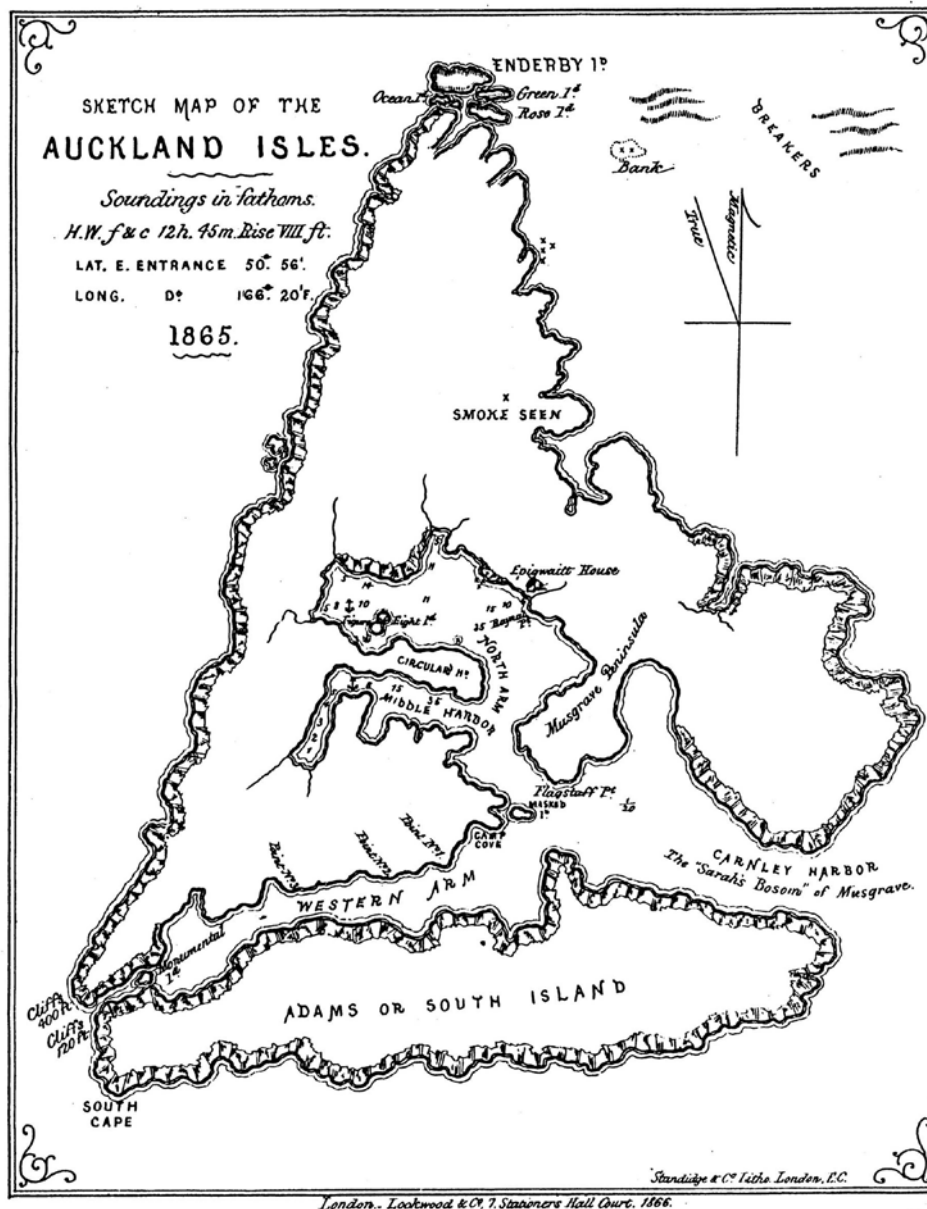


Figure 3. Thomas Musgrave's map of the Auckland Islands. Source: Musgrave 1866.

3.2 Site history

Early Māori or Polynesian explorers made the first known landfall at the Auckland Islands c. 1300 AD, but no evidence has been found for more than a fleeting presence there (Anderson 2009: 35). The European discovery and naming of the Auckland Islands occurred in 1806 by Captain Abraham Bristow of the whaler *Ocean*. Prior to the widespread replacement of sail by steam power, the islands lay on the commonly used Great Circle shipping route through the southern ocean and a number of ships were wrecked on the rocky shores, mostly on the hostile and barren west coast. The most famous of these wrecks was the *General Grant* in 1866, which still attracts gold-seekers, but others included the *Grafton* (1864), *Invercauld* (1864), *Derry Castle* (1887), *Compadre* (1891), *Anjou* (1905) and *Dundonald* (1907) (Druett 2007; Egerton et al. 2009: 126–151). There were also an unknown number of other unidentified wrecks that left no survivors. For example, in 1833, a large amount of wreckage was found on shore with no survivors or bodies; at the time the ship was not confidently identified (Ingram 1984: 8), but it is now thought to be the *Rifleman*, which was lost after leaving Hobart bound for London (McCrystal et al. 2012).

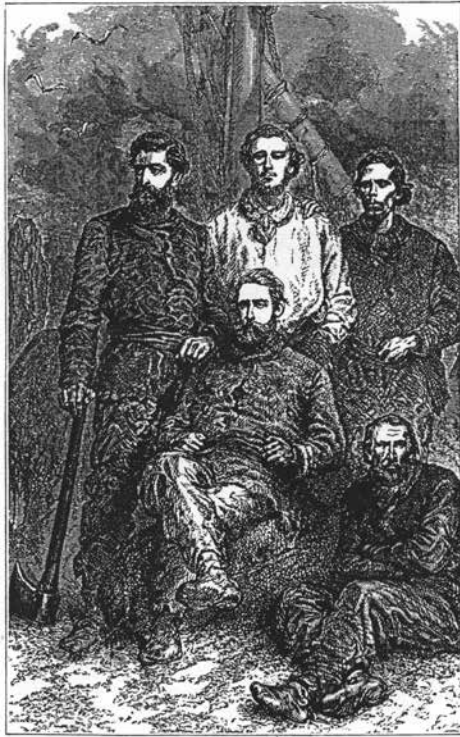


Figure 4. The crew of the *Grafton*. Source: Raynal 1892.

The *Grafton* was a small schooner that had been engaged by Sydney traders Charles Sarpy and his partner Musgrave (the uncle of the captain of the *Grafton*, Thomas Musgrave) for a prospecting trip to look for tin on Campbell Island/Motu Ihupuku, with the added (and probably main) intention of carrying out some sealing while in the region. They engaged Sarpy's friend Francois Raynal as their representative on the voyage and second officer of the ship, and Thomas Musgrave as the captain (Raynal 1892: 36). Raynal was a 33-year-old Frenchman, and Musgrave a 30-year-old British-born American, then resident in Sydney. Three further crew were also engaged: George Harris (a 20-year-old Englishman), Alexander Maclaren (a 28-year-old Norwegian) and Henry Forgés (a 28-year-old Portuguese) (Raynal 1892: 41) (Fig. 4).

The *Grafton* set sail from Sydney on 12 November 1863 and anchored at Campbell Island/Motu Ihupuku on 2 December (Raynal 1892: 39, 50). The *Grafton* remained there for a month, but only a few sea lions were caught and no sign was found of any tin mine. Musgrave set sail again on 29 December,

setting course for the Auckland Islands, which lay on the intended route back to Sydney (Raynal 1892: 57–58).

The Auckland Islands were sighted the following day, and the *Grafton* entered Carnley Harbour on 1 January 1864 where, temptingly, numerous seals could be seen on shore. However, the weather changed, and no good anchorage could be reached. Musgrave put down two anchors in



Figure 5. Getting ashore from the *Grafton* during the storm. Source: Raynal 1892.

Carnley Harbour, but one chain broke and the other anchor dragged, and at midnight on 3 January the *Grafton* drifted ashore. At daybreak, the crew managed to get to dry land (Fig. 5). Initially, they made a small tent from sails to shelter from the weather, which they soon replaced with a larger tent erected in a clearing cut from the coastal forest.

The five men were fortunate that they had at hand the

resources of the *Grafton*, which remained substantially intact (although holed beyond practical repair). These resources included not only their personal items (including Raynal's gun), but also the provisions and tools aboard, and the timber, iron fittings, cordage and canvas of the ship itself.

The crew soon set about building a hut, constructed from both the ship's timbers and timber cut from the coastal forest (Fig. 6). The detailed descriptions given of the construction of this hut are reproduced in section 4 below. The house was christened 'Epigwatt', a name suggested by Musgrave that he stated was a North American Indian word meaning 'a home by the wave' or 'a dwelling by the water' (Musgrave 1866: 118). The castaways' diet consisted largely of sea lions, together with such birds, fish or mussels that they could shoot, catch or gather. Food was one

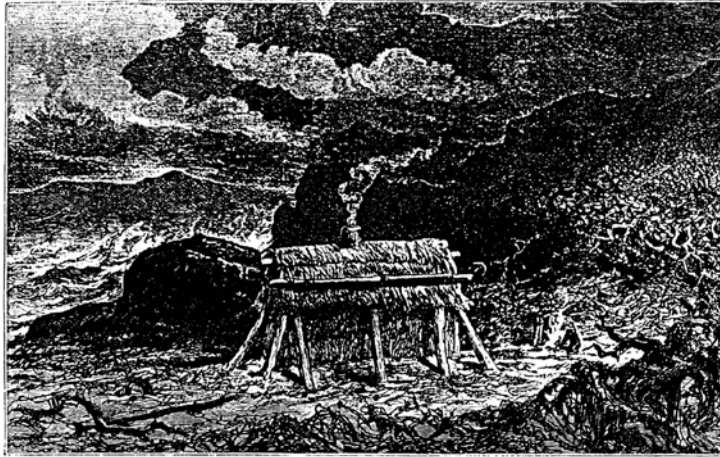


Figure 6. Epigwaitt hut. Source: Raynal 1892.

see if she could be repaired, but the hull was too badly damaged (Musgrave 1866: 55). The men then determined to build a new boat from the timbers of the *Grafton*, and Raynal set up a forge beside the hut in which to manufacture such tools and fittings that they would require (Fig. 7), and took the necessary iron from the wreck. However, the logistics of such a task became too

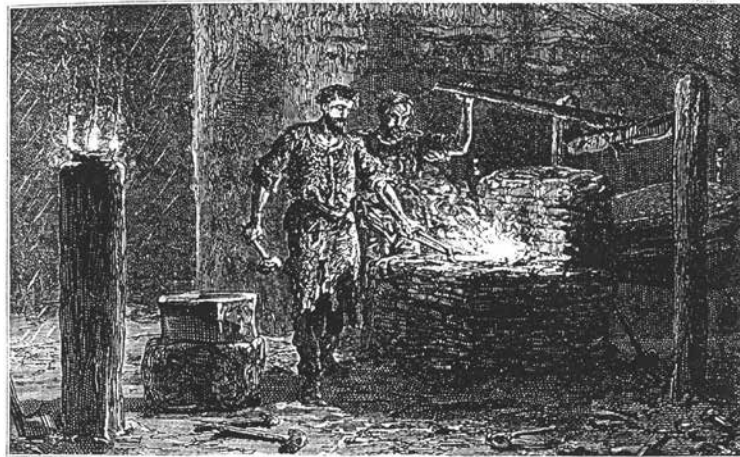


Figure 7. Raynal working at the forge. Source: Raynal 1892.

great, especially the lack of suitable tools, which could not be made on site (in particular, Raynal found it impossible to make the spiral point of an auger). Therefore, the men modified their small ship's boat, lengthening it by 3 ft and adding 2 ft in height to its gunwales (Raynal 1892: 267, 275). The finished boat was 17 ft long and 6 ft wide, and was launched on either 12 July 1865 (Raynal 1892: 281) or, more likely, in late June 1865 (Musgrave 1866: 93). She was named *Rescue* (Fig. 8).

