

The Guides' Guide

An introductory resource
for volunteers and staff of the
New Zealand Maritime Museum

2019

The Guides' Guide (part two)
Third Edition
2019

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Blue Water, Black Magic

Because of New Zealand's geographic isolation, the early Māori and more recent inhabitants have always had a close relationship with the sea. A deep understanding of the oceans and navigation were essential for long-distance voyaging, fishing and trading, and they all relied on good boatbuilding and sailing skills.

Later, the long coastline and the beautiful waters of the Hauraki Gulf encouraged recreational sailing.

From the first Auckland Anniversary Regatta in 1840, the popularity of leisure sailing grew rapidly. With increasingly skilled sailors and boatbuilders, New Zealand competitive yachting began to reach the top levels of international sailing, including the Olympics, and culminating in winning the America's Cup three times.

Gallery overview

In 2009, following the tragic death of Sir Peter Blake, the gallery was fully redeveloped in his memory. It also includes his personal story in the upper level.

There are many displays devoted to the growth of New Zealand's yachting and boatbuilding and the centrepiece is NZL32 'Black Magic' - New Zealand's first America's Cup winning yacht, in 1995.

KEY GALLERY FEATURES

- NZL32 BLACK MAGIC
- Peter Blake's story
- The America's Cup

Why we sail

Many of the early European immigrants to New Zealand already had close associations with the sea: seafarers, travellers, fishermen and others, from Britain and other colonies. Life was hard, with little opportunity for leisure, so the annual regattas held at most of the ports became very popular.

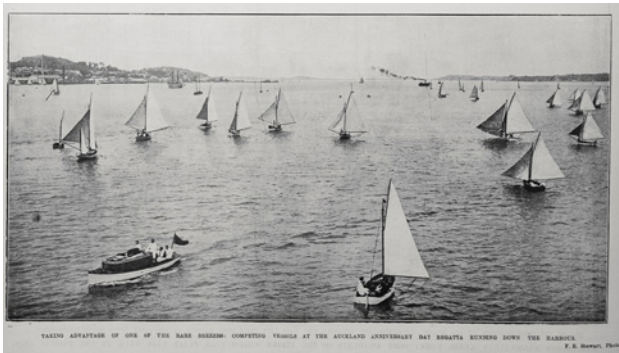
There were rowing races, but the main events were the races between local trading vessels, which at that time played such an important role in the commercial development of the country. The prize money could be substantial and betting also became a major part of the entertainment.

By 1864 purpose-built racing boats arrived on the scene and by 1870 yachting had not only become popular as a recreation but also as a spectator sport.

Since the fine cruising grounds of the Hauraki

Gulf lie on the doorstep, yachting in Auckland added the pleasures of cruising the beautiful coastline to the enjoyment of racing. Auckland's passion for yachting began early, but there was little in the way of organised racing, except for the annual regatta and then occasional match races for a wager or sweepstake. Nevertheless, by the end of the nineteenth century, yachting began to develop into a sport attracting great public interest and participation and a high standard of design and craftsmanship.

Auckland has developed an international reputation for yacht designers and builders since the turn of the 20th century. The profusion of local sailing clubs stimulated demand for new designs suited to local conditions and requirements, which in turn generated ever more skilled designers and boat builders.



Magazine images of the Auckland Anniversary Day Regatta races. Early 1900s.



Spectators at Cheltenham Beach watching the start of a yacht race.

The start boat can be seen in the middle distance. Early 1900s.

The mullet boats – sailing for everyone

Auckland's mullet boats made competitive sailing available to a broad population, not just the wealthy. Without these humble boats, today's yachting would have been very different.

Auckland was founded in 1840 and grew quickly. As it developed, so did the fishing industry. Initially it was the business of local Māori, but very soon immigrant fishermen began to develop suitable craft for fishing in local waters.

Due to the Waitematā's large tidal flow, the design needed a shallow draft to help the boat get into tidal areas such as the upper Waitematā Harbour and into the Thames Estuary. The design also allowed it to lie on the mudflats when the tide was out.

The sail area had to be large. A big sail area generated more speed, important for getting a large, unrefrigerated catch to market quickly, as fresh mullet was considered a great delicacy.

In its early years, leisure sailing and racing were the preserve of the wealthy, but as the 'middle class' emerged, sailing's popularity spread.

The construction of a mullet boat was a relatively low cost option, and the large sails required several men to manage them, making it a very social class to sail in.

By the end of World War I, local yachting was becoming very organised. In order to properly compare the abilities of one crew against another, a standardised class was needed, in which boats were built to the same rules. It was the 22 foot 'L' class version of the mullet boat that became the chosen standard.

From the early 1920s until the 1950s the 'L' class developed to suit Auckland's harbours and gave crews a level playing field. The mullet boat provided the test bed for New Zealand yacht development, and became the launch pad and training ground for our professional yacht racing.

Built by the famous local boatbuilder Charles Bailey Sr, MANOLA (1885) was the very first mullet boat built exclusively for racing.



CELOX, a 26 ft mullet boat built by the Logan Brothers in 1908.



The Logans – a boatbuilding dynasty

Robert Logan was a Scottish boatbuilder who emigrated with his family to New Zealand in 1874. He set up in business as a boatbuilder in Devonport and rapidly became successful, producing a number of significant yachts.

After attending school in Devonport, his son Archibald Logan, together with four of his five brothers, was employed in his father's business. The Logan brothers became skilled boatbuilders and designers in their own right.

About 1890, 'Arch' and his brother Robert set up in business as R & A Logan. Then, in 1892, they were joined by a third brother, John, at which point the firm became known as Logan Brothers.

Their business became very successful, and from 1898 they were exporting yachts to

Australia, South Africa and the Pacific region. Their keel yachts (such as those listed below) were especially sought after, though they also built a large number of other craft, including pleasure launches and commercial craft such as ferries.

By 1900 Arch Logan had become the principal designer for Logan Brothers and the pre-eminent yacht designer in the southern hemisphere.

When, in 1910, Logan Brothers closed their business, Arch continued to build boats, though increasingly provided designs for other builders. By 1930 he was concentrating on yacht design. He died in Auckland in 1940 but one of his sons, Jack, became a prominent designer, builder and helmsman.

Logan classics

Many Logan yachts are registered with the Classic Yacht Association (CYA), based at the RNZYS.

Most can regularly be seen racing on the Waitemata Harbour throughout summer. (Sail numbers are in brackets.)

1892 - GLORIANA* (C8)

1894 - WAITANGI* (A6)

1895 - MOANA (A9)

1897 - THELMA (A10)

1898 - RAINBOW (A7)

1901 - IORANGI (A4)

1904 - ARIKI* (A3)

1905 - RAWHITI (A2)

1906 - FRANCES* (A11)

1908 - RAWENE (A5)

1934 - LITTLE JIM (A16)

1935 - TAWERA (A18)

1938 - SPRAY II (725)

1939 - GYPSY (C46)

*These four vessels are currently berthed in the museum's marina.

Many other classics can be seen at Heritage Landing, at the western end of the Wynyard Quarter.

Circa 1896, Mr Kebbell (left) and Alexander Turnbull on board Turnbull's yacht RONA, built by Robert Logan Sr, 1893.



Yachts on Logan's strip, Devonport 1904. Back row yachts are thought to be RAINBOW, MOANA and ARIKI. Photographer: Henry Winkelmann



Chas Bailey & Sons – another famous boatbuilding family

By the mid 1890s, yacht design was developing rapidly and there was a growing battle between the two first-rate Auckland builders, the Logans and the Baileys, to produce the fastest and most beautiful racing yachts.

The Bailey family, Charles Sr and Jr set up their business in 1870, two years before the Logans began their own business. The racing qualities of Bailey's boats were well known and a number of Bailey yachts competed in Australia as well as New Zealand.

Some of the Bailey yachts registered with the CYA include:

1902 - JANET (C11)
1904 - LEXIA (E33)
1904 - NGATIRA (B2)
1907 - WAIONE (33)
1923 - PRIZE (A15)

The company also designed and built many of the ferries belonging to the Devonport Steam Ferry Co, including BRITANNIA, KESTREL, TAKAPUNA, PEREGRINE, ALBATROSS, MAKORA, NGOIRO and VICTORIA.



Auckland Anniversary Regatta trophies

The first Auckland Anniversary Regatta was held on the day the city was founded, 18 September 1840 (11 years before the first of the competitive races that were to become known as the America's Cup, in 1851).

It was called by Governor General Hobson as part of the Treaty of Waitangi celebrations, and was originally for waka and whale boats. Now it covers classes of racing across the board and is a real spectacle on the harbour on Anniversary Day.

The trophies are owned by the Auckland Anniversary Regatta Committee and housed at the museum. Each year they are removed from display shortly before the regatta to be presented to the winners, engraved, and then returned to our display. The oldest one is the Agnes Cup which dates from 1862.

The Agnes Cup, 1862.

Scows and other craft at the start of the Traders' Race, 1908 Auckland Anniversary Regatta.

Sir George Grey Special Collections, Auckland Libraries, 4-5515

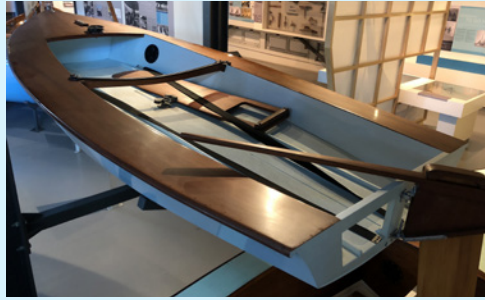


Starting small – a modern day yacht builder

One of the world's leading yacht designers is New Zealander Bruce Farr. In 1965, at the age of 14, he built his fourth boat MAMMOTH, which is displayed in the gallery.

From there, Farr and his company Farr Yacht Designs, went on to design a significant number of successful international racing yachts, including for the Whitbread Round the World Yacht Race and the America's Cup.

Among many others, he designed the huge and controversial 1987 America's Cup challenger KZ-1 (displayed outside the museum entrance), together with Whitbread winning yachts STEINLAGER 2 – skippered by Peter Blake in the 1989/90 race – and NEW ZEALAND ENDEAVOUR, skippered



by Grant Dalton (head of Team New Zealand since 2003) in the 1993/94 race.

A half hull replica of STEINLAGER 2 can be seen mounted on the outside wall of the museum.

Bandit

In 1966, at the age of 17, Sir Peter Blake started to build his first keel yacht in the backyard of his family home in Bayswater, Auckland.

With help from his brother Tony and good friend Crawford Duncan, the yacht, named BANDIT, was built and modified over the next three years.

The Blake brothers and Crawford raced her in the Hauraki Gulf, claiming the New Zealand Junior Offshore Group Championship in the 1968-69 season.

Following its racing years, BANDIT was retired from the water and sold.

In 2013, Bruce Tantrum from the Classic Yacht Charitable Trust, discovered that BANDIT was being kept in a shed near Warkworth. She had been kept in good condition by her various owners but time had aged her and she needed a fair amount of work.

A complete rebuild of BANDIT was carried out by Yachting Developments in Hobsonville, and she was gifted to the museum by Bruce Tantrum in 2018.

Iron Duke

Built in 1920, IRON DUKE was another of the yachts by renowned boatbuilders Chas Bailey & Sons.

She was given as a birthday present to New Zealand's then Governor General, Admiral Lord Jellicoe by his wife.

During World War I, Jellicoe had served as Britain's First Sea Lord. He was in command of the Grand Fleet during the Battle of Jutland, flying his flag in the battleship IRON DUKE.

She belongs to a class of yacht called X Class (no longer in production), which also became known as the Jellicoe Class.

Left: BANDIT,
late 1960s.

Below: IRON DUKE
under sail.



Sir Peter Blake

One of New Zealand's greatest sailors, Sir Peter Blake was involved in many of the world's greatest yacht races.

In almost half a century of sailing, he had accumulated some 600,000 sea miles (equivalent to 25 times round the world). In addition to sailing in five Whitbread races, he also sailed in the Jules Verne Trophy, five Sydney-Hobarts, five Fastnets, the double-handed Round Britain Race, three Trans-Tasmans, a trans-Atlantic race and the two-handed Around Australia Race.

Having played a hugely significant role in New Zealand's challenge for and defence of the America's Cup in 1995 and 2000, Blake's tremendous energies turned away from racing.

In 1997, following the death of French conservationist and filmmaker Jacques Cousteau, Blake had become head of the Cousteau Society and in 2000, he branched out on his own, launching Blakexpeditions, an ambitious project to educate people about the world's marine ecosystems.

He acquired a specially-built icebreaker yacht from the Cousteau Society, named it



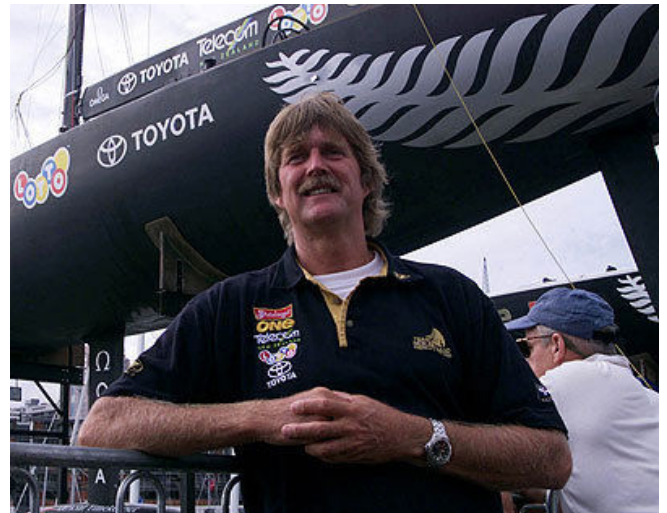
SEAMASTER, and embarked on a five-year voyage to study global warming and the effects of pollution on the world's marine ecosystems.

From January 2001, SEAMASTER spent the first three months of her new mission in Antarctica. She then departed the 'frozen south' for the 'broiling middle' in March, making her way up the east coast of South America, eventually arriving in the Amazon in September.

After nearly three months in the Amazon – and on the eve of setting off on the next stage of the mission (toward the Arctic Circle and the Pacific coral reefs) – Blake was killed, aged 53, when SEAMASTER was boarded by armed intruders, on December 6 2001.

Left: Peter Blake with wife Pippa and children James and Sarah Jane, after winning the Whitbread race in 1990.

Below: With NZL32, 1995.



Whitbread Round-the-World Race ... a long involvement

At 25 years old, Peter Blake took part in the first Whitbread Round-the-World Yacht Race in 1973, as crew onboard the British yacht BURTON CUTTER.

However the boat was seriously ill-prepared. Heading to the start line the crew was still desperately trying to complete the interior, hammering makeshift bunks into place, and did not finish the race.

1977/78: Blake was watch leader on the British yacht HEATH'S CONDOR, skippered by Robin Knox-Johnson, which came 15th (aka last!)

1981/82: CERAMCO NEW ZEALAND, skippered by Peter Blake, came 11th.

1985/86: Peter Blake's LION NEW ZEALAND achieved 2nd place.

1989/90: Blake's STEINLAGER 2 easily won the race, having also won every leg.*

Also in 1989/90, another New Zealand yacht, FISHER & PAYKEL NEW ZEALAND skippered by Grant Dalton, came second.

1993/94: This time Peter Blake was no longer involved, but skipper Grant Dalton scored another win for New Zealand in NEW ZEALAND ENDEAVOUR. (Following Blake's death in 2001, Grant Dalton went on to become head of Team New Zealand in 2003.)

**After being in private ownership for several years, STEINLAGER 2 returned to Auckland in 2012. She can often be seen participating in harbour yacht races.*

New Zealand Endeavour model

With Peter Blake now involved in the first Jules Verne Trophy race (see next page), the 1993/94 Whitbread was nevertheless won by another New Zealand yacht – NEW ZEALAND ENDEAVOUR, skippered by Grant Dalton.

Both NEW ZEALAND ENDEAVOUR and STEINLAGER 2 were designed by Bruce Farr. (See story on page 60).

Half-hull models of four New Zealand Whitbread yachts:

Left: CERAMCO NEW ZEALAND (81/82), LION NEW ZEALAND (85/86).
Right: STEINLAGER 2 (89/90), FISHER & PAYKEL NEW ZEALAND (also 89/90).



Below: BURTON CUTTER, 1973. Peter Blake's first Whitbread experience.

Photo by Roland de Greef.

Below right: NEW ZEALAND ENDEAVOUR leaves the Hauraki Gulf at the start of the fourth leg (19 February 1994).



Jules Verne Trophy – around the world in 80 days ... or less!

The idea of a non-stop, round-the-world race was first conceived by Frenchman Yves Le Cornec in 1985. By 1992, a target of eighty days was chosen as being at the limit of current sailing technology, as well as its association with the Jules Verne novel *Around the World in Eighty Days*.

The first challenge for the Jules Verne Trophy began in 1993, which pitted Peter Blake and Robin Knox-Johnston in the catamaran ENZA NEW ZEALAND, against Bruno Peyron in the catamaran COMMODORE EXPLORER.

After 26 days, ENZA retired damaged and COMMODORE EXPLORER took the trophy, circumnavigating the globe in 79 days, 6 hours, 15 mins, 56 secs.

In 1994, ENZA NEW ZEALAND challenged again – by now repaired and with enhanced capabilities – against the giant French trimaran LYONNAISE DES EAUX DUMEZ. This time ENZA took the trophy in 74 days, 22 hours, 17 mins, 22 seconds.

Jules Verne Trophy race video

The excellent video presentation, which lasts about an hour, was filmed on board ENZA NEW ZEALAND during the record-breaking race. Visitors should be reminded that it is on a continuous loop, and that they can come back any time later in the day to watch it.

ENZA New Zealand

At the time she was launched in 1983 (under the name FORMULE TAG), ENZA NEW ZEALAND was the largest racing-sailing boat in the world, with an area approximately the size of a tennis court.

In 1993, during the first Jules Verne Trophy race, ENZA was damaged and withdrew, and COMMODORE EXPLORER, won the race.

In 1994, skippered by Peter Blake and Robin Knox-Johnston, she crossed the finish line in world-record time.

However, to put this achievement in perspective – and reflecting advances in technology – the 2017 winner was IDEC SPORT, skippered by Frenchman Francis Joyon – in a time of just 40 days 23 hours 30 minutes 30 seconds.

The miniature trophy

The original trophy is held in the Musée National de la Marine in Paris, however each winner receives a miniature version of the trophy.

Designed by American artist Thomas Shannon, the shape of the trophy is based on curves relating to the sun, earth and moon. Held in place by a thin wire, it floats in a magnetic field above the base. The names of the winning sailors are engraved on the base.

When a record is broken, an official ceremony is held for the previous record holders to hand over the trophy to the new record holders, who are given the hull and must replace it in its magnetic field mooring.

ENZA NEW ZEALAND in the Jules Verne Trophy race.

Photo by David Hallett.

Sculptor Thomas Shannon stands behind the original of the Jules Verne Trophy, together with the crew of COMMODORE EXPLORER, in 1993.



Winning the America's Cup, 1995

New Zealand first took part in the America's Cup in 1987, in Fremantle, Australia. They raced in KZ7 KIWI MAGIC (aka 'Plastic Fantastic'), but were defeated in the Louis Vuitton Cup, so never advanced to the America's Cup challenge itself.

In 1988, in a surprise hostile challenge to Dennis Conner, a New Zealand syndicate entered KZ1 – the 'Big Boat' – and lost. A legal battle ensued, which NZ won, then lost again on appeal.

Nevertheless, the race represented the first time that New Zealand had been the challenger in an America's Cup competition.

The next competition took place in 1992, again in San Diego. Peter Blake had been brought in as manager by Michael Fay, who had financed the New Zealand Challenge team.

NZL20 was beaten in the Louis Vuitton Cup and after that loss Fay stood down. Now keen to win the Cup, Blake mortgaged his house to pay the \$75,000 entry fee for the next challenge.

