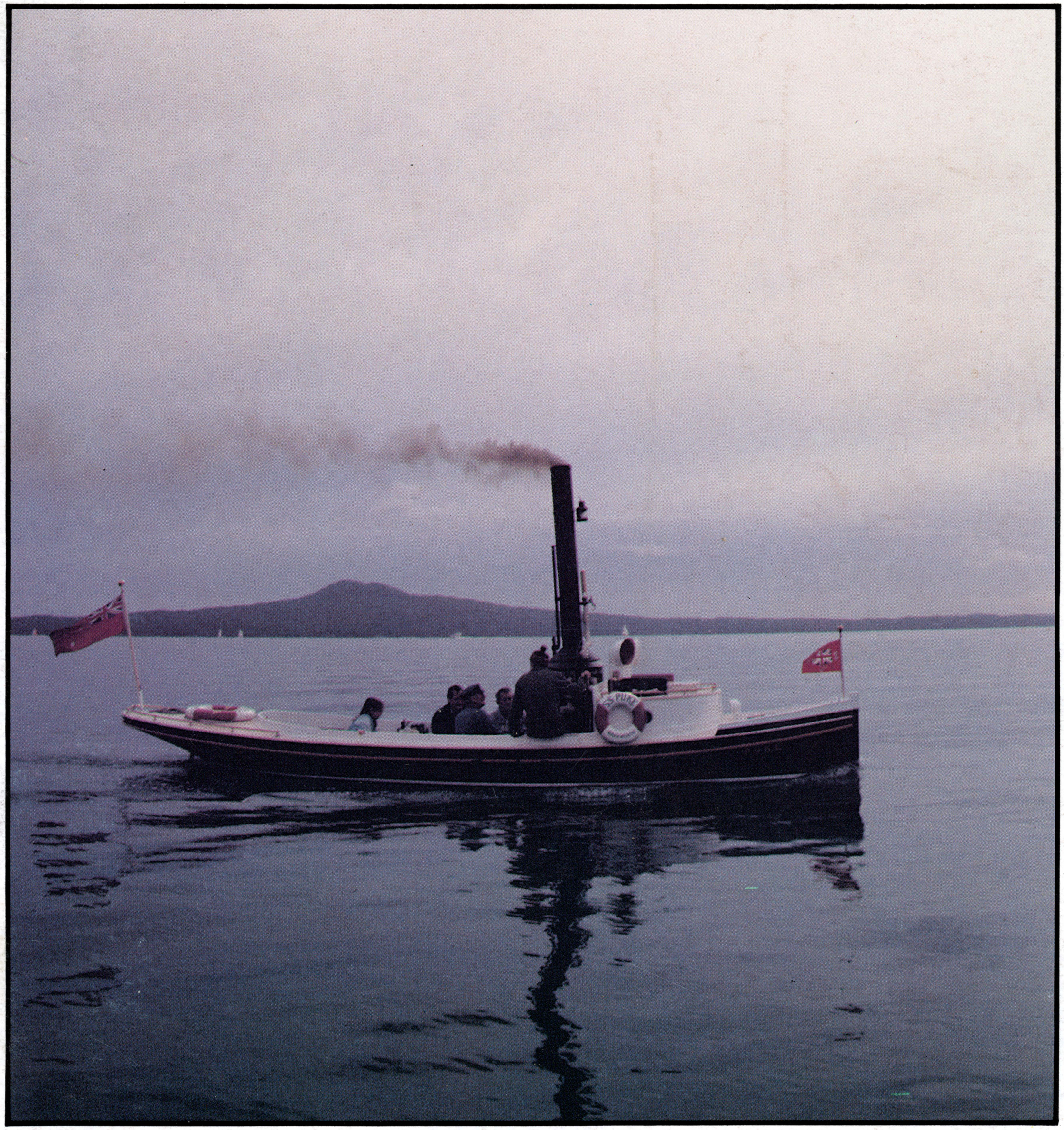
Autumn 1991 Vol.3 No.1

Bearings

HOBSON WHARF Auckland Maritime Museum

$4.50 incl. GST



CRISIS FOR DOLPHINS

THE LITTLE SHIPS OF LAKE WAKATIPU 1862-1863

THE JOHANSEN MARINE ENGINE

THE ELSIE EVANS

WORM!

The Winner's Formula On Water

The Winning Choice In Store.

Epiglass HT9000 Epoxy Resin System was used as the filling and fairing compound on Steinlager 2, the winner of the Whitbread Round The World yacht race. It certainly proved to be part of the winning formula.

And to ensure the continued success of HT9000, we've introduced a new, low viscosity resin.

It mixes easier and goes on better for improved fibre wet out.

EPIGLASS

THE WINNING CHOICE

The whole HT9000 range of resins, hardeners and extenders gets completely new packaging, making it easier to use and more convenient. The plastic packaging has been designed for clean handling, non-spillage and easy resealing.

So if you want the winner's formula for your boat, choose Epiglass HT9000. It's the winning choice in store.

BSW 1318

ISSN 01149423 Bearings Vol. 3 No. 1

EDITORIAL

Like a vacational false alarm, Anniversary Day springs itself upon Aucklanders just when they have adjusted to the idea of a return to work and the onslaught of yet another year.

But Anniversary Day — or more accurately Anniversary Weekend — is a special time for the aquatic adventurer in one of the world's most actively maritime cities. The Anniversary Day Regatta is reputed to be the largest single day-turn-out of craft in the world. It is one of those periodic days when the waters of the Waitemata Harbour are churned to froth by criss-crossing yachts, high and low-powered motor boats; of gung-ho racing skippers, and families enjoying the spectacle.

Regatta Day is an *event*, the most unselfconscious and culturally true manifestation of civic celebration this country knows. Each year Auckland enjoys its birthday and celebrates its presence as a meandering volcanic necklace draped across two subtle and superb harbours close to a miraculous, extensive island-studded gulf.

Less well-known to mainstream 'boaties' is the Mahurangi Regatta on the Saturday of Anniversary Weekend. With its origins in the old trader and local craft regattas of times far distant, the current Mahurangi Regatta is organised by the Friends of the Mahurangi, a supporters' society for one of the loveliest harbours and inland waterways of the Hauraki Gulf.

It is a regatta for traditional craft, and this year the owners and lovers of historic craft, traditional replicas and downright eccentric vessels turned out in great numbers. Old-fashioned sand sculpture competitions, tugs-of-war and the like completed the family nature of the event.

It is a far call from the frenzy of the Anniversary Day Regatta yet both are wonderful and both are true to the nature of maritime Auckland.

This year the Anniversary Day Regatta traditional craft events were poorly attended, however. REWA won the principal event, and that is appropriate since it was her last regatta before coming ashore as a central exhibit at HOBSON WHARF. But it was sad to see that so few of the craft gathered at Mahurangi on Saturday could make it to Orakei on Monday.

HOBSON WHARF will lend its support to both great events next year, and in the future. We applaud both organising groups for their celebrations of Auckland's identity. We pledge ourselves to support the Mahurangi success, and to assist in building upon the historic craft events of the Anniversary Day Regatta.

The crowd, and the media, love the old-timers and the unusual craft. Whether the pragmatics of boat-owners' tastes drive them to ultra-light displacement hulls with super-stressed modern rigs, or the awesome power of high-speed launches, somewhere lingers a love for refined sheers, delicate counters, the geometry of old rigs and the grace of plumb-stemmed motor launches. They are a living memory; they are the past today. Their presence — like all history made relevant — reminds us that we are the product of other times and, by implication, a cradle for the future.

Rodney Wilson

Bearings is published quarterly by HOBSON WHARF: Auckland Maritime Museum, P.O. Box 3141, Auckland, New Zealand. Phone: 358-1019.

Publishing Editor: Gillian Chaplin
Managing Editor: T.L. Rodney Wilson
Technical Editor: Peter McCurdy
Layout: Graeme Leather
Copy Editor: Graeme Leather
Typesetting: Typeset Graphics Ltd
Film & Plates: Process Art Studios Ltd
Printing: Business Printing Group Ltd
Distribution: Gordon & Gotch Ltd

CONTENTS

2 LETTERS

3 CRISIS FOR DOLPHINS
by Mike Donoghue

12 THE LITTLE SHIPS OF LAKE WAKATIPU 1862-1863
by Neil Clayton

20 THE JOHANSEN MARINE ENGINE
by Harold Kidd

24 THE ELSIE EVANS
by Yvonne Sutherland and Gordon Douglas

27 WORM!
by John Morton

31 S.V. TRADEWIND
by Rodney Wilson

34 HOW THE BREEZE WON THE TALL SHIPS RACE IN 1991
by Rob Morton

36 CRUISE SHIPS IN AUCKLAND
by Robert Hawkins

39 BOOKS

42 SERVICES DIRECTORY

43 MUSEUM NEWS

50 THE BOOKSHELF

51 DITTY BAG

59 FRIENDS OF HOBSON WHARF

COVER PICTURE
The Museum's steam launch PUKE on the Waitemata Harbour.
(Paul Gilbert Light-Transport)

LETTERS

Bearings readers are invited to write on any subject to do with HOBSON WHARF or maritime matters generally. We ask that letters be signed — no noms-de-plume please — and the address of the writer must be given, not necessarily for publication. To prevent confusion, letters must be legible, double-spaced and preferably typed. Some editing may be necessary for reasons of space but every effort will be made to preserve the writer's intention. Photographs may be included; please identify subject and photographer.

Please have your say — your information, ideas, opinions and queries are awaited.

PINE ISLAND DAYS

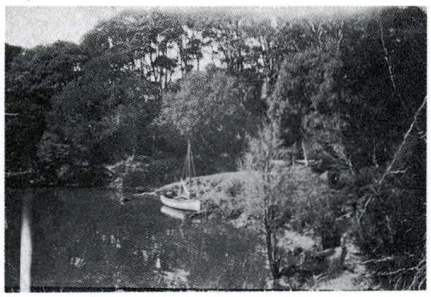
Your article entitled 'Guarding the Upper Harbour' written by Jennifer Maxwell in *Bearings* Vol.2 No.4 brought back many happy memories.

It was in 1919 my late father had a 16 ft dinghy built for us. She was of kauri, of clinker construction and had no name. She had a small deck for'ard, a centreboard, mast, boom and trysail, and was powered with an Evinrude Outboard Motor, about 1½ horsepower.

Her builder was a local friend, a Mr Charlie Gouk. She was kept at anchor off Sentinel Road Beach, near our home in Sarsfield Street, Herne Bay, and it was not uncommon for our family to spend almost every weekend afloat in her. I was then nine years of age, and Jack, my brother, just seven.

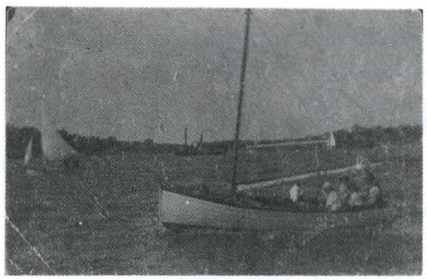
Our parents took us 'up the river' (the term used in those days) to the top of Henderson Creek, to Pine Island (now Herald Island) right up Lucas Creek to Albany, even to Riverhead, all four of us sleeping on board under a canvas cover thrown over the boom, with a primus stove to cook with.

There were few other craft to be seen. We really did enjoy exploring all the bays and catching schnapper for our meals. I clearly recollect, too, one special day when our family, plus two playmates, motored to Devonport to greet H.M.S. RENOWN, along with many other small craft, as she rounded North Head, all accompanying that huge naval vessel as she slowly wended her way up the harbour. That was in 1920. What fun we had.



The Palmer's 16 ft clinker boat at the top of Henderson Creek c. 1921. (Charles Palmer)

'Regatta Day'. Mum, Bunt, Jack, Len and Dick aboard their 16 ft clinker built boat c.1921. (Charles Palmer)



The Palmer's 16-footer under power on Regatta Day c.1921.
(Palmer family album)

Only recently I relived those happy days when I took my present yacht up to Greenhithe for overhaul, the only difference being the large number of houses overlooking the bays previously graced alone by pohutukawas and thick undergrowth.

C.G. (Bunty) Palmer
Herne Bay

BLO

With reference to the article on the speedboat PIRI PONO, which appeared in *Bearings*, Vol.2 No.4, I would like to point out a small mistake in reference to a particular gentleman mentioned in the final paragraphs of the article.

The person referred to as 'Blow' Blamfield should, in fact, have been referred to as 'Blo' Blomfield.