On 19 July, Musgrave, Raynal and Alick Maclaren set sail for Stewart Island/Rakiura in the *Rescue*. An initially favourable wind soon turned into a gale, and for 5 days the small boat endured bad weather. But on 23 July, Stewart Island/Rakiura was sighted, and on 24 July 1865,



Figure 8. Launching the *Rescue*. Source: Raynal 1892.

of their constant worries, particularly when the sea lions migrated away from Carnley.

After a year on the island, it had become clear to the men that no rescue was to be expected from Sarpy and (uncle) Musgrave (the backers of the voyage), and so they would have to find their own way off the island. Musgrave had already inspected the *Grafton* to

see if she could be repaired, but the hull was too badly damaged (Musgrave 1866: 55). The men then determined to build a new boat from the timbers of the *Grafton*, and Raynal set up a forge beside the hut in which to manufacture such tools and fittings that they would require (Fig. 7), and took the necessary iron from the wreck. However, the logistics of such a task became too great, especially the lack of suitable tools, which could not be made on site (in particular, Raynal found it impossible to make the spiral point of an auger). Therefore, the men modified their small ship's boat, lengthening it by 3 ft and adding 2 ft in height to its gunwales (Raynal 1892: 267, 275). The finished boat was 17 ft long and 6 ft wide, and was launched on either 12 July 1865 (Raynal 1892: 281) or, more likely, in late June 1865 (Musgrave 1866: 93). She was named *Rescue* (Fig. 8).

the *Rescue* entered Port Adventure (Musgrave 1866: 96; Raynal 1892: 292). They were greeted by Captain Cross, who was living there with his Māori wife. The three men were extremely weak after their voyage, and were given baths and clean clothes, ate a meal, and then slept for 24 hours. When they awoke, they were on board Captain

Cross' cutter, the *Flying Scud*, en route to Invercargill. The three men were warmly greeted there, but local government officials would or could not organise a mission to rescue the two men remaining on Auckland Island (the Province of Southland was in severe financial difficulties at the time). A public subscription was soon launched, and money to mount such an expedition was raised. As the most suitable boat in New River at that time, the *Flying Scud* was equipped to sail, with Musgrave acting as pilot. Contrary winds, bad weather and a faulty compass all hindered the rescue voyage, but 7 weeks later the *Flying Scud* arrived back in Invercargill with the last two castaways on board.

On the way back from Carnley Harbour, the *Flying Scud* put in at Port Ross, where they found the body of James Mahoney (one of the *Invercauld* castaways) in the ruins of one of the Hardwicke houses. After burying the body, they returned to New Zealand, where all five *Grafton* castaways were reunited in Invercargill. Four of the five never again visited the Auckland Islands, but Thomas Musgrave almost immediately returned to assist with the official search for any other castaways. Musgrave had returned to Melbourne, and thence to Sydney where his wife and children were waiting. He submitted a report on his experiences and, in response, the governments of New South Wales, Queensland and Victoria requisitioned the colonial steamer *Victoria* to undertake a voyage to the Auckland Islands to check for any further castaways, with Musgrave engaged to act as a guide. The *Victoria* circumnavigated the islands in October 1865, and revisited both Epigwaitt and Port Ross, but no further castaways were found (Druett 2007: 240–246). Epigwaitt was still in good condition, and Captain Norman of the *Victoria* planted an avenue of trees from the door of the hut to the steps down to the creek.

Ironically, given their lack of action when the first *Grafton* survivors arrived in Invercargill, the New Zealand authorities also decided to send a ship to the islands, largely as a result of the discovery of the body of James Mahoney by the *Flying Scud* crew (Druett 2007: 239, 260). Under the command of James Greig, the paddle steamer *Southland* was fitted out for the voyage and departed in October 1865, only to find that the *Victoria* had already visited the same locations earlier in the month. Greig also visited Epigwaitt and found the hut in good enough condition to stay in for 2 nights (Druett 2007: 262; Egerton et al. 2009: 157).

In 1866, the most famous of the Auckland Islands shipwrecks occurred, when the *General Grant* struck the west side of the island. Fifteen people (including one woman) survived the wreck, along with two of the ship's boats, which gave the castaways reasonable mobility. The castaways found the remains of the old house at Erebus Cove, but a cache of supplies that had been left by Captain Norman of the *Victoria* had been taken (Allen & Scadden 2009: 51). The boats were then used to explore the islands, looking for shelter and food, as the survivors knew from recent newspaper reports that Epigwaitt was located at the southern end of the island. However, their elation at the discovery of the hut was tempered by the realisation that neither the *Victoria* nor the *Southland* had left any provisions there. Eight of the men spent the winter of 1866 at Epigwaitt, as it offered both shelter and good access to seals for food (Sydney Morning Herald 1868a: 2; Eunson 1974; Egerton et al. 2009: 137). In January 1867, four of the *General Grant* castaways attempted to sail to New Zealand, in the same way that Musgrave and Raynal had done, and the sailcloth 'lining' (possibly the roof) of Epigwaitt was used to make sails for the pinnace (Sydney Morning Herald 1868a: 2; Eunson 1974: 77; Allen & Scadden 2009: 59). However, these men had no compass and were never seen again. The remaining ten survivors (one man had died on the island) were rescued in 1867 by Paddy Gilroy and his brig the *Amherst* (Eunson 1974: 100).

Following the rescue of the *General Grant* survivors, Paddy Gilroy of the *Amherst* was engaged by the New Zealand authorities in 1868 to return to the Auckland Islands, as well as Campbell Island/Motu Ihupuku and the Antipodes Islands, to establish the first of the castaway depots in these places in order to provide essential supplies for any future shipwreck victims (Taylor 2006: 105). The early Auckland Island castaway depots simply reused some of the huts already constructed by wreck survivors, including Epigwaitt and one of the *General Grant* huts on

Enderby Island. The *Amherst* crew repaired the roof of Epigwaitt by shoring it up with timbers taken from the hulk of the *Grafton* and replacing the thatch, and inside they left a case of provisions, a spade and a box of books (*Sydney Morning Herald* 1868b: 2; Egerton et al. 2009: 138-139, 159). A spar was set up in front of the hut as a marker, and the *Grafton*'s bowsprit was taken and set up as another marker on Musgrave's Peninsula.

From about 1876, the servicing of castaway depots began to improve, as the government steamer *Stella* became available, followed by the *Hinemoa* and *Kekeno* in 1881. New depots were established and regular visits were made (during which it was found that some depots had been looted). In 1881, Captain Grey of the *Stella* found Epigwaitt to be in poor condition, and a new A-frame depot shed was erected nearby (McCraw 1999: 134; Egerton et al. 2009: 163;). However, this only remained in service for a few years, and was superseded by the Camp Cove depot in c. 1884 (McCraw 1999: 153; Egerton et al. 2009: 163). After this date, the site of Epigwaitt continued to attract visitors because of its history and the relics that could be seen, but was no longer officially managed.



Figure 9. The remains of Epigwaitt hut in 1888, with the by-then derelict 1881 A-frame castaway depot that had been built by the crew of the *Stella*. Source: *William Dougall Album, Canterbury Museum, 1982.86.3*.

us'), and it is clear that by this date Epigwaitt had almost completely collapsed. This stove was also shown in a photograph taken in 1907 (Fig. 11) and the assumption was made (at least by the



Figure 10. Wreck of the *Grafton*, Epigwaitt, Auckland Islands, c. 1888, by William Dougall, Burton Brothers. Purchased 1943. Source: *Te Papa (C.010536)*.

The increased official visitation to the Auckland Islands also allowed an increased number of visitors on various expeditions. William Dougall (n.d.) published an account of his visit to Epigwaitt in 1888, and took a number of photographs of the *Grafton* wreck and Epigwaitt hut site (Figs 9 & 10). Dougall described what was left of the hut as consisting of the remains of the upright posts made from the *Grafton*'s masts and the stove ('which we nearly brought away with

us'), and it is clear that by this date Epigwaitt had almost completely collapsed. This stove was also shown in a photograph taken in 1907 (Fig. 11) and the assumption was made (at least by the author of the image caption) that it was from the galley of the *Grafton*. However, the stove was never mentioned by Musgrave (1866) or Raynal (1892), and so it is uncertain whether it was from the *Grafton* or was left there during the subsequent use of Epigwaitt as a castaway depot.

One of Dougall's 1888 images also shows the already derelict 1881 A-frame depot that had replaced Epigwaitt. He described the *Grafton* wreck as having 'evidently



Figure 11. The site of Epigwaite hut, c. 1907, taken during the Canterbury Philosophical Institute's Scientific Expedition to the Auckland Islands in 1907. The stove is clearly visible left of centre. Source: *Auckland Weekly News*, 2 January 1908; *Sir George Grey Special Collections, Auckland Libraries, AWNS-19080102-15-1*.