In 1995, New Zealand once again entered the America's Cup competition, this time with Peter Blake in charge. Their yacht was the innovative NZL32 BLACK MAGIC – the main display in the *Blue Water, Black Magic* gallery, and the reason the gallery was redeveloped, along with the story of Sir Peter Blake.

After convincingly winning the preliminary Louis Vuitton Trophy, the team went on to win all five of the following America's Cup races, against Dennis Conner's YOUNG AMERICA team.

NZL32 'Black Magic'

On 13 May 1995, 'Black Magic', with Russell Coutts at the helm, won the America's Cup for New Zealand in San Diego. It was a clean sweep – 5-0 – against the defenders, the American Team Dennis Conner, sailing in YOUNG AMERICA.

BLACK MAGIC took the Cup away from the USA for only the second time in 144 years. In 1983, the Australians had been the first team to beat the Americans, in their yacht AUSTRALIA II.

NZL32 is 23.8m long and weighs 25 tonnes. As the yacht is suspended from the ceiling of the gallery, the keel bulb has been replaced by a lightweight 'dummy', as the original is made of lead alloy and weighs 20 tonnes! (The original is held at Te Papa.)

The boat was designed by Doug Peterson and Laurie Davidson, sails were designed by Tom Schnackenberg and it was built by McMullen & Wing Yard, Auckland.

NZL32 spare mast

To fit within the gallery's height, BLACK MAGIC's mast has been cut short. A full length spare mast is displayed nearby, suspended from the ceiling alongside the rampway. It was the second of two made for NZL32 and was the one used during the 1995 America's Cup regatta.

It is 32.5m tall and weighs 4 tonnes.

The lucky red socks

On Christmas Eve before every big event, Peter Blake's wife Pippa would give him a pair of socks. In 1994, the socks were red and were worn during every one of Team New Zealand's winning races on both NZL 38 and NZL 32. When the team experienced their first loss, and Peter was not on board due to injury, it seemed clear that the absence of the 'Lucky Red Socks' was the reason!

As the competition progressed, team sponsors ordered tens of thousands of pairs of red socks, which sold out within days. Money from the sales went straight into the campaign, giving Team New Zealand a much-needed injection of \$500,000, to put towards refurbishing sails and equipment for the final round of the America's Cup.

NZL32 BLACK MAGIC in action, 1995.



Celebrating the win, San Diego.



Blakexpeditions – a new challenge, and a tragic end

In 2000, Sir Peter Blake was in the first year of a five-year voyage onboard his yacht SEAMASTER – specially designed for polar exploration – visiting environmentally significant regions. His aim was to record their fragility and inspire people to want to protect them, by making documentaries for Blakexpeditions, the company he had founded.

Sir Peter said his goal was for everyone to watch and consider how they could help protect the oceans and environment. His first destination was the Antarctic, and the second the Amazon.

On 6 December 2001, at the end of the Amazon expedition, SEAMASTER and her crew

were anchored at Macapá near the mouth of the Amazon, preparing to leave the next day.

At about 10pm the boat was boarded by pirates, apparently intent on stealing the Omega watches that some of the crew were wearing. ('Seamaster' is also the name of an Omega watch and Omega had been a sponsor of the voyage.)

In the ensuing confusion, Blake was shot and killed while defending his crew against the armed intruders. Shortly after, they were arrested and jailed for murder, unaware of the hero status of their victim, and all for the sake of a few watches.

Death of a New Zealand hero in the Amazon

Extracts from the inquest:

The court heard how some crew members including Sir Peter went ashore after the SEAMASTER had anchored off Macapá. They returned about 8pm for dinner.

“After dinner we were sitting on deck talking about our expedition, having a few beers, listening to some music and then some of the crew members went downstairs to bed and the rest stayed up.”

It was about 10pm when the trouble started: “I remember seeing six guys jump on board. Some wearing motorbike helmets, others wearing balaclavas. Most of them had pistols. I saw two of my crew members trying to push them back, not

realising what was going on, thinking it was some joke.

“Then I remember Peter running down below saying, ‘This is for real.’

“I ran up to the crow’s nest. I could see a few of my crewmates on deck with guns to their heads. The next thing I remember was an exchange of gunfire below deck and then I saw the raiders get panicked and start running about.

“I could see they were confused as to what was happening. Then I heard a couple of gunshots.”

There were two rifles on the SEAMASTER which were kept in a locked cupboard in Sir Peter’s cabin, to be used in the Arctic

if necessary against polar bears.

The pirates then left in the boat they had used to board the SEAMASTER and fired another gunshot towards the vessel.

Waiting until the raiders were out of sight he climbed down from the crow’s nest.

“I saw some blood on the deck. I did not want to believe it at first. I thought they had been firing blanks at first or something, trying to believe it was not for real.”

He saw one of his crewmates bent over with a gunshot wound and then went to the pilot house where he found Sir Peter lying with three or four people around him trying to resuscitate him.

Sir Peter Blake relaxing in the Antarctic, 2001.



SEAMASTER in the Amazon, 2001.



New Zealand and the America's Cup

The America's Cup (often referred to as the 'Auld Mug') began life as a solid silver ewer designed by Royal Jeweller, Robert Garrard, in England.

In 1851 it was gifted to the Royal Yacht Squadron, which offered it as a prize for a race around the Isle of Wight, open to "yachts of all nations".

The New York Yacht Club entered the schooner *AMERICA*, designed to show off the skills of American boatbuilders in the year of the Great Exhibition. The boatbuilders were so confident of their work, they said they would refuse payment if *AMERICA* did not win. Luckily for them, the American yacht easily beat the 17 yachts entered by the Royal Yacht Squadron.

For the following 132 years, the Cup was consistently won by American yachts, until 1983 in San Diego, when the Australians finally took it from them, in their yacht *AUSTRALIA II*.

In 1987, the Americans won it back again, keeping it till 1995, when NZL32 *BLACK MAGIC*, won it for New Zealand.



ROYAL YACHT SQUADRON
REGATTA,
1851.

ON MONDAY, AUGUST 18th,
HER MAJESTY'S CUP,
By Large Class Cutters of the R.Y.S. (105 Tons and above.) If three enter before Midnight, August 1st, if not, it will be open to R.Y.S. Cutters from 50 and under 100 Tons, to close at Midnight, Saturday, August 9th.

TUESDAY, AUGUST 19th,
THE R.Y.S. ANNUAL DINNER.

WEDNESDAY, AUGUST 20th,
HIS ROYAL HIGHNESS
PRINCE ALBERT'S CUP,
By Large Class R.Y.S. Schooners (140 Tons and above.) If three enter before Midnight, August 1st, if not, it will be open to the Small Class R.Y.S. Schooners (under 140 Tons,) to close at Midnight, Saturday, August 9th.

THURSDAY, AUGUST 21st,
THE
R.Y.S. ANNUAL BALL.

FRIDAY, AUGUST 22nd,
THE R.Y.S. £100 CUP,
Open to Yachts belonging to the Clubs of all Nations, to close at Midnight, August 16th.
No Time allowed for Tonnage.
Three Vessels must enter and start for each Prize, or no Race.

FIREWORKS
At 9, P.M., August 22nd.

JOHN BATES,
SECRETARY

W. W. YELP, PRINTER TO THE R.Y.S. NEWPORT, 18.

The trophy

The America's Cup is the oldest sporting trophy in the world and was originally known as the '£100 Cup' or '100 Guineas Cup'.

After the first challenge, when it was won by the yacht AMERICA, it became known as the 'America's Cup' – referring to the name of the winning yacht, not the nationality of the team.

There has never been any prize money associated with winning the America's Cup. The real prize is just the prestige of holding it and being the Defender.

The Cup itself is made of sterling silver and weighs 15 kg. It was originally 68 cm high, but two extra bases have been added to the bottom of the Cup over time, to allow room for engraving more winners' names. It is now 112 cm high.

In 1997, while it was on display in a glass case at the RNZYS, a Māori rights activist attacked it with a sledgehammer and seriously damaged it. It was sent back to England for repairs by the original manufacturer, Garrards.

Though it had been in an armoured glass case, there was no security guard in the room. Nowadays, the trophy is subject to much tighter security, in an alarmed cabinet, described as "virtually bullet-proof and bomb-proof."

The America's Cup is often referred to as 'The Auld Mug' ('auld' is a Scottish word for 'old').

The America's Cup replica

Our replica, pictured right, is approximately two-thirds scale and is owned by millionaires Sir Michael Fay and David Richwhite, who had established Fay Richwhite & Co merchant bank in 1989.

Michael Fay backed the 1988 New Zealand challenge, as well as financing the construction of 'The Big Boat', KZ1.

This replica of the Cup is somewhat less ornate than the original and features only one of the additional bases.



THE RULES OF THE GAME

In 1857, the owners of the yacht AMERICA (which had won the '£100 Cup' in 1851) presented the now-named 'America's Cup' to the New York Yacht Club in a *Deed of Gift*.

The Deed of Gift specified details for a regular race, and the essence was simple: "This Cup is donated upon the conditions that it shall be preserved as a perpetual Challenge Cup for friendly competition between foreign countries."

However, the legal language, style and terminology of the time in which it was written later gave rise to disputes relating to the meaning of particular phrases and words, and what was actually intended when the deed was originally written.

To this day there have been many court cases and many amendments to the Deed of Gift. All this adds to the somewhat notorious reputation of the America's Cup.

THE EXTRA BASES

Every race ever sailed by the Defenders and Challengers in the 35 America's Cup matches since 1851, is recorded on the trophy.

Over time, two extra bases were added to fit all the results. (See the complete cup pictured opposite.)

Due to a larger font size being used by some teams for their own results, there was no space left to record Team New Zealand's 2017 Bermuda race results.

The Royal New Zealand Yacht Squadron sent the bases back to Garrard's in London, the original makers, to be re-engraved in a consistent, smaller type size, allowing room for future race results.



The Cup as it was in 2018, temporarily without its bases.

1987 – New Zealand’s challenge begins

1987 marked New Zealand’s first entry into the America’s Cup, sailing KZ7 – often referred to as ‘Plastic Fantastic’. The Australian defenders hosted the races in Fremantle. The New Zealand Challenge team had been financed by Sir Michael Fay to compete, ultimately unsuccessfully, for the Cup.

1988 – the Big Boat

Determined to try again, Fay made a direct challenge to Dennis Conner the following year, entering KZ1 – the ‘Big Boat’. There were no preliminary Louis Vuitton Trophy races and the challenge took place in San Diego.

It became notorious for battles in the courtroom as much as on the water, as the defending yacht, Conner’s STARS & STRIPES, was a catamaran, racing against New Zealand’s huge monohull, KZ1.

Eventually STARS & STRIPES was declared the winner and KZ1 was later presented to the Maritime Museum by Sir Michael Fay.

1992 – Blake’s frustration

Peter Blake, by now a renowned and winning sailor, was sought by Sir Michael Fay to manage the 1992 challenge, and to instill a spirit of teamwork into the campaign, as by that stage New Zealand Challenge was deeply divided.

In spite of an excellent effort on the water, NZL20 was beaten by an Italian team in the Louis Vuitton Cup.

Fay was disappointed by the loss and, when he stood down, Blake mortgaged his house to pay the \$75,000 entry fee for the 1995 challenge.

1995 – Blake’s magic

Peter Blake was now CEO of the recently formed Team New Zealand. With other commitments at the time, including the Jules Verne Trophy race, Blake chose Russell Coutts as skipper, while he himself was crew.

Once again the races were held in San Diego and for the third time, the defenders were Team Dennis Conner, sailing YOUNG AMERICA.

NZL32 BLACK MAGIC easily won the Louis Vuitton Trophy to become challenger, and went on to win the 1995 America’s Cup in five straight races. Blake received a knighthood for services to yachting and New Zealand.

2000 – a successful defence

Sir Peter Blake managed the successful America’s Cup defence in Auckland in 2000. Once again the team won in five straight races, when NZL60 BLACK MAGIC 4 raced against the Italian yacht LUNA ROSSA.

2003 and 2007 – disappointment

2003 – Team New Zealand defended the Cup again in Auckland, but this time without Blake, who had been murdered in 2001. The team was beaten in five straight races by the Swiss team Alinghi. There had been problems related to the board of trustees, and the winning team of 2000 were now unsure of their future job security. This resulted in the loss of Russell Coutts (skipper), Brad Butterworth (tactician) and others to Alinghi and other syndicates.

2007 – The competition was held in Valencia, and Emirates Team New Zealand won the Louis Vuitton Cup 5-0 against Luna Rossa to become challenger, but were ultimately beaten once again by Alinghi, though this time managing to win two of the seven races.

1988 ... the surprise challenge

The 1987 America’s Cup competition in Fremantle was won by Dennis Conner’s STARS & STRIPES. Among the challengers was KZ7, the New Zealand yacht backed by merchant banker Sir Michael Fay, who was passionate about winning the Cup.

Five months later, determined to win the Cup, Fay issued a challenge to the San Diego Yacht Club. By using a strict reading of the Deed of Gift, he realised he could make a challenge using any yacht that was 90 feet (27m) or less at the waterline, and require the defending club to meet him in ten months’ time.

Fay financed the creation of KZ1 – the Big Boat – a large single-hull yacht, with a crew of 40. Technically it complied with the original Deed of Gift, but was much larger and hence faster than the 12-metre

boats, used in the America’s Cup for many years.

Dennis Conner, the defending skipper, responded by building the wing-sailed catamaran STARS & STRIPES, which had a crew of nine.

The format was to be best of three races. The course was approximately 40 miles long and the race time limit was seven hours. STARS & STRIPES easily won the required two races, however Fay contested the result in court and won, on the basis that the competition between a monohull and a catamaran was a gross mismatch and not in the spirit of friendly competition. Following an appeal, the court decided in 1990 that both boats had been compliant and the Cup was returned to the Americans.



KZ1 and STARS & STRIPES go head to head.
Photo: Christian F evrier

2013 – catamarans and despair!

After the 2007 challenge, and unhappy with Alinghi's proposed management of the next one, Larry Ellison's Team Oracle made a direct challenge to Alinghi, in a head to head race in any class of yacht.

Oracle chose a catamaran and Alinghi a trimaran. Oracle won easily and from then on decided that the 2013 Cup races would be in catamarans. They developed the huge AC72 class for their defence in San Francisco.

During Team New Zealand's development of their new catamaran, they discovered that it could 'foil' – meaning that at speed, the two hulls could rise up on the hydrofoils, effectively 'flying'. The other teams rushed to copy the technique.

Team NZ won the Louis Vuitton Challenger Series, and went on to challenge Oracle aggressively, winning 8 races to Oracle's one – needing only one more to win the Cup.

What happened next became the subject of much speculation and even some conspiracy theories, when Oracle found their pace and won all of the next 8 races to retain the America's Cup – 9 races to 8. It was one of the most sensational reversals of fortune in the history of the Cup. The story made international headlines, which at least had the effect of raising awareness of the competition and renewing interest in the subsequent America's Cup.

2017 – redemption

With memories of 2013 still painful, the 2017 challenge in Bermuda carried a lot of emotional weight for New Zealanders.

The new AC50 catamarans were smaller than the AC72s but just as fast, if not more so, and more manoeuvrable. Ongoing disagreements with the other competitors meant Team New Zealand decided to keep their boat development and practice sessions in Auckland, rather than join the others in Bermuda.

They developed a 'secret weapon', unobserved by other teams. Instead of using the muscular arms of traditional grinders for power, Team New Zealand made a controversial decision to use leg power, installing cycle operated winches, with 'cyclors' – cycling sailors – providing the power.

With a new approach and many new team members, no-one knew whether or not this innovation would be an embarrassing failure. Ultimately it was a great success and Team New Zealand outsailed their arch rivals Oracle, 7-1.

2021 – return to monohulls

For the 2021 challenge, Team New Zealand chose Auckland as the location, and an all new yacht design: the very fast and boldly futuristic 75 foot, fully foiling monohull – the AC75 – developed in conjunction with the Italian team Luna Rossa, the Challenger of Record.

Oracle leads Team New Zealand in San Francisco, 2013.
Right, in Bermuda, Oracle struggles to keep up with Team New Zealand, 2017.



Emirates Team New Zealand's 'secret weapon', the cyclors, in action in Bermuda, 2017.
Right, concept design for the AC75 foiling monohulls, for the 2021 America's Cup.



America's Cup races 1851-2017

Year	Winning nation/yacht	Losing nation/yacht
1851	USA AMERICA	Eng *17 yachts*
1870	USA MAGIC	Eng CAMBRIA
1871	USA COLUMBIA/SAPPHO	Eng LIVONIA
1876	USA MADELEINE	Can COUNTESS OF DUFFERIN
1881	USA MISCHIEF	Can ATALANTA
1885	USA PURITAN	Eng GENESTA
1886	USA MAYFLOWER	Eng GALATEA
1887	USA VOLUNTEER	Eng THISTLE
1893	USA VIGILANT	Eng VALKYRIE II
1895	USA DEFENDER	Eng VALKYRIE III
1899	USA COLUMBIA	Ire SHAMROCK
1901	USA COLUMBIA	Ire SHAMROCK II
1903	USA RELIANCE	Ire SHAMROCK III
1920	USA RESOLUTE	Ire SHAMROCK IV
1930	USA ENTERPRISE	N Ire SHAMROCK V
1934	USA RAINBOW	Eng ENDEAVOUR
1937	USA RANGER	Eng ENDEAVOUR II
1958	USA COLUMBIA	Eng SCEPTRE
1962	USA WEATHERLY	Aus GRETSEL
1964	USA CONSTELLATION	Eng SOVEREIGN
1967	USA INTREPID	Aus DAME PATTIE
1970	USA INTREPID	Aus GRETSEL II
1974	USA COURAGEOUS	Aus SOUTHERN CROSS
1977	USA COURAGEOUS	Aus AUSTRALIA
1980	USA FREEDOM	Aus AUSTRALIA
1983	Aus AUSTRALIA II	USA LIBERTY
1987*	USA STARS & STRIPES '87	Aus KOOKABURRA III
1988*	USA STARS & STRIPES '89	NZ KZ1 - aka 'BIG BOAT'
1992*	USA AMERICA ³ (AMERICA CUBED)	Italy IL MORO DI VENEZIA
1995	NZ NZL32 - BLACK MAGIC 1	USA YOUNG AMERICA
2000	NZ NZL60 - BLACK MAGIC 4	Italy LUNA ROSSA
2003	SWZ ALINGHI	NZ NZL82
2007	SWZ ALINGHI	NZ NZL92
2010*	USA ORACLE USA17	SWZ ALINGHI 5
2013	USA ORACLE TEAM USA17	NZ AC72 - AOTEAROA
2017	NZ AC50 - AOTEAROA	USA ORACLE TEAM USA



Above:
The yacht AMERICA,
1851.

Charles S. Raleigh, Smithsonian
American Art Museum



Right:
AC50 class yacht
AOTEAROA, 2017.

© Francois Chevalier

*Noteworthy races:

1987 NZ's first America's Cup entry, KZ7 Kiwi MAGIC (aka 'Plastic Fantastic'), was defeated in the Louis Vuitton finals by Dennis Conner's STARS & STRIPES '87.

1988 No challenger series took place. NZ's KZ1 (aka 'the Big Boat') defeated by Dennis Conner's trimaran STARS & STRIPES '89.

1992 NZ's entry, NZL20, was defeated in the Louis Vuitton finals by Italy's IL MORO DE VENEZIA.

2010 No challenger series. Oracle raced a wing-sailed trimaran against Alinghi's catamaran, winning easily.

With the exception of the direct challenge in 2010 between Alinghi and Oracle, New Zealand has been either Challenger or Defender in every competition since 1995, up until at least 2021.

Edmiston Gallery

Generously supported by the Edmiston Trust, the Edmiston Gallery showcases artworks from both the museum's and the Edmiston Trust's collections, plus a range of temporary exhibitions.