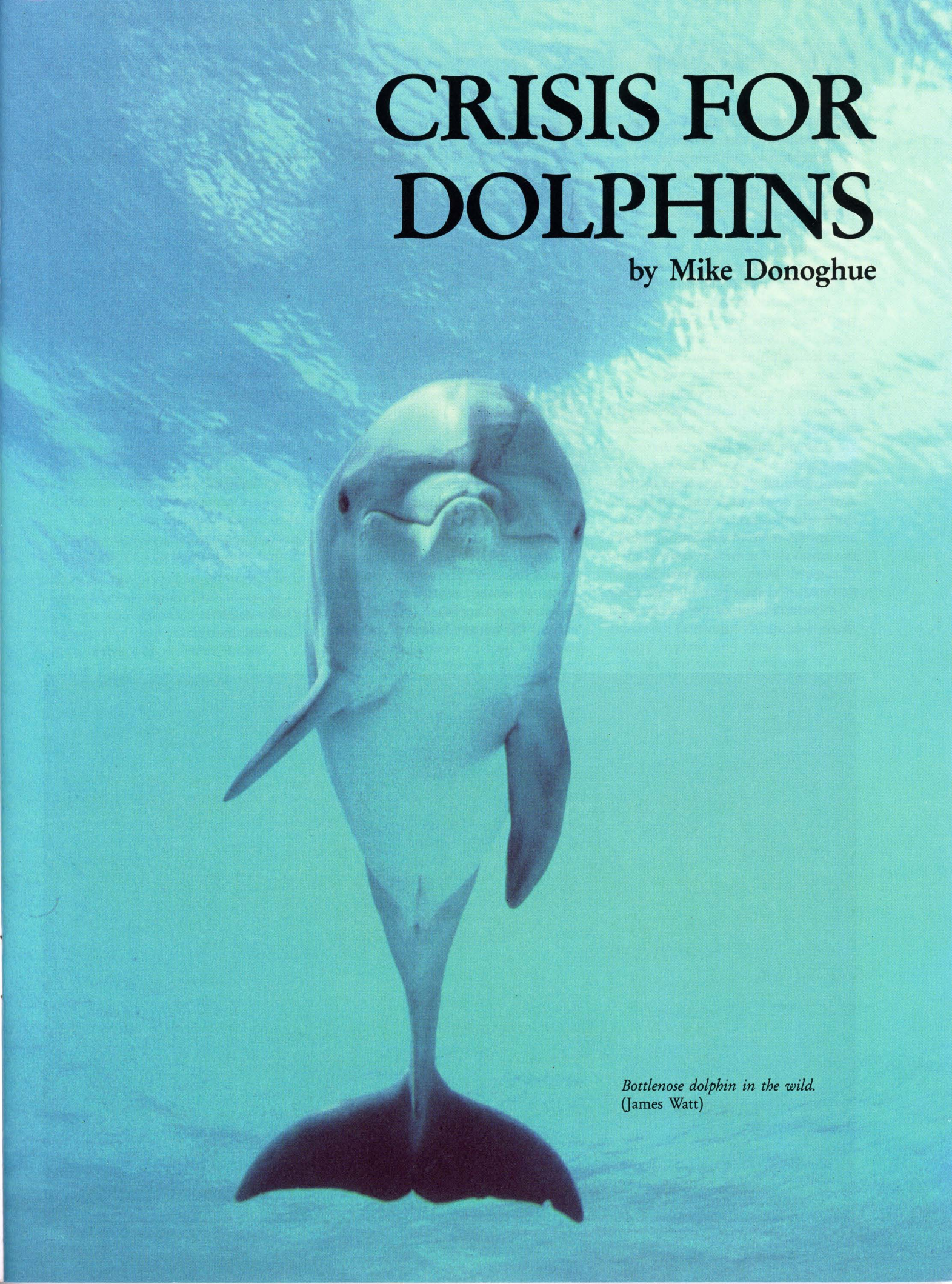
This was William Blomfield, the cartoonist well-known for his signature 'Blo'. He started his career as an artist with the *New Zealand Herald*, and later with the *Auckland Observer*. For fifty-two years he produced cartoons causing (as has been quoted) "belly-laughing at friend and foe alike". His uncle was Charles Blomfield, the well-known artist.

John Webster
Parnell

Thank you John, it is a blow that our Blo became a Blam but 'typos' do occur in the very best families — T.L.R.W.

CRISIS FOR DOLPHINS

by Mike Donoghue



Bottlenose dolphin in the wild.
(James Watt)

For most mariners, the sighting of dolphins during a voyage is an exhilarating and uplifting experience — the more so if the friendly mammals ride the bow wave of the vessel. Like past generations, we enjoy a special relationship with our 'best friends in the sea'.

Ancient Mediterranean cultures believed that the dolphin represented the vital power of the sea. *Dolphys*, the Greek word for dolphin, also means womb, and Ancient Greeks regarded dolphins as guardians of the oceans. Killing a dolphin was considered tantamount to killing a person, and was punished accordingly.

Times have changed, and dolphins are now the target of a human onslaught which is probably responsible for over one million avoidable deaths each year. Of the thirty-nine species of dolphin, three are on the verge of extinction, while the survival of a further eight is threatened. Many others have been depleted in at least part of their range.

Dolphins belong to the group of marine mammals known as *Odontocetes* (toothed whales), and are supremely well adapted to a watery environment. They have developed a highly-sophisticated echolocation system, which enables them to navigate and locate their prey in even the murkiest water.

Sounds generated in the nasal passages are focused by a large organ known as the melon, which is located beneath the bulging forehead. Any object in the path of the emitted sound waves reflects back an echo — the air-filled swim bladders of fish provide a particularly good reflection — and returning waves are transmitted through the lower jaw to the brain. This enables the animal to construct a three-dimensional 'sound picture' of its surroundings. Dolphins also communicate with each other through a series of squeaks, clicks and whistles, some of which are audible to humans.

Such a complex communication system requires a large brain, and the brains of toothed whales and dolphins in many ways approach (or even exceed) the human brain in both size and complexity. The undoubted intelligence shown by dolphins has attracted the attention of the United States military machine, which has for thirty years been conducting increasingly expensive and ambitious programmes. Between 1985 and 1989, the US Navy spent nearly US$30 million on one hundred or so 'advanced marine biological systems' — mostly bottlenose dolphins.

Originally, the dolphins were trained to locate and retrieve items of underwater weaponry, particularly torpedoes, after test firings. However, in recent years more complex tasks have been assigned to the military mammals. In 1987, six dolphins were airlifted to the Persian Gulf to seek out Iranian anti-shipping mines. The Navy had even planned to use dolphins, armed with guns attached to their beaks, to guard its Trident nuclear submarine fleet at the Puget Sound base from attack by enemy

Dusky dolphin.
(Barbara Todd)

Trapped striped dolphins await slaughter in Futo Harbour, southern Japan. Until recently, thousands of dolphins have been hunted and killed each year in Japanese drive fisheries.
Fishermen drove groups of dolphins into narrow bays, where the herded animals were stabbed, harpooned or knifed to death. The average catch by this method between 1975 and 1986 was 4,700 per year, mostly striped dolphins.
(Earthtrust)

divers. Strident public opposition fortunately caused the Navy to abandon the project in January. The idea of using creatures which have become such symbols of peace and harmony to help protect weapons of mass destruction is ironic indeed.

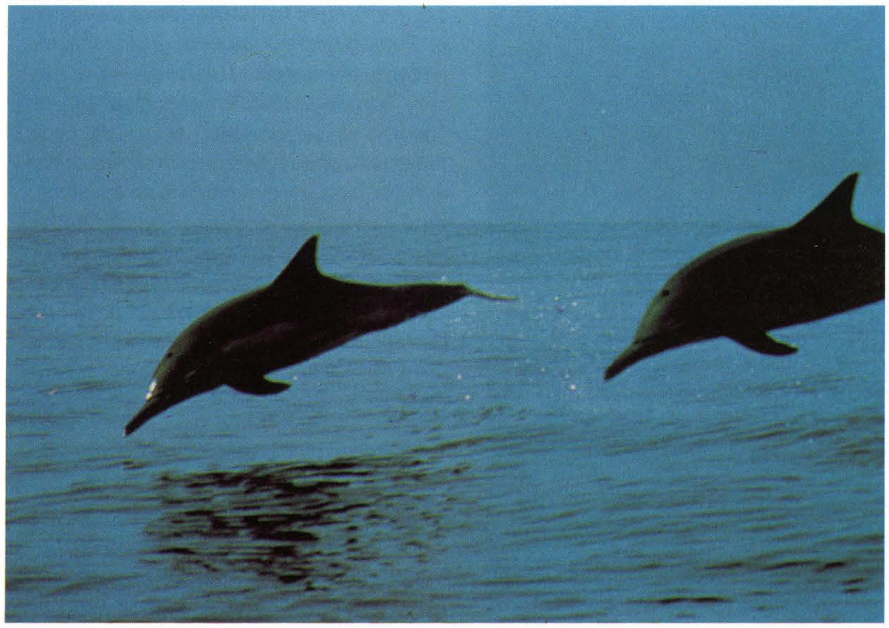
Another obvious reflection of dolphin intelligence is their complex social behaviour — play is a feature of all species and many of the more extroverted displays of somersaults, tail slaps and walking backwards on the tail have become familiar as part of displays put on by captive dolphins all over the world. Over 4500 dolphins are known to have been held in captivity over the past thirty years. Most of the animals which survive the trauma of capture (which killed 40 per cent of the dolphins caught off California in 1975) face a much reduced life-span and are unlikely to survive for longer than half the normal life expectancy.

In an age of increasing leisure in affluent countries, dolphinaria are being constructed in increasingly unlikely locations — such as the US$120 million 'Tropical World' built high in the Swiss Alps. Such expensive developments provide high-quality hygiene and handling. By contrast, less fortunate captive dolphins may be held in the most primitive conditions, performing in tiny pools to holiday crowds as part of travelling sideshows. A more welcome development is the growing public support for excursions to view dolphins in their natural surroundings — like the acrobatic dusky dolphins at Kaikoura.

Dolphins are a long-established group, and modern dolphins have changed little over the past ten million years. The thirty-nine species of dolphins and porpoises are divided into four groups:

River dolphins
Monodonts — the narwhal and beluga (small whales from the Arctic)
Porpoises — a species with spade shaped rather than pointed teeth
Delphinids — the familiar dolphins and six species of small whales.

Of these, the river dolphins found only in a few of the major river systems of Asia and South America, comprise the least abundant and most endangered group. Confined entirely to fresh water, usually in silty and turbid rivers where eyesight would be of little assistance, the river dolphins



Common dolphins.
(Department of Conservation)

The Amazon River dolphin or boto is one of the most endangered of all dolphin species, now reduced to only a few thousand in number. Its long beak, tiny eyes, and broad, short flippers, are all adaptations to living in silty river habitats. (Earthtrust)

are characterised by enormous foreheads which contain powerful echolocation systems. The boto, or Amazon River dolphin, spends much of its life foraging in shallow water over the river's flood plain during the rainy season. Individually articulated vertebrae allow the boto to swim between the tree roots of the flooded forest as it forages for food, but the animal unerringly finds its way back to the main river channel as the floods subside.

For the dolphins of the Yangtze River in China and the Indus River in Pakistan, the future is especially bleak. Human development continues to degrade the river to the extent that it is no longer capable of supporting its most highly-evolved lifeform. For the Chinese baiji, the presence of 350 million humans along the river banks — with the consequent boat traffic, noise, pollution and heavy fishing pressure — has resulted in a steady decline in numbers, and the species may be down to its last two hundred individuals. A couple of artificial lakes are now being built to house a few dozen baiji; otherwise it seems unlikely that this dolphin will survive in the wild far into next century.

The Indus River dolphin is only slightly better off — perhaps five hundred animals remain, mostly in Sind province, near the river mouth. The dolphin has all but vanished from the upper reaches of the river, largely because of the construction of a series of irrigation dams which have totally altered the river's flow and destroyed much of the dolphin's habitat.

For the boto and the Ganges River dolphin, the situation is not yet as critical — several thousand members probably still remain for each species. Their future is far from secure, however, as development pressures (such as logging and mining in the Amazon basin) continue to degrade their habitat.

Because they are long-lived predators at the top of the food chain, water-borne pollution is a major problem for dolphins, especially those living near areas of heavy industry. The belugas, or white whales, of the St Lawrence River in eastern Canada, have been particularly severely affected. Once so abundant that trainee fighter pilots were encouraged to use them for target practice, the whale population has declined steadily during this century. They were afforded total protection in 1979, following a lengthy campaign by the environmentalist Leonie Pippard.