Subsequent to these historic events, the site of Epigwaite has been visited on many recorded and unrecorded occasions. Of particular note was the 1907 Canterbury Philosophical Institute's Scientific Expedition to the Auckland Islands, which visited on the *Hinemoa* and found the survivors from the *Dundonald* wreck. The photographs from this expedition are a valuable



Figure 12. The remains of the *Grafton* on the beach in 1907, taken during the Canterbury Philosophical Institute's Scientific Expedition to the Auckland Islands. Source: *Auckland Weekly News*, 26 December 1907; *Sir George Grey Special Collections, Auckland Libraries, AWNS-19071226-8-2*.

government servicing of the depots finally ceased c. 1929. Several efforts at pastoral farming on the Auckland Islands had failed and with few official visits, the opportunities for other visitors also disappeared. Therefore, it was not until the Second World War that the islands were again the focus of official attention, with two coastwatching bases set up in 1941 (Tagua base in Carnley Harbour and Ranui Base in Port Ross) to keep a watch on these harbours in case enemy shipping tried to make use of them (a third base was established on Campbell Island/Motu Ihupuku). Each base was equipped with radio equipment and kept in contact with the mainland. The personnel who manned these bases also carried out survey and other research work, and visited many of the historic sites around the islands (Bagley et al. 2009).

been a very strongly built craft, the chief part of her planking and the knees being of blue gum. There was also some box and Oregon timber about her and one of the masts is of Western Australian mahogany and the other of gum.' This contrasts with Captain Musgrave's statement that the *Grafton* had been built from 'greenheart and cobby', although Dougall's comments were only casual identifications. The photographs show that by 1888, the hull of the *Grafton* had completely broken up, with large sections present on the beach (Fig. 10).

record of many of the historic sites on the islands, and include views of both Epigwaite (Fig. 11) and the *Grafton* (Fig. 12). The image of Epigwaite is notable as it shows the small cast iron stove also mentioned by Dougall.

As shipping technology improved, and especially after the Panama Canal opened in 1914, reducing the traffic on the Great Circle route, the need for castaway depots on the Auckland Islands declined. The

An unknown amount of material has been removed over the years, some documented and some undocumented. Thomas Musgrave himself removed the bellows from the forge and took them back to Invercargill on board the *Flying Scud* when Harry and George were rescued. Raynal then deposited a number of items with the Melbourne Museum in 1866, including the rescued forge bellows, a pair of sealskin boots, a piece of tanned sealskin, a needle made from albatross bone and a copy of Musgrave's 1866 book (Raynal 1892). The *General Grant* survivors recovered everything that they could to aid their survival, including the remaining canvas from Epigwaitt. Captain John Bollons, master of several government steamers, regularly visited the Auckland Islands and was an avid collector, and much of his collection is now held by the Museum of New Zealand Te Papa Tongarewa (Egerton et al. 2009: 126). During the Second World War, the coastwatchers removed many items from sites around the islands and relocated them to the two bases. More recently, Pettit (2008: 83) reported that in 1970, Kelly Tarlton removed the cast iron stove that Dougall had mentioned and the 1907 expedition had photographed (Fig. 11), which was later displayed at Tarlton's private shipwreck museum at Paihia and is now in the Canterbury Museum (see also Allen & Scadden 2009: 134).

Thus, the site of the wreck of the *Grafton* and Epigwaitt hut has a long history, which includes not only the wreck of the ship and efforts and experiences of the castaways, but also its role as one of the first formal castaway depots in the Auckland Islands, and as a visitor attraction right up to the present day.

3.3 Chronology of the *Grafton* events

- 1863 The *Grafton* sets sail from Sydney to Campbell Island/Motu Ihupuku and the Auckland Islands.
- 1864 The *Grafton* is wrecked in Carnley Harbour. The crew build Epigwaitt hut.
- 1865 Musgrave, Raynal and Alick Maclaren sail to Stewart Island/Rakiura in the *Rescue*. The *Flying Scud* is sent to rescue the remaining two crew members. The *Victoria* and *Southland* both inspect the Auckland Islands looking for castaways.
- 1866 The *General Grant* is wrecked. Eight survivors overwinter at Epigwaitt. The survivors thoroughly search Epigwaitt and environs for anything that might be useful to them.
- 1867 Canvas is removed from Epigwaitt to make a sail for a failed attempt to sail the *General Grant*'s pinnace back to New Zealand. Paddy Gilroy of the *Amherst* rescues the remaining ten *General Grant* survivors.
- 1868 Paddy Gilroy of the *Amherst* sets up the first castaway depots. Epigwaitt is repaired and stocked with provisions.
- 1881 Epigwaitt is found to be in poor condition and Captain Grey of the *Stella* erects a new A-frame depot, probably on the site of the old hut.
- 1884 A new castaway depot is established at Camp Cove, which replaces the Epigwaitt depot.
- 1888 Photographs show that both Epigwaitt and the replacement A-frame structure are derelict. Only the corner posts of Epigwaitt remain standing.
- 1907 Photographs show that Epigwaitt has completely collapsed, with just the stone fireplace partially standing, together with a scattering of artefacts, including a small cast iron stove.
- 1970 Kelly Tarlton removes the stove from Epigwaitt.
- 2002 An archaeological survey of Epigwaitt identifies and records the stone fireplace, stone paths and fragments of the *Grafton* hull. Results confirm that the Raynal and Musgrave accounts are accurate in all verifiable respects.
- 2003 The Auckland Islands Archaeological & Historical Expedition revisits Epigwaitt and identifies the forge site, again confirming Raynal's and Musgrave's accounts.

4. Descriptions of the site in contemporary texts

Musgrave's (1866) and Raynal's (1892) accounts include many specific references to the *Grafton*, and construction of the boat run, Epigwaitt hut, the forge and paths, all of which are of value in the archaeological interpretation of the site. The main references are quoted verbatim below. It may be noted that some of the dates given in the two accounts do not tally. Druett (2007) has reconciled many of these differences, but these accounts and dates have been quoted here as published in Raynal's and Musgrave's own words.

4.1 The *Grafton*

A small schooner, not of much length in the keel, but capable through her breadth of beam of carrying seventy-five to eighty tons of merchandise without being overloaded ... At the bottom of her hold the Grafton carried about fifteen tons of ballast, composed chiefly of old iron; above this was a solid deck ... Nevertheless, for our expedition ... we thought it desirable to add another ten tons' weight of ballast (blocks of sandstone, which is very common at Sydney).

(Raynal 1892: 37–38)

[Sunday March 6, 1864] *The Grafton is breaking up fast today. There is a heavy surf on with the gale. Her decks are coming up.*

(Musgrave 1866: 19)

[Sunday August 7, 1864] *I have determined on trying to get the schooner higher on the beach, so as to look at her bottom. It may be that it is not impossible to make something of her yet: she is evidently very strongly built, for she holds together in spite of all the gales which have blown since she was stranded, with the exception of a portion of the decks, which came up some time ago.*

(Musgrave 1866: 52)

[Sunday August 21, 1864] *After getting all of the ballast out of her, we tried by pumping and bailing to keep the water down, but found it impossible. We then, with considerable difficulty, got her thrown over on the other bilge, and found a number of holes in her, some of her timbers broken, and the main wheel gone from the stern to about the main rigging. This was done when we first struck. The holes have no doubt been chafed through since. Nothing more can be done.*

(Musgrave 1866: 55)

[Sunday October 30, 1864] *If nothing comes after us, we shall commence at the New Year to pull the Grafton to pieces, and try what we can do with her bones.*

(Musgrave 1866: 74)

At an early hour I paid a visit to the Grafton, or at least to all that remained of the poor schooner: the breakers had destroyed its upper works; they had left nothing but the empty hull, which was solidly fixed among the rocks.

(Raynal 1892: 255)

[Sunday February 5, 1865] *... last Sunday we were working at the wreck, trying to get her higher on the beach, to do which, with the means at my command, I have exhausted my ingenuity without success. We stripped the lower masts and bowsprit, and cut them away: took every ounce of ballast out, and disburthened her of all possible weight, without taking away any of her upper work, as I did not know what I might have done with her had I succeeded in moving her.*

(Musgrave 1866: 79)

She is built of very heavy hard wood, principally greenheart and cobby. She was built from the wreck of a Spanish man-of-war; but I am sorry to say they took care not to put any copper bolts in her: but perhaps there were none in the original wreck. But they have not been at all sparing with the iron. She has got any quantity of that about her, which will be of more service to me than any other part of her, excepting the plant, which is already full of bolt-holes; but we must make it answer our purpose.

(Musgrave 1866: 79–80)

4.2 The wreck site

I followed my companions to the mouth of the little brook which rippled near the tent. It emptied itself into the bay, nearly opposite the wrecked vessel. (Raynal 1892: 103)

4.3 The boat run

[February 1864] *During the remainder of the time we have been occupied in laying ways for hauling up and launching the boat on, and making a jetty.* (Musgrave 1866: 15)

[Sunday August 7, 1864] *On Monday and Tuesday we employed ourselves at tide-time in clearing away the rocks and boulders off the beach up above where she (the Grafton) now lies, and where she must come up, if she comes up at all, which I consider as very doubtful.*

(Musgrave 1866: 52)

In the morning, conforming ourselves to our new plan, we felled some trees, and transported their trunks to the shore. After roughly planing them with the axe, we arranged them on the ground, in parallel lines to the beach, at intervals of one foot, like the joists of a floor.

We had erected our yard at high-water mark, which a line of withered marine plants clearly indicated, at a point where the slope of the shore would allow our boat to glide easily in to the sea, as soon as she was ready for launching. (Raynal 1892: 269)

4.4 Epigwaitt hut

Further up, on the same stretch of shore, rose a small hill, or rather a rounded hillock, thirty-five to forty feet in height, and covered, like the rest of the littoral, with a dense vegetation. As we were anxious to keep as near as possible to the Grafton, this seemed a convenient site for our projected building. (Raynal 1892: 103)

Our house is elevated about 30 feet above the mean tide level, and is about 50 yards from the water. (Musgrave 1866: 51)

When sufficient space had been cleared, another day was occupied in levelling the soil, and the day after ... they repaired to the Grafton for the necessary materials. They returned with the yards and lightest spars, intended for the framework of our edifice. (Raynal 1892: 103-104)

Last Monday we went on board the wreck, and got all the boards we could muster to make a floor in the tent ... We also unbent the sails, and sent down all the yards and topmasts, and are using them for building a house. (Musgrave 1866: 5)

In a week we erected the framework of our little house, after the following fashion:

At the four corners of a rectangle, which was twenty-four feet long by sixteen feet wide, four strong posts, shaped out of the schooner's masts, were planted in the ground to a depth of about forty inches. To prevent them sinking further into the peat, we laid a large stone as a foundation for each; then, with the view of steadying and strengthening them, we filled in the holes with very small stones, closely pressed together. Each post rose about seven feet out of the ground and was notched at the upper end. These notches were intended to receive four horizontal beams, made out of the top-masts and lightest yards of the Grafton, and bound solidly together, as well as to the top of the posts, with stout cordage.