The gallery's permanent installations include wooden figureheads from ships of the 1800s, an anchor from HMS BOUNTY, a pair of beautiful stained glass windows, and the story of New Zealand's worst maritime disaster, in which 189 lives were lost from the Royal Navy corvette ORPHEUS on the Manukau Bar.

The wall beside the BOUNTY anchor is permanently dedicated to displaying some of the items from the Edmiston collection. The artworks will be changed from time to time.

Gallery overview

The Edmiston Gallery is used for a wide variety of temporary exhibitions and, with moveable walls, can be configured to suit different requirements.

The curator provides background information for new displays once they have been installed.

KEY GALLERY FEATURES

- Figureheads
- Changing exhibitions
- The ORPHEUS story

The figureheads

Figureheads are decorative carved figures on the bow of a ship (see images below). They would often reflect the name of the ship or its purpose, and were thought by superstitious sailors to bring good luck.

Wooden figures have traditionally been used since the earliest days of seafaring, and they date back at least to the ancient Greeks.

They mainly represented mythological creatures, but from the 1770s human figures became more popular, particularly women.

Wooden sailing vessels nearly all had a figurehead; some sailors even believed that to sail on a ship without a figurehead could be fatal. However, as the popularity of wooden ships declined in the 19th century, so did the popularity of wooden figureheads.

- The figurehead from the *VIRAGO* perhaps epitomises the 'perfect' woman to calm the stormy sea ...!
- The rather unattractive lady with the ruffled collar is from the *ALICE A LEIGH* which, as *REWA*, was sunk as a derelict at Moturekareka, near Kawau Island.
- The unusual male figurehead comes from a missionary ship, the *WILLIAM MANSON*.
- The figurehead in the green dress, holding a silver globe is from the *HAZEL CRAIG*, one of the 'Craig Family' of sailing ships, a painting of which is featured in *Oceans Apart*.

Women at sea – good or bad luck?

The traditional view was that women had no place at sea. They were considered unlucky. Men would be distracted and led to vice. The only woman accepted on board by many sailors was the ship's figurehead.

Despite being viewed as unlucky aboard a ship, women were perversely believed to be the best navigators

(to our knowledge there is no scientific evidence that backs this up!) An adage dating back at least two thousand years, said that the waters could be calmed by a woman uncovering her body at sea, and many sailors no doubt hoped that the representation of a bare-breasted woman would stave off foul weather.

Sailing ship *PARSEE*, late 1800s. The photo shows the traditional position of a figurehead on the bow.

Photo by David Alexander de Maus



Typical of the 19th century, this figurehead was on the replica of HMS *BOUNTY*. Originally built for the 1962 film *Mutiny on the Bounty*, the ship unfortunately sank in 2012, during Hurricane Sandy, off the coast of North Carolina.

Photo by Teanna L. Byerts



The exhibition space

This part of the gallery is intended as a space for displaying temporary art installations, generally lasting between 6 and 12 months.

Originally designed as a traditional art gallery with an unchanging display, it was redeveloped in 2009. The Edmiston Gallery was converted to incorporate a flexible display space, with walls that can be moved to suit different exhibition requirements.

Since then, the gallery has hosted a very wide range of displays: including travelling exhibitions, individual artist installations, student designers, fashion, and displays based on our own collections, developed by the museum's curators.

Milan Mrkusich *Seafarers' Windows*

These windows are from the Chapel of St Andrew, part of the Auckland Seafarers' Memorial Centre, built for the British Sailors' Society on Quay Street in 1964.

Mrkusich is considered one of New Zealand's most respected abstract artists, and he has designed several large public artworks in Auckland.

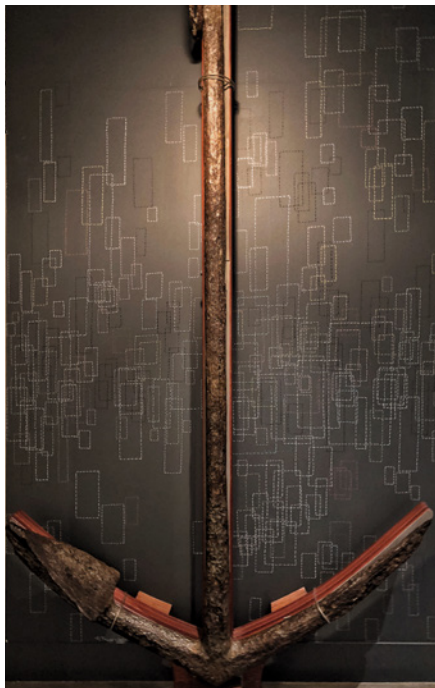
His design uses traditional signs and symbols of Christian art – the circle as eternity and God, yellow for the sun and divinity, red the colour of fire, Pentecost and the Holy Ghost, blue for heaven, the sea and truth, and greens, reds and purples for the earth below.

Luckily, the museum was able to rescue the windows before the buildings were demolished in the 1980s.

ORIGIN OF THE EDMISTON GALLERY

Philip Augustus Edmiston was an Auckland businessman with an interest in the arts. When he died in 1946 he left a legacy to the citizens of Auckland for the purpose of providing an art gallery and to establish a fund for the cultural improvement of the Auckland community.

When the museum was being developed, the trustees of the P. A. Edmiston Trust made the decision to sponsor construction of this gallery and pledged funding to purchase works of maritime art. These artworks have been purchased by the Trust and lent to the museum.



Left:

A section of one of the Mrkusich stained glass windows.

Anchor from HMS BOUNTY. Fletcher Christian's Remorse painted by John Reynolds for the Kermadec exhibition, features behind it. (See the story on page 76.)

The Edmiston gallery as it appeared in 2012, during the Kermadec exhibition.



HMS Orpheus – our worst shipwreck

On 7 February 1863, the Royal Navy ship ORPHEUS came to grief at the entrance to Auckland's Manukau Harbour, with the loss of 189 of the 259 men on board. It was New Zealand's worst shipwreck, and the story of the tragedy is told in the display and in the documentary on show.

HMS ORPHEUS was a 21-gun steam-corvette, built in 1861 and the flagship of the British Royal Navy's Australian Squadron. She was the pride of the fleet and was practically new at the time of the wreck. She was a product of that period in naval and shipbuilding history that marked the transition from sail to steam. In addition to typical sails ORPHEUS also had a steam engine.

On 7th February 1863, she had arrived off the Manukau Harbour from Australia with supplies and troops for the New Zealand land wars. These days, the Manukau is rarely used by ships bound for Auckland as the entrance is only navigable by small vessels. However, during

the 19th century, since most shipping between New Zealand and Great Britain came via South Africa and Australia, it was more common for ships – which were relatively small by today's standards – to enter the Manukau Heads and dock at Onehunga, saving the several days of sailing via North Cape.

The treacherous, shifting sandbars of the Manukau Heads, combined with the often heavy weather of the Tasman Sea resulted in many shipwrecks over the years and terrible loss of life. Eventually the larger ships of the period entered the Waitemata Harbour which became the main shipping route into Auckland.

Painting:

Wreck of the HMS Orpheus

This original painting of the event was painted just seven months afterwards, in September 1863.

It was painted by English marine artist Admiral Richard Brydges Beechey (1808-1895). He was not a professional artist but a Royal Navy officer. In the mid-19th century, the Royal Navy had a tradition of documenting itself through art and some of its officers were painters.

Documentary: ***Shipwreck***

Produced in 2000, *Shipwreck – The Wreck of the Orpheus* provides a dramatic reconstruction of the events of that disastrous day, the cause, and the consequent investigations. Presented by Paul Gittins, funded by NZ On Air, 23 minutes long.

This documentary is a fascinating account of the loss of the ORPHEUS, and is essential viewing for guides.

Model of HMS Orpheus

The model was made by E. T. Fairburn in the 1930s. It shows her to be a 'hybrid' vessel, using both sail and steam propulsion.

At the time, steam was not always reliable or very powerful and the sails were used whenever there was sufficient wind, at which point the funnel could be lowered out of the way and the propeller could be raised to reduce drag.

WHY THE PADDING?

A feature to notice on the model is the padding along the top of the gunwale (the side of the ship above deck). This is a relic of the days of wooden-hulled warships.

During the daytime the seamen's hammocks were packed under canvas covers along the gunwale. In the event of a cannonball striking the gunwale, some of the force would be absorbed by these canvas-covered hammocks. The aim was to reduce the risk of damage from lethal splinters created by the impact.

However, being a new ship, ORPHEUS had an iron hull ...

The Royal Navy has always upheld its traditions. The ships may change from wood to iron but never mind; hammocks have always been stowed along the gunwale!

A secondary purpose was to clear the hammocks out of the overcrowded mess decks by day to allow fresh air to dispel the effects of all the jolly jacks squeezed in there together by night ...

The story of the wreck of the Orpheus

The ORPHEUS approached the dangerous sandbars of the Manukau Heads. It was about 1.30 pm and the weather was fine and clear, with a moderate breeze from the south-west.

The pilot station on North Head showed the semaphore signal 'Take the bar' and, under sail and steam at half speed, she proceeded to cross the bar.

None of the ship's officers had entered the Manukau before. ORPHEUS carried an 1853 chart with corrections up to 1860, an 1859 copy of the 'New Zealand Pilot', sailing instructions dated 1861, and harbourmaster's instructions of 1861. However, by 1863, the bar had shifted over a kilometre since the chart was published and written directions varied from each other.

There was confusion on board and Commodore Burnett overruled the sailing master's decision to use the 1861 instructions.

As ORPHEUS approached the bar, another signal was received telling her to turn north.

Held in the ship's brig was convicted deserter Frederick Butler, a quartermaster who knew the bar and could see from his cell that the ship was on the wrong track. After speaking to the Sailing Master, Butler was taken to Burnett and stated that the ship was "going wrong". Seeing that the chart being used was incorrect the frantic Butler pointed out the correct entrance. Commodore Burnett immediately ordered the helm to be put a-starboard and the engines reversed. But it was too late.

A few minutes later ORPHEUS hit the bar. Stuck fast, she was pounded by the sea. Men were being washed overboard and drowned, others climbed into the rigging.

The engine seized and gradually ORPHEUS slipped over on to her side. The wind had strengthened and the force of the surf soon caused ORPHEUS to swing around, exposing her to the waves.

The hatches burst open, cabin windows were shattered, and ORPHEUS began to take on water. The crew attempted to abandon ship, but the power of the sea made escape extremely difficult, and many sailors were swept away.

By 6 pm ORPHEUS was almost buried in the water, the seas breaking over her to half-way up the rigging, which the crew had climbed to save themselves.

By 7 pm the sea was very high and dangerous. The bowsprit broke off. Towards 9 pm the masts fell one by one, killing most of the remaining crew, including Commodore Burnett.

Meanwhile the harbour pilot was guiding the steamship WONGA WONGA out of the harbour. When it became apparent that the ORPHEUS was in trouble, the WONGA WONGA approached and attempted to pick up survivors. By dawn, only the stumps of the masts and pieces of the deck remained visible.

Of the crew of 259, only 70 survived. One of the survivors was the young quartermaster who knew the bar, Frederick Butler.



'Wreck of the HMS Orpheus' by Richard Brydges Beechey.

The anchor of a famous ship

In 1787 HMS BOUNTY, under the command of Lt William Bligh, set sail for Tahiti, on a mission to collect breadfruit seedlings to establish a cheap source of food for the slaves working on plantations in the West Indies.

HMS Bounty's anchor

The 725kg iron anchor was abandoned in 1789, on a coral reef at Tahiti, where it had become embedded. In 1935, the Tahitians found that the coral around the anchor had deteriorated sufficiently for the anchor to be brought to the surface.

It was without its wooden stock and was missing one of its flukes (the spade shaped appendages on each arm). It was sent to Auckland for preservation.

Artwork:

Fletcher Christian's Remorse

Wall graphic behind the anchor, by John Reynolds.

In 2012, the museum hosted the exhibition *Kermadec*. Nine New Zealand artists, including John Reynolds, had been invited onboard HMNZS OTAGO for a week in the Kermadec region – one of the few remaining near-pristine ocean sites on the planet. They were able to experience the rolling seas, weather, wildlife and islands of the Kermadec region, to gather inspiration for artworks for the exhibition.

Mutiny on the Bounty

After a ten month journey of 27,000 miles, enduring terrible storms, hurricane force winds, snow, rain and high seas, HMS BOUNTY arrived in Tahiti in October 1788, and stayed six months.

The crew revelled in the subtropical climate and the warmth and hospitality of the Tahitians, so when the BOUNTY eventually left on 4 April 1789 with their cargo of breadfruit plants, many crew members reluctantly left behind strong emotional attachments.

They were back to the harsh realities of shipboard life. Lieutenant Bligh's reaction was to rant and rave. The crew and the officers complied reluctantly. His friend and second in command, Fletcher Christian, was affected most and seemed to be the recipient of most of Bligh's abuse. Bligh berated him during the day, then invited him to dine in the evening.

It was not long before the crew's discontent became evident. Christian decided he would have to desert. (Until the last minute, Bligh had no clue that he and Christian were not still friends.)

Twenty-four days after leaving Tahiti, a mutiny took place, resulting in Bligh and 18 crew being cast adrift in a 23 ft boat.*

Christian was elected captain, and the mutineers set off to find a place to live. They returned to Tahiti to load supplies and water, but as they prepared to leave, they found the ship had run aground on a reef. The ship was saved by a process known as 'kedging'. This involved suspending the anchor (displayed

between two ship's boats, still connected by its cable, and rowing it away from the ship to be dropped in deeper water. The cable was then hauled in, pulling the ship towards the anchor and off the coral.

The ship was now afloat, but when the crew tried to retrieve the anchor, they found it was stuck firmly. The cable had to be cut and the anchor abandoned (ships generally carried several anchors).

Despite risk of arrest by the Royal Navy, sixteen mutineers remained in Tahiti, while nine mutineers, along with six Polynesian men, twelve women and one baby, departed on board the BOUNTY. Under cover of night, they sailed from Tahiti, on 20 June 1789.

After seven months, they found Pitcairn

Island and on 15 January 1790, the BOUNTY anchored near what is now known as Bounty Bay. After they had taken everything of value off the ship, the Bounty was burned, to avoid detection by the Royal Navy, and the mutineers set up life on Pitcairn. Descendants of that community still form the majority of today's small population on the island.

**Amazingly, after an epic 47-day voyage adrift in an open boat, Bligh and his crew finally arrived in Timor – 6,701 kms from where they were cast adrift – on 14 June 1790, without loss of life.*

Bligh had chosen this destination as it was the nearest European outpost, avoiding the risk of hostility on nearer islands, where one of his men had already been killed. Rowing and sailing, they set to work, with Bligh navigating and maintaining order.



Northern Stairwell

The Subantarctic Islands are isolated groups of islands, south of New Zealand, which lie in the path of the sailing ships that used the 'roaring forties' - the stormy westerly winds - on the route from Australia to Europe, around Cape Horn.

The islands were often badly placed on maps of the time and difficult to see during bad weather.

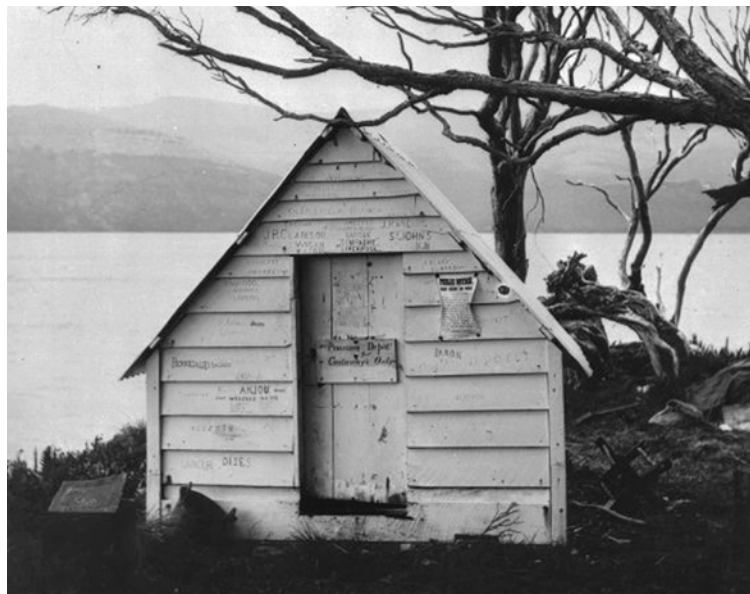
They include the uninhabited Auckland Islands, the site of many shipwrecks, that claimed numerous lives and left many castaways in inhospitable conditions.

The provisions depots hint at stories of shipwrecks and castaway mariners.

Gallery overview

The main feature of the stairwell is the only surviving depot boat from the Auckland Islands.

Also featured are the wheel of HMS CALLIOPE - a ship with a dramatic story; an Olympic gold medal winning New Zealand rowing boat, and a skiff for blind rowers.



Auckland Islands – shipwrecks and castaways

During the 19th century, a number of sailing ships were lost in the treacherous Southern Ocean.

At a time when sail was the main form of sea transport, the uninhabited Subantarctic Islands were a major hazard to ships. They were poorly charted and stormy weather conditions would make them extremely difficult to see.

It was not until 1867, following news of the rescue of the castaways of the *GENERAL GRANT*, that the New Zealand government established provision depots on the islands for shipwrecked mariners.

They provided food, clothing, boots, blankets, medicine, cooking utensils, fishing equipment, tools, matches, fuel, shelter etc, and were periodically checked by government steamers such as the NZGSS *HINEMOA*.

Over time, the number of depots and boats was increased, as on some occasions castaways found themselves on different islands from the depots and had to use ingenious methods to reach them. Fingerposts placed around the islands pointed survivors to the nearest depots.

The 22 survivors of the French barque *ANJOU*, shipwrecked in fog in 1905, used the Adams Island depot during their three-month stranding.

By 1929, with new technologies in navigation and changes to trade routes, the islands were no longer considered a shipping hazard and maintenance of the depots ended.

The loss of the General Grant

On 13 May 1866, the most famous wreck on the Auckland Islands occurred. The American clipper *GENERAL GRANT* drifted up against cliffs during the night in a very rare period of flat calm, and the swell carried her into a huge cave. Her foremast struck the roof and collapsed. Large rocks fell and stove in the fore-castle-head.

For the rest of the night the ship bumped and crashed against the roof and walls of the cavern until she began

to sink. There were only ten survivors, who existed on seals, seabirds and wild goats for 18 months until rescued on 22 November 1867 by the whaling brig *AMHERST*.

Lost with the *GENERAL GRANT* was £10,000 worth of gold dust from the Australian goldfields. By 2003 this was worth more than \$1.5m. Since then, over 25 expeditions have tried to find the gold, but so far without success.

The crew of the *ANJOU*, who sheltered at the castaway depot in Camp Cove (pictured on previous page). The *ANJOU* had been wrecked on 5 February 1905. The crew were eventually picked up by the *HINEMOA* on 7 May, having spent three months on the Auckland Islands.

The government ship *HINEMOA* at Carnley Harbour, with wreckage from the *GRAFTON* in the foreground, 1907.



“When the crew of the *ANJOU* reached the shore the outlook was dismal indeed, for there was no cessation of the pitiless rain, and they knew the island was quite uninhabited.

For the first night they slept in the bush, and when day broke they extended their researches and succeeded in finding the boathouse at Camp Cove. Here they found temporary shelter and caught some albatross, which they cooked in an empty tin they found about the place.

This was their first meal, and for several days they lived on albatross, shags, and mussels obtained from the rocks, while a party of the men explored the place.”

from the Otago Witness, Dec. 18 1905



Shipwrecks on the Auckland Islands

There were a total of 11 known shipwrecks in the subantarctic islands between 1833 and 1908. From at least two there were no known survivors.