Despite their protection, however, the beluga population has continued to decline, with dead whales frequently found cast ashore on river banks. The St Lawrence drains the Great Lakes, with their enormous chemical and manufacturing plants, and the four hundred or so remaining beluga bear the unhappy distinction of being one of the world's most contaminated animals. Polychlorinated biphenyls (PCBs) and pesticide residues accumulate to very high levels in the fatty tissues of the whales, and the St Lawrence beluga are now so contaminated that most are sterile. Because they are so heavily contaminated dead whales cannot be buried, but must be disposed of as toxic waste. Sadly, it seems that the massive clean-up of the river promised by the Canadian and US governments following public reaction to the plight of the belugas will come too late to save the whales. Perhaps at a future time, the white whales will be introduced back into the St Lawrence from one of the remaining Arctic populations.

The wholesale demise of several hundred bottlenose dolphins have also become commonplace in the last few years, both on the east coast of the United States and also on the Atlantic coast of France. A common feature has been the high levels of PCBs and other toxic by-products of the industrial age found in the tissues of the dead animals. Harbour porpoises are now all but extinct in the polluted

Baltic Sea, whilst bottlenose dolphins, once frequent visitors to English rivers, are now rarely reported from British coastal waters.

Despite their declining numbers, and the increasing contamination of their homes, dolphins, porpoises and small whales are still killed in their thousands for human consumption. Japan is the main culprit, with hundreds of fishermen involved. In Hokkaido, and Iwate Prefecture in northern Honshu, the target is Dall's porpoise, a fast-swimming species which loves to ride the bow waves of boats — a fatal mistake, since the fishermen harpoon them.

The Japanese government has allowed the number of porpoises killed each year to escalate since the introduction of the moratorium on commercial whaling in 1986, claiming that the porpoise meat is required to satisfy a public demand. From an average annual kill of under 10,000, the porpoise slaughter climbed to over 40,000 in 1988 and was over 30,000 in 1989. Japanese scientists estimated that the local porpoise population in 1986 was 105,000.

In southern Honshu, the most popular target is the striped dolphin, whose annual migration takes the large herds close to the coast near the Ito and Kii Peninsulas. Dolphins and whales have very sensitive hearing, and will always swim away from loud underwater noises. In New Zealand, this principle has been successfully employed to prevent strandings — whales will swim away from shallow water if a sound barrier is established between the herd and the beach. In the so-called 'drive fisheries' of Honshu, fishing boats join together to herd the dolphins towards the shore, using long metal pipes suspended in the water and struck with a hammer to generate the noise. As many as 3000 dolphins have been driven ashore and killed in a single 'drive'.

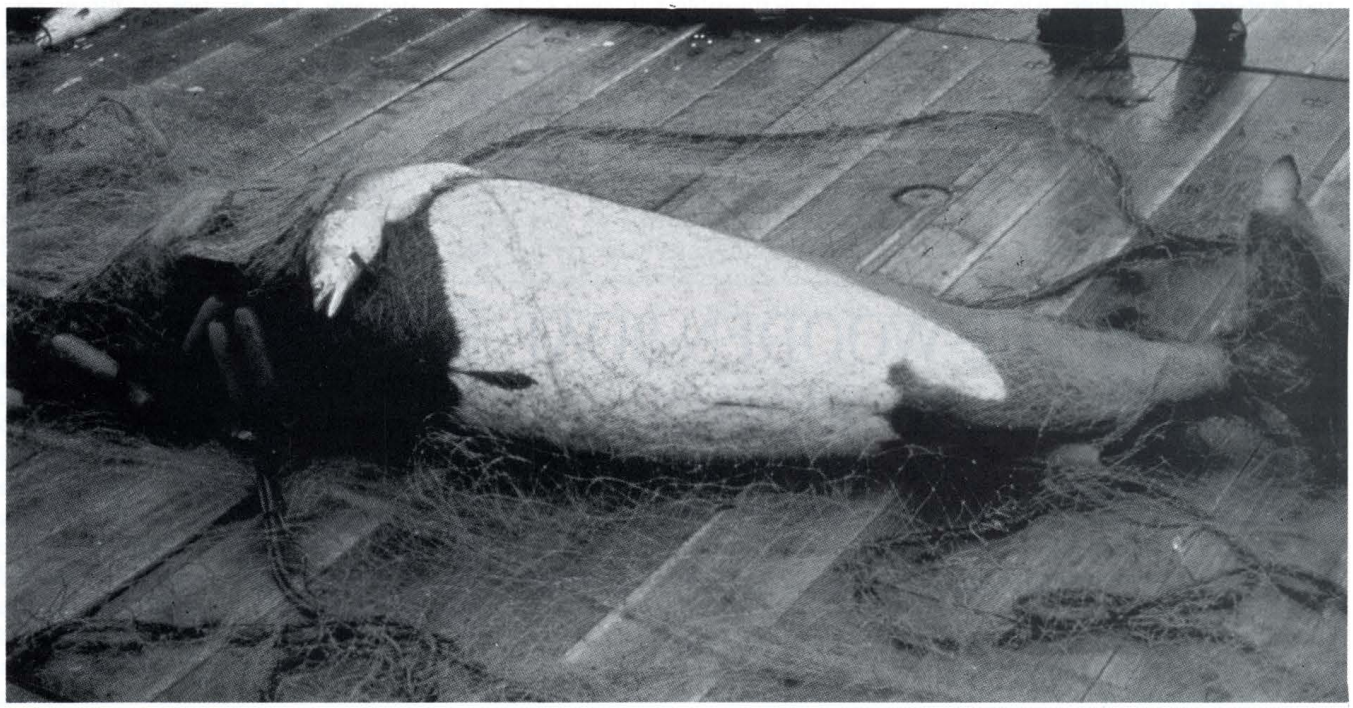
The most notorious drive fishery, however, is the pilot whale hunt or grynd carried out in the Faroes Islands, situated between Iceland and Scotland in the North Atlantic. Since the Vikings first colonised the Faroes over 300 years ago, over 220,000 of these small whales (up to five metres long and two tonnes in weight) have been driven ashore and slaughtered. The killing itself is nothing less than barbaric. Boats drive entire herds of whales, which may consist of several hundred individuals, into shallow bays. The mammals are then gaffed and dragged onto the beach, where their throats are cut. The destruction of an entire herd may take several hours, and sometimes whales are paralysed because they break their spines in their agonised thrashings.

There can be little doubt that in years gone by whalemeat was a vital part of the diet of the islanders, but the rapid development of their fishing industry over the past decade has provided the Faroese with one of the highest per capita incomes in the world. Despite the healthy state of the economy, however, and the ready availability of a wide selection of foods, whales and dolphins are still being killed in large numbers. In 1988, 1690 pilot whales and over 600 dolphins (including 544 in a single drive) were killed by the Faroese, who appear to be oblivious of trenchant international criticism of their traditions.

Ironically, it seems that industrial pollution may ultimately come to the rescue of the animals. Their tissues are now so laden with PCBs and other toxic by-products of modern society that the meat is unsafe for human consumption.

Tradition was also the spurious excuse provided by Turkish fishermen,

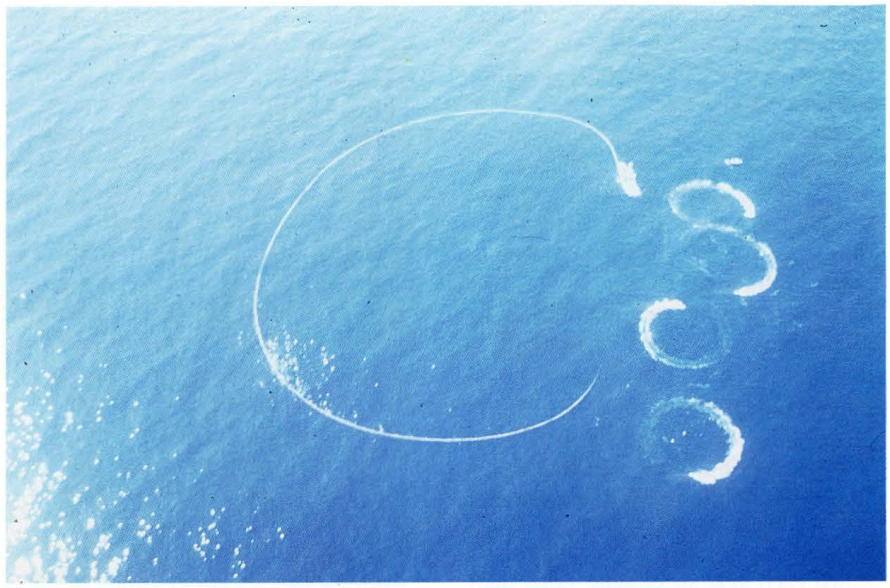
A drowned Dall's porpoise aboard a Japanese salmon drift-net factory ship. This fast-swimming North Pacific species frequently falls victim to drift-nets strung across the ocean. (NMFS)



who almost exterminated dolphins in the Black Sea. Believing that dolphins interfered with fish catches, the Turkish government encouraged fishermen to shoot dolphins on sight, and subsidised the slaughter by establishing a factory to produce oil and chicken food from dolphin carcasses. Hundreds of thousands of dolphins and harbour porpoises were killed during the 1970s, and when the killing was finally halted in 1983, the populations were on the verge of total collapse. Prospects for recovery of the dolphin populations are, however, bleak — faced with declining fish stocks after years of over-exploitation, Turkey is now seriously considering the re-introduction of dolphin culls.

Yet the damage done by deliberate killings is far less than has been caused by modern fishing operations. The onslaught began in the Eastern Tropical Pacific (ETP), where schools of adult yellow fin tuna swim underneath herds of dolphins — perhaps making use of the superior abilities of the mammals to detect prey. When the tuna were caught using poles and lines, there was no adverse impact on the dolphin population. However, the introduction of the purse-seine method resulted in dolphin deaths on an unprecedented scale.

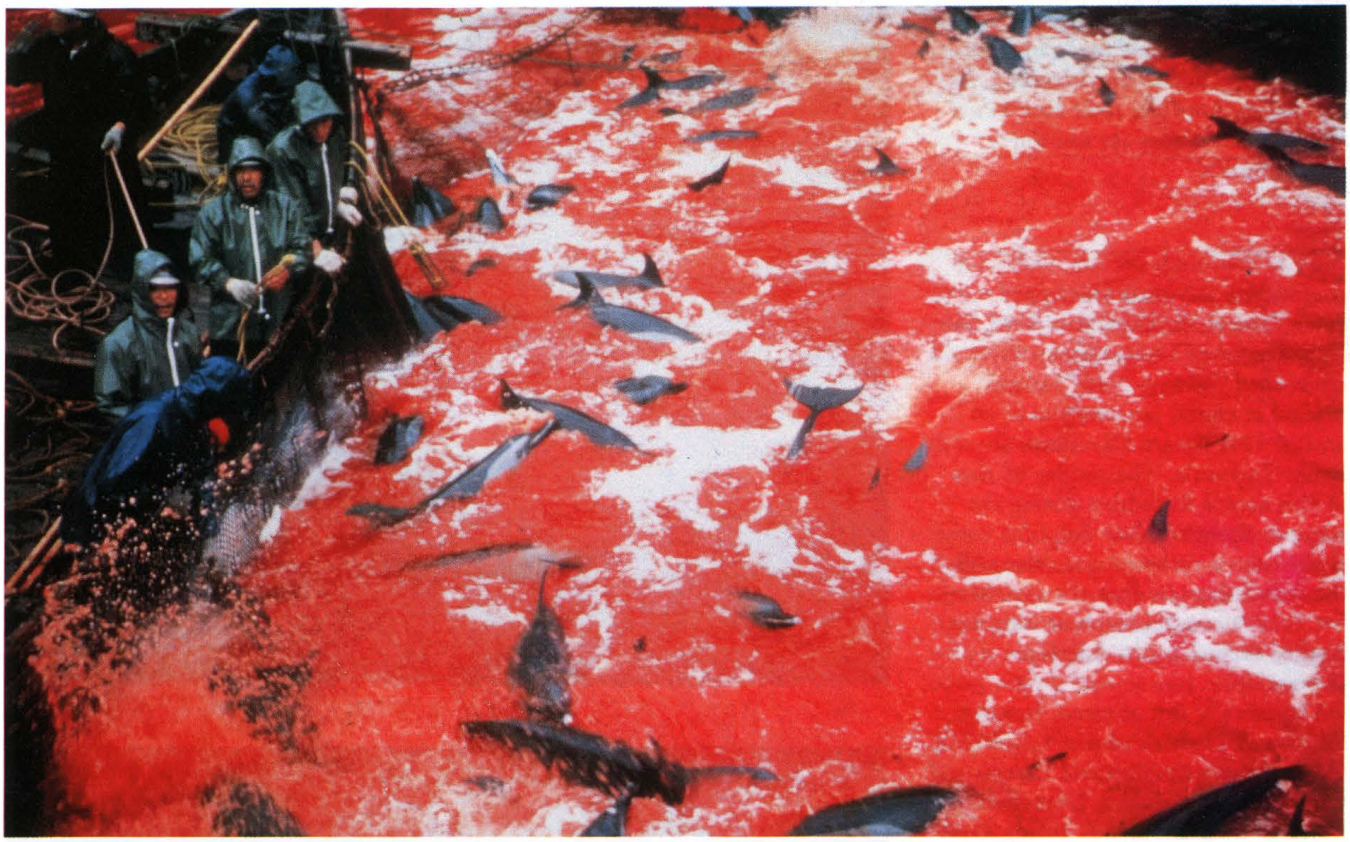
The modern purse-seine tuna vessel in the ETP carries its own helicopter and high-speed inflatables. Dolphin herds are chased by boats, and confused and harassed by small tuna bombs, similar in size to stun grenades. When the herd stops, too exhausted to swim any further, the seiner steams up and sets its mile-long, three hundred feet-deep net around the dolphins, and any tuna which might happen to be swimming underneath. Dolphins which are unable to escape drown, or are crushed to death as the huge net is winched into the side of the boat.