In the middle of the two narrower sides, and directly opposite one another, we fixed two additional posts, stronger and longer than those at the angles. For this purpose we employed the mainyard of the schooner, cut into two equal lengths; the two posts being seven feet higher than the height of the beams. The bowsprit rested horizontally on their extremities to support the apex of the roof. It traversed the rectangle in the middle, throughout its entire length, at a height of fourteen feet.

In couples, and at equal intervals – about twenty inches – and fastened at one end to the bowsprit, twenty-eight rafters (fourteen on each side) leaned obliquely on the two long lateral beams, to which they were fixed at the other end by means of strong cordage. We had no nails, and made use instead of the rigging and shrouds of the schooner.

These rafters were supplied by the small mountain pines of which I have already spoken. We had lost a great deal of time in seeking out those which were straight, in a country where all the trees, even the pines, are twisted.

This was not all. In the middle of the longer side of the hut – the side which fronted inland – two strong posts, planted a yard apart, while assisting to support the beam, served as a framework for our door. We made our entrance on this side, that it might not be exposed to the sea-winds. On the other side – turned towards the shore – were two similar posts: these were the framework for the chimney, whose construction occupied us for the whole of the week following.

(Raynal 1892: 107–108)

The construction of our chimney, moreover, was a troublesome business. The spot we intended for the hearth we dug out to some depth, and then filled up the cavity with stones, so as to prevent the peaty soil from catching fire. The outer angles of the body of it were made with posts bound to one another, and also to the rest of the framework, by cross-beams. We could not line the interior with wood; evidently stone and masonry were required. Therefore we picked out, among the rocky fragments with which the shore was strewn, the flattest and smoothest; and after removing them, not without difficulty, to our hillock, we built up the side-walls and fireplace. The former were stayed externally by a row of wooden pegs sunk into the ground.

As we could not find any clay to serve instead of plaster, and cement the stones together, we found it requisite to invent a new kind of mortar. Equipped with the bags which had formerly been used to hold our salt, we wandered, therefore, along the sea-shore, and collected a great quantity of shells of every kind. These we calcined during the night, and next day found ourselves provided with a supply of lime. This lime, mixed with the fine gravel we found under the rocks of the beach, made a capital mortar for our mason's-work.

(Raynal 1892: 108–109)

The next business was the building of the chimney-pot. Four perches, twelve feet long, raised vertically, yet with a slight inclination towards one another, so as to form a kind of truncated pyramid at the summit, were fastened to the walls. They were held together by numerous cross-pieces, disposed like the steps of a ladder; and upon these we nailed, in the inside first, and afterwards on the outside, a double lining of sheets of copper.

(Raynal 1892: 109–110)¹

Monday, 18. We have all been busy in the forest, selecting, cutting, and transporting to our hillock the straightest pieces of wood, to build up the walls of the hut.

(Raynal 1892: 114)

Next day we resumed the construction of our hut. The posts we had cut in the forest were sunk some inches deep into the ground on each side of the little structure, and fixed at the top to the transversal beams of the framework. Then over the entire superficies of this palisade we fastened horizontal and parallel rows of laths, or thin planks, and the rafters of the roof we covered in the same manner. The next task was to fill up the interstices of this trellis-work with straw, instead of oakum or putty, as we had neither.

For this purpose we made use of a coarse, long and strong grass, which grew in thick tufts on the sea-shore and along the edge of the cliffs.

When we had at length collected a sufficient quantity of grass, we spent several days in tying it up with thread in small bundles about as thick as a man's arm. As fast as these were got ready, my companions passed them to me, and, resting them on a log of wood, I cut off, with a few blows of the axe, all the straws which bulged out of, or projected from, the bundle.

¹ Note: Musgrave (1866: 11) gave the dimensions of the chimney as 8 by 5 ft.

It took no fewer than nine thousand of these little sheaves to cover the sides and roof of our cabin; and this is how we disposed of them:

Commencing at the bottom of the framework, we bound them against the planking side by side, exactly on a level, and taking care that no space was left between them. When the first row was finished, we placed the second, which partly overlapped it; then above the second a third; and so on up to the top of the walls, and thence to the very summit of the roof. The sheaves were upwards of a yard in length, and formed an outer covering of nine to ten inches in thickness.

To prevent the wind from taking hold of our thatched walls, and stripping them clean, we fastened outside a quantity of laths, connected with those inside by loops of twine, which we carried through holes made in the straw with a wooden needle – a wooden needle of the size of a sword-blade! In the upper part of the walls we cut three small openings, into which we inserted, with the utmost nicety, some panes of glass which had belonged to the cabin of the Grafton, and which we had found intact. These were our windows. (Raynal 1892: 120–122)

While I am fully engaged in manufacturing soap, Musgrave and the others have gone on board the wreck in search of some wood. With the iron pincer, they have torn down the partition between the cabin and the hold, and have obtained a small supply of nails, which will be very useful in completing the equipment, so to speak, of our chimney. They have also brought away all of the remaining long and narrow timbers of the schooner's bulwarks; they will serve to make a floor, which is really indispensable to the healthiness of our new abode. (Raynal 1892: 131)

Wednesday, February 10. – The wind has swept away the clouds. While Musgrave assists me in building a door to our hut, and Harry is engaged in the tent in the preparation of our dinner, Alick and George dig around the chimney a trench to preserve it from damp. But as this trench weakens the foundations, we resolve on setting up at the corners, as well as on each side of the door, strong inclined stakes, like buttresses, whose base will rest on stout trunks of trees previously sunk into the peat at some distance from the walls. (Raynal 1892: 141)

All these little indoor labours were terminated on Saturday morning, the 5th of March. The rest of the day was occupied in dismantling the tent and transporting our penates into our new abode, where, after lighting a good fire on the hearth, we slept that very evening.

(Raynal 1892: 151)

I may here give a description of this castle of ours. It is 24 feet long by 16 wide. The walls are 7 feet high, roof 14 feet. The corner posts and centre posts, which are made of spars from the ship, as also the wall plates and ridge poles, are let three feet into the ground. The walls or sides and ends are made of timber out of the bush, placed upright, and let into the ground about a foot. They are far from being straight, consequently they are far from being close together. This is why we are obliged to thatch them. They are now covered with old canvas outside, but it lets a great deal of wind through. The door is a very good one, made of inch boards. The floor is also boarded, and tolerably good. There are two small panes of glass, which were taken out of the cabin of the vessel. The rafters are sticks out of the bush, placed two feet apart. There is a double cover on the roof, with two sets of rafters and two ridge poles. The fireplace is built of stone, as high as the walls of the house; above, it is made of copper, tin, zinc, and boards towards the top, and is 15 feet high. The fireplace inside the walls is 6 feet, with four walls 1 foot thick ... We have trenches all round the house two feet deep, which keep the floor perfectly dry, and no water has yet come through the roof. (Musgrave 1866: 15–16)

[Sunday March 27, 1864] *We have finished thatching the house, and find it very warm and comfortable. It has taken 5000 bundles of thatch, each bundle weighing a pound, so that the total weight of thatch on the sides of the house is about two and a quarter tons. The roof remains covered with canvas.*

(Musgrave 1866: 22)

4.5 The forge

It was then to the erection of a forge – that is to say, of a furnace, an anvil, and a pair of bellows – that I must in the first place busy myself. (Raynal 1892: 255)

[Sunday February 5, 1865] Mr. Raynal is Vulcan; he has had some little experience in blacksmithing ... He has got a forge up ready for going to work at, as soon as we get some charcoal made. (Musgrave 1866: 80)

We began by building, he and I, beside our hut, a shed, roofed in with the sheets of copper stripped from the sides of the Grafton. Under this shelter we set up our forge – bellows, and in front of them erected a large fireplace of masonry, whose platform was made of the bricks found at Camp Cove. The only thing wanting then was an anvil. I thought at first of using, as I had often done in Australia, a smooth stone; but stones break easily, and the necessity of replacing them would have frequently caused delay. I once more visited the Grafton, our inexhaustible resource, and among the iron ballast in the hold I was fortunate enough to find a smooth four-sided block of iron, about fourteen inches in length, by three inches and a half in breadth and thickness. I had but to set this in a strong framework of timber, and my anvil was made. (Raynal 1892: 261)

Early in the morning of the 16th of January, our forge was set to work for the first time. (Raynal 1892: 262)

4.6 Charcoal production

Nor was the work of Alick, our Norwegian, much lighter. He had to supply the forge with fuel, of which it consumed a great quantity. This wearisome occupation demanded his continued attention both night and day. First, he had to cut down the wood, and form a pile from seven to nine yards thick; then to overlay this pile with turf, to kindle it in the middle, and to watch its combustion. (Raynal 1892: 260)

4.7 Stone paths

[Sunday June 5, 1864] We have now got some very good roads made about the house, which was very necessary, for the ground is so soft that after any part of it has been trodden a little it becomes mud, which in this damp weather never has a chance to get dry. (Musgrave 1866: 36)

4.8 The surrounding forest

We congratulated ourselves on having left standing on the sea-shore a rampart or screen of trees, which deadened to some extent the shock of the wind ... (Raynal 1892: 173)

[Sunday June 5, 1864] We are also getting a considerable clearing round the place; for we burn a great deal of wood – not less than a cart-load a day. (Musgrave 1866: 36)

5. Physical description

The site of 'Epigwaitt' is located on the eastern shore of the north arm of Carnley Harbour (see Fig. 1), near the mouth of a small stream. The site was visited in February 2002 and 2003. During the 2002 visit, a map of the overall site was made using tape and compass (Fig. 13). Once the features that were visible on the surface had been recorded, probing was undertaken in the area of the hut in order to find the foundation stones of Epigwaitt hut. Basic measurements of the height of the chimney and the exposed timbers from the *Grafton* were then made. It had been intended to search for the forge site and to draw a cross-section of the site on the following day, but time was cut short due to changing weather. However, the forge was located during the 2003 site visit.