The seven ships that left people marooned as castaways on the Auckland Islands were:

- **GRAFTON** – Wrecked in the Auckland Islands, 3 January 1864. The crew of five survived for 19 months before three of them sailed to Stewart Island in a boat they had made. The remaining two were rescued.
- **INVERCAULD**: Nineteen of the crew of 25 reached shore on the northern tip of Auckland Island, 10 May 1864. Only three survived, to be rescued a year later.
- **GENERAL GRANT**: Of 83 on board, 15 reached the shore of Auckland Island, 14 May 1866.

Four died attempting to sail to New Zealand and 10 were eventually rescued after 18 months.

- **DERRY CASTLE**: Wrecked on Enderby Island, 20 March 1887. Fifteen people drowned. The eight reaching shore were rescued 92 days later.
- **COMPADRE**: Following a fire, the crew reached shore on the north of Auckland Island on 19 March 1891. Sixteen of the 17 men were rescued two and a half months later.
- **ANJOU**: Following the ship's wreck on 5 February 1905 on Auckland Island, the crew of 22 survived and were rescued three months later.
- **DUNDONALD**: The ship was wrecked on Disappointment Island in the Auckland Islands on 7 March 1907. Sixteen of the crew of 28 were rescued eight months later.

Castaway depot boat

This four-oared gig is the only surviving depot boat from the Auckland Islands, which are about 450 kms south of the South Island.

Along with food, clothing and utensils, the New Zealand government left boats like this in several locations

around the islands. The boats allowed shipwreck survivors to hunt and fish for food, to augment the supplies provided in the depot.

This one was stored at the castaway depot on Adams Island between 1886 and 1927.



Ship's Wheel from HMS Calliope

In March 1889, the Royal Naval ship CALLIOPE was in Apia harbour, Samoa, along with three American and three German warships. Her mission was to protect British citizens caught up in the Samoan Civil War.

On Thursday 15 March, a hurricane struck the area and by early Friday it had reached a frightening force. After dragging her anchors, and rather than risk drifting on to the reef or the beach, CALLIOPE managed to steam clear, running at full power for over ten hours. The rest of the fleet was trapped in the harbour and either driven ashore or sunk. CALLIOPE was the only ship to survive the hurricane, in which 150 people lost their lives.

The ship's captain, in his report to the Admiralty, praised the discipline and skill of those in the engine room with saving their ship.

A painting depicting the story – 'Escape of HMS CALLIOPE' – can be seen nearby in the Edmiston Gallery.

The Calliope Dry Dock in the Devonport Naval Base is named for this ship, which was the first to make use of it.

Last wooden-built rowing eight

This eight-oared boat won gold for the New Zealand crew at the 1972 Olympic Games in Munich.

This was the last crew to win a major international event in an 'eight' made from wood. Fibreglass 'shells' are now much more common. Securing the shoe to the footrest helped the oarsmen to deliver a longer and more powerful stroke.

Coxed four rowing skiff

This 'four' was part of the Foundation for the Blind rowing programmes, held between the wars, for blind rowers. The sport played a vital part in the rehabilitation and recreation of dozens of young blind New Zealand men. Their highly developed sense of rhythm, aided by a sighted and enthusiastic cox, frequently enabled them to compete successfully against their opponents.

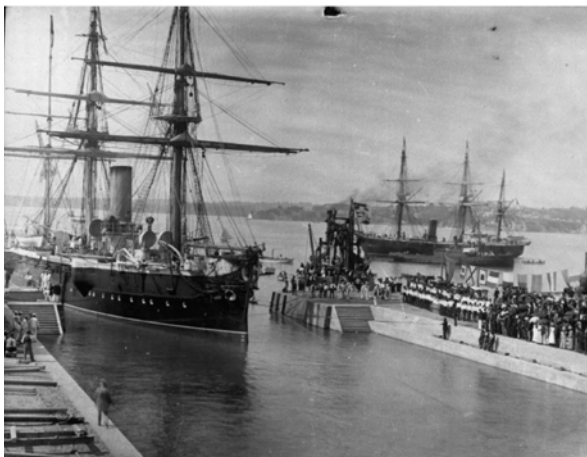
Dating from the 1930s, this competition skiff for four oarsmen and a coxswain is 'clinker built' i.e. the plank edges overlap each other.

During WWII, the Foundation for the Blind discontinued their rowing programmes and the skiffs were stored under their headquarters. Later a shed was built next to the exit, which meant there was now no way to remove the boats, until a hole was made in the shed and they were threaded out!



Left: the painting 'Escape of HMS CALLIOPE'.

Below left: HMS CALLIOPE in Calliope Dry Dock, Devonport.



The 1932-33 crew in the Foundation for the Blind rowing skiffs.



Oceans Apart

From the very early days New Zealand has been a nation which depended on ships to reach the world.

Cargo and passenger-carrying ships were, and still are, vital to the economy of this nation.

During the 20th century, as New Zealand's population grew, there was a big increase in shipping, which brought goods and people from all over the world. Departing cargo ships carried exports, essential to trade and New Zealand's economy, and passenger liners carried travellers returning home or going abroad for the first time.

The gallery includes a display devoted to the amazing story of the charismatic German WW1 sea captain Count von Luckner and his daring adventures in the Pacific.

Gallery overview

The main feature of the gallery is the display of ship models - mostly passenger liners - in glass cases.

There are paintings and posters as well as half-models, which are backed by mirrors to give the impression of full models.

The display reflects New Zealand's reliance on ships and shipping between the 1880s and the 1960s.

KEY GALLERY FEATURES

- Ship models and half models
- The *SEEADLER* model and story of Count von Luckner
- Rope framed paintings

Sea travel into the 20th century

Compared with the voyages of early immigrant sailing ships, a journey by the new steamships was more comfortable, and faster – by the early 1890s the voyage took as little as 40 days.

In 1883 the New Zealand government awarded a contract for a monthly mail service from Britain, to both the New Zealand Shipping Company and Shaw Savill lines. The companies ordered new passenger steamships for the route, though the ships also had masts and sails for when the winds were favourable, to save on coal. (See model of the NZSCo KAIKOURA.)

Although third-class passengers had to provide their own bedding and mess utensils, and their diet was still based on porridge and preserved meat, they also enjoyed fresh bread and roast meat. Meals were cooked and served by stewards, and the cabins were lit by electricity and heated by steam.

Post-war – more and faster voyages

Following the Second World War, new immigrants flooded into New Zealand. Their fares were paid by a New Zealand government anxious to increase the country's population. More details on this story can be seen in the *Immigrants* gallery.

Passengers on ships using the Suez Canal generally had time ashore at Aden, Colombo and Fremantle. The ships that went through the Panama Canal often stopped at Pitcairn Island.

By this stage most ships were diesel powered and sailed to New Zealand through the Suez or Panama canals. By now the voyage lasted about 35 days, after which the ship would stay in port for about a month, to load and unload cargo.

NZSCO ADVERTISEMENT, 1876

... Vessels are despatched from London to each of the principal ports in the Colony regularly every month. Their saloons are fitted with all the latest improvements to ensure the comfort of passengers, and the tables are supplied on a most liberal scale.

Persons wishing to bring their friends or cargo out from England can arrange for so doing, and the whole or part cost, if necessary, can be made payable on ship's arrival in New Zealand ...

Who constructs ship models and why?

The larger models were usually commissioned from independent model-makers by shipping companies for display to the general public and potential passengers, in their principal offices. NZSCo had offices in all the major New Zealand ports. Each office had a model of a Company vessel. The firm of Bassett-Lowke Ltd. of Northampton, England, were world-renowned specialists in the construction of highly detailed models.

The DOMINION MONARCH is a sample of their craftsmanship. To ensure accuracy, allowing for late design alterations, such models were not usually completed until after the ship was commissioned.

Alternatively, a shipping company might

advise a shipbuilder of specifications for a proposed new vessel. The apprentices in the shipyard would then create a model to meet the potential owner's requirements.

This frequently resulted in a contract to build the real thing. A fine example of a builder's model is that of the DURHAM, ordered by NZSCo.

Model ships are also built by amateurs, often to a very high standard, and can involve a great deal of research. An example of this is the model of von Luckner's SEEADLER in this gallery. Another is the excellent model of Captain Cook's RESOLUTION in the *European Landfalls* gallery, which was constructed by the museum's modelmakers in 2005.



New Zealand shipping companies

As early as the 1870s local business leaders founded two shipping companies with the aim of controlling their import and export trade.

Models of some of the notable ships of both the **New Zealand Shipping Company** (NZSCo, founded 1873, in Christchurch) and the **Union Steam Ship Company** (USSCo, founded 1875, in Dunedin) feature in the gallery.

The Union Company's livery of bronze-green hulls and black-topped red funnels can easily be identified on the models, while NZSCo ships had funnels of pale yellow, and black hulls.

In 1916 the British shipping company P&O

(Peninsula and Oriental Steam Navigation Company) acquired the combined NZSCo and Federal Line, and the following year gained control of USSCo.

In its heyday the Union Company was referred to as the 'Southern Octopus' because of its many trade routes. As well as coastal trade, these routes linked New Zealand with Australia, the Pacific Islands, the US west coast, Burma, India and even Great Britain.

Passenger liners

Ocean liners are among the greatest of man-made constructions, especially at the peak of their development from the 1930s onwards.

They were as large then as any skyscraper or other great building. But unlike them, the liners were powerful, mobile testaments to man's engineering skill. Travelling at up to 30 knots (55 kph), they were the monarchs of the oceans, true floating cities.

In their heyday there was great rivalry between shipping lines, as the liners were symbols of national prestige – they had to be the fastest and the best, and many represented the ultimate in luxury and splendour.

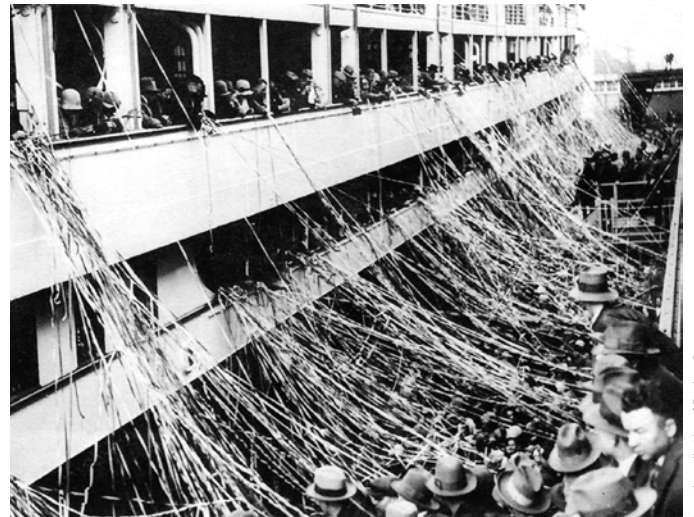
However, alongside the glamorous ships, with their rich and famous passengers, sailed the more modest and more familiar ships, carrying travellers and emigrants to and from New Zealand. These are among the ships represented in our gallery.

It was these liners and their scheduled routes linking countries such as Britain with the far corners of the world that enabled people to travel long distances on a regular basis.

In this way the liners enabled trade, communication and migration across the world, laying the foundations for the modern globalised society we live in today.

Tugs control P&O Line's new flagship *CANBERRA* as she berths at Princes Wharf on her maiden voyage, July 1961. A large, excited crowd watch from the roof of the passenger terminal (now a hotel) and along the waterfront.

February 1925. *AORANGI* is about to depart from Queen's Wharf, bound for Sydney. Her passengers line the decks and throw streamers to family and friends on the wharf below. As the ship moves away the streamers stretch and then break. For many, this is an emotional and sometimes final farewell to loved ones.



From the collection of Reuben Goossens

Ship models, in chronological order

Kaikoura

1884-1899 4500 grt. NZSCo passenger and cargo ship

Designed to carry both passengers and cargo, KAIKOURA and her four sisters were the first steamers ordered by the NZSCo.

Migrants from Britain to New Zealand occupied temporary accommodation in the 'tween decks. This was then stripped out for the return voyage to carry frozen carcasses to the London markets.

Pamir

1905-1957 2800 grt. Cargo ship

PAMIR was one of the world's last commercial sailing ships. Originally German-owned, she was built for the guano trade (seabird manure – a valuable agricultural fertiliser). She would sail to Chile from Germany with general cargo, then homeward with a cargo of guano.

By the time she arrived in Wellington in 1941, she was owned by a Finnish company. During WW2, Finland was a German ally and therefore an enemy of New Zealand, so PAMIR was promptly seized as a prize of war.

She was managed by USSCo, and made several voyages to Canada and the US with a mixed Finnish/New Zealand crew. In 1948, the ship was handed back to her Finnish owners.

Rescued from the scrapyards in 1951, she was returned to German ownership for conversion to a cadet ship.

In 1957, when heading for Europe from Argentina, the ship capsized in a hurricane when her cargo of bulk barley shifted. There were only six survivors from her crew of 86, which had included 52 cadets.

Maunganui

1911-1947 7500 grt. USSCo passenger ship

With her ability to withstand rough seas and the attractiveness of her interior, MAUNGANUI was a favourite with travellers. She was also one of the most profitable of the company's ships. She sailed the trans-Pacific, trans-Tasman and Pacific Islands services.

MAUNGANUI acted as a troopship during WWI, and as a hospital ship during World War II, when she was in attendance at a variety of theatres of war. In 1947 the ship was sold to Greek owners and was a ferry in the Aegean Islands before being scrapped in 1957.



Niagara

1913-1940 13,400 grt. USSCo passenger ship

On delivery from her builders, NIAGARA became the largest ship to enter the Southern Hemisphere.

Her triple screw propulsion system was pioneered by the NZSCo and was chosen for use in the TITANIC. During her construction, NIAGARA had become known as the *Titanic of the Pacific*. Unfortunately the TITANIC sank just four months before the launch of NIAGARA. The description was hastily changed to *Queen of the Pacific*!

Sinking by moonlight

On 19 June 1940, NIAGARA was on her way from Sydney via Auckland to Vancouver. Five days previously the German raider ORION* – disguised as a merchant ship – had slipped undetected into New Zealand waters and laid 228 mines in the approaches to the Hauraki Gulf. This minefield was only discovered when, at 3.40 am, NIAGARA became its first victim.

Within a few minutes distress signals were sent by radio, and rocket flares fired. The order to abandon ship was given almost immediately, and by 4 am, when the ship was settling by the head, all 349 passengers and crew were safely in the 18 lifeboats, with only minor injuries.

The orderly abandonment of the ship was helped by the fact that the night was calm and moonlit, and most of the electric lighting system was still functioning.

Water poured through gaping holes near the bow, and at 5.32 am the NIAGARA sank in 70 fathoms of water. Shortly after, all that was seen was oil and deck fittings floating on the water.

Under captain's orders the boats kept close together, but it was not until 11 am, when a coastal steamer arrived, that the first boat's crew was transferred.

*ORION was also involved in the sinking of the NZSCo ship RANGITANE, five months later.

Some of NIAGARA's survivors.



Left: The four-masted barque PAMIR.

Below: RMS NIAGARA in Auckland.



NIAGARA'S SECRET CARGO

Among other wartime cargoes, the ship was carrying a secret consignment of 590 gold bars – payment by Britain to the US, for the supply of arms.

Too valuable a cargo to lose, in due course a Melbourne firm was engaged to locate the wreck and recover the gold. A suitable vessel was needed as a diving platform, however most useful equipment was already destined for war use.

A dilapidated wreck, the CLAYMORE, was found in Auckland and, after much work, was eventually made seaworthy. After several weeks of searching, NIAGARA was located in 130m (70 fathoms) of water – deeper than any previous recovery had been attempted.

Explosives had to be used to access the ship's strongroom and, because the ship lay on its

side, these had to penetrate steel plates, beams and girders, etc. The operation involved men on the CLAYMORE manipulating a grab, according to instructions from a man suspended over the wreck in a diving bell.

After many months – and a close call with a rogue mine – the delicate operation was eventually successful, and the first two bars were brought to the surface on 13 October 1941.

By the time operations ceased on 7 December, nearly a year after they had begun, a total of 555 bars had been recovered. A new record was set for a salvage operation at so great a depth, and it all took place in complete secrecy.

In 1953 a British salvage team recovered a further 30 bars ... leaving a tantalising five bars still to be recovered!

AUSSIE THE CAT

After hitting the mine, NIAGARA sank quickly by the bow. Fortunately, all passengers and crew got away safely in the lifeboats; the only casualty being the ship's cat, Aussie.

It seems a crew member had grabbed hold of Aussie and put him (or her) into a lifeboat, but Aussie (being a typical cat), preferring the comforts of the ship, decided to jump back onboard and was presumed lost.

Legend has it however that, a few days later, a water tank washed ashore, and clinging to it – bedraggled and covered in oil – was Aussie. A local farmer caught him and cleaned him up but shortly after, he ran away – albeit with one less of his nine lives! (True or not, it's a nice story ...)

DID NIAGARA INTRODUCE THE 'SPANISH FLU' TO NZ IN 1918?

At the end of WWI, NIAGARA was one of the ships bringing troops back to New Zealand, at the same time as the Spanish Flu pandemic was sweeping the world. She arrived in Auckland on 12 October 1918 with the Prime Minister, William Massey, and the Minister of Finance, Joseph Ward, on board.

Several cases of flu were also on board. One person had died and many others were seriously ill.

False rumours circulated that Massey had rejected the quarantine measures normally required in order

to disembark immediately but in fact, he had insisted that they be treated the same as other passengers.

Nevertheless, rumours persisted that NIAGARA brought the flu, even though recent research of hospital records shows it was already here.

It is with deep regret that we announce that Sister Crossing, late of the Gisborne Hospital, died at the Auckland Hospital on 26th October. She contracted influenza when nursing patients on the s.s. "Niagara," on which was a serious outbreak at the time of arrival in New Zealand. Sister Crossing had not been long in the Dominion, having come from Australia, where she was trained in the "Terraces" Hospital, Sydney, to join the Gisborne Hospital staff.

SWIFT END MET

DAMAGE NEAR BOWS

NO SIGN OF PANIC

BOATS PROMPTLY LOWERED

LONG WAIT FOR RESCUE

The Niagara met her end swiftly. With water pouring through gaping plates near her bows, she was transformed within a matter of minutes from a proud liner to a sinking ship without hope of salvation.

Calm and comparatively clear conditions prevailed when the Niagara was steaming up the coast. It was at 3.40 a.m. that the explosion occurred. The ship shook from stem to stern. Hatch covers and stanchions on a forward hold were hurled into the air and many people were thrown from their bunks. The hold filled so rapidly that it was evident that the bottom of the ship had opened.

the majority of the passengers and crew were in the boats and the work of abandoning ship being facilitated by the fact that the electric lighting system was still in commission. Even the ship's cat, spitting her contempt at disaster, was firmly grasped by a seaman and included in a boat's complement.

Personal account by NIAGARA passenger Mr Brangier:

"It was certainly an experience which I will not forget. I did not expect to see Auckland so soon again, but I cannot say enough of the efficiency and hospitality of all concerned. I was met at the wharf by the same taxi-driver who had carried my luggage to the Niagara. His main concern seemed to be that after all the trouble he had had with my bags it was hardly right to lose them.

Mr. Brangier said that practically the only other injury to his knowledge was a fractured ankle suffered by a nightwatchman who was standing within a few feet of the hatches.

"It has been a trying day," concluded Mr. Brangier, "and I am sure I will sleep well to-night, but if a motor-car backfires anywhere in my vicinity early in the morning, it will be the death of me."

Tiare Taporo

1913-1968 170 grt. Trading schooner

This fine model of a trading schooner is of a type common among the widely scattered island groups of the South Seas from the late 19th to the mid 20th centuries. Several of these vessels were built in Auckland. They were usually based in Fiji or Tahiti.

Aorangi

1924-1953 17,500 grt. USSCo passenger ship

When built, AORANGI was the world's largest and fastest motor ship attracting worldwide interest.

Her design was ultra-modern and innovative, and she was justly described as a floating palace. Her engines worked without a hitch, and at each port of call she aroused much admiration; remaining among the world's notable ships.