'Porpoise fishing' is a method used for catching tuna which associate with dolphins in the Eastern Tropical Pacific. Here a purse-seiner sets its net around a school of dolphins and speedboats drive in tight circles at high speed to frighten the dolphins and tuna back into the net.
(NMFS)

Since the introduction of this fishing method into the ETP in the 1950s, between eight and twelve million dolphins have died in order to save the US consumer a few cents on each can of tuna. Successive US governments allowed the practice of 'fishing on dolphin' to continue, setting permissible kill levels of tens of thousands of dolphins annually. It was not until April 1990 that a coalition of US environmental groups, spearheaded by the San Francisco-based Earth Island Institute, finally succeeded in forcing a change in corporate policy. The major American tuna canners now accept only tuna caught without the capture of dolphins. The practice of 'fishing on dolphin' is continued, however, by other nationalities with markets outside the United States.

The widespread use of nylon in the manufacture of fishing nets, has not only been responsible for the rapid



Striped dolphin drive. Futo in Japan c. 1984. (Earthtrust)

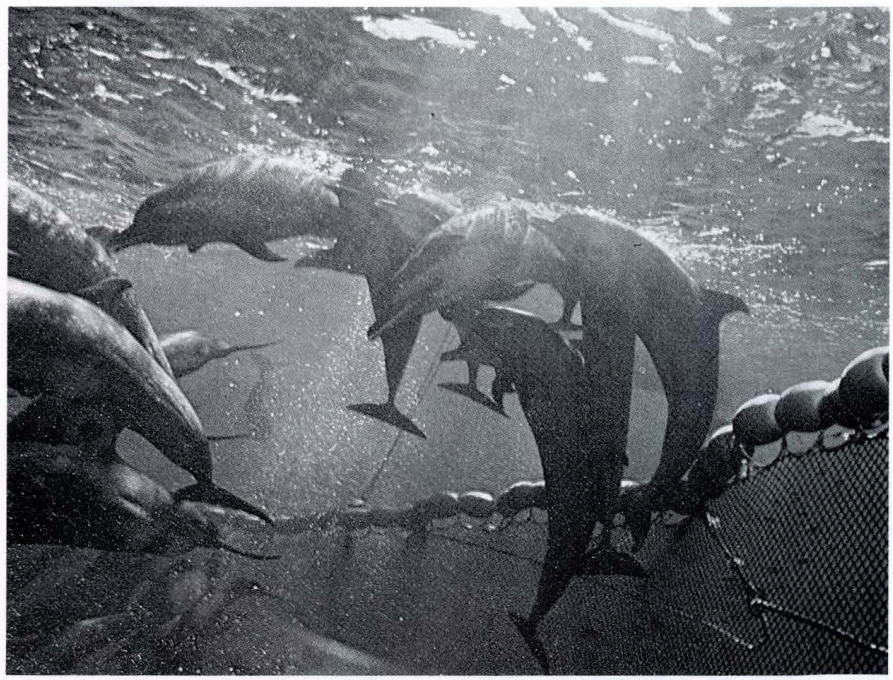
growth of purse-seine fishing, but has also resulted in the development of the huge pelagic drift nets. These may be thirty miles in length, and are set adrift from a fishing vessel to float overnight in the ocean. 'Wall of Death' drift-nets enmesh every large animal, including dolphins, in their path.

The Asian drift-net fleet which invaded the Tasman Sea during the summer of 1988-89 probably drowned between 12,000 and 15,000 common dolphins in a three-month season. In the North Pacific, where the season is six months, a fleet of over one thousand drift-netters nightly deploys enough netting to encircle the planet. Casualties there are far higher. Even in 1966, when fleets were much smaller and each drift-net was much shorter, Japanese scientists estimated that 20,000 Dall's porpoises were becoming entangled each year. The true casualties are impossible to assess, because so few of the high-seas drift-net vessels carry observers. However, a group of experts meeting in Rome last April estimated that the total global take of dolphins and porpoises in drift-nets during the 1988-89 season was at least 300,000 and could have been as high as a staggering one million.

Drift-nets not only trap enormous numbers of animals; they also catch very rare species. Southern bottlenose whales, known only from a few dozen strandings in the Southern Hemisphere, were frequent victims of the twenty Japanese drift-netters operating in the Tasman Sea last summer. The enormous progress made over the last eighteen months at the United Nations towards a global ban on high-seas drift-netting is due in large measure to the strong lead given by New Zealand and the South Pacific, and in particular the personal commitment and leadership provided by Geoffrey Palmer.

It is not only the large oceanic drift-nets that provide an undetectable hazard for dolphins, though. The thin nylon mesh of drift-nets is used in the construction of the much smaller gill-nets which are set near the shore all over the world. Because there are usually many more dolphins in coastal waters than the open ocean, the toll exacted by set nets is undoubtedly enormous — many scientists believe that over half a million dolphins and porpoises die annually. Some species, such as the harbour porpoise, are affected by set net entanglement throughout their range . This species is now practically extinct in the Baltic and North Seas, and is probably declining at roughly 10 per cent per annum in Canada and the United States. A close relative, the Gulf of California harbour porpoise, or vaquita, has been pushed to the very brink of extinction by a gill-net fishery targeting sharks and other fish. An extensive survey of the Gulf in 1986 sighted only thirty-one porpoises.

New Zealand's only endemic cetacean, Hector's dolphin, has also been heavily affected by set-nets around Banks Peninsula, the dolphin's main breeding area. Almost one-third of the local population fell victim to entanglement in nets between 1984 and 1988. Like most dolphins, Hector's reproduces very slowly. Even under the best conditions, the population can grow at a maximum of only two per cent each year — far less than would be necessary to



Dolphins trapped in a purse-seine net. Although attempts are made by some fishing crews to free the dolphins, between 8-12 million have been killed by purse-seiners over the last thirty years. (NMFS)

compensate for losses through entanglement. In December 1988, the Department of Conservation established the first New Zealand marine mammal sanctuary over an area of 1140 square kilometres around Banks Peninsula. The setting of nets in this area is forbidden during the summer months when dolphins come close inshore to breed and calve. All the indications are that the sanctuary has been successful in preventing any further decline in the dolphin population.

The news is not so good, however, for two of Hector's closest relatives, Commerson's dolphin and the Chilean black dolphin. They were killed in their thousands during the 1980s to provide bait for the southern king crab fishery, carried out in the chilly waters of southern Chile and Tierra del Fuego. Diners in Europe and North America were unaware of the origins of their crabsticks, and scientists have been unable to ascertain the true numbers of dolphins killed in these remote regions. The real damage done to these rare dolphins has yet to be assessed.

The threats to dolphins throughout the world are many and varied, as are the possible solutions. National legislation can provide protection for dolphins within the 200-mile zones of coastal states through the establishment of sanctuaries or restrictions on the use of certain fishing gear. Unfortunately, while the great whales are managed through the annual meetings of the International Whaling Commission, there is no single international agreement which provides a comprehensive framework for the conservation management of small cetaceans. Although the Scientific Committee of the IWC may discuss the problems facing dolphins and porpoises, many Commission members — such as Japan and Mexico (which operates the largest purse-seine tuna fleet in the Eastern Tropical Pacific) — are bitterly opposed to ceding any authority to the IWC to manage the smaller cousins of the great whales.

Amazon River dolphin body parts on sale in Manaus, Brazil. The dried eyes and sexual organs are believed to increase sexual powers when worn as amulets. (Earthtrust)

The success of the drift-net campaign fought at the United Nations, however, has encouraged some conservationists to look to the UN as an important forum for future conservation initiatives. In 1992, the United Nations will hold a major Conference on Environment and Development, and New Zealand will be among the nations calling for better international protection for whales, dolphins and porpoises.

Asian crewmembers pulling in drift-net.
(Earthtrust)

Immature billfish held by Asian crewmember. Asian red squid drift-net fishery, North Pacific, 1988.
(Earthtrust)

Individuals can make their own contributions — many international conservation groups, who rely heavily on public subscriptions, run very successful campaigns to bring the plight of the dolphin to the attention of the public. Other organisations are more involved in the funding of scientific research or the establishment of sanctuaries and reserves. Consumers can make the choice to buy only canned tuna which is 'dolphin-safe', and to avoid any seafoods which may have been caught in gill nets. Diplomats and politicians need to be constantly lobbied if the survival prospects for dolphins are to be improved.

For many species, the situation has never been more desperate, and the need for concerted pressure for a better future has never been greater.

Earthtrust — International conservation organisation that conducted an expedition in 1988 which resulted in the first ever images of an active, commercial red squid drift-netter at work.
NMFS — National Marine Fisheries Service, the United States agency responsible for managing marine mammals.

Mike Donoghue is the Principal Conservation Officer, Marine Mammals, with the New Zealand Department of Conservation. During the 1980s, he was closely involved with the International Whaling Commission as a scientific advisor to the New Zealand delegation, and as a delegate on the Commission's Scientific Committee. He has also represented Greenpeace and the Antarctic and South Ocean Coalitions, lobbying IWC meetings, Antarctic minerals negotiations, and the Convention for the Conservation of Antarctic Marine Living Resources.

Since joining Department of Conservation in June 1987 as Principal Conservation Officer, Marine Mammals, his work area has included the establishment of the national whale stranding rescue network, the creation of the Banks Peninsula marine mammal sanctuary, and attending international negotiations on the use of drift-nets in the South Pacific and the conservation of whales and dolphins.

THE LITTLE SHIPS OF LAKE WAKATIPU 1862-1863

by Neil Clayton

Launched in 1882, the gaff-rigged ketch MYSTERY, Captain John Miller, owner and master (is that he with the beard and peaked cap?), was the second vessel of that name owned by Miller. (Note the yard for a squaresail on the main mast.)

Towards the end of the early goldrush period, he operated a cutter, MYSTERY, in the lake trade until she broke from her mooring in Queenstown Bay during a storm in 1867 and foundered.

The steamer on the other side of the Ballarat Street wharf is the side-wheeler MOUNTAINEER.