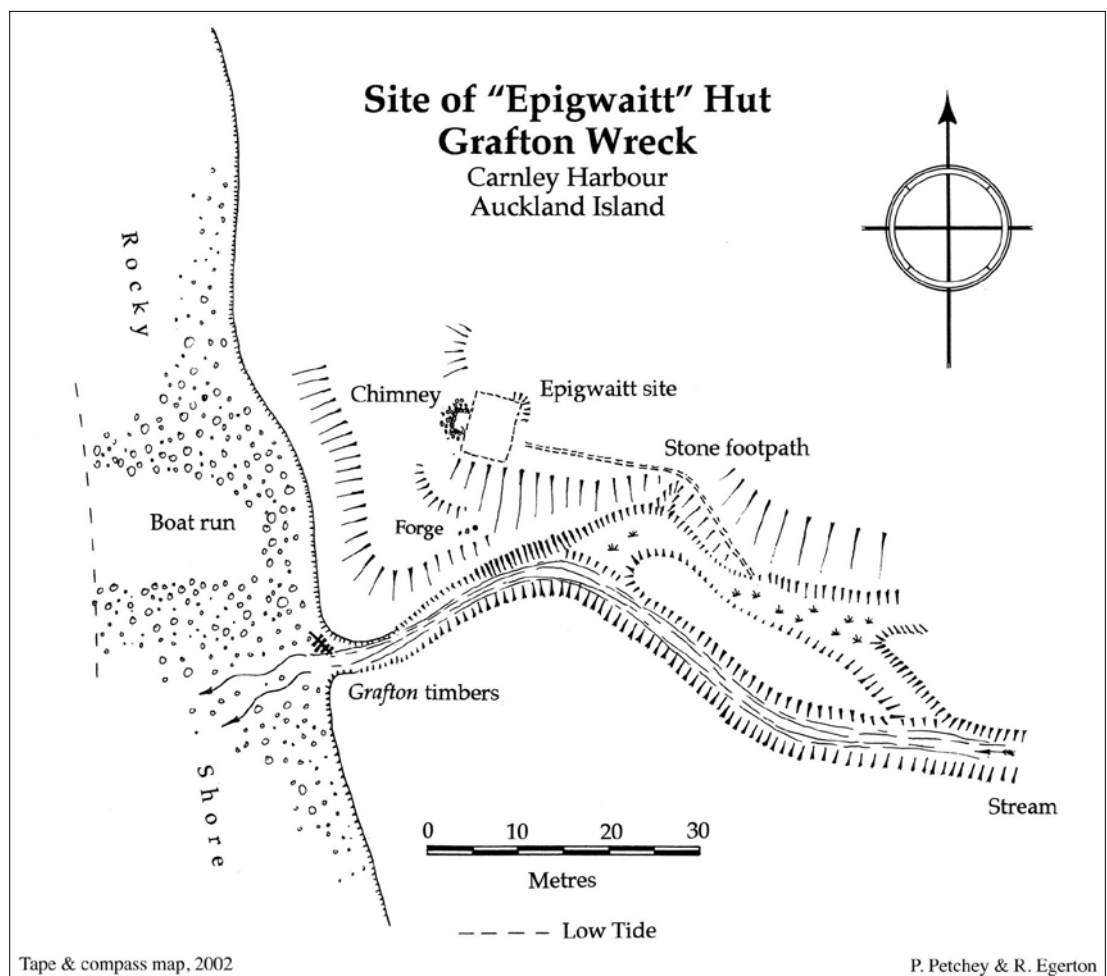


Figure 13. Map of the Epigwaitt site, showing the on-shore fragments of the *Grafton*'s hull. The main wreck is in the water directly offshore from this site.

The site is in an area of regenerating rātā forest (Fig. 2), which was cleared as a result of the *Grafton* crew cutting firewood almost every day. The 1907 photograph of the site (Fig. 11) shows no old rātā around the hut site. Older rātā can be found a short distance away, however, clearly demonstrating the gnarled forms that could not provide the straight timbers required by the castaways. The archaeological features discussed below are shown in Fig. 13.

5.1 The boat run

The boat run (Fig. 14) is the first archaeological feature that is seen by the visitor, as it is quite obvious on the beach at low tide. It is a 12-m-wide area of shore that has been cleared of large rocks to create a smooth approach. Musgrave's (1866) account mentions creating a landing for



Figure 14. The boat run on the beach (centre of view) in front of Epigwaitt.
Photo: Rachael Egerton.

the small ship's boat in February 1864, but the main run was almost certainly constructed on Monday 8 and Tuesday 9 August 1864, when the beach was cleared above the *Grafton* wreck in an unsuccessful attempt to pull her ashore and repair her (Musgrave 1866: 52). This was also probably the place where the *Rescue* was constructed from the ship's boat.

5.2 Epigwaitt

The site of Epigwaitt is on the north side of a small creek, immediately inland from the boat run. As described by Raynal (1892), it is on a rise, making it free-draining. The site is partially overgrown with ferns. The most obvious feature is the remaining part of the stone fireplace and chimney (Figs 15 & 16). This has now largely collapsed, but some *in situ* stonework is visible on the interior (Fig. 16). The mortar is a brown colour, with white flecks of shell, this being the



Figure 15. The chimney of Epigwaitt hut in 2002. Photo: Peter Petchey.

fine-gravel and shell-lime mortar made by Raynal (1892: 108–109). The measured internal dimensions of the fireplace are 5 ft 2 inches by 3 ft 8 inches (1.58 × 1.12 m). Fire reddening is still visible on some inside faces of the stonework. The structure currently stands to a maximum height of 2 ft 8 inches (0.81 m) above ground level.

The site of the hut has been flattened, and the modified area agrees well with both Musgrave's (1866) and Raynal's (1892) accounts of the building measuring 24 by 16 ft (7.3 × 4.8 m). No surface detail was visible, but probing located numerous buried stones, which are highly likely to be those buried by the castaways during the construction of the hut foundations. Large stones were buried beneath the main posts to prevent them from sinking into the peat, and the holes were backfilled with smaller stones to hold the posts steady (Raynal 1892: 107–108). Using the fireplace as a guide for the location of the back wall, the corners of the hut were estimated by measuring the quoted size (24 × 16 ft) on the ground, and then probing accordingly. Buried stones were located at



Figure 16. Detail of the *in situ* stonework of Epigwaitt hut in 2002. The lime mortar manufactured by Raynal in 1864 is still in place between these stones. Scale = 0.5 m. Photo: Peter Petchey.

the expected places, as well as on the wall line opposite the fireplace, where the door is known to have been. Unfortunately, there was insufficient time to fully probe the entire area, and when the stone hits were later plotted out, the identified shape was a parallelogram. This is undoubtedly the result of measuring the site, not checking the diagonals and accepting the results without question as they were what were expected. More time and a systematic coverage of the site would undoubtedly clarify the issue. What the exercise did show, however, was that buried stones are on the site, as described in the contemporary accounts, which confirms that the site has substantial sub-surface archaeological evidence. Limited probing away from the hut site found no stones in the peat, suggesting that the stones that were found were culturally placed. Some bottle glass fragments found at the hut site by the fireplace appeared to be from a ring-seal beer bottle (c. 1878–1920), post-dating the *Grafton* wreck.



Figure 17. Timbers lying on the back of the Epigwaitt fireplace in 2002. Scale = 0.5 m. Photo: Peter Petchey.

A number of timbers were lying on the back of the chimney mound (Fig. 17). These had obviously been placed there in recent years. There were three main timbers (plus a number of smaller fragments). One was a softwood plank (possibly Oregon), measuring 5 inches by 3/4 inch by 4 ft long. The second was a post, 4 inches in diameter and 8 ft 3 inches long, with two notches

in one end and bearing some iron nails. The provenance of these two timbers is unclear, but it appears unlikely that they originated from Epigwaitt or the *Grafton*. The third timber was of more interest. It was a hardwood plank, 8 inches wide, 2 inches thick and 7 ft 3 inches long. The head of an iron spike was still embedded in the plank, while one side had numerous small nail holes, nails and fragments of copper sheet. The plank appeared water worn. It is extremely likely that this was a hull plank from the wreck of the *Grafton*, with the remains of the copper hull sheathing. Presumably it was found on the beach and placed on the hut site by a visitor.

5.3



Figure 18. The wooden post and bricks at the site of the forge. Photo: Rachael Egerton.

The forge

Raynal's (1892: 261) account stated that the forge was built beside the hut, with a stone and brick hearth, and a roof made from copper sheets from the *Grafton's* hull. The site of the forge was located during a visit to the site in January 2003, near the stream bank on the south side of Epigwaitt (Fig. 18). A post, 7 inches (180 mm) diameter and 20 inches (500 mm) high, associated with a stone scatter, was

located below the hut site and towards the stream, 11 m from the Epigwaitt fireplace. A metal detector was used to search the surrounding ground, and this gave numerous responses. The humus layer was excavated in this area (under Archaeological Authority No. 2003/106), and this revealed a scatter of charcoal, a number of probable hearth stones, several bricks and a number of heavily oxidised fragments of iron. The bricks had no frogs or maker's marks.

5.4 Stone paths

Stone paths were constructed by the castaways, as the peaty ground quickly turned to mud if regularly walked upon. One path was identified and plotted during this survey (Fig. 13), which led from Epigwaitt hut, near the door location, along the top of the stream bank (heading inland) and down to a boggy section of old stream bed (the present stream course is 20 m to the south).

The path was formed by placing stones, presumably brought up from the beach, on the ground to form a hard surface. No excavation was carried out to determine whether any foundation courses were laid or simply a single layer. Some pig-rooting damage to the path was observed.

5.5 *Grafton* wreck

It is known from the contemporary accounts (see section 4) that the *Grafton* grounded close to where the hut was later built, and that the boat run was cleared in an attempt to haul her as far ashore as possible. The assumed position of the wreck should thus be a short distance offshore, very close to the boat run. This location was confirmed by Bill Day (pers. comm., May 2002), who has dived on the wreck on three separate occasions. He described the wreck as lying immediately out from the stream mouth, c. 50 m offshore. It is lying parallel to the shore, on a flat, slightly sloping, weedy bottom. The hull has broken up, and the remains consist of the keel and a number of timbers (presumably mainly ribs and frame timbers), scattered over an area of approximately 40 m (parallel to the shore) by 10 m. Some metal fastenings are visible, including some copper bolts and the rudder pintles.

On shore there is a section of hull timbering (Figs 19 & 20). This lies at the high-water mark, immediately beside the mouth of the stream and consists of eight closely spaced light rib sections held together with at least one external plank. It was partially buried when measured in

² A cylindrical wooden pin or dowel used to fasten a ship's planks to its frames.



Figure 19. The section of the *Grafton* hull found on the beach in 2002. Scale = 0.5 m. Photo: Peter Petchey.



Figure 20. The section of the *Grafton* hull found on the beach in 2002. Photo: Peter Petchey.



Figure 21. Detail of the rib of the *Grafton* hull fragment in 2002, showing the redundant treenail. Photo: Peter Petchey.

2002, and all observations and measurements were based on the visible timbers only. The ribs were approximately 4.75 inches by 4 inches in section. One had a treenail² in it (Fig. 21), but this was of no apparent use in its location, providing evidence that the ship's timbers were recycled.³ The plank was 10 inches wide, 2 inches thick and 12 ft long. The exterior appears to have been tarred on the outside, but bears none of the small nail holes that the plank left at the hut site has, indicating that it was not sheathed in copper. This may suggest that this section was from part of the hull above the waterline. The accounts of Musgrave (1966) and Raynal (1892) clearly stated that the *Grafton* had a copper-sheathed hull, while Raynal (1892: 243) referred to scraping dry tar from the sides of the schooner to make pitch for the shoes he was making.