Note the traditional, tall steamship funnels – unnecessary in a motor ship. In the eyes of passengers of the time though, a ship with more funnels had greater prestige.

During World War II the AORANGI served as a troopship and was mother ship to 150 small tugs off the Normandy beaches during the D-Day operations towards the end of WWII.

She was withdrawn from service in 1953 and broken up.

Rangitata/Rangitiki/Rangitane

All built 1929. All c16,700 grt. NZS Co passenger ships. RANGITATA and RANGITIKI broken up 1962, RANGITANE sunk 1940

The model represents three near identical ships. NZS Co won a contract to carry mail between Britain and New Zealand, and had the three 'Rangi' sisters built, each designated 'RMS' (Royal Mail Ship).

All were famous during their lifetime, carrying emigrants from Britain to New Zealand, and returning with cargoes of meat and dairy produce, in refrigerated holds.

When launched they were the largest passenger liners designed for the New Zealand service and the first to use diesel instead of steam engines.

In 1940 the RANGITANE was attacked and sunk by the German raiders ORION and KOMET just 512 km north of East Cape. (Three weeks later, the NIAGARA also fell victim to the ORION.) She was carrying civilian passengers and crew, 16 of whom died in the attack. The survivors were taken onboard the German ships before RANGITANE finally sank. She was one of the largest passenger liners to be sunk during the war.

As for RANGITATA, in late 1940 she carried 113 child evacuees from Britain to New Zealand. Together with RANGITIKI, she also served as a troopship during the war. Both were withdrawn in 1962 (as was the DOMINION MONARCH), when air travel had become cheaper and faster.

Visitors are often amused to learn that this model, used for display to the general public, was originally named RANGITANE – check the inconsistent lifeboat names on the port (left) side and the altered name on the bow and stern. After the RANGITANE was sunk during the war, the model was renamed RANGITATA. The job had not been well done however, but the excuse was that only the starboard (right) side was visible to the public, as they passed the company's office on Quay St, in Auckland!

Below:

In April 1939, OPAWA became the biggest ship to visit Oamaru.

AORANGI lifeboat drill, Vancouver, 1933.

NZS Co 1930s advertising poster featuring RMS RANGITATA.



Opawa

1931-1942 10,100 grt. NZSCo refrigerated cargo ship

Built for the NZSCo, the OPAWA was a cargo ship and carried no passengers.

This class of ship introduced the change from steam to motor propulsion in the Company's fleet of refrigerated cargo liners. The cleaner atmosphere and working conditions meant the crew accommodation could be amidships – a major improvement for the sailors. Another improvement were the 'winch houses' on deck. These shelters protected the winchmen from bad weather while working, and were much appreciated.

In 1942, OPAWA was torpedoed and sunk in the Atlantic, with the loss of 56 lives.

Durham

1934-1965 10,900 grt. NZSCo cadet training ship

DURHAM was designed specifically as a cadet training ship, for students learning to become ships' officers in the NZSCo fleet. In addition to their studies, the 40 deck cadets performed seamen's duties as part of their training.

Full-time staff included a schoolmaster, a seamanship instructor and a physical education instructor.

During World War II DURHAM was manned by normal crew. Though she suffered damage during the war, she survived and cadet training resumed in 1946 until 1962.

Note: Our model is on loan from the Durham Association [of former NZSCo officers].

The Merchant Navy – unsung heroes of wartime at sea

The Merchant Navy (or Merchant Marine) refers to the world's commercial, non-military shipping, which carries the majority of commercial trade worldwide. Without it much of the import-export trade would not take place.

Unlike the armed services, the Merchant Navy was not a force with a central command. Merchant seamen, and women, were unarmed civilians.

In wartime, defenceless merchant ships and seafarers transported the majority of military equipment and supplies to war zones. The crews faced the same risks as the armed forces, and lived with the stress of imminent attack.

During the two World Wars, by percentage, the British Merchant Navy losses far exceeded those of the Royal Navy.

In both conflicts, the majority of merchant seamen who had no identifying uniforms

were subject to abuse from other civilians when ashore for not doing their bit for their country. In the 1940s the silvery 'MN' badge was distributed to British and Commonwealth seafarers to reduce this abuse.



Right: a Merchant Navy badge.

Below: The Merchant Navy plaque in the *Oceans Apart* gallery.



CADET LIFE ON TRAINING SHIPS

"Life on board the training ships is divided into many activities and throughout the training particular attention is given to development of character and qualities of leadership. Although every effort is made to instil an individual sense of responsibility, strict discipline is always maintained.

Life on board isn't all work, and cadets are encouraged in their sporting and leisure activities. At sea, the leisure hours can be spent playing deck cricket and tennis, or cadets can relax in their own ante-room with a book from the library. Cadets have their own mess room where meals of a high standard are served. A swimming pool is rigged in warm weather and always proves to be popular ..."

From the NZSCo prospectus
How to become a Deck or Engineer Officer, April 1962

DURHAM, painted by marine artist Robert Lloyd.



In the schoolroom of a cadet ship.



Awatea

1936-1942 13,500 grt. USSCo passenger ship

AWATEA was the Southern Hemisphere's fastest passenger liner when built, exceeding 23 knots (42 kph) without stress. She was also the third-fastest merchant ship in the British Empire.

Built for trans-Tasman service (Auckland to Sydney to Wellington and return) she reduced the travel time by a whole day to 2.5 days. This was important in the days before air services began, and there was much competition between shipping lines for the fastest crossing, particularly with Matson line ships (see the story at the bottom of the page).

Shortly after the sinking of the NIAGARA, the AWATEA replaced her on the Vancouver service. Returning from her first voyage across the Pacific, it was learned that the German raiders ORION and KOMET were nearby. They had been responsible for the sinking of the RANGITANE less than three weeks previously, the NIAGARA a few months earlier, and several smaller ships since then. All six boilers were fired up and she achieved a speed of over 46 kph and headed for safety.

Her size and speed made AWATEA an ideal troopship. However on the night of 11 November 1942, after landing her troops on the Algerian coast, she received a concentrated assault by enemy aircraft and sank. Fortunately none of her (civilian) crew was lost. The AWATEA had been in service for a tragically short time – just six years.

The AWATEA followed the fashion for liners of her day, which was that more funnels looked better – so the after funnel was in fact a dummy! During a refit in 1937 the height of the funnels was increased, to reduce the nuisance of smuts falling to the deck. The model displays the original funnels, the painting opposite it shows them modified.

The Tasman Greyhound

The steel greyhound on the wall was presented to AWATEA, and carried at the top of the foremast, in recognition of her record-breaking trans-Tasman voyages. These included Auckland to Sydney in 55 hrs 28 min in October 1937, and Sydney to Wellington in 55 hrs 47 mins in December of that year. She retained her status as the fastest ship to cross the Tasman until 1961, when the P&O Orient liner ORIANA crossed from Sydney to Auckland in 47.5 hours on her maiden voyage.



The race that was not a race

AWATEA's captain was the well-known and colourful Arthur Davey. Speculation was rife on both sides of the Tasman about the speed of the AWATEA compared with that of her rivals the American ships MARIPOSA and MONTEREY of the Matson Line. Captain Davey had an advantage over the American captains in that he held a Pilot's Licence for both Auckland and Sydney harbours. This meant he could take his ship through harbour limits without stopping to pick up or drop off a pilot.

On 10th June 1938 both the AWATEA and the MARIPOSA were due to sail from Auckland to Sydney. Captain Davey had

been given strict instructions: "On no account are you to race with the MARIPOSA".

The AWATEA left on schedule at 5 pm using, as usual, four of her six boilers. At 11 pm the MARIPOSA followed.

The AWATEA encountered heavy seas that evening and reduced speed for the comfort of her passengers. At 4.25 am the following morning she was overtaken by the American liner which, by leaving at 11.00 pm, had missed the worst of the weather. Later that morning, AWATEA's fifth boiler was fired up and speed increased to make good the distance lost during the night.

At 8 am the next morning, the MARIPOSA was only one mile ahead. At 2.30 pm the ships were abreast, just half a mile apart. At 3.20 pm the AWATEA was ahead by one length.

Then – just after 5 pm – watchers at Sydney Heads

Although the captains of the liners Awatea and Mariposa deny that the exciting dash for the Heads in which the vessels took part late on Monday afternoon was in any sense a race, members of the two crews and passengers regarded it as such, and were keen to win.

From the *Sydney Morning Herald*, 15 June 1938.

observed a sight never to be repeated: three trans-Tasman liners arriving within ten minutes! At 5.05 pm the AWATEA entered the harbour. Five minutes later came the WANGANELLA, which had left Wellington the day before the others left Auckland. And finally the MARIPOSA, five minutes after that. Her engines had been 'flat out' to achieve 21.5 knots, yet this was the AWATEA's average for the voyage.

Captain Davey refuted any notion of 'racing': "Of course not. I had one boiler cold. If a man is racing, he puts everything he's got into the race, doesn't he?"

The AWATEA was fitted with a radio telephone system, which Davey used to ensure that the radio public on both sides of the Tasman was well aware of the triumph of his ship. It was no disadvantage that his own son, Jack Davey, was a well-known radio personality of the day!



AWATEA OVERTAKING MARIPOSA. Painting by WW Stewart.

Dominion Monarch

1938-1962 26,460 grt. Shaw Savill Line passenger and refrigerated cargo ship

The flagship of the line, DOMINION MONARCH was the largest passenger ship ever designed for the New Zealand service. She was first class only and the passenger accommodation was lavish. Her opulent interior also incorporated air-conditioning in the restaurant, a new feature for the 1930s, and she was considered a most luxurious way to travel.

The 'DM', as she was known, was built for emigrant service to South Africa, Australia, New Zealand and back to London via the Panama Canal.

She was retired in 1962. Before being scrapped, the DOMINION MONARCH was used briefly as a floating hotel at the 1962 Seattle World Fair.

Like many other ships of the day, one of the funnels was a dummy, a popular design feature, as more funnels supposedly gave liners more 'prestige'.

Port Auckland

1949-1976 11,945 grt. Cargo and passenger ship

The streamlined superstructure and funnel of this ship was a bold departure from conventional cargo liners. A very high standard of accommodation for twelve passengers and the crew was also a feature.

The basic design remains similar to that of the pre-war OPAWA, being an up-dated version of what was colloquially known throughout New Zealand and Australia as a "big Pommie meat boat"!

A narrow wartime escape!

In December 1941 while serving as a troopship, DOMINION MONARCH arrived in Singapore with troops and equipment.

It had been decided to dry-dock the liner to overhaul the engines there; however the Japanese were advancing quite rapidly towards Singapore.

No-one imagined that they would reach it by the end of January, but it was soon clear that Singapore would not hold out for long. Unfortunately of course, the vessel

was lying in dry-dock with her main engines dismantled ... and with invasion imminent.

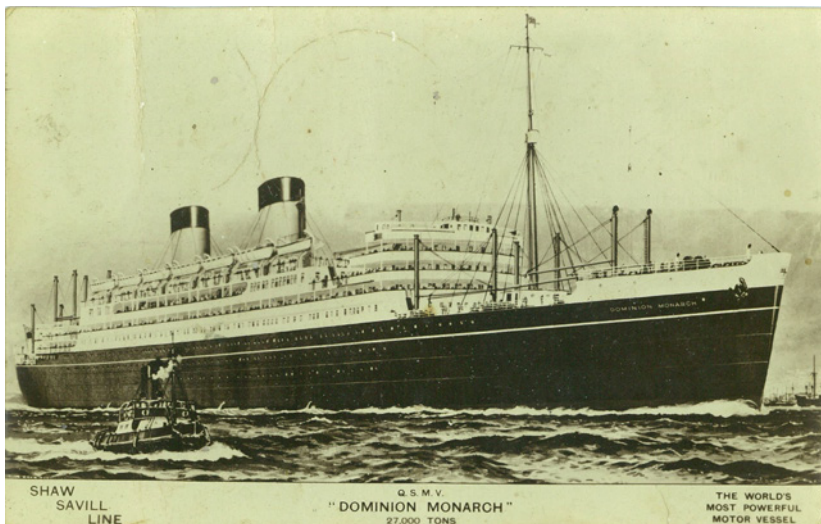
Heroically, the crew did a magnificent job of re-assembling her engines and she was able to leave Singapore on the eve of the Japanese invasion.

The crew had first got one engine going and, once under way, all hands worked on the other three engines. Fortunately, she made it to New Zealand and then returned home via Panama.

DOMINION MONARCH as a troopship, c1942. Scottish Maritime Museum



"The World's most powerful motor vessel". This postcard was sent by a passenger at the end of the maiden voyage. In 1949 she transported both the NZ Cricket team and the All Blacks rugby team.



Members of the 28th Māori Battalion crowd the deck of the troopship DOMINION MONARCH as it arrives in Wellington in January 1946.



Count Felix von Luckner – the Sea Devil

A model of the World War I German commerce raider *SEEADLER*, introduces the story of its colourful captain, Count Felix von Luckner (1881-1966) – renowned for his flamboyant, charismatic and gentlemanly character.

Originally built as an American sailing ship, she was captured in 1915 by a German submarine and converted to an armed commerce raider. In December 1916, now named *SEEADLER* ('Sea Eagle') and disguised as a Norwegian merchant ship with a load of timber supposedly bound for Australia, she managed to break through the British naval blockade, skirting up the Norwegian coast to sneak around the tip of Northern Scotland and break free into the Atlantic. During the next six months, she proceeded to sink eleven sailing vessels and three steamers, without causing loss of life.

In August 1917, while at anchor off the island of Mopelia (1300 km from the Cook Islands) and in need of repairs, the *SEEADLER* was driven aground by a freak wave. With five crew von Luckner made his way in one of the ship's boats to Fiji. However the party was captured and sent to Auckland, where von Luckner

joined other German internees on Motuihe Island in the Hauraki Gulf.

Security on Motuihe was lax – von Luckner faked setting up a play for Christmas with his men and used provisions for the play to plan his escape. On 13 December, von Luckner, together with other Germans escaped in the camp commander's fast motor boat *PEARL*. They then seized the scow *MOA*, but this was witnessed from the scow *RANGI*, and the alarm was raised. The Germans were recaptured off the Kermadec Islands and returned to Motuihe. (Read more on this story in the chapter on the *Coastal Trade* gallery in this guide.)

Every man of the crew eventually returned home to Germany – von Luckner had lost none of his own crew or any of those he had captured – a fact of which he was very proud.

After the war, von Luckner came to be regarded as something of a folk hero. An entertaining public speaker, he was in regular demand, and traveled extensively, lecturing and teaching in the United States and England. During the 30s, he and his wife undertook a round-the-world voyage in his yacht, which included visits to New Zealand (in 1938) and Australia, where he was warmly received.



S. M. S. „SEEADLER“.

WHY A SAILING SHIP IN WARTIME?

By 1916 the Allies had blockaded German warships in the North Sea, and any commerce raiders that succeeded in breaking out lacked foreign bases for resupply of coal. The idea of using sailing ships came about, since they didn't need coaling.

The *SEEADLER* was equipped with hidden lounges, accommodation for additional crew and prisoners, two hidden cannons, two hidden

heavy machine guns, and rifles for boarding parties.

She also had a secret auxiliary engine, making her much faster than her potential victims realised.

Unsuspecting captains of unarmed steamships, on encountering *SEEADLER*, would no doubt have welcomed the opportunity for a close up view of a fine clipper ship with a full suit of sails!

The Craig Family

On the wall to the right of the SEEADLER model are paintings of five of the nine sailing ships generally referred to as 'The Craig Family'.

The Craig family business was founded in Auckland in 1876 as general merchants and cartage contractors – “one of the most extensive in the colonies”. J.J. Craig significantly extended the business he inherited in 1886 and added shipping to the enterprise.

In the 1890s there was an unprecedented demand for timber in Australia, and J.J. Craig built up an impressive fleet of sailing ships to carry wood across the Tasman and bring back coal from New South Wales.

He renamed the ships that he bought in honour of members of his family, and they were always smartly maintained.

Each ship carried a crew of about fourteen and except for the barquentine SELWYN CRAIG, all were barque-rigged (square sails on the fore and main masts, with fore-and-aft sails on the rear, or mizzen, mast. See painting below.)

SELWYN CRAIG – built 1868, bought 1895, sold 1911. Barquentine rigged.

JAMES CRAIG – built 1874, bought 1900, sold 1911. Currently berthed near the Australian Maritime Museum in Sydney, and open to the public. She is crewed and maintained by volunteers.

LOUISA CRAIG – built 1876, bought 1906, sold 1916. The last of 'The Family' to leave the Craig fleet.

HAZEL CRAIG – built 1879, bought 1899, sold 1906. One of the longest serving sailing ships in the trans-Tasman trade. The ship's figurehead is in the Edmiston Gallery.

CONSTANCE CRAIG – built 1893, bought 1899, sold 1906.

Rope framed paintings of Preussen and Marjorie Craig

On the wall near the stern of AORANGI, in an elaborately-worked rope frame, is a painting of the PREUSSEN (1902-1910) which, until the 2000 launch of the ROYAL CLIPPER (a sail cruise liner), was the only five-masted full-rigged ship ever built. She carried a crew of 48 and was the largest of the wind-powered, cargo carrying merchant sailing ships.

She could carry over 8100 tonnes of cargo and her fastest speed was a little over 17 knots (about 32kph). Her rigging included 24km of steel wire rope and 16km of hemp and manila.

This supreme example of a windjammer was wrecked following a collision with an English cross-channel ferry that misjudged her speed and (illegally) cut across her bows. Her German owners replaced her with two 4-masted barques, similar to the PAMIR.

The second rope-framed painting features the MARJORIE CRAIG, another of the Craig Family ships, built 1891, bought 1906, sold 1913.



Rope framed painting of PREUSSEN.



Rope framed painting of MARJORIE CRAIG.

Understanding ship sizes – GRT and LOA

As the models in the gallery are built to several different scales, the chart below gives a quick visual guide to the relative sizes of the ships represented there.

The size is given in two ways: the *length overall* (LOA) of the ship, and the *gross registered tonnage* (GRT).

Confusingly, the GRT does not indicate actual weight but rather volume – it could be considered as the amount of *space* within the ship. The high GRT of modern cruise ships (see

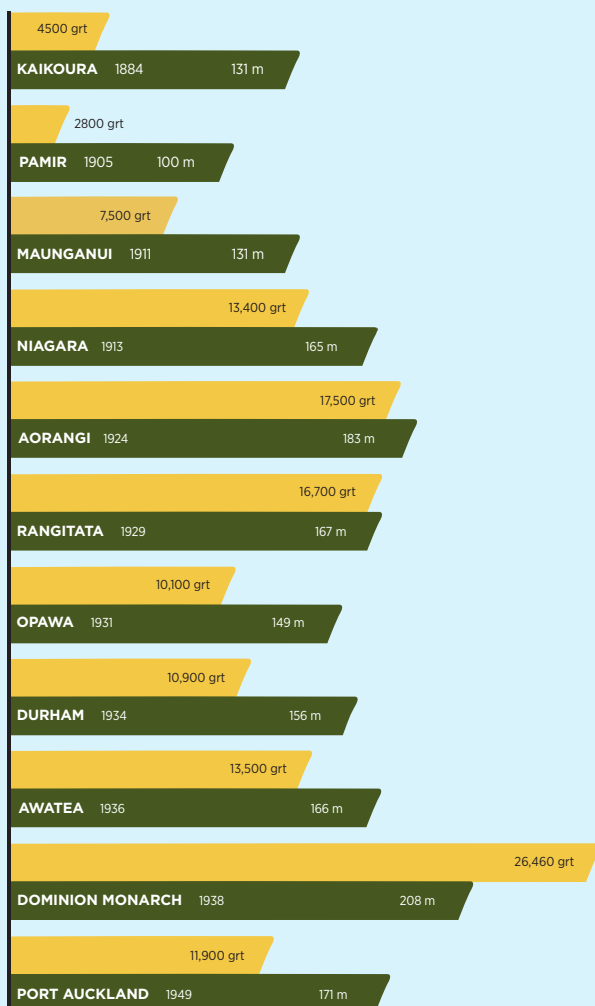
images below) is mostly the result of increased height, somewhat like a hotel perched above the hull, rather than increased length.