(Author's collection)

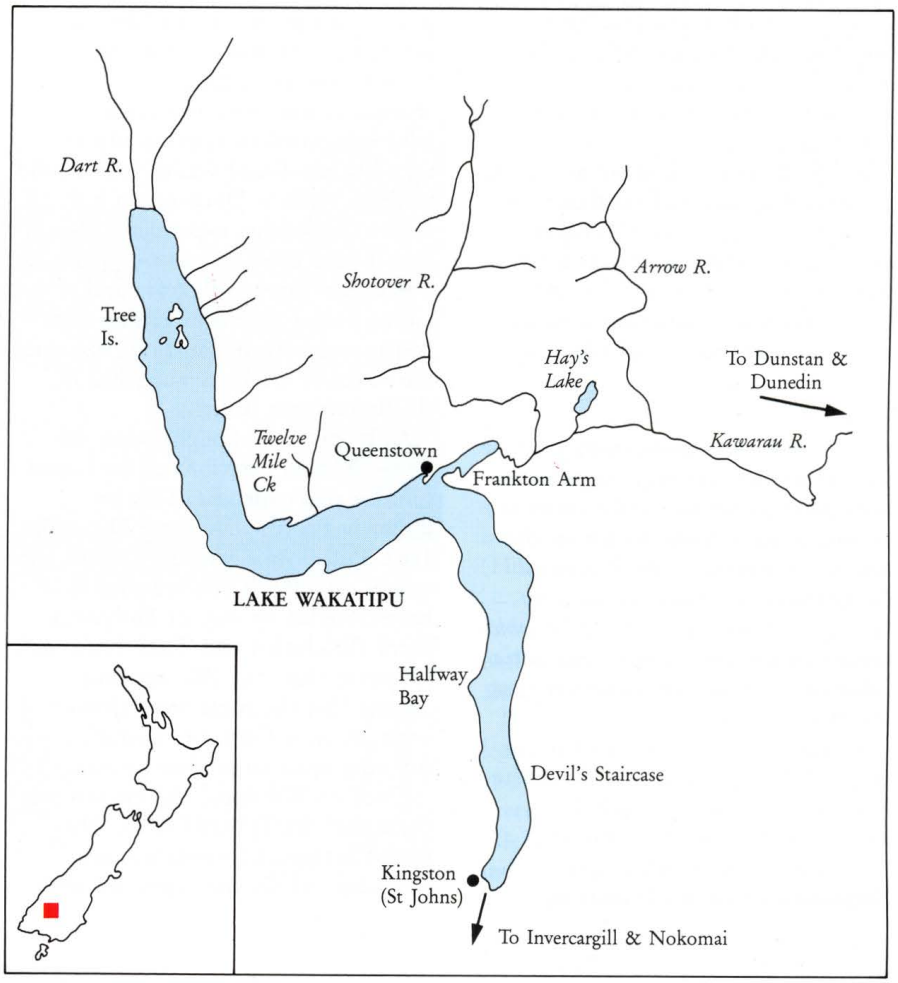
The story of steam shipping on Lake Wakatipu has been well-portrayed by Bob Meyer in his book *All Aboard*. Perhaps less well known is the saga of the earliest vessels on Lake Wakatipu — an armada of little ships of all shapes and sizes hurriedly pressed into service to provide a vital lifeline during the first six months of the Wakatipu goldrushes of 1862-63.

"We understand that a gentleman recently arrived amongst us from Tasmania, Mr Hamilton, is about to put a steamer on the Wakatip Lake, in conjunction with the enterprising firm of Messrs. Campbell and Co." Thus the *Invercargill Times* informed its readers of plans to introduce steam shipping to the lake. Only a week earlier, in November 1862, a former Californian Forty-niner, Bill Fox, and his party had walked into the Dunstan to announce their breathtaking gold strike at the Arrow River.

From the earliest days of the rush to the new Wakitipu goldfield there was an urgent need for tonnage to ship provisions from the foot of the lake to the swelling numbers of miners streaming onto the Arrow and Shotover diggings. Road access to the Wakatipu was non-existent. Drays could not get more than a few miles up the Cromwell Gorge from the Dunstan. On the overland route from Oamaru via the Lindis Pass, wheeled traffic could not get over the Crown Range beyond the Cardrona diggings.

Packhorses were tried for a short time over the final stretch between Cardrona and the Arrow, but the high cost of horse feed and the damage caused to goods made prices prohibitive. And although the overland route from Invercargill to St John's (Kingston) at the foot of the lake presented no difficulties for drays and 'American' wagons — in dry weather at least — no vehicles or packhorses could get beyond the Devil's Staircase, the bluffs along the rugged southeast coast of the lake.

The original runholder at the lake, William Gilbert Rees, who had established his head station on the future site of Queenstown in 1861, had originally used a bullock sledge to drag a forty-foot whale-boat, the UNDINE, to the foot of the lake to help solve his transport problem — getting men, materials and stores in and wool out. The UNDINE and two other vessels — the LADY OF THE LAKE, built in Invercargill, and a



small boat built at the lake by a boatman employed by William Rees — had been sufficient for the immediate needs of his small pastoral community.

When the goldrush set in at the end of 1862, Rees also had another boat, the forty ton YOUNG AMERICA, under construction at the lake, but it was not launched for another month. In the absence of sufficient tonnage, goods and provisions had begun to pile up at the foot of the lake even before Bill Fox had left for Dunstan to make his momentous announcement. And Fox seems to have recognised an opportunity to turn his new-found wealth into a solid business venture. Drawing on his earlier Californian experiences, he would have been well aware of the major part that small steam and sailing vessels played in getting men and materials from San Francisco into the virtually trackless watershed of the Sacramento River.

At Dunedin he bought what the *Otago Witness* described as the largest kind of ship's lifeboat. This he dispatched to the lake on 2 December, 1862. Pulled by a four-horse team, the wagon carrying it was reported to have travelled by way of Molyneux Ferry (Balclutha) and 'Lake Nokomai', wherever that was. (We can only assume that the route went through what are now Gore and Lumsden — dry land apart from river crossings.)

Once on Wakatipu, the lifeboat was christened WILD IRISH GIRL. She traded between Queenstown and Frankton, where she connected with another of Bill Fox's ventures, 'Fox's Telegraph Line' which ran a coach service from Frankton to the Arrow. Leaving Queen's Wharf, a ramshackle jetty at the head of Queenstown Bay, every morning at "9 sharp", she could be booked for at the nearby Boatman's Home.

Meanwhile, Mr Hamilton had sent a team of shipwrights, with a Captain Sinclair as superintendent, to one of the islands near the head of the lake to build a steamer. Hamilton himself remained at Invercargill to have a 12 h.p. saw-mill engine that he had brought from Tasmania modified to drive paddles.

He was confident he would have his ship constructed within two months at the outside, using native beech sawn on the spot. He expected her speed to be ten knots, allowing two round trips daily between Kingston and Queenstown. Hamilton was to be wrong on both counts, as we shall see.

At the same time, a note of desperation crept into newspaper articles about the problems of getting goods onto the goldfield. Much of the

---

By the 1870s the Queenstown waterfront had changed little from the early goldrush period. A gaff cutter is berthed below a crude derrick on the new wharf erected by the Provincial Government to replace the old jetty belonging to Mr Rees, the piles of which remain in the lake. A more substantial breakwater protects the waterfront grog shanties.

A small ketch, probably used in the extensive timber trade from the native forests at the head of the lake is partially hidden behind a pile of mining props on the jetty, right foreground. (Author's collection)

The VICTORIA, a former Yarra River (Melbourne, Australia) and Otago Harbour steam ferry, was one of several small steam ships that were cut into sections and transported overland to Lake Wakatipu in the earliest days of the goldrushes. They provided badly needed tonnage and a regular shipping schedule on a lake notorious for its fickle winds.

Taken in the 1880s this photograph shows the 'wooden fence' railing added to the vessel at the insistence of the goldfield authorities, concerned for the safety of passengers on her narrow exposed decks. Her steam dome, safety valve and whistle are visible above the deckhouse just forward of the funnel. (Hocken Library, Dunedin)

agitation naturally came from merchants and storekeepers anxious for their profits.

In response, two more small boats were sent up to the lake from Invercargill in December 1862. One was described as being a private speculation. The other was reported merely as being sent up by "the Association", possibly a group of merchants keen to get their wares up the lake.

Back in Dunedin the NUGGET, a small steamer used to ferry pleasure seekers across the harbour to the Vauxhall Gardens — an arboreal bawdy house that scandalised the locals — was being cut up for transportation to Lake Wakatipu. The promoters, whoever they were, obviously calculated that the cost of the venture could be easily recouped in view of the escalating demand for tonnage and the attractions of regular steam navigation compared with the vagaries of sail on a lake notorious for its fickle winds.

Towards the end of December 1862, at about the same time as the modified machinery for Mr Hamilton's steamer being built at the islands was sent up from Invercargill, the NUGGET left Dunedin. Nothing else is known about how she got to the lake. Owned by the 'Wakatip Steam Navigation Company', she appears to have started a regular service on the lake early in February 1863. (Wakatip is a corruption of Wakatipu, itself a corruption of Whaka-tipua, the Hollow of the Giant.)

The *Otago Witness* reported on 13 February of that year that another Dunedin harbour steam ferry, the EXPERT, had also been cut in two ready to be transported on wagons to the lake.

Then came the first recorded drowning involving one of the new lake fleet. Some time during the week prior to 28 February, a man named Cousins, said to be an 'Old Identity' in Otago as distinct from one of the 'New Iniquity', as the miners were disparagingly called, was lost overboard from the NUGGET while she was steaming to one of the new rushes in the several tributary creeks along the northeast coast of the lake.

"The deceased was, it appears, leaning against the side of the boat and by some means became precipitated into the water. A strong gale blowing at the time rendered all means for his rescue unavailing," the *Dunstan News* dolefully announced to its readers.

Tragic in itself, this incident signalled the beginning of a series of disasters involving the NUGGET, and it was the first of many drownings in the lake over the next two months. Some time during the next fortnight the little steamer ran aground on the unlighted, unbuoyed reef across the entrance to Queenstown Bay. The exact circumstances of the stranding are not known, but the *Witness* commented that following a change for the worse in the weather "...the efforts to raise the unfortunate NUGGET steamer have failed for the present. She is momentarily expected to go to pieces."

Then on 16 March, another ship's lifeboat, the BALMORAL, heavily laden, was caught by a squall in Queenstown Bay. Although her three hands tried to lighten her by jettisoning some of the cargo, she capsized. Two of them, Robert Shaw and Nathan Robertson, were lost. The third, Archibald McLeod, regained the vessel when she righted herself, and was saved.

The next day, 17 March, 1863, St Patrick's Day — universally observed

on the goldfields as a public holiday filled with race meetings and sports events — saw the first regatta held on the lake, which was watched by a crowd of 2000 people. The *Witness* correspondent marvelled that this could be, when only a few weeks earlier Queenstown had not existed.

To add to the triumph of the day, which saw ten commercial sail and pulling boats take part in the various events, the NUGGET was refloated and hauled ashore "...amid loud cheers". Her owners expected to have her running again the following Monday but she must have been more severely damaged than they realised. She lay on the beach until she was placed under a court order for debt in early May.

She was sold at auction for £410 on 16 May, with her gear fetching twelve pounds sixteen shillings. The *Lake Wakatip Mail* opined that she might "...again be put on the Kingston berth, or perhaps be tried between this place and Frankton." But her new, un-named owners must have found the repairs and refitting beyond them and so she passes quietly from our story, a sad end to a pioneering venture.

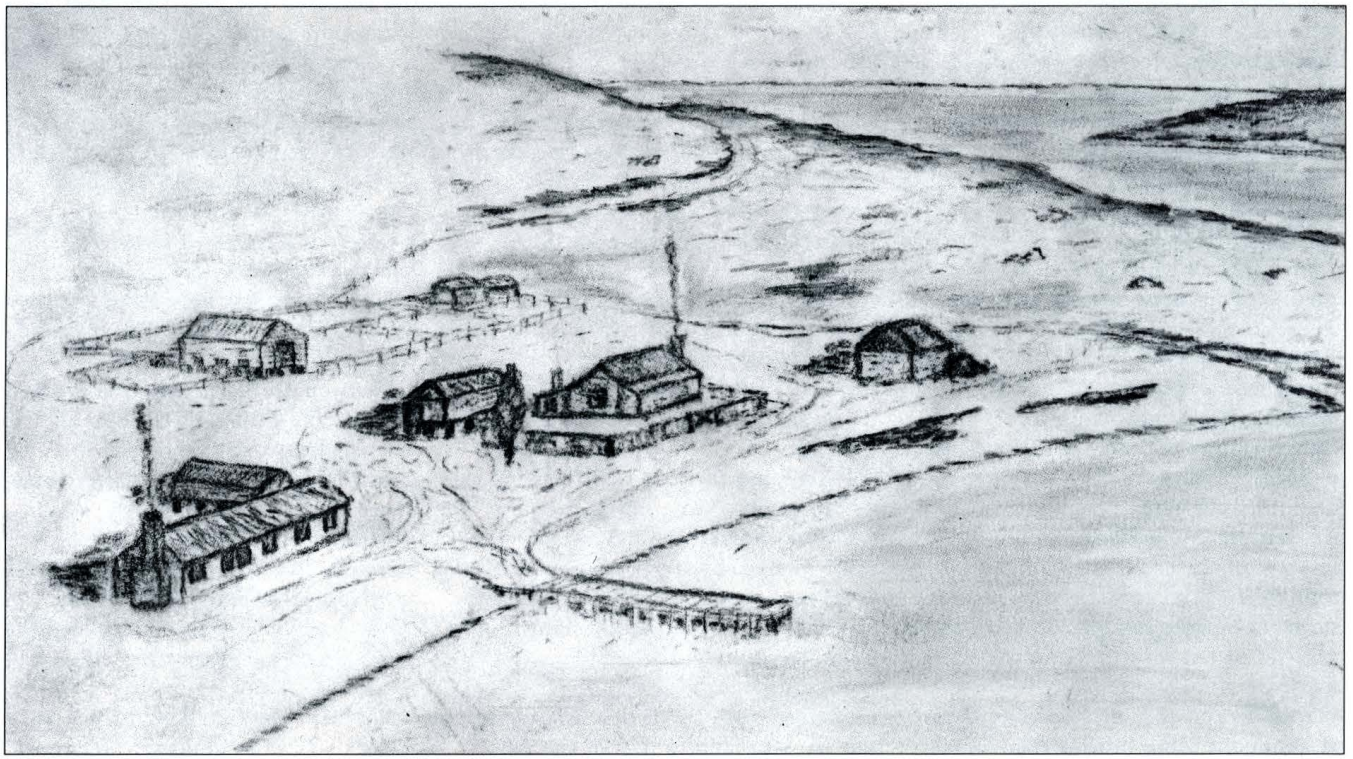
In the meantime, the bisected EXPERT had arrived at the foot of the lake where she was re-assembled and underwent trials some time during the last two weeks of March. Her owners, Gibson and Co., were awarded the mail contract for the lake. So this little steamer rejoiced in the name R.M.S. EXPERT (Royal Mail Steamer) and was fitted out complete with a small cannon with which to signal the arrival of the mail at Queenstown.