The conservation plan for the site also notes that the two anchors put out by the *Grafton* are almost certainly still on the harbour floor somewhere, although their exact location is not known (Bradley & Egerton 1996).

³ Musgrave (1866: 79–80) commented that the *Grafton* was built from the wreck of a Spanish man-o-war.

6. Museum collections

Over the years, many items have been removed from the *Grafton* wreck and Epigwaitt hut (as well as the other Auckland Island historic sites), a number of which have found their way into museum collections. The Museum of New Zealand Te Papa Tongarewa and the Southland Museum and Art Gallery hold the main collections, while the Canterbury Museum has a good photographic record as well as a number of related Auckland Islands items.

6.1 Museum of New Zealand Te Papa Tongarewa

(<http://collections.tepapa.govt.nz>)

Information supplied in a letter from M.K. Fitzgerald, Museum of New Zealand, to The Secretary, Outlying Islands Reserves Committee, 8 July 1987.

Artefacts:

- Keel: Portion of the keel of the schooner *Grafton*, wrecked in Carnley Harbour, Auckland Islands, 1864. Three V-shaped wooden sections, joined by massive iron nails. Recovered February 1973. Registration No. NS000046.
- Box: Wooden box. Made from Australian cedar from a spar from the *Grafton* wrecked at Carnley Harbour, Auckland Islands, January 3, 1864. Has a hinged lid with brass handle. The spar was used as a stud for the house in which the castaways lived for 20 months. Registration No. GH002593.

Photographs:

- Remains of the wreck of the *Grafton*, Carnley Harbour. From the album: [1907 Sub-Antarctic Expedition] North, W. Page, Samuel (photographer). Registration No. O.007051. (Note: this photo actually shows Epigwaitt, not the *Grafton*, and includes the iron stove later removed by Kelly Tarlton.)
- Wreck of the *Grafton*, Epigwaitt, Auckland Islands. Dougall, William (photographer), c. 1888, Auckland Islands, Burton Brothers (photography studio), New Zealand. Registration No. C.010536.
- Victoria Tree, Erebus Cove. Photograph of tree inscribed during the 1865 visit of the *Victoria* in search of castaways, after the story of the *Grafton* became known. (Note: The Te Papa online catalogue incorrectly dates the tree to 1863 and to the search for the *Grafton* crew.) Dougall, William (photographer), c. 1888. Registration No. C.010566.

6.2 Southland Museum & Art Gallery

List supplied by David Dudfield, Southland Museum.

Artefacts:

- 83.1958a-b: Two pieces of planking from the brigantine *Grafton*.
- 0000.3399: Three pieces of hull beam with metal bolts from the *Grafton*, Carnley Harbour.
- 2008.57: Various fragments of what are believed to be remnants of a cast iron cooking pot from the wreck of the *Grafton*. Recovered by a DOC research team 11 December 1996, and donated to the museum in 2008.

Photographs:

- P76.31: The *Grafton* wreck, Auckland Islands.
- P81.207: The *Grafton*, Epigwaitt, Auckland Islands.

- 62: Remains of the *Grafton*.
- 2001.1294: Remains of the schooner *Grafton*, Auckland Islands.
- 2001.1295: Remains of the schooner *Grafton*, Auckland Islands.
- 2001.1296: Remains of the schooner *Grafton*, Auckland Islands.
- 2001.1414: Remains of the *Grafton*, Auckland Islands, 1907.
- 2001.1415: Remains of the *Grafton*, Auckland Islands, 1907.
- 2001.1419: Remains of the *Grafton*, Auckland Islands, 1907.
- 2001.1412: Musgrave's Hut, Auckland Islands, 1907.

6.3 Canterbury Museum

Artefacts:

- 1976.366.1: Stove, camp. Stove from Epigwaitt hut. Presented: Kelly Tarlton's Shipwreck Museum, Paihia.
- Fragment of wood from the *Grafton*. Collected 1901.

Photographs:

- William Dougall Album (1880s).
- 1982.103.11: Remains of Musgrave's Hut, Epigwaitt. Philosophical Institute of Canterbury Album, 1907, p. 28. S. Page, photographer.
- 1982.103.10: The *Grafton* wreck. Philosophical Institute of Canterbury Album, 1907, p. 28. S. Page, photographer.

6.4 Alexander Turnbull Library, Wellington

- The Macpherson collection (MSX-4936) includes three letters, one fragmentary, written by Musgrave to Macpherson; a letter of thanks from Mrs Musgrave to Macpherson; an unsourced newspaper clipping dated 20 October 1865, reprinting Andres Smith's account from the *Glasgow Mail*; a statement of accounts from the *Grafton* relief fund; a receipt for Mahoney's gravestone; and a review of Raynal's book (Druett 2007: 278).

6.5 Queensland Maritime Museum

- A notebook kept by Musgrave while on Auckland Island (Druett 2007: 278).

6.6 Melbourne Museum

Raynal recorded that in 1866 he donated the following to the Melbourne Museum and Public Library, which was receipted by Augustus Polk:

- 'Cast Away at the Auckland Isles', one vol. 8vo.
- Pair of blacksmith's bellows, made of seal skin at the Auckland Isles.
- One pair of boots skin made of seal skin tanned at the Auckland Isles.
- One piece of seal-skin tanned at the Auckland Isles.
- One needle made of bone from the wing of an albatross.

In 1992, Christiane Mortelier enquired after these items, and was informed that although the museum does hold sealskin items, the donors and sources are not recorded (Mortelier 2003: 227). A further enquiry regarding these items was made in 2014, and the response was that the museum does not hold them.

6.7 Department of Conservation

The Invercargill office of DOC holds a large collection of photographs of the *Grafton* wreck and Epigwaitt hut, derived from many visits by DOC staff over several years, particularly the 2003 Auckland Islands Historical Expedition.

7. Cultural connections

The cultural significance of a place is not a static and easily defined concept, and can mean different things to different people. For example, it can be considered with regard to one or more specific cultural groups and/or with regard to its importance to the wider present population. A very good recent example of this is the management of the Christchurch Cathedral in the wake of the Canterbury earthquakes—the wider community expressed considerable interest in the building as a cultural symbol of the city, resulting in enormous resistance to the Anglican Church’s decision to deconstruct the building, showing that the building has strong and variable meanings to different groups.

The *Grafton* and Epigwaitt site can be regarded in a number of ways: as a historic shipwreck and castaway site that represents human suffering and endurance; as a key site in the establishment of the subantarctic islands castaway depots; as the setting of several significant 19th-century publications; and as a place for guided tourists to visit in the Auckland Islands. Each of these attributes is of interest to different groups, and many of these values overlap considerably with each other, and with archaeological and historical values. However, what is important in this discussion is how the events surrounding the *Grafton*’s foundering affected contemporary society, particularly through the media of newspaper reports and books, and their lasting literary legacy.

All of the Auckland Island castaway accounts made for good newspaper stories, and tales of survival against the odds and/or tragedy. In an age where sea voyaging was the only means of international transport, sail was still more common than steam, and the loss of ships was far more common than today, making the horror of shipwreck a real and immediate concern. Castaway stories with a happy ending (such as was the case for the *Grafton*’s crew) were far less common than those where many died (such as the *Invercauld* or *General Grant*), where no-one survived, or where the ship simply disappeared at sea. Shipwrecks on the mainland could be terrifying enough (see Ingram 1984; Collins 1995; McLean 2007), but those in the remote and wild southern ocean were worse—and the discovery of skeletons such as that of James Mahoney (of the *Invercauld*) only added poignancy to such stories.

The first newspaper accounts of the experiences of the crew of the *Grafton* attracted much interest, and when Musgrave and the *Flying Scud* returned to the islands and found Mahoney’s skeleton, this interest increased (in both New Zealand and Australia) to the point where the *Victoria* and *Southland* were officially despatched to search for more castaways. When the *General Grant* was wrecked less than a year later, the survivors were bitterly disappointed to find that while the *Victoria* and *Southland* had left notes describing their visits, they could find no provisions (*Sydney Morning Herald* 1868a: 2), although the pigs and goats that had been released by several ships did provide a valuable food source. Four of the *General Grant* castaways attempted to repeat Musgrave and Raynal’s voyage to New Zealand on board a modified ship’s boat, but were never seen again. Once the other survivors were rescued and their story added to the tales of deprivation in the subantarctic islands, the authorities finally started to maintain provisioned castaway depots. It was these depots that saved the lives of many subsequent shipwrecked sailors, including the crews of the *Derry Castle*, *Anjou* and *Dundonald* on the Auckland Islands, and the *President Felix Faure* on Antipodes Island (Taylor 2006: 163; Egerton

et al. 2009). The Great Circle Route was an international shipping route that connected Australia and Europe, and these ships were registered in Boston, France, Scotland and France, respectively, illustrating the cosmopolitan nature of international shipping and therefore the importance of the depots to sailors of many nations. The wreck of the *Grafton* and subsequent experiences of the crew therefore had a direct influence on the attitudes and actions of the public and authorities in the 1860s and 1870s, as their story was an important and early element of this wider (and international) shipwreck/castaway narrative.

However, the story of the *Grafton* wreck also had a far wider impact than simply influencing contemporary events in the subantarctic islands. Through the media of Musgrave's and Raynal's published accounts, the story also reached an international audience—and proved extremely popular. Musgrave's account was published in Melbourne in 1865 and in London the following year.⁴ Raynal's account was first published as a series of articles in 1869, and as a complete book in 1870 (in French) and 1874 (in English). Recent research by Christiane Mortelier (2003) and Joan Druett (2007) has reintroduced both Musgrave's and Raynal's accounts to modern readers, and Druett has interwoven the *Grafton* and *Invercauld* stories to produce not only an interesting tale, but also a modern parable regarding the value of leadership and industry. However, potentially the most important literary legacy of the *Grafton* story is via the influence of Raynal's book, although the significance of this is not (yet) widely known in New Zealand.

Christiane Mortelier (2003: 234–238) discussed the literary values of Raynal's work in its own right, which she rated highly, and noted that it remained a popular book right up until World War One:

Raynal's narrative differs from Musgrave's inasmuch as it has a special claim to being a work of literature. The power of memory to recreate events and places is constantly at work, underlining the difference between diary jottings and terse logbook entries and a narrative intended for a reader totally unfamiliar with the experience of survival on a subantarctic island. Raynal follows chronological order in his retelling, but lingers on chosen moments so that the reader may share in the atmosphere of the story and in the significance of chosen incidents.