Taking the proportions of the RANGITATA as those of an ‘average’ ship in the gallery, it can be seen that some ships are relatively bigger, or smaller, than their length alone might indicate.

DOMINION MONARCH is the only one that is larger by volume than length.

The ships are listed in order of their age.

Relative ship sizes



PUTTING IT ALL INTO PERSPECTIVE

At the time of her maiden voyage in April 2018, the Royal Caribbean line SYMPHONY OF THE SEAS was the largest cruise ship in the world, measuring 362 m long with a GRT of 228,081.

Comparing those figures with those of the DOMINION MONARCH (the largest passenger ship ever built for the New Zealand service), SYMPHONY OF THE SEAS is less than twice as long, but the GRT is more than 10 times greater!

Using wind power, the largest commercial sailing ship ever built – PREUSSEN (subject of a painting in the gallery) – was just 5,081 GRT and 149 m LOA.



DOMINION MONARCH, 1938.

Eighty years later, SYMPHONY OF THE SEAS, 2018.



Around the Coast

New Zealand is primarily a maritime nation. With 6000 km of coastline, all the early settlement, both Māori and European, was around the coast. In fact, Cromwell is the most inland town in New Zealand – at only 119 km from the sea.

New Zealanders today have not just a maritime history but a maritime lifestyle as well.

Gallery overview

This section of the museum contains several separate displays on a variety of maritime subjects – from fishing to navigation, boats and engines, lighthouses, rescue, holidays, the Customs Service, and first-hand tales of the sea and sailing.

KEY GALLERY FEATURES

- The bach and seaside shop
- The Hamilton Jet boat
- Fishing – from Māori origins to commercial operations

SUMNER LIFEBOAT

The lifeboat service in New Zealand developed towards the end of the 19th century as a result of the large number of ship losses, several of which were immigrant ships carrying many passengers.

As an example, in Christchurch alone there had been 16 major wrecks prior to 1898 when the Sumner lifeboat RESCUE was launched.

During the 19th and 20th centuries, shipping between Lyttelton and Christchurch had to pass across the Sumner Bar, a hazardous river bar that claimed many vessels and small craft.

The cliffs near Christchurch are very steep, with frequent rock falls into the sea, which also presented a serious hazard to shipping during periods of bad weather, or because of the turbulence of high tides. On top of that, the area is prone to fog.

In 1867, Joseph Day was appointed signalman (and later pilot) at Sumner for the Lyttelton

Harbour Board, which was then responsible for ships crossing the Sumner Bar. In keeping with maritime tradition, Joseph Day used his pilot boat (and sometimes a volunteer crew) to save lives when the occasion arose. He is credited with personally saving 25 lives.

In the 1890s, the Lyttelton Harbour Board recognised that maritime rescues would be an ongoing obligation and, in 1898, imported a purpose-built lifeboat from England.

Christened RESCUE, this boat was originally berthed underneath Cave Rock and later at the end of the Sumner Pier. She was crewed by volunteers from Sumner village, with Joseph Day in command.

Rescue

Launched in 1898, RESCUE was New Zealand's first purpose-built lifeboat and operated at Sumner, near Christchurch. Her motto was 'Always Prepared'.

RESCUE is a clinker-built, four-oared craft based on the design of the old whaleboats (like TAINUI in the *Whaling* gallery).

Airtight compartments along each side and under the end-decks provided buoyancy and reduced the risk of

sinking. They would most likely be filled with cork.

RESCUE was in the service until 1930 and saved 460 lives during that time. She was eventually replaced by motorised vessels. The first of these was called RESCUE II.

The photographs in the display show the launching of RESCUE on arrival from England, as well as some of the subsequent boats and their crews.



RESCUE in action at Sumner.

THE BACH AND SEASIDE SHOP

Geographic isolation has meant that only relatively recently have New Zealanders been able to consider foreign destinations for their annual holidays.

In the 40s, 50s and 60s, the cost and travel time involved in taking holidays abroad made them the preserve of the wealthy. Nevertheless, the natural advantages of the country meant there was no shortage of wonderful holiday spots and activities available to all.

During the late 1940s and 1950s, when coastal land was not considered as valuable as it is today and was easily accessible to 'ordinary' New Zealanders, holidaymakers might cobble together a small base for their holiday retreat. This kind of hut became known as a 'bach' (short for bachelor).

The humble nature of baches suggests that the owners had made a conscious decision to accept simplicity, to have a place free of pretensions, to which they could escape. Building regulations, such as they were, were an irrelevance and practicality was the main factor in choosing materials and in the construction.

A bach on Rangitoto Island

These days, the surge in property and land values, especially at coastal sites, has resulted in the virtual disappearance of baches altogether. A few remain on Rangitoto Island, some of which have been restored, by their owners or the Department of Conservation, as historic structures.

Many New Zealand beach-based activities are represented by the artefacts around the bach display.

NB: In the lower South Island a 'bach' is known as a 'crib' – the term used by settlers of Scottish origin.

The seaside shop

In popular places, small seasonal communities would be established with the characteristic shop to serve them, and the display shows a typical beach front store from the 40s and 50s.

(Note the old currency display – in pounds, shillings and pence – on the cash register and, for the curious, the tins and packets are empty replicas!)

One of the restored baches on Rangitoto Island.



Our display represents the interior of a typical seaside shop.



HAMILTON JET BOAT

The Hamilton Jet Boat was a 1950s ‘backyard’ invention which became an international success, gaining worldwide acclaim.

The idea of water jet propulsion for boats was not new, but the team assembled by high country farmer William (Bill) Hamilton was the first to produce a successful design. The jet unit was developed for boating on rivers in the South Island high country which were too shallow for conventional boats.

A jet boat has no propeller or rudder and is propelled and steered by a water jet ejected from the stern above the waterline. The water for the jet is drawn in through an intake grille flush in the bottom of the hull.

It was one of the greatest changes in propulsion for boats and ships since the development of propellers. Jet propulsion is widely used now, including propulsion of vessels such as ferries, search and rescue vessels, pilot boats, military vessels, pleasure cruisers and jet skis. Jet boats are also used in New Zealand as popular adventure tourist attractions such as the Shotover River Jet and the Huka Jet.

The boat featured in our display is the oldest surviving prototype of the model which first made the jet boat commercially viable: the ‘Chinook’.

SPEEDBOAT

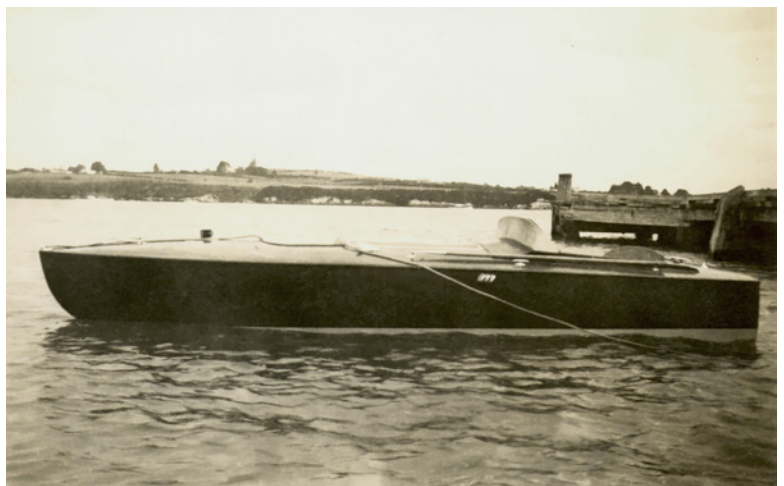
Jon-El 1933 speedboat

In 1933, Roy Garton launched a remarkable little sports-car of a boat onto the Waitemata Harbour. JON-EL was designed by the American naval architect, John L. Hacker, and was named after him.

The boat is made from mahogany and kauri and has a 1928 Rugby engine – not renowned for speed, but which Roy Garton had tuned up and which was reputed to be capable of 39 knots (72 kph/45mph). The connecting rods were said to be balanced to within the weight of a cigarette paper!

She is mounted on her original trailer which, unusually, hauled the boat stern first.

(Another speedboat in the museum is the 1929 speedboat PIRI PONO, on the concourse. See the *Vessels on the Wharf* chapter of this Guide for more information.)



Above:
Bill Hamilton tackles rapids
on the Ohau River in his
first jet boat W110.

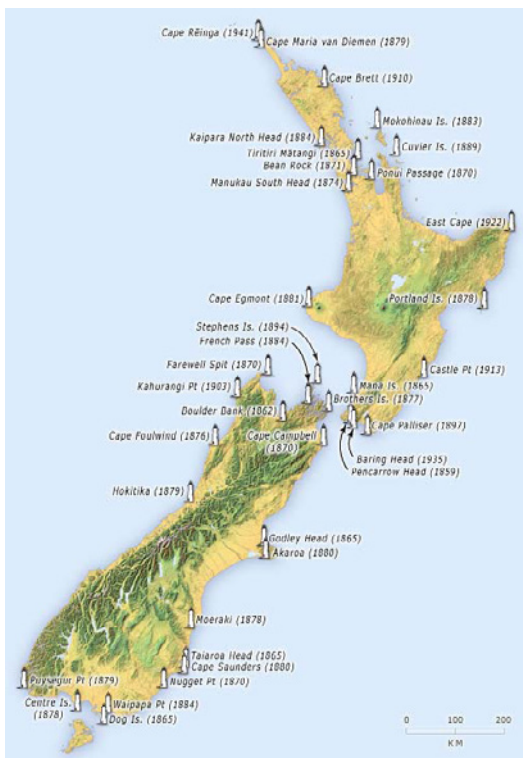
Jon-El in her heyday.

LIGHTHOUSES

Many parts of New Zealand's coastline are particularly inhospitable. Even in good visibility, there can be hidden hazards, and lighthouses are still an important aid for guiding ships away from danger.

The West Coast, for example, is very rugged, exposed to the prevailing winds, and with few natural harbours.

The East Coast offers more harbours but there are still many hundreds of kilometres, exposed to Pacific swells, that provide no shelter.



Since 1795, over 2500 shipwrecks have been recorded, and undoubtedly there are many others that have not.

From the earliest days of the colony, the need to provide safe approaches to its natural harbours was considered to be essential. The first 'beam', which was simply a beacon, was erected in Maketu in the Bay of Plenty in 1831.

The early beacons were gradually replaced by lighthouses, and by 1900 there were 27 manned lighthouses around the coast (the last of them was at Cape Reinga, built in 1941). Some lighthouses were replaced by others and many government agencies have overseen them at various times. During the 1950s, the lighthouses were all converted to electricity and the need for lighthouse keepers was phased out, thus ending a great maritime institution. Today we have 23 operating lighthouses, all automatic, and under the control of Maritime New Zealand, the crown entity responsible for all maritime safety and environmental matters in New Zealand.

New Zealand lighthouse locations. Twenty-three of these are still in operation.

Bean Rock – the Waitemata lighthouse

The lighthouse stands on the end of a reef and is named after a Royal Navy officer, Lieutenant P.C.D. Bean, who, in HMS HERALD, helped chart Auckland's Waitemata Harbour in the 1840s.

The lighthouse began operating on July 24, 1871. The original designer, marine engineer James Balfour, drowned before his plans were complete, and the design was completed by colonial engineer James Stewart, who incorporated many of Balfour's design features.

Shipping and assembling the heavy timber components of the lighthouse was dangerous work, but eventually, at a cost of £3000, the lighthouse was completed and commissioned. It was opened by

Hugh Brown, the first keeper.

Bean Rock is the sole surviving example of a wooden cottage-style lighthouse in New Zealand, and one of only a few remaining worldwide.

It is also New Zealand's oldest wooden lighthouse, and the only wave-washed tower. It was inhabited by lighthouse keepers and their families until 1912, when it was 'de-manned' and became NZ's first automated lighthouse.

In 1985 the cottage, with its four tiny rooms and narrow hexagonal veranda, was removed for restoration work. The base's rotten kauri legs were replaced by Australian hardwood and the cottage was then winched back into place.

In the mid-1990s, the lighthouse was converted to solar power and synchronised with an automatic foghorn.

Bean Rock Lighthouse, Waitemata Harbour, Auckland. Photo circa 1940s.



OUTBOARD MOTORS

The museum's display of outboard motors covers the period from their first commercial mass production in 1909, almost to the present day.

Virtually all early models were developed in the USA, and none were known to be designed or built in New Zealand. However, we believe that all the motors on display ran in local waters.

One of the earliest recorded uses of a petrol-engined outboard motor was in Wisconsin, USA, in 1898, when one Harry Augustus Miller clamped a four cylinder motor-car engine driving a propeller, to the back of a rowing boat, and showed off to his workmates.

In 1909, Ole Evinrude – a self taught engineer and one of Miller's employees – developed the idea while courting his future wife Bess, who asked him to go fetch an ice-cream during an island picnic outing. Ole had to row to the shore and return with the ice-cream, during which time he realised that Harry Miller's contraption was possibly a better way to keep the lady happy.

After the First World War, Evinrude designed a new outboard motor, using the new material aluminium and marketed it under the ELTO brand (Evinrude's Light Twin Outboard).

The Johnson Outboard had its origins in World War I as a by-product of aircraft engines, as the Johnson family had been building aeroplanes since 1911.

The third major US brand was the Mercury, developed by Carl Kiekhaefer of Wisconsin.

Today Evinrude, Johnson and Mercury are brands of the same company, the Outboard Marine Company, (OMC) which has sold millions.

Several other brands of outboard motor followed. Many of them British, among the most well known is the British Seagull (1931). Production ceased in 1996 but there is still a Seagull motor cult, even in NZ, long after production was discontinued.

Other leading outboard motors had a useful life of seven years, but Seagulls continued to give service for more than 30 years on average.

Waterman Porto Motor, Model C

Invented in the USA by Cameron Waterman, this motor dates from c1906 and is the smallest and oldest in our collection. It was the world's first commercially successful outboard motor. In fact the term 'outboard' was first used in reference to this engine.



SEAGULLS ON THE NORMANDY BEACHES?

The British Seagull outboard motor dates from 1931 and is one of the smaller motors in our collection. Nevertheless, the humble Seagulls were produced in great numbers, being very popular for their simplicity, reliability and long working life.

There is a story, reportedly confirmed by a war veteran, that during World War II, at the time of the D-Day landings – when British and Allied troops made a surprise attack on the beaches of northern France – dozens of small inflatable boats equipped with Seagull motors were buried in the dunes beforehand, for use by troops to help with a hasty withdrawal, in case the plan went terribly wrong.

Luckily, the landings were a success, and the boats were not needed. Evidently after the war, the French dug the engines up, they still worked, and were subsequently used for many years afterwards.

TODD NAVIGATION ROOM

Marine navigation is the science of determining position, course and distance travelled. It is used for the purpose of exploration, finding the way, avoiding collisions and meeting schedules. Our display addresses the age-old question of seafaring: how to find your way across the sea, both within and out of sight of land.

On the ceiling of the room is an impression of a 'night sky', and the domed shape gives an interesting acoustic effect. On the floor is a large compass rose pattern.

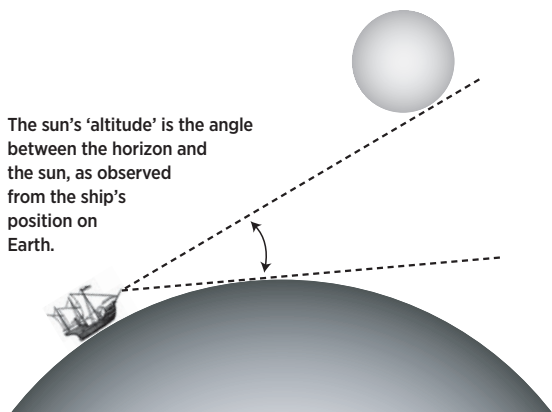
The display reflects the problem of finding a direction across the sea, especially out of sight of land. Pacific navigation techniques are entirely different from European methods of navigation, which rely on being able to calculate latitude and longitude accurately.

Latitude

Traditionally, a ship's latitude was determined by measuring the 'altitude' of a celestial body from the horizon. This was generally the sun at noon, the time when it is at its highest point in the sky. The altitude is measured as shown in the diagram below. When the angle has been noted, the navigator will consult 'declination tables', which adjust the angle for the particular month, day and time. Adjusting the observed angle with the figure from the declination table will give the observer's latitude.

An early instrument was the **cross staff** – the bottom of the crosspiece was lined up with the horizon then the crosspiece adjusted until the top lined up with the sun. The difficulty of looking directly at the sun was overcome by the **back staff**, where the observer had his back to the sun and viewed it through a mirror.

This was superseded by the **octant**, then by the **sextant** – where the horizon and the sun were simultaneously viewed through one eyepiece by means of two mirrors. The angle between the mirrors was then read off a curved graduated scale.



Charts and navigational instruments show the growth of knowledge of oceans and continents, and our developing perception of the planet, from classical antiquity to the present day.

More recent inventions are also displayed, including Morse code (which is now obsolete), radio, and depth sounders.

Longitude

Determining longitude had been of concern to mariners since at least the fifteenth century. By the 1730s the number of competing methods for finding longitude had been reduced to two: the use of **chronometers** for carrying accurate time, and the **lunar distance method** – a way of finding accurate time by measuring the angle between the moon and certain stars.

There was heated debate between proponents of the lunar distance method and the chronometer method. Even though chronometers eventually triumphed, lunar distance was still used into the mid-19th century. The method required far more training in mathematics than the average ship master ever received, however the Royal Navy continued to use it as a way to check the accuracy of its chronometers.

Marine chronometers

The **chronometer** was developed by John Harrison in the 18th century, to determine longitude. It consists of two highly accurate clocks – one is set to Greenwich Mean Time (GMT), the other is set to the local time at sea. The time difference between the two helps determine the longitude of that position. It is crucial that both clocks keep extremely accurate time regardless of variations in temperature, humidity and movement.

The difficulty of calculating longitude and of creating and proving the reliability of such clocks is wonderfully explained in Dava Sobel's short and easy to read book *Longitude*.

OUR STORY OF FISHING

New Zealand's significant fishing industry began with Māori, who depended largely on fish and shellfish for their protein. With the arrival, from the late 1700s, of pigs, sheep and cattle, Europeans saw little need to fish when there was enough food available on land.

Many British migrants were reluctant to eat fish because they considered it fit only for poor people.

While Māori fishing techniques and knowledge were sophisticated, local fish species were unfamiliar to new settlers, who named them after what they knew – cod, mullet, herring, etc – and although the sea teemed with fresh seafood, the British preferred to import cured, salted and canned fish from home.

Throughout the 19th and early 20th centuries, New Zealand's commercial fishing developed slowly. It was limited to inshore fishing grounds and was localised and small scale, using small boats, catching most fish by line or set nets.

In 1900, trawling was introduced and later, other large scale techniques were adopted.

Even then there was concern about the effects on fish stocks, and after pressure from recreational and commercial fishers some areas were closed to large scale fishing methods.

In 1978, New Zealand's Exclusive Economic Zone (EEZ) was established as a 200-nautical-mile radius around the country.

Because its territory includes the Chatham Islands and other outlying islands, New

Zealand's EEZ became the fourth-largest fishing zone in the world (4 million square kilometres) and New Zealand gained a huge potential resource.

Wall chart

The wall chart beside the display of boxes illustrates the extent of New Zealand's Exclusive Economic Zone. It also indicates specific fishing grounds within the zone.

New Zealand's fishing industry has grown significantly in recent years. Meanwhile, in the northern hemisphere, the collapse of the cod and other fisheries left trawlers lying idle. As a result, New Zealand companies were able to purchase ships at bargain prices and refit them, or take long-term leases on modern trawlers.