Then on 25 March, 1863, William Rees found himself in difficulties with his new schooner, the YOUNG AMERICA, when her rudder pintles broke. The passengers becoming alarmed, she was steered towards the shore with a long oar and anchored. The passengers were put ashore safely, but the wind chopped round and drove her onto a rocky beach. The cargo was landed, although damaged, and broken planks and timbers were repaired over the next two days. Put back into service on 28 March, she was just in time to convey "... forty eager passengers" down to a new rush at the Nokomai in the mountains south of the lake.

Things had really been happening in the boat-building and boat-carting world, too. On the same day, two new steamers arrived in Queenstown in time to take advantage of the sudden demand for passages to the Nokomai rush. As well, during the last week of March a smack-rigged sailing vessel of forty tons burthen, the MOA, was "...launched from the stocks fully ready to go upon an inland sea." Built at Two Mile Creek just west of the entrance to Queenstown Bay, using beech from the bush that still grows there, she was constructed by a party of miners who, said the *Witness*, "...were accustomed to ship-building." The MOA was used for the passenger and cargo trade between Queenstown and other ports on the lake. The paper also noted that while she was under construction another vessel, the CONSTABLE, had been launched, but

---

Early shipping facilities on Lake Wakatipu were rudimentary. The same small, low jetty that had been used principally to draw water from the lake for the isolated sheep station of Mr W.G. Rees was also used to service Queenstown, the rowdy bustling shipping and commercial hub of the Wakatipu goldfield that sprang up almost overnight in December 1862. (Charcoal impression by the author, from a written description by Alfred Duncan in *The Wakatipians.)*



The Daily Telegraph

Special Correspondent, Foot of Lake Wakatip
St. John's Lake Wakatip, Monday Evening (2nd February, 1863)
...no boat has been able to beat against the wind and heavy swell, now running on the lake. Very little is known in Dunedin of the detention we are constantly liable to, when heavy winds prevail; and this will be the case till steamers are on the Lake...We have arranged for a boat to take us across tomorrow, "The Pride of Tormore", of 10 tons, at all hazards, when you will hear from me from the principal townships.

THE LAKE GOLD DISTRICT

(From our Special Correspondent)
Lake Wakatip, 4th Feb 1863
Started from St. John's in a whaleboat, with fourteen passengers and ten iron boxes of treasury in charge of Sergeant Ryan and a constable. The boat sprang a leak and we put back again, and landed the treasury which was at once put on board Mr. Rees' schooner, the contractor to the Government for that service. Started again in the whaleboat at ten o'clock on Wednesday, 3rd February, [sic; the scribe had his dates mixed. Wednesday was the 4th that year] with eight passengers and after making one stoppage at Half-way Bay, landed at Queenstown, in close proximity to the Lake beach, and on Mr. Rees' home station, at six o'clock p.m., being eight hours on our passage of 28 miles.

THE LAKE DISTRICT GOLD FIELDS

(From our Special Correspondent)
Wakatipu Lake, 14th February, 1863
The little "Nugget" steamer, which left your place [Dunedin] fourteen days ago, steamed into this place [Queenstown], at seven o'clock this evening, completing the passage from the foot of the Lake, 28 miles, in three and a half hours, with seven tons of cargo and 15 passengers. The weather was calm, the water smooth as glass, and as she steamed up the smooth, and deep blue clear water, the beach was studded with groups of miners and residents, to welcome and cheer the first steamer that passed through the water of Lake Wakatipu. Freight is at 10 pounds per ton; and passengers pay 1 pound to this place. Freight is expected to be down next week to 8 pounds per ton in consequence of the number of boats on the Lake.

An eyewitness account of two significant events in the early history of shipping on Lake Wakatipu, extracted from a contemporary Dunedin newspaper. (The style, spelling and punctuation of the original articles have been retained.)

no other details of the latter were given.

Then, at last, Mr Hamilton's steamer under construction at the islands during the previous four months was completed. Christened WAKATIP by her owners, she arrived at Queenstown on 28 March, presumably with Captain Sinclair in command and certainly with Mr Hamilton as engineer.

Not only was her construction two months behind schedule, but she also proved a disappointment in the horsepower department, taking four hours to come up from Kingston at an average speed of only 6.5 knots compared with the anticipated ten. The problem was probably her boiler, a vertical wood-fired affair which — coupled to her saw-mill engine powering paddle wheels — gave her only "...one possum power", as the *Lake Wakatip Mail* put it.

Built to carry forty passengers, on her first run down to Kingston that day she crammed on board 212 of the miners eager to get to the Nokomai rush. "The chance was too good to be lost at ten shillings a head and any number of passengers," the *Witness* commented dryly.

Yet a third steamer transported overland from Dunedin arrived in Queenstown during that hectic day — the long, lean and dangerous VICTORIA. Built originally for the Yarra River trade in Melbourne, Victoria, she followed the miners to Dunedin as deck cargo on a sailing ship. She was operated on Otago Harbour for a while before again being cut up and transported to Lake Wakatipu. She too carried miners to the Nokomai rush that last Saturday in March, returning to Queenstown the following Monday with the first load of Cobb and Co. coach passengers to arrive at the lake. Those passengers had left Dunedin four days earlier.

Before long the VICTORIA came under official scrutiny. The Goldfields Department Warden at Queenstown — in the absence of a harbour-master he was the most senior official on the spot — appears to have decided that the complete lack of any form of railing or bulwarks around the decks of the VICTORIA was going to result in an accident, if it hadn't already. She was taken out of service and a rather inelegant wooden 'fence' built onto her; safe certainly but the ruination of her rather graceful sheer. Ironically, dangerously low bulwarks on the WAKATIP were to contribute to another drowning the following month.

Meanwhile, the WAKATIP caused another sensation by going aground on the same reef that had ended the NUGGET's career. She had been returning from Kingston with a full complement of disappointed miners from the Nokomai. The shrill blast of her whistle at midnight on 1 April, summoned help from the sleeping township, but once her passengers were taken off she was refloated undamaged.

While all this was going on the EXPERT had made several trips to Kingston, returning each time without the mail, much to the disgust of the *Witness* reporter who was by this time waging a war of words on what he perceived to be the inadequacies of the government postal system. "Her owners have the mail contract, whatever that may mean, seeing that no mails come by her. We hope to hear her firing her gun two or three times a week, though it lies a useless ornament at present," he thundered.

Finally, on Tuesday, 7 April, the little cannon on the EXPERT was fired for the first time when she arrived in Queenstown Bay with mail posted in Dunedin the previous Wednesday. She then proceeded to Frankton, leaving the Arrow mail at Queenstown. The *Witness* man loosed off another broadside at the Post Office for its lack of system.

Two days later the police escort boat (used to carry gold, in locked iron boxes, on the first stage of its journey from the goldfields to Dunedin or Invercargill) under the command of Inspector Morton was the only vessel to make it back to Queenstown from Kingston in the teeth of a gale. Taylor and Company's boat, the CLEYSTRIA, was driven ashore under the cliffs at the Staircase. Boat and cargo were apparently lost, although the six hands on board seem to have got off safely.

The following Monday, 13 April, saw another fatal accident in Queenstown Bay, when the WAKATIP was approaching her berth at the boatman's pier. A young man by the name of Joseph Wentworth went overboard and drowned. He was said to have been intoxicated at the time and coming up from the cabin he either tripped and fell overboard or walked straight over the low bulwarks.

At the subsequent inquest the jury arrived at a verdict of accidental drowning, adding a rider to the effect that it should be compulsory for all steamers trading and conveying passengers on the lake to carry one or more lifebuoys. The *Lake Wakatip Mail* noted editorially: "In our little trips across the lake we occasionally observe individuals who have

Lake Wakatipu: a detail from an undated watercolour sketch by William Mathew Hodgkins (father of the better-known Frances) shows a schooner off one of the islands near the head of Lake Wakatipu, and what appears to be a small two-masted lugger. Although the sketch was probably made in the 1880s, when Hodgkins is known to have visited the Wakatipu district, both craft are probably representative of the types plying the lake in the early goldrush period. (Hocken Library)

evidently been imbibing somewhat freely, promenading the narrow strips of deck in a frightfully unsteady manner. Our first impulse is to look for a lifebuoy...It is only a matter of wonder that accidents are not more frequent on the lake, and provision should be made on board the steamers for the safety of passengers."

April was certainly not without its excitement. At seven o'clock on the night of the 28th the reef claimed a third victim. This time it was a large, un-named whale-boat outward bound for Frankton with passengers and cargo. The latter was jettisoned and later recovered. The passengers — two ladies, a child and two men — were brought off "...all wet to the skin and a few drenched articles of clothing with them". The whale-boat was later salvaged; only a few of her planks had been stove in.

During May, the gales which had plagued boatmen throughout the previous month increased in intensity, claiming three more of the little ships as well as another life.

On the morning of 4 May, the small sail-boat CHEVIOT owned by a Mr Stewart left Twelve Mile Creek with six miners on board. In company with another boat owned by a Mr Campbell, they headed for Queenstown. Conditions on the lake were described as boisterous. About two miles from the entrance to Queenstown Bay the CHEVIOT was caught by a sudden squall and overturned, throwing the occupants into the water. The men clung to the upturned hull, but one — a German whose name was given as John Baker — lost his grip and sank from sight. Mr Campbell's boat bore down and rescued the other five, after being joined by the YOUNG AMERICA and the police boat.

That same day Shane and Kerr's vessel, the 7 ton HELEN, met with disaster shortly after sailing from Kingston for Frankton. "When just off the beach [she] was struck by a sudden squall and went down bodily with all she contained, among which may be mentioned the new iron safe for the Bank of New South Wales. We are, however, happy to state that no lives were lost on this occasion," the *Witness* reported.

Two weeks later, on 16 May, another occupant of one of these small cargo-carrying sailing vessels plying in the same vicinity had a lucky escape from drowning or hypothermia. A passenger on the VICTORIA, which was steaming towards Queenstown in a full gale, spotted something drifting off to starboard. The captain dismissed it as a floating log, but the passenger insisted that he had seen someone waving. Altering course they found a partially capsized boat with a man clinging to it.

"It appeared he had started with the boat for Queenstown in the morning, by himself, when a squall caught her, and her ballast going over to the lee side, she filled and he had some difficulty in keeping his hold on the exposed part," the *Mail* said of the survivor. He was picked up and the VICTORIA proceeded to Halfway Bay to take on wood for her boiler. When it came time to leave, the storm had so increased that the captain decided to lay up overnight until it abated. She was joined later that night by the EXPERT and both vessels proceeded up to Queenstown the following day.

So the first six months of shipping on Lake Wakatipu ended in storms and catastrophe. Of the twenty-five little ships known to have been plying the lake during this period, three had been stranded, but later got off; another three had capsized, two were wrecked; and another had foundered. In addition to this rather high casualty rate — 36 per cent — five men had been drowned. But on the credit side, thousands of tons of supplies had been transported to the diggings and hundreds of miners had their journeys made easier.