(Mortelier 2003: 236)

More significantly, Mortelier (2003: 246–256) also made a very convincing case for the direct influence of Raynal's work on a number of the novels of Jules Verne. It has been acknowledged that Verne was influenced by a number of classic castaway stories, including *Robinson Crusoe* and *The Swiss Family Robinson*, and Raynal's *Wrecked on a reef* not only joins these in general context, but has the added value of being an entirely true story. The first example of Verne referencing the *Grafton* events was his story 'A floating city' published in *Le Journal des Debats* in 1869, shortly after Raynal's three articles were published in *Le Tour du Monde*. In Verne's story, mention is made of a shipwreck on the 'Auckland reefs', a clear nod to Raynal's account. The next references are in Verne's *Mysterious island*, published in 1874, where not only does he write 'the imaginary heroes created by Daniel Defoe or Wyss, as well as Selkirk and Raynal, castaways on Juan Fernandez or the Auckland Island Group, were never as absolutely destitute as these castaways', but there are also numerous parallels between the fictional experiences of Verne's protagonists and Raynal's factual ones, as highlighted by Mortelier (2003). Furthermore, in *Two years' holiday* (1888), Mortelier (2003) again identified numerous parallels in the shipwreck/castaway story, including the port of departure (Auckland, possibly referencing the Auckland Islands), events during the wrecking, eventual salvation by repairing a small boat, and the name of the steamer that finally rescues them (the *Grafton*). Mortelier (2003: 229) commented that 'this book haunted Jules Verne's imagination to the end of his career – though Vernian scholarship has rarely underlined its seminal influence'. Her arguments are good enough to have convinced New Zealand historian Gavin McLean (2007: 78), who simply stated that Raynal's book 'inspired Jules Verne's *Mysterious island*'.

⁴ A third edition was published in New Zealand in 1943, but this was heavily edited and is not well regarded by modern researchers (Druett 2007: 278).

The contemporary effect of Raynal's book may have been wider still, as Druett (2007: 258) observed:

At a time when technological advances were booming, it brought renewed awareness of the blessings of tools and engineering. It even affected the leisure time of its readers – a fashion arose for such activities as gardening, camping, pottery, sewing, leather-work, and the keeping of pets. In the past, these basic skills had been dismissed as the kind of thing our lowly peasant ancestors did to keep body and soul together, but now they became therapeutic recreational activities for educated city-dwellers.

While it would be overstepping the mark to ascribe such a movement solely to Raynal (remembering that Verne was also influenced by *Robinson Crusoe* and other books, and was in turn influencing people himself), nevertheless Raynal's book was very popular and undoubtedly helped fire public imagination. Of course, it must not be forgotten that the crew of the *Grafton* was French, American, English, Norwegian and Portuguese—a mixture that not only reflected the cosmopolitan nature of ships and their crews (as already discussed), but also potentially considerably widened the audience for the stories of the castaways. Musgrave's account was published in Australia and England (in English), while Raynal's was published in France (French) and England (English), and was also translated into Italian, German and Norwegian.

In the modern world, the story of the *Grafton* is no longer so widely known, whereas the *General Grant* wreck of 2 years later has remained in the public eye largely because of the gold this ship was reputed to carry and the many (failed) salvage attempts (Eunson 1974; Allen & Scadden 2009). However, the recent publication of Druett's (2007) *Island of the lost* and Mortelier's 2003 reprint (with commentary) of *Wrecked on a reef* have reintroduced the *Grafton* story to a new generation. The *New Zealand Listener* (2004: 66) ran a story on the *Grafton* and Mortelier's work, which was followed by a Spectrum radio programme on the subject (National Radio 2004). Druett's book was also published in America, and Mortelier is presently working on a new book, which will be published in French (C. Mortelier, pers. comm. 2014), widening the international audience.

8. Contextual analysis

The immediate geographical and historical context of the *Grafton* wreck and Epigwaitt hut is within the Auckland Islands, and this group's history of shipwrecks and castaways. Thus, despite the emphasis on natural ecological values in the status and management of the Auckland Islands, they also have a significant human history and concomitant archaeological potential. This history is made more poignant by the suffering and deprivation that accompanied many of the inhabitants' experiences.

The history and archaeology of the Auckland Islands has recently been thoroughly addressed in *In Care of the Southern Ocean: an archaeological and historical survey of the Auckland Islands* (Dingwell et al. 2009), which was based on a thorough review of preceding publications and research, combined with the results of the Auckland Islands Archaeological and Historical Expedition from January to March 2003. Chapter 7, 'The Auckland Islands shipwreck era' (Egerton et al. 2009) deals specifically with the *Grafton*, Epigwaitt, and all of the other known shipwrecks and castaway experiences. The other chapters in the volume, which deal with prehistoric occupation, sealing, the Enderby settlement, pastoral farming attempts, various scientific expeditions and the World War Two coastwatchers, should also be read to gain an understanding of the overall historical and archaeological landscape. Rowley Taylor's book *Straight through from London* (2006) describes the human and natural histories of the Antipodes and Bounty Islands, and adds to our understanding of the human history of the subantarctic islands.

The first human inhabitants of the Auckland Islands were Māori, who arrived there in the 13th or 14th centuries, but only stayed for a short time, and mainly exploited the coastal fringe and rocky shore food sources (Anderson 2009: 34–35). As Anderson (2009: 34–35) commented: ‘the relative scarcity of both sub-tidal shellfish and forest birds in the midden remains suggests a certain and understandable reluctance to get wet, either in the sea or under the dripping forest’. While these first inhabitants undoubtedly got extremely wet both travelling to and from the Auckland Islands (one only has to read Raynal’s (1897) and Musgrave’s (1866) accounts of their trip in the *Rescue* to appreciate this), Anderson’s point underlines an important issue when considering all human occupation of the islands: the weather is generally terrible. All attempts at permanent habitation have failed, and the most successful occupation was arguably by the World War Two coastwatchers, as they completely fulfilled their expectations by denying the enemy the use of the islands (Bagley et al. 2009: 191, 220), which ironically was an attempt to deny the use of the resources of the islands rather than exploit them. The only successful exploitation attempt was by the sealers, who quickly denuded the seal population. All attempts at farming have failed, with the (relatively nearby) Campbell Island/Motu Ihupuku enterprise from 1894 until 1931 being the longest lasting—from where the last feral sheep were eliminated in 1992 (www.doc.govt.nz/conservation/historic/by-region/southland/subantarctic-islands/campbell-island/).

Within this context, the experiences of the various castaways on the Auckland Islands can be understood as trying at best, fatal at worst. Of the approximately 203 people known to have been shipwrecked in the islands (certainly a large underestimate), approximately 106 got ashore alive, of whom 79 were rescued (Egerton et al. 2009: table 7.1). The *Grafton* stands apart from the other wrecks in one important way: the ship was wrecked on a relatively sheltered shore and the survivors not only got ashore unharmed, but also had access to all of the resources and supplies on board, including a gun. The leadership shown by Musgrave and Raynal was also vital for the group’s survival, and the value of this was graphically illustrated in other castaways’ experiences: the *General Grant* survivors agreed that James Teer’s leadership was instrumental in their survival (Eunson 1974: 112), while it was the lack of effective leadership amongst the *Invercauld* survivors that meant that only 3 of the 19 who got ashore survived (Durett 2007). Therefore, while the *Grafton* events were not entirely typical of the Auckland Islands shipwreck era, they are generally representative, and as discussed above (section 7) served to spread the news of these wrecks to not only New Zealand, but also Australia, Britain and Europe.

Within the much wider context of shipwrecks and castaway episodes both in New Zealand and worldwide, there is a vast literature covering the subject from contemporary, historical and archaeological perspectives (e.g. Clark n.d.; Ingram 1984; Collins 1995; Throckmorton 1996; Layton 1997; McLean 2007). Several shipwrecks have received enormous attention due to their historical significance, good examples of which are the *Titanic* and the *Mary Rose* (Rule 1983; Ballard 1985). As already noted, at the time when international travel was by wooden sailing ship, shipwrecks and disasters at sea were common, with hundreds of examples in New Zealand alone—indeed, one count puts the number of wrecks at more than 2300 since the 1790s, and the discovery of Māori canoe fragments in places such as Mason Bay in Stewart Island/Rakiura adds an unknown number of prehistoric victims (Gillies & Skerret 1996; Te Ara Encyclopedia of New Zealand). The first European settlement in New Zealand was the result of the East Indiaman *Endeavour* being condemned in Facile Harbour in Fiordland in 1795—not quite a shipwreck, but castaways nonetheless (Duggan 1997). Across the Tasman, Connah (1993: 12) wryly observed that ‘the earliest European visitors to leave substantial archaeological traces in Australia had no choice in the matter, they hit it accidentally’. During the 17th and 18th centuries, at least four Dutch ships and one English ship were wrecked on the Western Australian coast. One of these, the Dutch East Indiaman *Batavia*, was wrecked in 1629 and subsequent events amongst the survivors, when some of the crew mutinied and 125 people were massacred, has become one of the worst horror stories of maritime history (Connah 1993: 16; Throckmorton 1996: 168). In the Pacific Ocean, on the island of Ulong in Palau, the East India Packet *Antelope* was wrecked in 1783, and the well-organised crew under Captain Wilson constructed the schooner *Oroolong* from

material from the wreck, and successfully sailed away (Clark n.d.). The *Batavia* incident stands in stark contrast to the experience of the *Grafton* crew, and when considered alongside other castaway stories, such as those of the *Invercauld* and *Antelope*, show how varied the experiences of castaways could be, depending on an infinite number of variables. As already discussed, two of these variables were access to resources and leadership, and Raynal and Musgrave provided the leadership required to make the most of the resources available. This leadership and success, combined with the two published first-hand accounts, ensured that the *Grafton* would become one of the notable castaway stories.

At a more immediate and physical level, the wreck of the *Grafton* is one of the only Auckland Islands shipwrecks where substantial remains of the ship are known to survive and the only one where these remains are relatively easily accessible. In this regard, it is the antithesis of the famous *General Grant* wreck, which has long been sought (because of the gold it was known to contain) but has yet to be found—although, as already discussed, in other ways the *Grafton* and *General Grant* stories have much in common. The *Grafton* was a typical mid- to late-19th-century small commercial sailing vessel. Most accounts, including those of Raynal (1892) and Musgrave (1866), described the *Grafton* as a schooner, although some news reports at the time of the arrival of the castaways in Invercargill described it as a brigantine (*Otago Daily Times* 1865: 4; *The Colonist* 1865: 7), as do some modern sources (e.g. Ingram 1984: 80). The difference is largely academic in the present context, as both forms were often small to moderately sized ships fitted with two masts, an essential difference being the schooners' use of the gaff sail (MacGregor 1997: 9–11). The wreck of the *Grafton* provides an opportunity to study the construction details of small ships of this period, which can be compared to a growing international maritime archaeology literature on this subject (e.g. Sikes 2004).