The collapse of those northern fisheries also created a gap in the international market for high quality, white-fleshed fish, opening up many new opportunities for the New Zealand fishing industry.

Boxes and the wheelhouse

The range of packing boxes indicates the wide variety of our fish exports. The boxes were designed to indicate to those who may not be familiar with New Zealand names, just what type of fish is on offer.

The wheelhouse represents a typical modern fishing vessel. It is a replica, which was built for the museum.

Orange roughy – a threatened species

Orange roughy lives in very cold, deep water, where there is no light. At 600-1,500 metres beneath the surface, the fishery is the deepest in the world. They are slow-growing and late to mature, typically not breeding until they're 30 years old, and living up to 150 years. So only small numbers can be harvested without affecting the population.

Many local stocks were first exploited in the late 1970s, but after 30 years of heavy fishing – through a lack of understanding of the fish and stock mismanagement – populations of orange roughy were dramatically reduced by 70-90%.

There was a time when this species wasn't so desirable. A name change from the 'slimehead' to 'orange roughy' turned out to be a brilliant marketing move. Customers also weren't yet aware of the dangers of the high concentrations of mercury accumulated in the orange roughy's tissues during their long lives.

As they are usually caught by bottom trawling – nets with massive metal weights are dragged along the seafloor uprooting everything in their path – extensive damage has been caused to seafloor habitats. Corals take many years to recover.

But there is a little good news

Since 2012, steps have been taken to make orange roughy fisheries more sustainable. Measures included closing three orange roughy fisheries to allow the numbers of fish to increase, and reducing the catch limits in the remaining fisheries. Stock assessments in 2014 indicated that orange roughy populations are rebuilding.

And bottom trawling activity is now largely limited to areas that have been fished before, helping to minimise additional damage. More than 90 percent of New Zealand's offshore waters have never been bottom trawled or dredged.

VOICES OF THE PAST

The Chelsea Sugar oral history cabin

Visitors may like to sit in the cabin after the tour and listen to some of the personal stories of New Zealanders with a maritime connection.

Each chair contains a different set of programmes. To select a programme, press the appropriate button on the panel to the left.

The display is sponsored by the Chelsea Sugar Company, hence the sugar lighter on display.

The audio programmes were generously provided Radio New Zealand's Spectrum Unit.

Sugar lighter model

Lighters were once part of the daily traffic on the Waitemata Harbour, carrying sugar from the Chelsea Sugar Refinery across to Auckland. Lighters had no means of propulsion so two tugs were employed to propel the fleet.

The lighters could carry 200 tons of sugar in two holds and a further 10 tons on deck.

The lighters were not identical in detail and this model has been built as a typical example from original plans and photographs. One side is partially planked to show construction details.

Before 1960, the lighters were essential for sugar transport. However, once the Harbour Bridge was opened the lighters became redundant, and the fleet was sold off in 1961. The lighter TUI spent time in the Bay of Islands as the Sugar Boat Restaurant.

THE NEW ZEALAND CUSTOMS SERVICE

The New Zealand Customs Service is the government agency with the job of protecting the community from potential risks arising from international trade and travel, while facilitating the legitimate movement of people and goods across the border.

The Customs Service came into being on 5 January 1840 when the first Head of Customs was appointed. It is the oldest government department in New Zealand.

Over the years, Customs has come to provide a major source of revenue to Government through tariffs and taxes.

It has also been used to impose controls over the movement of people and goods and the production and distribution of particular products, especially alcohol and tobacco.

While the fundamental role of the Customs Service has not changed since it was first established in the 1840s, its direction has changed over time.

From its initial focus of revenue gathering as the

fledgling colony established itself, international trade facilitation became the priority in the 1980s and 1990s. Now its focus is most emphatically on protecting the security of New Zealand's borders.

The events of September 11, 2001 have extended Customs' traditional focus on inward and transiting goods and passengers, to include export goods.

Customs also exercises controls over restricted and prohibited imports, including pornography, drugs, firearms and harmful substances, such as hazardous waste and ozone-depleting products.

The display, provided by the Customs Service, includes examples of prohibited imports, as well as an audio-visual presentation.

CROSSING THE TASMAN ALONE

In 1977 Colin Quincey rowed solo from New Zealand to Australia in *TASMAN TRESPASSER*. He was the first person to cross the Tasman Sea in either direction by rowing.

The journey, made against the prevailing winds, took him sixty-three days and seven hours. He rowed a distance of 3204 km.

In 1976, 32-year-old Colin Quincey was looking for a challenge. He thought sailing would be exciting. After reading *An Evolution of Single-handers* by Nobby Clarke "...a sudden thought struck me. There's a gap – nobody's recorded as having ever rowed the Tasman ..."

No-one had. By August, Colin decided that unless he could find a good reason for *not* crossing the Tasman, he would.

On 6 February 1977, he departed from the Hokianga Harbour in *TASMAN TRESPASSER*, making it clear before he left that no-one was to be concerned about his whereabouts for at least 150 days. (Bear in mind that there were no mobile phones in those days!)

To navigate, Colin used a sextant and the sun, and he achieved a reasonable degree of accuracy from an unstable vessel. He also carried compasses and made regular calculations to allow for the sea current and the effectiveness of his sea-anchor in reducing drift.

During the first 30 days his speed averaged less than 15 miles (24km) a day. This meant he had to pick up speed or he would run out of time based on supplies. Physically, Colin was in good shape except for problems with his back and saltwater sores. His mental health at this point was not so good due to a lack of sleep (he averaged 4 hours a day), plus he had run out of cigarettes ...

Feeling dispirited, he decided to make cigarettes out of tea, wrapped in toilet paper, with grease to hold them together. "I had put the matches to hand, so set about firing the end of the monstrosity, but as I did so the boat tipped, a wave came in and all the tea ran out of the end of the tube, leaving me with a mouthful of wet toilet paper." The second attempt was

not much better: "Confidence was high as I put flame to the end and success as I saw it light and glow – then, as the grease caught, it flared up, leaving me with a bald knee, a burnt nose and a small pile of cinders on my knee cap. Such is the price of addiction."

On day 63 Colin saw a ship and noticed that the sea felt warmer; this meant he was getting closer to Australia. At 9.45 pm he spotted the Cape Moreton Lighthouse, which spurred him to row harder, and eventually *TASMAN TRESPASSER* landed on Marcus Beach, north of Brisbane. The lights of a few houses were visible in the distance. "TT hits the beach – debris plunging ashore and I'm in about 6 inches of water – sand under my feet – we did it TT! We did it!"

In between stints as a roof painter, bus driver, and hitch hiker, he had rowed the Tasman, helped build schools for orphans in Myanmar and served in the navy for two decades.

He also sailed around the world, was a master of the *SPIRIT OF ADVENTURE* and a principal of a school in Tonga for four years.

Colin Quincey died in July 2018.



The end of the crossing, in his own words ...

After arriving on the beach, Quincey headed towards the nearest house:

As I stepped towards the house I worried about what the reaction might be to my extremely scruffy and unkempt appearance and wondered what on earth I should say.

Stopping under a street light I combed my hair with salty, wrinkled fingers and brushed some of the blood and sand from my legs ... I still hadn't worked out my 'opening line' as I pulled myself up the wooden steps of the house onto a broad verandah to face the open but curtained door of a lighted room.

Apparently nobody had seen or heard me ... I hesitated, slightly nervous and not wanting to disturb the cosy family scene, but I knew I had to, so stepped forward into the light and knocked on the wooden door frame. Everybody started, including myself, and then the whole scene just froze ... Eventually, though it must have been but a few seconds since I knocked, I spoke.

"It's a long story, but I just landed on the beach

from New Zealand – in a rowing boat – may I use your phone? Has anyone got a cigarette?"

"No!"

I felt like apologising and going away but a tall, bearded man regarded me cautiously as I repeated my story, adding more detail and explaining that the boat had to be moved before the tide came in.

I was invited in and it was explained that the initial, defensive "No!" had only been in respect of cigarettes – they were a non-smoking family. Polite questions followed, but there was still considerable wariness, and understandably so as I discovered later, for some convicts had escaped in the local area only the day before.

So, in a somewhat unique style, began my friendship with Keith and Elizabeth Murray. Their subsequent hospitality and help both immediately and during the two weeks I stayed with them was unlimited, generous and exceeded anything I either expected or deserved.

TASMAN TRESPASSER

TASMAN TRESPASSER is a 'Yorkshire dory', a design which had been used by trans-Atlantic rowers. Salthouse Brothers of Auckland built it. The main priorities were for safety, rowing efficiency and protection of essential equipment; space for sleeping and eating was secondary. The interior was cramped and packed with equipment. "My manoeuvrings to get in and out and to work in this area would have done justice to a Russian gymnast team."

Like father, like son

In 2010, 33 years after Colin Quincey's epic voyage, his son Shaun became just the second person to row successfully across the Tasman. As this voyage was in the opposite direction, he was the first to row from Australia to New Zealand.

Departing from Coffs Harbour, Australia, his journey included rowing into a whale, flipping end over end, and spending 30 minutes trapped under his boat. He was blown backwards over 200 km but eventually hit the northern tip of Ninety Mile Beach. His voyage lasted 54 days and he covered 2200 km.

In complete contrast to his father's unheralded arrival in Australia, Shaun Quincey's arrival in NZ was accompanied by live TV and radio news coverage, and with family and friends waiting for him on the beach!

His boat TASMAN TRESPASSER II also belongs to the museum but is not on display due to lack of space.

Shaun Quincey delivers TASMAN TRESPASSER II to the museum, December 2010.

Photo: Ocean Photography



KAYAKING ROUND COASTLINES

In 1978, Australian born, NZ based Paul Caffyn completed, in this canoe, the first circumnavigation by kayak of the South Island. He later circumnavigated the North and Stewart Islands and crossed both Cook Strait and Foveaux Strait, becoming the first to do so in a kayak.

ISADORA was named after the dancer Isadora Duncan, a reference to the behaviour of the kayak in waves. The hull bears the scars of a number of landings on beaches through the surf, including a pitch-poling.

Paul Caffyn went on to make the first circumnavigation by kayak of Great Britain, Australia, and many other coastlines, some of which are listed below.

ISADORA

The Nordkapp sea kayak is a New Zealand design built by Sissons Industries of Nelson. It is a descendant of the indigenous sealskin-covered kayaks of Alaska and eastern Siberia.

Paul Caffyn – kayaking circumnavigator

1978 Circumnavigation of the South Island, New Zealand

1978/79 Circumnavigation of the North Island, New Zealand

1979 Circumnavigation of Stewart Island, New Zealand

1980 Circumnavigation of Great Britain

1981/82 Circumnavigation of Australia

1985 solo circumnavigation of the four main islands of Japan

1991 completed the first solo sea kayak trip along the entire coastline of Alaska

1997 Circumnavigation of New Caledonia

Two attempts to cross the Tasman Sea by sea kayak

2001/2002 Circumnavigation of Phuket

In the 1970s Paul Caffyn was the first kayaker to circumnavigate the North and South islands and Stewart Island.

He went on to set other long-distance kayaking records. Here he is seen on his trip around the South Island in 1977-78, surfing into St Kilda Beach, Dunedin.



THE BILL LAXON MARITIME LIBRARY

With over 7,500 books and magazines, the library's collections support the research of volunteers and staff, as well as members of the public.

Focussing on the maritime history of New Zealand, subjects include navigation and voyaging, shipbuilding and design, commercial shipping, yachting and recreational boating. Genealogists can often find information about immigration voyages, or ancestors in maritime professions, in reference works, local histories and biographies.

Other collections include shipboard diaries, cruise memorabilia, photographs, boat plans and charts. Archival collections include the Auckland Harbour Board archives – with local shipping records dating back to 1850, and photograph albums showing the construction

of Auckland's waterfront – as well as the Northern Steam Ship Company and Shaw Savill Society (NZ) archives.

The library is open to the public on Thursdays, or by appointment Mondays-Wednesdays – entry is \$10 per visit. The Archives & Library Manager will conduct in-depth research if requested, which is charged at \$60 per hour.

Volunteers and staff are welcome to visit and browse by arrangement with the Archives & Library Manager. Please note that all materials are for reference only within the library, and not available to be borrowed.

THE COLLECTION

The museum's collection extends well beyond what is on display in the galleries. It is estimated that the museum holds over a million items.

Those objects not displayed are stored on or off-site. If visitors enquire about a particular item, you can recommend that they contact the registrar, as we do provide access to objects not on display by appointment, where practical.

Taking good care of our collections so they will last for future generations is a complex and time consuming process.

Risks come from unexpected sources. For example, light can damage the colour and fabric of many objects. Small pests like moths, borer beetles and silverfish can cause a great deal of destruction if not monitored and controlled.

This is why we need to be very careful about restricting light exposure, humidity and food consumption in the museum galleries.

The temptation to touch and handle the objects on display is always strong, but please resist this. Over time it inevitably has an adverse impact on the condition and longevity of our collection objects.

Your enquiries on any aspect of the museum's collection are welcome and you are encouraged to keep as up-to-date as possible on what we have on show.

THE MODELMAKERS

The museum is privileged in having its own modelmakers' workshop. The modelmakers team is highly skilled and when on duty enjoy talking about their craft and demonstrating their work. Guides should encourage visitors to go and have a look. Even if no modelmaker is on duty, the main door is always open for those wanting a closer look.

All volunteers and staff are encouraged to go stop by and chat with the modelmakers from time to time, to see what they've been up to, and get to know them and their projects.

Examples of their work are among the items on display in the model shop and in the galleries.

Left: Activity in the modelmakers' workshop, constructing an open sided model of James Cook's ENDEAVOUR, in time for the 250th anniversary of Cook's arrival in New Zealand.

Below: An example of the modelmakers' craft: part of a display showing the hull of the NIAGARA at the bottom of the sea, during the attempt to recover the gold cargo that she carried. See page 80 for the full story.



MUSEUM VOLUNTEERS

The museum greatly appreciates the contribution and support of its volunteers, and relies heavily on them to bring the museum experience alive for visitors.

Volunteers are not engaged to replace or undertake work otherwise given to paid staff – they provide invaluable support. Staff and volunteers enjoy working and interacting with each other, respecting each others' knowledge and skills. They also socialise together on regular occasions.

Roles include vessel crew, tour guides, gallery hosts, maintenance engineers, modelmakers, library assistants, collections and exhibitions assistants, education department helpers, and a variety of other roles as the need arises.

Formal and informal meetings take place between volunteers and staff at regular intervals, and members of the Volunteer

Working Group meet with staff four times a year to discuss issues and share ideas.

Volunteers range in age between 18 and 80 plus. Some join the museum for short periods or specific duties, while others have been involved for many years. There are even some who have been with the museum since before it opened, in 1993, and long service badges are given at five-year intervals.

As well as fulfilling their regular roles, long serving volunteers are also valuable for their knowledge and memories of the museum's history, which help add to and maintain our 'Institutional Archive'. They are also a good source of stories.

Good volunteers are hard to find so we are always open to recruitment help and suggestions. In short, if you love being a volunteer, please spread the word.



Appendices

This section contains interesting supplementary maritime and historical information that relates to New Zealand or gives context to our displays.

Although not specifically intended as part of the guided tour, it may be useful from time to time for answering questions and sharing additional information with visitors, or just to increase your own knowledge and enjoyment of the maritime story.

A SELECTION OF MARITIME TERMINOLOGY

- Accommodation Ladder** Portable flight of steps down a ship's side to allow transfer to and from a smaller boat alongside.
- Aft** Direction towards the back (i.e. after end) of a vessel. See also *Stern*.
- Aweigh** Position of an anchor just clear of the bottom.
- Beam** Maximum width of a boat.
- Beaufort Scale** Used to indicate wind speed on a scale of 1 to 12. 1 = calm, 12 = hurricane.
- Bermuda rig** Fore-and-aft rig that uses a triangular mainsail. Often seen on modern yachts.
- Bilge** Lowest area inside a vessel.
- Binnacle** Stand or enclosure for supporting and housing a compass and other instruments. Special magnets negate the effects of magnetism caused by the ship's hull.
- Block** Wooden or metal case to which one or more sheaves are fitted (a revolving wheel) used on vessels for lifting, hauling, etc.
- Boat** The name for a small open craft without any decking and usually propelled by oars, outboard engine and sometimes a small sail on a short mast. Some exceptions to this general definition are fishing boats – sometimes decked or half decked – and submarines which are known as boats irrespective of size.
- Boatswain or Bosun** Non-commissioned officer responsible for sails, ropes and boats on a ship. The marine equivalent of a foreman.
- Boom** Low horizontal spar attached to the mast to support a sail.
- Bow** Front of the vessel.
- Bowsprit** Spar projecting out from the bow of a sailing vessel for setting fore sails.
- Bridge** Elevated platform from the upper deck, usually with covered central wheelhouse, covered that has the main vessel controls.
- Brigantine** Two-masted sailing vessel, square-rigged on the foremast and fore-and-aft rigged on the mainmast.
- Bulkhead** Interior wall in a vessel.
- Capsize** When a ship or boat lists too far and rolls over, exposing the keel. On large vessels, this often results in the sinking of the ship.
- Capstan** Cylindrical barrel fitted on larger ships on the forecandle deck and used for lifting work, e.g. anchors.
- Catamaran** Vessel with two identical, side-by-side hulls. Typically faster than a single-hulled boat. See also *Monohull*.
- Centreboard** A retractable keel. A typical feature of scows – see the Museum's TED ASHBY.
- Chart** Nautical map containing essential maritime information for navigating a vessel of any size.
- Chine** Intersection of bottom and sides of a flat or v-bottomed boat.
- Cockpit** Open area with partial shelter usually found towards the stern of a vessel.
- Davit** Small crane or arm used to lower and retrieve life boats. Some modern cargo vessels have a life boat on a slipway at the stern.
- Deck** Corresponds to the floor in a house.
- Dinghy** Small boat carried or towed by a yacht. Also typically called a tender on larger yachts.
- Displacement** The weight of water a ship displaces when floating with fuel tanks full and all stores on board.
- Donkey** Small engine in a small vessel.
- Draft** Depth of a vessel below the waterline, as measured vertically. Important when navigating shallow water.
- Fathom** Unit of length equal to six feet (1.8 metres), mainly used to refer to the depth of water.
- Figurehead** Symbolic carved image at the head of a traditional sailing ship or early steamer.
- Fo'c'sle** (originally *Forecastle*) Raised front part of a ship's main deck. Previously used as crew accommodation in sailing ships and steam ships. These days it is used for storage.
- Freeboard** Area between a vessel's deck and the surface of the water.
- Gaff rig** Fore-and-aft rig that uses a large, distinctive four-cornered sail, which is suspended from a wooden pole, known as the gaff yard, or spar. To increase sail area, a small topsail is often used.
- Gangway** Access to a ship from wharf or jetty. Usually a suspended ramp or iron steps.
- Galley** Kitchen on board a vessel.
- Gunwale or Gunnel** Upper edge of the side of a vessel.
- Halyards** Ropes used to hoist or lower sails.