FURTHER READING

All Aboard, by Bob Meyer. (N.Z. Railway and Locomotive Society, 1980)

The Whakatipians, by Alfred Duncan. (Lakes District Centennial Museum, Arrowtown, 1964)

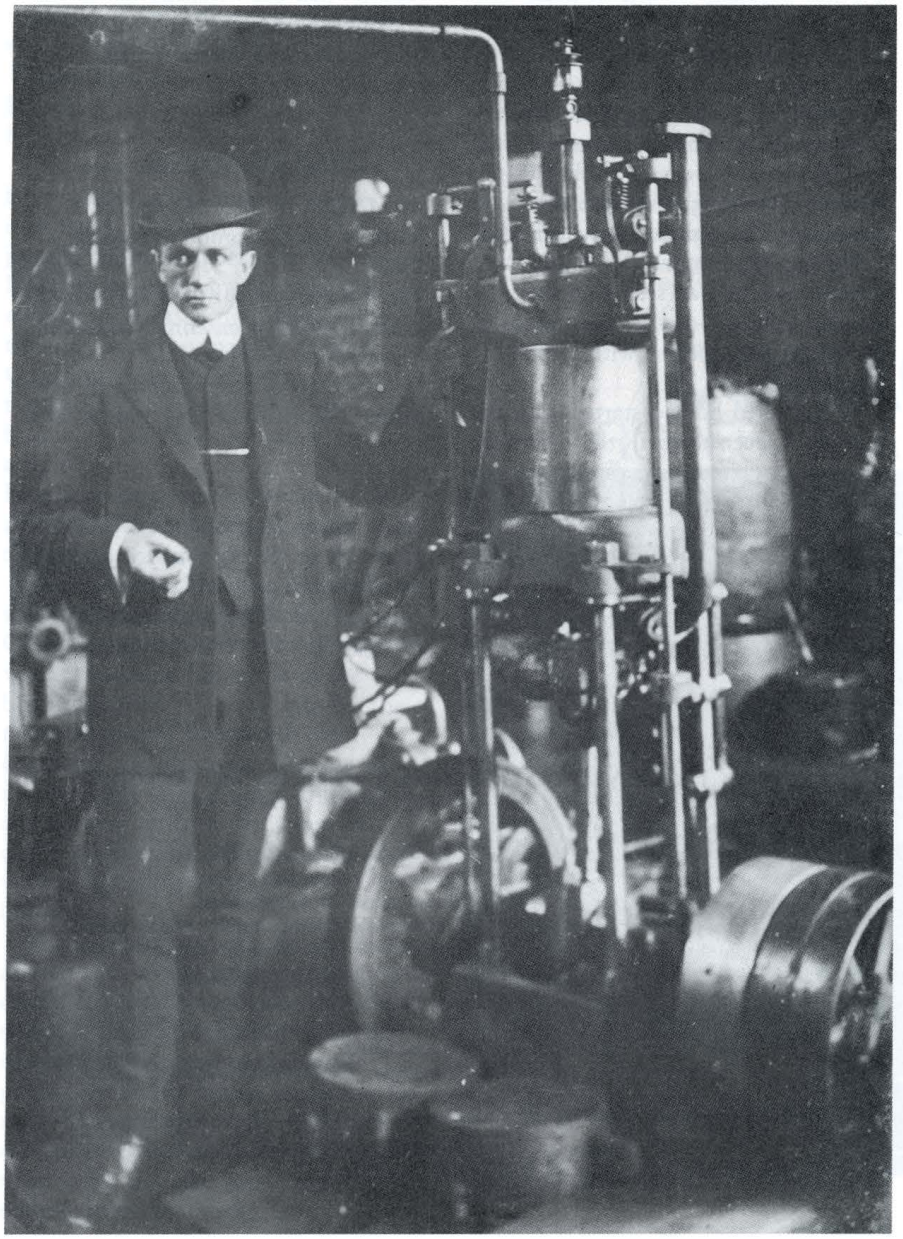
Golden Days of Lake County, by F.W.G. Miller. (Whitcombe and Tombs, 1966)

Neil Clayton is a freelance writer interested in the historical geography of the Wakatipu goldfields. He was previously the Harbour-master, Otago Inland Harbours, based at Queenstown.

THE JOHANSEN MARINE ENGINE:

An Early New Zealand Design

by Harold Kidd



In the early years of the internal combustion engine, before the advent of mass production, several small engineering firms in New Zealand felt inspired to construct their own. A few did well, technically and commercially. Some, such as the Zealandia, achieved modest fame.

One of the more interesting of the New Zealand designs was the double-acting oil and gas engine of Valdemar Johansen. But for a tragic event in 1909, this engine could have been very successful.

Born in Liverpool on 16 June, 1880, Hugh Valdemar Johansen was the son of the Danish knight Sir Edouard Valdemar Johansen, who was Secretary to the Danish Consul in Liverpool. His father had a remarkable career. He went to sea as a midshipman in the Danish Navy at fourteen, obtained a Master's Ticket at nineteen, and sailed on the Flensburg barque CATHARINE as navigator. After that he spent some years in the Danish merchant marine.

On a trip to Hull, he met Mary Ransom from Manchester and married her shortly after. He was appointed Secretary to the Danish Consul in Liverpool and became an English chartered accountant. Some of his wife's family emigrated to New Zealand and Johansen followed in 1882, settling in Auckland. He was appointed Danish Consul and soon

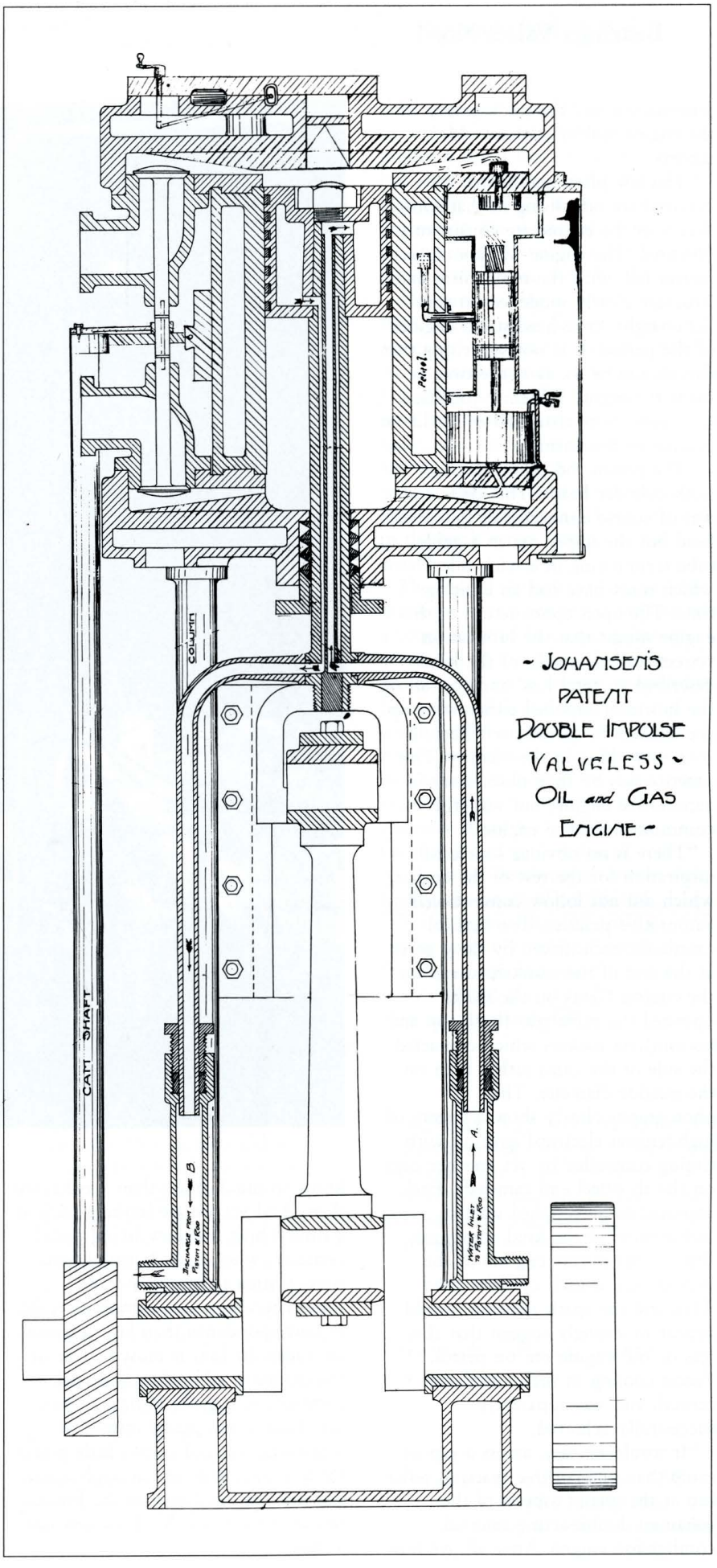
Valdemar Johansen with his prototype engine operating at Massey's works.

established himself in importing and shipping, but that is another story.

Young Valdemar grew up in the Devonport of the 1880s and 1890s, and showed an early mechanical inclination. In July, 1896, he was apprenticed as a fitter and turner to S. McCoskrie & Son, Engineers, Chapel Street Ironworks, where he stayed for the next five years. In about 1901 he went to sea as an engineer in ships including the WILLOCHRA, WAIKARE and MONOWAI. He later married and settled in Australia, where he was successful as a refrigeration engineer. He returned with his family to Devonport in 1929 and had a full career in the refrigeration and oil industries. He died in Browns Bay in his 96th year.

During his McCoskrie 'apprenticeship', for which his father paid £500, Valdemar Johansen studied intensively. It appears that he developed the concept of a double-acting oil engine of advanced design while still in his teens. By 1907, when he was 27, a working example had been constructed at Massey Bros works and demonstrated to the public. Patents were applied for in Australia, Britain and the United States. These applications were accompanied by glowing reports from eminent local engineers including Joseph E. Dangerfield, Instructor of Engineering at Auckland Technical College.

Eric Stevens, an Auckland Consulting Mechanical Engineer, recently examined the rather scanty



A surviving drawing of another Johansen double-impulse engine. The arrangement of the piston working between upper and lower cylinder heads is clearly shown, as is the steam-engine construction.

This engine has only one camshaft which operates the exhaust valves between the heads rather than above and below, as in the working engine. The inlet valves have been replaced by a curious piston arrangement which might be a form of petrol injection or an automatic inlet arrangement equivalent to the automatic inlet valves in some early automotive engines — hence, presumably, the appellation 'valveless'.

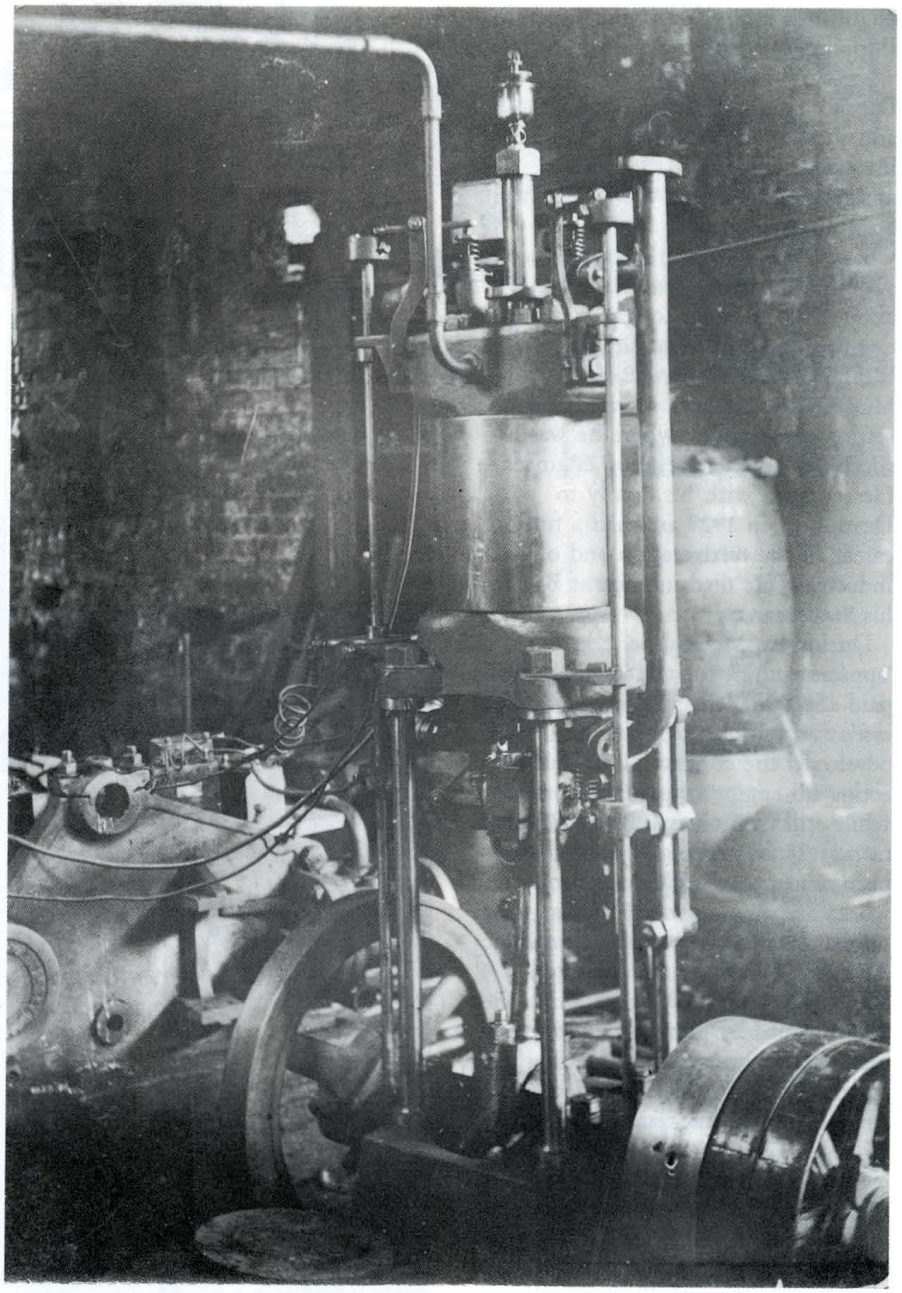
information and the photographs of the engine still in existence. He reports:

"The few photographs that have survived are tantalising in that some details of the engine are consistently obscured. The engine was about 1.6 metres tall, with the mechanism and structure clearly modelled on the light-weight, cross-head steam engines of the period. It is not surprising that this should be so, as at the time he made his engine Valdemar Johansen had spent more than half of his life at engines of this form.