The site of Epigwaitt is also one of the few places where a castaway-built hut can still be firmly identified in the Auckland Islands. The general location of the *General Grant* huts on Enderby Island, *Derry Castle* huts at Sandy Bay, *Compadre* and *Anjou* huts at Camp Cove, and *Dundonald* huts on Disappointment Island are all known, but none of the specific sites could be identified during the 2003 survey (Egerton et al. 2009). No doubt most or all of these sites could be pinpointed by archaeological investigation, but this is unlikely to be undertaken for both practical and conservation reasons.

The excavation of castaway sites can be very rewarding: excavations by Clark on Ulong Island in Palau found extensive evidence of the activities of the crew of the East India Packet *Antelope* that was wrecked there in 1783 (Clark n.d.); and investigations at the 1629 *Batavia* site not only found remains of the victims of the post-wreck massacre, but also a stone portico façade that was being carried in the ship to Batavia in Indonesia (Throckmorton 1996: 168). All of the Auckland Islands castaway hut sites will contain sub-surface archaeological information, but Epigwaitt can be examined without intrusive archaeological excavation. In common with overseas sites that have been investigated, all of the Auckland Islands sites will contain valuable information about the ways that castaways adapted to survive their unintended sojourn ashore.

9. Assessment of significance

Most historic places in New Zealand are assessed using a recognised heritage values system. DOC uses the significance assessment criteria contained within the Historic Places Act 1993 (recently replaced by the Heritage New Zealand Pouhere Taonga Act 2014). Heritage New Zealand (previously the New Zealand Historic Places Trust) is the national authority in the assessment of the significance of historic places. The current Heritage New Zealand assessment criteria are used in its List (previously the NZHPT Register) proposal guidelines (www.heritage.org.nz/the-list/-/media/8c1c89c0ef5d48a19821975d1eef68de.ashx). These criteria are historical, cultural, aesthetic, archaeological, architectural, scientific, social, spiritual, technological and traditional significance or value.

Section 66 (3) of the Heritage New Zealand Pouhere Taonga Act 2014 further describes these criteria for heritage sites to be included in the New Zealand Heritage List. For the purposes of this report, these criteria have been amalgamated under three headings: historical (historical, social); physical (archaeological, architectural, scientific, technological); and cultural (aesthetic, spiritual, traditional).

The *Grafton* wreck and the site of Epigwaite hut have already been assessed as being nationally significant in the *Southland Historic Resource Management Plan 1993* (DOC 1993).

9.1 Historical significance

The historical significance of the *Grafton* and Epigwaite site is high nationally. The site meets a number of the Section 66 (3) criteria, particularly (c) the potential of the place to provide knowledge of New Zealand history; and (k) the extent to which the place forms part of a wider historical and cultural area. Both of these themes (history and the heritage landscape) were key considerations in the 2003 Auckland Islands Expedition (Dingwell et al. 2009).

As a small island in a large ocean, maritime history is an important element in New Zealand's human history: from the first Polynesian settlers that arrived by canoe, to Tasman and Cook who were exploring the Pacific in small sailing ships, to the thousands of immigrants who came in sailing and steam ships, the sea has always played an important role. Shipwrecks were the unwelcome corollary of this dominance of the ocean. The fact that the Great Circle Route of the 19th-century trading ships passed through the wild ocean to the south of New Zealand added an international traffic that did not necessarily have any direct associations with New Zealand—most of the ships wrecked on the Auckland Islands had no intention of making landfall there or in New Zealand. However, it fell upon the New Zealand authorities to patrol these hazardous waters, and the establishment and maintenance of the castaway depots saved the lives of many shipwrecked sailors. This means that the events surrounding and subsequent to the *Grafton* sinking are not just part of New Zealand's maritime history, but also part of the wider history of international shipping in the 19th century.

The subantarctic islands form a scattered historical and archaeological landscape, within which the wreck sites, castaway huts and camps, and castaway depots are an important element. A number of the depots and the finger post signs still exist, and are significant heritage sites.

While shipwrecks and castaway stories were common in the 19th century, the combination of the fortunate outcome of the *Grafton* sinking (all of the crew survived and returned to civilisation), the ingenuity and leadership shown by Musgrave and Raynal, and the production of the two published accounts (which has ensured that all details of the events are still known) gives the site high national significance.

9.2 Physical significance

The physical significance of the *Grafton* and Epigwaite site is high nationally. The site meets a number of the Section 66 (3) criteria, particularly (g) the technical accomplishment of the place; and (k) the extent to which the place forms part of a wider historical and cultural area.

It is of particular note that the technical accomplishment of the place is unusual in that while the technology represented is not unique or advanced, the circumstances of its application are highly unusual. Raynal's (1892) and Musgrave's (1866) published accounts describe such activities as making lime mortar for the chimney, making soap and constructing a forge, and archaeological evidence of many of these undertakings is known to exist. The ability of these castaways to apply technological solutions to their problems was remarkable—it is unlikely that modern castaways in a similar situation would be able to emulate the feats of Raynal and Musgrave.

The archaeological potential of the *Grafton* wreck and Epigwaite hut site is very high. The *Grafton* is the only Auckland Islands wreck where substantial remains of the ship are known to survive, and the only such site that is easily accessible. As such, it provides the opportunity to examine 19th-century shipbuilding technology. The value of this opportunity is increased by the historical context and background information provided by Musgrave's (1866) and Raynal's (1892) accounts, which describe aspects of the ship's design and construction that can be tested archaeologically.

The archaeological potential of Epigwaite is arguably even greater than the wreck. While other 19th-century shipwrecks survive elsewhere in New Zealand and the rest of the world, castaway sites for which there are such meticulous accounts of events and structures are much rarer. The results of the 2002 and 2003 site visits to Epigwaite confirmed in all important verifiable respects the events as outlined by Musgrave and Raynal. The site has considerable archaeological potential for the study of people isolated in an extreme environment, the results of which could be greatly enriched by comparison with the associated contemporary narratives. Archaeological results could be interpreted in light of not only known events, but also in terms of intent, knowledge and agency. Of course, such an archaeological investigation may never occur, and there are very good arguments for preserving the site without such intrusive work, but the potential remains.

9.3 Cultural significance

The cultural significance of the *Grafton* wreck and Epigwaite hut site is high, both nationally and internationally.

The crew of the *Grafton* were cosmopolitan, consisting of a Frenchman, an American (born in England), an Englishman, a Norwegian and a Portuguese who had sailed from Sydney on an expedition funded by two Sydney merchants. The *Grafton* events therefore have relevance not only to New Zealand, but to all of these places. Other wrecks on the Auckland Islands were of ships using the Great Circle Route from Australia to Europe, and as such the shipwreck narrative of the islands was an international one.

Not only did the *Grafton* events have an immediate effect on the New Zealand and Australian population and authorities, as one of the critical factors that led to the inspection of the Auckland Islands by the *Victoria* and *Southland*, and ultimately to the establishment of the castaway depots, but also the publication of the two narratives had a much wider and long-lasting effect. Gavin McLean (2007: 78) commented that 'on a publication (two books) to survivor (five men) ratio, the *Grafton's* contribution to castaway literature is exceptional', and Christiane Mortelie (2003) additionally argued for the literary quality of Raynal's account. Furthermore, Mortelie (2003) demonstrated that Raynal's account also influenced Jules Verne's writings, and that several of Verne's books adopted and adapted names, places and events from Raynal's book (see

section 7). In particular, both Mortelier (2003) and McLean (2007) consider that Raynal's *Wrecked on a reef* had a direct influence on Verne's *Mysterious island*. This direct link between the place, the meticulously recorded events and an international literary heritage make the *Grafton* wreck and Epigwaitt hut very significant cultural sites.

10. Comparative analysis

The wreck of the *Grafton* and the Epigwaitt hut are not necessarily unique items/places, as there are many other recorded shipwreck and castaway sites in the Auckland Islands and around the world. However, they do lay claim to a particular significance because of the survival of the entire crew, and the published works of Musgrave (1866) and Raynal (1892), which have provided an exceptionally detailed account of how a group of castaways survived in, and then escaped from, the remote and harsh subantarctic islands.

Although death and despair are often associated with the other Auckland Island shipwreck stories, the worst of which was the *Invercauld* episode, where only 3 of the 19 men that got ashore from the wreck survived, there were other success stories. For example, the *Compadre* was wrecked in 1891 and 16 of the 17 crew were rescued later that year, and all 22 of the crew of the *Anjou* survived in 1905. It was the sinking of the *General Grant* that probably has the greatest parallels with the *Grafton* events, however. Despite the high death toll of the actual sinking (68 people), only one man actually subsequently died on the island—and it was the leadership of James Teel that was critical for the survival of these castaways, who successfully made sealskin clothes, built huts, grew potatoes, and kept pigs and goats. The group also emulated Musgrave and Raynal in their effort to convert a ship's boat and sail to New Zealand, but whereas Musgrave was fortunate, the four men who made this attempt were not and were never seen again.

On the New Zealand mainland, the most significant castaway location is at Facile Harbour in Fiordland, the site of one of New Zealand's first European settlements where the East Indiaman *Endeavour* was condemned in 1795. The crew, passengers and stowaways lived in Facile Harbour and on Anchor Island while they completed a small schooner that had been built by sealers 2 years earlier, and converted the *Endeavour's* longboat into a deep sea boat (Duggan 1997). The sites of both the *Endeavour* settlement and Anchor Island shipbuilding cove were the subject of archaeological investigations in the 1990s (Smith & Gillies 1998). Parallels with the *Grafton* site include the conversion of a ship's boat and the survival of all of the castaways.

Internationally, there are many shipwreck and castaway accounts and sites, and the literature is vast. Many parallels with the Auckland Islands and *Grafton* sites can be identified, including the importance of good leadership, the improved chance of survival if the resources of the wreck are to hand, and deep sea voyages in small converted or built-from-the-wreck boats. The *Batavia* events of 1629 illustrate what could go wrong ashore, while the *Antelope* events of 1783 in many ways mirror the *Grafton* experiences, with the successful completion of a rescue voyage in a small boat.

The *Grafton* wreck and Epigwaitt hut therefore fit into an international maritime narrative, where they arguably hold a special place because of the published first-hand accounts and their influence on the literature of Jules Verne.

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12.3 Canterbury Museum images

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