- Head** Toilet or latrine on a vessel, which for sailing ships projected from the bows, hence the name.
- Helmsman** Person who steers a ship.
- Hold** Compartment below deck in a large vessel, used solely for carrying cargo.
- Hull** Body or 'shell' of a boat.
- Keel** Extension of the hull underwater that provides stability.
- Knot** Speed of 1 nautical mile per hour. 1 knot = 1.85 kilometres per hour. See also *Nautical Mile*.
- Ladder** On board a ship, all "stairs" are called ladders, except for literal staircases aboard passenger ships.
- League** Unit of length, normally equal to three nautical miles.
- Lee Shore** Shoreline that lies downwind of a ship's position. Used to describe a potentially dangerous situation: if the vessel loses control, it will be driven onto that shore.
- Leeward** or **Lee Side** Side of a vessel away from the direction of the wind. See also *Windward Side*.
- Log** Instrument that indicates speed/distance travelled through the water. Also a book for recording events and position of the vessel on a daily basis.
- Mainmast** Tallest mast on a ship.
- Mate** Officer seniority – ranks below that of Master, e.g. first mate, second mate, etc.
- Mess** Eating place aboard ship.
- Midship** Location approximately equal distance between the bow and stern.
- Midshipman** Non-commissioned officer below the rank of Lieutenant. Usually regarded as being "in training".
- Monohull** Yacht with one hull, as opposed to a multihull or catamaran.
- Nautical Mile** One minute of arc on the Earth at the equator, equals 1 nautical mile. Originally varied depending on latitude, but standardised in 1929 as 1852 metres.
- Outrigger** Counter-poising log or wooden float positioned out from the side of Pacific and Indian Ocean canoes, to provide additional stability.
- Pandanus** Tree with long, narrow leaves (similar to New Zealand flax). The leaves were dried and woven into fabric for sails, along with many other uses. With the advent of canvas sails, pandanus was no longer used.
- Pilot** Navigator. Person qualified to navigate a vessel through difficult waters.
- Pitchpole** To capsize a boat end over end, rather than by rolling over.
- Plimsoll Line** or **Mark** Mark on the hull of a ship. This indicates the safest maximum level to which a ship can be loaded. The mark can vary depending on the water a ship is in e.g. fresh, salt, tropical, etc.
- Poop Deck** Aftermost section of the upper deck of a vessel.
- Port Side** Looking towards the bow, port is on the left of the vessel (shows red light at night). See also *Starboard*.
- Prow** Alternative term for *Bow*.
- Rigging** All ropes, wires or chains used in ships or smaller vessels, to support the mast and yards, for hauling, lowering or trimming the sails. See also *Sheet*.
- Schooner** Large sailboat with two or more masts, where the foremast is shorter than the aft mainmast.
- Scow** Large, flat-bottomed workboat of the late 19th/early 20th centuries, with a large centreboard for stability. Used mainly for transportation of bulky cargo. (The Museum's TED ASHBY is a replica scow, built in 1993.)
- Screw** The propeller on any vessel.
- Scurvy** Disease caused mainly by lack of Vitamin C. Early sailors could not keep fruit and vegetables fresh on long sea voyages, which led to vitamin C deficiency. Symptoms include lethargy, poor wound healing, general pain, jaundice, fever, swollen gums, teeth falling out, convulsions and even death.
- Sheet** Refers to any single line used for adjusting a sail in the wind. Note: the only line that is called a rope is the one used to ring the ship's bell. See also *Rigging*.
- Sloop** Sailing vessel with a single mast rigged fore and aft.
- Spar** General term for any wooden or metal support used in the rigging of a ship. It includes all masts, yards, booms and gaffs, etc.
- Spinnaker** Large sail flown in front of the vessel while heading downwind.
- Stern** Rear of a vessel.
- Starboard Side** Righthand side of the vessel when looking forward (shows green light at night). See also *Port Side*.
- Windlass** Winch mechanism, usually with a horizontal axis.
- Windward Side** Side of the vessel onto which the wind is blowing. See also *Leeward Side*.
- Yacht** Sailing or motor vessel designed for pleasure boating that typically ranges from 40 to 100+ feet long.
- Yard** Horizontal spar from which a sail is suspended.

APPENDIX 2

SOME SIGNIFICANT DATES IN NEW ZEALAND HISTORY

1250-1300

Start of the Polynesian settlement of New Zealand. These people, and subsequent arrivals, were the ancestors of present-day Māori.

1642

Abel Janszoon Tasman, Dutch explorer, discovers part of the western coastline of New Zealand and the name 'Staete Landt' appears on his earliest map.

1644-1647

The name of New Zealand's coastline now appears as 'Zeelandia Nova' on printed world and Pacific charts and globes.

1769

On 6 October 1769, British explorer James Cook makes his first sighting of New Zealand. He claims parts of the country in the name of King George III.

1769

On 17 December 1769, French explorer Jean-François-Marie de Surville anchors at Doubtless Bay. Rounding North Cape in a storm, he was unaware that James Cook's ENDEAVOUR was nearby, sailing in the opposite direction.

1772

On 25 March 1772, another French explorer, Marc-Joseph-Marion du Fresne, first sights New Zealand around Cape Egmont.

1790

Deep sea whaling, sealing, flax and timber trades commence.

The Māori suffer the first serious introduced epidemic. Probably influenza.

1791

First known visit of a whaling ship to Doubtless Bay: the British ship WILLIAM AND ANN.

1806

First European women arrive in New Zealand.

1814

Samuel Marsden, British missionary, makes his first visit to New Zealand. The Anglican mission is established at the Bay of Islands.

1815

Thomas Holloway King becomes the first *pakeha* (European) child born in New Zealand.

1820

Ngapuhi chief Hongi Hika visits England, meets King George IV, and is able to obtain muskets on the return trip.

1821

Musket Wars begin against southern tribes.

1824

French explorer Isidore Duperrey visits the Bay of Islands. Jules Sébastien César Dumont d'Urville is second-in-command of the expedition.

1827

Dumont d'Urville leads his own expedition and charts large sections of New Zealand's coastline in detail for the first time.

Te Rauparaha commences his invasion of the South Island, from Kapiti Coast.

1831

Whaling stations established at Tory Channel and Preservation Inlet.

1833

James Busby arrives at the Bay of Islands, in his capacity as Official British Resident.

1835

Declaration of Independence by the United Tribes of New Zealand, signed by 34 northern Chiefs.

1837

The New Zealand Association is formed in London. It becomes the The New Zealand Company in 1839, which first brings immigrants to New Zealand in 1840.

Son of French escapees from the French Revolution, Baron Charles Philippe Hippolyte de Thierry returns to New Zealand with a group of French colonists, after having bought land from Hokianga chiefs.

1838

Bishop John Baptiste François Pompallier, from France, founds the first Marist mission at Hokianga.

1839

William Hobson instructed to establish British rule in New Zealand, which initially becomes a dependency of New South Wales.

William Wakefield arrives on board TORY with instructions from his brother Edward to buy as much land as possible for future colonists.

1840

The first New Zealand Company settlers arrive at Port Nicholson.

Dumont d'Urville visits New Zealand for the third and last time and charts additional large sections of the coastline, previously uncharted, in detail.

The Treaty of Waitangi is signed at the Bay of Islands, on 6th February.

French settlers arrive at Akaroa shortly after the signing of the Treaty.

William Hobson becomes the first Governor.

1841

European settlers are established at New Plymouth and Wanganui.

Auckland takes over as capital of New Zealand from Russell, in the Bay of Islands.

1842

Captain Arthur Wakefield of the NZ Company established Nelson and first settlers arrived.

1843

The 'Wairau Affair'. Violent confrontation between Europeans and the Māori.

1845

The New Zealand Company is in financial difficulty, and suspends its colonisation operations. George Grey becomes Governor.

1848

The Scottish Otago Association settlement is founded.

1850

The Canterbury settlement is founded.

1861

Gold discovered at Gabriel's Gully – the first of New Zealand's gold rushes commences in Otago.

1862

First telegraph line between Christchurch and Lyttelton opens.

1863

First steam railway in New Zealand commences.

1864

The Waikato War ends. Land in Waikato, Taranaki, Bay of Plenty and Hawke's Bay is confiscated.

1865

Auckland streets lit by gas for the first time.

1870

Vogel's public works and immigration policy commences. Over 1,000 miles of railway are constructed.

1872

Telegraph communication links Auckland, Wellington and the southern provinces.

1881

The pacifist Māori community at Parihaka forcibly broken up by troops.

1886

The eruption of Mount Tarawera. Oil discovered in Taranaki.

1887

Reefton becomes the first town to have electricity.

1888

Birth of writer Katherine Mansfield.

1893

Women granted the right to vote.

APPENDIX 3

ALMANAC OF INTERESTING EVENTS

On any of these dates, guides may like to refer to the relevant event.

- Jan 1** 1859 NZ's first lighthouse – at Pencarrow Head, near Wellington – lit for the first time.
- 22 Jan** 1840 New Zealand Co's first immigrant ship AURORA arrived at Petone, the settlement would become Wellington.
- Jan 29** 1842 First official Auckland Anniversary Day Regatta held.
- Jan 14** 1937 Loss of scow RANGI, off Motutapu Island. The last sail-only scow in service.
- Jan 28** 1820 French explorer Dumont d'Urville sailed ASTROLABE through the 'French Pass' into Admiralty Bay in the Marlborough Sounds.
- Feb 1** 1842 FIFESHIRE arrived in Nelson with immigrants for the New Zealand Co's first South Island settlement.
- Feb 4** 1985 New Zealand government refused entry to USS BUCHANAN, suspected of having nuclear capability.
- Feb 6** 1942 NZSCo ship OPAWA, torpedoed in the Atlantic.
- Feb 7** 1770 James Cook entered Cook Strait for the first time.
- Feb 7** 1863 Sinking of ORPHEUS, Manukau Harbour Bar.
- Feb 9** 1770 Cook completes circumnavigation of North Island in ENDEAVOUR, confirming it was an island, not part of a fabled great southern continent.
- Feb 14** 1779 Death of James Cook in Hawaii.
- Feb 15** 1882 New Zealand's first successful shipment of frozen meat to Britain – the trade became a cornerstone of NZ's 20th-century economy.
- Feb 15** 1951 Beginning of New Zealand waterfront strike. Lasted 151 days.
- Feb 16** 1770 Cook sighted Banks Peninsula. Decided it was an island and named it for his botanist, Joseph Banks.
- Feb 21** 1906 Classic yacht FRANCES launched. Built by Logan Brothers and berthed in the museum's marina.
- Feb 24** 1912 SS EARNSLAW launched into Lake Wakatipu – still in service.
- Mar 2** 2000 Team New Zealand won the America's Cup for the second time – 5-0 against Italian team Prada.
- Mar 2** 2003 Team NZ lost the America's Cup 0-5 to Swiss team Alinghi.
- Mar 30** 1994 Peter Blake won Jules Verne trophy, after circumnavigating the world non-stop in 74 days, 22 hrs, 17 mins and 22 seconds.
- Apr 10** 1968 Lyttelton-Wellington ferry WAHINE sank, Wellington Harbour.
- Apr 10** 1977 Colin Quincey reached Australia in TASMAN TRESPASSER, after rowing from NZ for 63 days.
- Apr 14** 1912 TITANIC sank in North Atlantic after striking an iceberg.
- Apr 27** 1990 America's Cup dispute ends as NY Appeal Court finds in favour of Dennis Conner's catamaran STARS & STRIPES against NZ's challenger KZ1.
- Apr 28** 1789 Mutiny on the BOUNTY – one of the ship's anchors is on display in the Edmiston Gallery.
- May 1** 1915 LUSITANIA sunk by a German submarine. New Zealander Joseph Macky – Mayor of Devonport 1896-1901 – died, together with wife Mary, who refused a seat in a lifeboat in favour of a younger woman.
- May 4** 1839 First expedition of New Zealand Company set sail from England under William Wakefield, in ship TORY, to purchase land in NZ.
- May 13** 1995 Team New Zealand's BLACK MAGIC, won the America's Cup in San Diego.
- May 22** 1991 Peter Blake won the Whitbread Round-the-World race, having won all six legs.
- May 29** 1953 Edmund Hillary, and Sherpa Tenzing Norgay reached the summit of Mt Everest.
- May 30** 1959 Opening of Auckland Harbour bridge, leading to demise of most ferry services.

- Jun 3** 2000 Replica of Cook's ENDEAVOUR completes first world circumnavigation.
- Jun 6** 1944 D-Day. AORANGI serves as mother ship to 150 tugs off the Normandy beaches.
- Jun 8** 1987 Legislation established NZ as a nuclear-free zone.
- Jun 19** 1940 NIAGARA mined and sunk off Bream Head, Northland.
1971 COLUMBUS NEW ZEALAND arrived in Wellington, opening NZ's first container ship service.
- Jun 26** 2017 Emirates Team New Zealand won the America's Cup in Bermuda against Oracle, 8-1.
- Jun 27** 1873 EDWIN FOX arrived Lyttelton with 140 migrants from England after 114 days. First of five such voyages.
- July 10** 1985 Sinking of RAINBOW WARRIOR, Marsden Wharf Auckland.
- Aug 2** 1983 Nuclear-powered USS TEXAS visited Auckland sparking anti-nuclear rallies on land and sea.
- Aug 3** 1941 Four-masted barque PAMIR seized in Wellington as a prize of war.
- Aug 5** 1914 New Zealand enters WWI.
- Aug 19** 1993 Auckland Maritime Museum, Hobson Wharf, officially opened as the New Zealand National Maritime Museum by Prime Minister, Jim Bolger.
- Aug 21** 1957 Four-masted barque PAMIR, under German flag, lost in an Atlantic storm. 83 crew and cadets lost.
- Aug 22** 1851 Schooner AMERICA won 100 Pound Cup, Isle of Wight UK (effectively first America's Cup race).
- Sep 2** 1972 NZ Rowing Eight wins Gold in Munich Olympics.
- Sep 11** 1946 Death of PA Edmiston. His bequest formed the Edmiston Trust, which funded our gallery.
- Sep 15** 1840 Barque ANNA WATSON with government officials onboard, arrived in Waitemata Harbour from Bay of Islands, to establish the settlement of Auckland.
- Sep 15** 1976 Last Lyttelton-Wellington ferry, RANGATIRA withdrawn, ending a 70 year old service.
- Sep 18** 1840 Founding of Auckland.
- Sep 25** 2013 Emirates Team New Zealand lost the America's Cup in San Francisco to Oracle, 8-9.
- Oct 1** 1948 Birth of Sir Peter Blake.
- Oct 1** 1971 New Zealand Shipping Company fully absorbed into P&O (NZ) Ltd.
- Oct 5** 2011 Container ship RENA wrecked in Bay of Plenty. The largest ship ever to be wrecked in New Zealand waters.
- Oct 7** 1769 First sighting of NZ (Young Nick's Head) on Cook's first voyage.
- Oct 7** 1917 German 'Sea Devil' Count Felix von Luckner imprisoned in New Zealand.
- Oct 9** 1842 New Zealand Company emigrant ships DUCHESS OF ARGYLE and JANE GIFFORD brought the first settlers to Auckland.
- Oct 20** 1904 Logan built keel cutter ARIKI launched. Berthed in the museum's marina.
- Oct 27** 1728 Birth of James Cook, Marton, Yorkshire.
- Nov 11** 1942 USSCo ship AWATEA bombed and sunk off North Africa, with NZ civilians as crew. No loss of life.
- Nov 14** 1892 GLORIANA launched – the first boat built by Logan Brothers. Berthed in the museum's marina.
- Nov 16** 1840 New Zealand officially becomes a British colony.
- Nov 17** 1874 Emigrant ship COSPATRICK burned and sank in the South Atlantic. Three survived of the 473 on board.
- Nov 27** 1940 RANGITANE sunk off East Cape (model now labelled RANGITATA).
- Nov 28** 1979 257 killed on Mt Erebus in an Air New Zealand DC10 crashed in Antarctica. 29 years later – to the day – an Air NZ A320 on a technical flight crashed off the coast of France. The only major crashes in the airline's history.
- Dec 4** 1966 Pirate Radio Hauraki began transmissions aboard TIRI in the Hauraki Gulf.
- Dec 6** 2001 Sir Peter Blake killed by armed intruders on the Amazon.
- Dec 9** 1995 ENDEAVOUR replica arrives on first visit to New Zealand.
- Dec 13** 1894 WAITANGI launched – the largest of the yachts built by Logan Brothers. Berthed in the museum's marina.
- Dec 15** 1804 First US whaling ships arrived in the Bay of Islands from New Bedford.
- Dec 21** 1964 Last whale killed in local waters by NZ company J.A. Perano in Tory Channel.

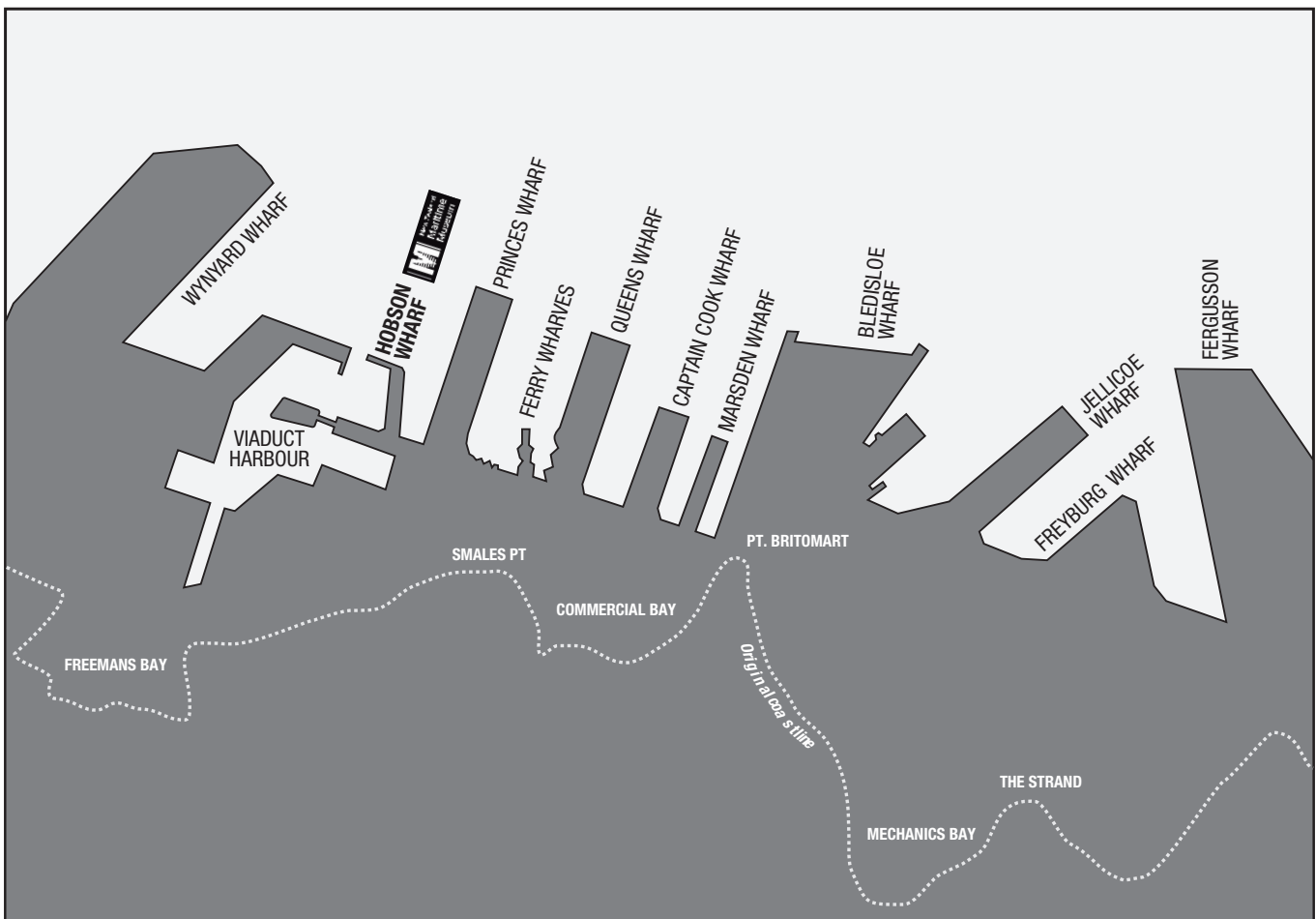
APPENDIX 4

PORTS OF AUCKLAND WHARVES

The map shows the current arrangement of Ports of Auckland wharves. They are reconfigured at times - extended, removed, merged - to serve the needs of increasingly large ships, in particular cruise ships and different types of cargo

The map also shows the Auckland shoreline before reclamation.

The reclamation work between Customs Street and Quay Street was completed by 1886. Further work continued along the waterfront until the early 20th century.



YACHT AND SAILING SHIP TYPES