"The piston rod passed through both cylinder heads. The lower end was of course connected to the cross-head but the upper ran in a guide tube terminating in a wick oiler which must have had an exciting time. The open construction of the engine meant that the lubrication system was inevitably of the kind described as 'total loss' and that all of the lubricant supplied either went up the exhaust or spread itself liberally over everything in the vicinity. This practice was by then obsolescent in automotive engines but was still common in marine engines.

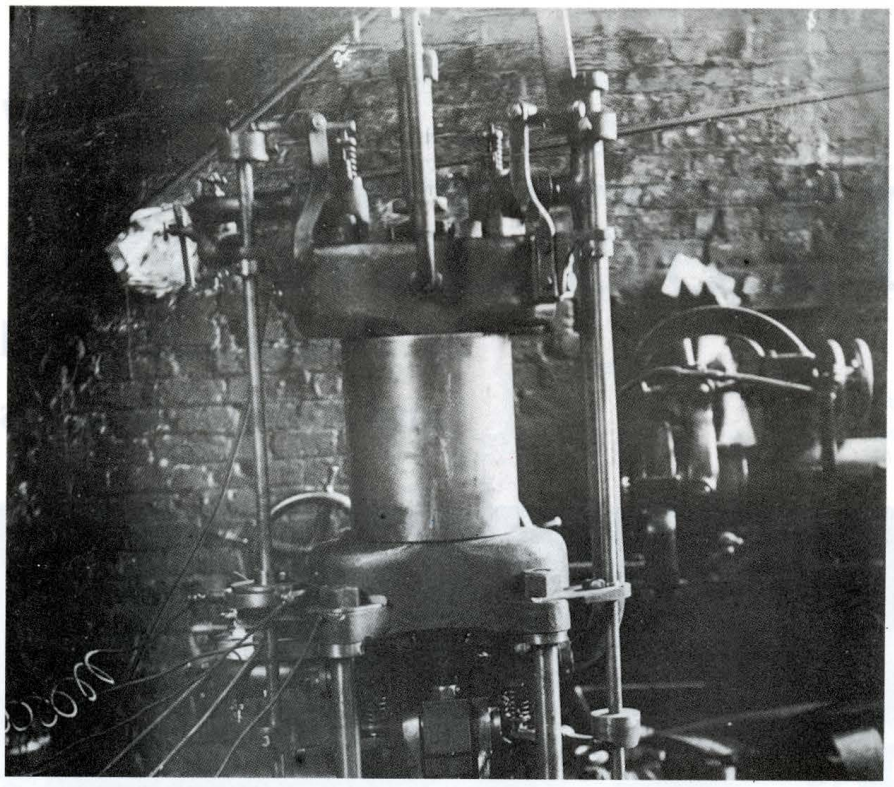
"There is no obvious source of inspiration for the rest of the engine, which did not follow conventional automotive practice. Two vertical camshafts, each driven by skew gears at the end of the crankshaft, ran up the engine. Cams on the shafts operated the valve gear (both top and bottom) via rockers which contacted the side of the cams rather than on the outside diameter. The photographs clearly show a system of high-tension electrical ignition with timing controlled by yet another cam on the flywheel end camshaft. Fuel appeared to be supplied via two carburettors of the kind commonly fitted to stationary engines of the period, one at each cylinder head. This, and the spark ignition, would appear to strongly suggest that this 'gas or oil' engine ran on petrol. Piston cooling in such a design is critical, and was apparently successfully achieved.

"It would be easy, across a gap of more than eighty-three years, to poke fun at the quaint aspects of the Johansen double-acting internal combustion engine. After all, we now know so much more than was known then. And yet we are looking back at a time which few now living could conceive, when most business letters were written in long hand and typewriters were less commonly used in correspondence than laser printers are today. In fact, it must be one of the earliest double-acting internal combustion engines to have gone to sea. That it was petrol instead of vaporising oil, and of too little power for a serious commercial application, can only be attributed to the limited resources to which Mr Johansen had access.



"John Guthrie's *History of Marine Engineering* lists many cranky and temperamental marine double-acting oil engines of dubious mechanical arrangement built at later dates. There is little doubt that had Mr Johansen built his engine in one of the main centres of marine construction he would have been able to find a sponsor to fund him into the construction of the real engine, for which this was only the experimental prototype."

Since Eric Steven's report, a drawing (somewhat tinkered with) of a slightly different engine has come to light



The Johansen double-impulse engine on the brake. The photographs show the pillar construction of the engine, the cross-head and slides, the piston rod protruding through the upper cylinder head and fitted with an oiler, the vertical camshafts working inlet and exhaust valves by means of face cams, a separate carburettor for each head, the ignition supplied by a battery (called an accumulator in those days) via a make-and-break device on the inlet camshaft.

---

which details clearly the cooling arrangements for the piston as shown in the illustration.

That the engine was sound in concept and construction was confirmed at the time by Chas Massey who stated:

"After completion, the engine was harnessed to a portion of our plant and worked very satisfactory [sic], and I think it would carry out all that you claim for it".

Joseph E. Dangerfield wrote: "I have much pleasure in giving my testimony concerning your double-acting gas engine. I saw the engine during the time she was being constructed by Messrs Massey Bros and I was present on two occasions while she was under trial. I can safely say that the engine will be a powerful one and should give nearly twice the power of an engine of the same bore and stroke, and running the same number of revolutions. The idea is practical in every way and I can see nothing to hinder the success of your invention."

So what happened? There is an apocryphal story that one of the three engines built was installed in an Auckland yacht which caught fire, damaging the engine. My research suggests that this yacht could well have been the Charles Bailey Jnr MIHARO of 1892, built to beat Logan's AORERE but unsuccessful at that. After some years fishing, she was on the hard at Devonport for several years around 1907-10 and there are references in the *New Zealand Yachtsman* to her being fitted with a variety of engines. MIHARO was certainly deep enough in the keel to take this very tall engine.

But the really savage blow came after Valdemar Johansen obtained a business partner. In 1909 the partner was packed off to Britain with one prototype engine and the full drawings, obviously to follow up the patent applications and to try for commercial success. Johansen family tradition has it that the Admiralty had shown interest. That the Admiralty was not afraid of innovation was witnessed by its dealings with Herreshoff and his cone boiler and Parsons with his turbine.

The partner boarded the WARATAH, a new Blue Anchor passenger liner on the England-South Africa-Australia run, at Sydney. On 26 July, 1909, the WARATAH left Durban for Capetown and was never seen again; nor was any wreckage ever found. Allegations were made at the inquiry that the WARATAH was top-heavy and that she may have capsized in the freak waves found on that coast.*

The loss of partner, prototype and drawings in this traumatic fashion was a bitter blow to Valdemar Johansen, who tried to soldier on with the project. But many factors conspired to bring an end to the dream: he had undoubtedly exhausted his financial resources; technology in the field, particularly in diesels, was advancing exponentially; he was now an engineer at sea with the Union Company and getting deeper into refrigeration development work; and, finally, the onset of world war.

If any reader turns up with an engine (possibly fire-blackened) like the one in the photographs, I am sure the Auckland Maritime Museum will be most interested.

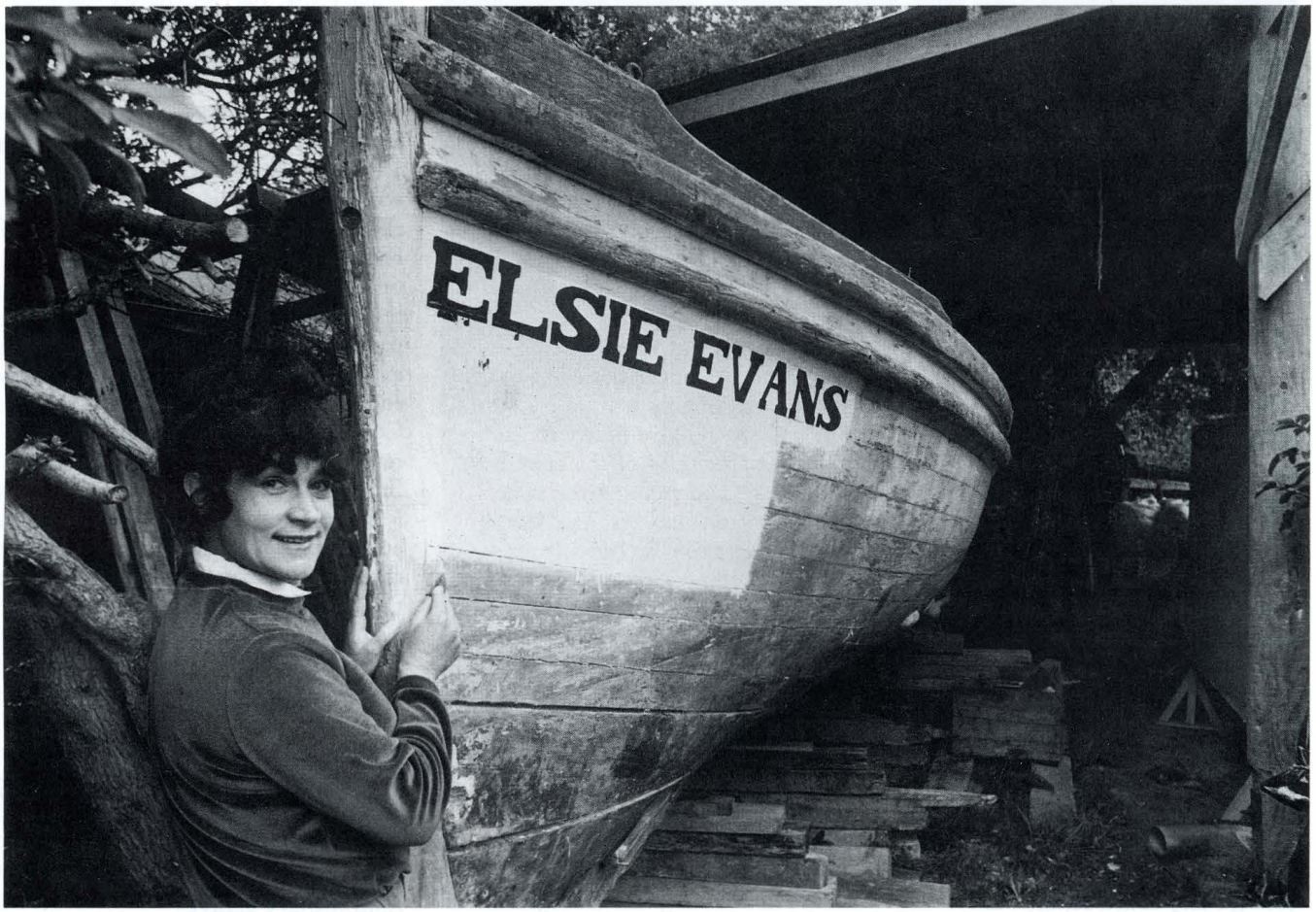
Harold Kidd is an inveterate collector of part-ownerships in historic yachts and launches. He is currently compiling a large computer database on early New Zealand yachts and yachting from contemporary sources.

(Photographs & drawing from the Johansen family collection)

** The author's yacht LOLOMA (E24), built in 1907 by J.J. O'Rorke, was originally named WARATAH. The name was changed to LOLOMA in 1910.*

THE ELSIE EVANS

by Yvonne Sutherland
and Gordon Douglas

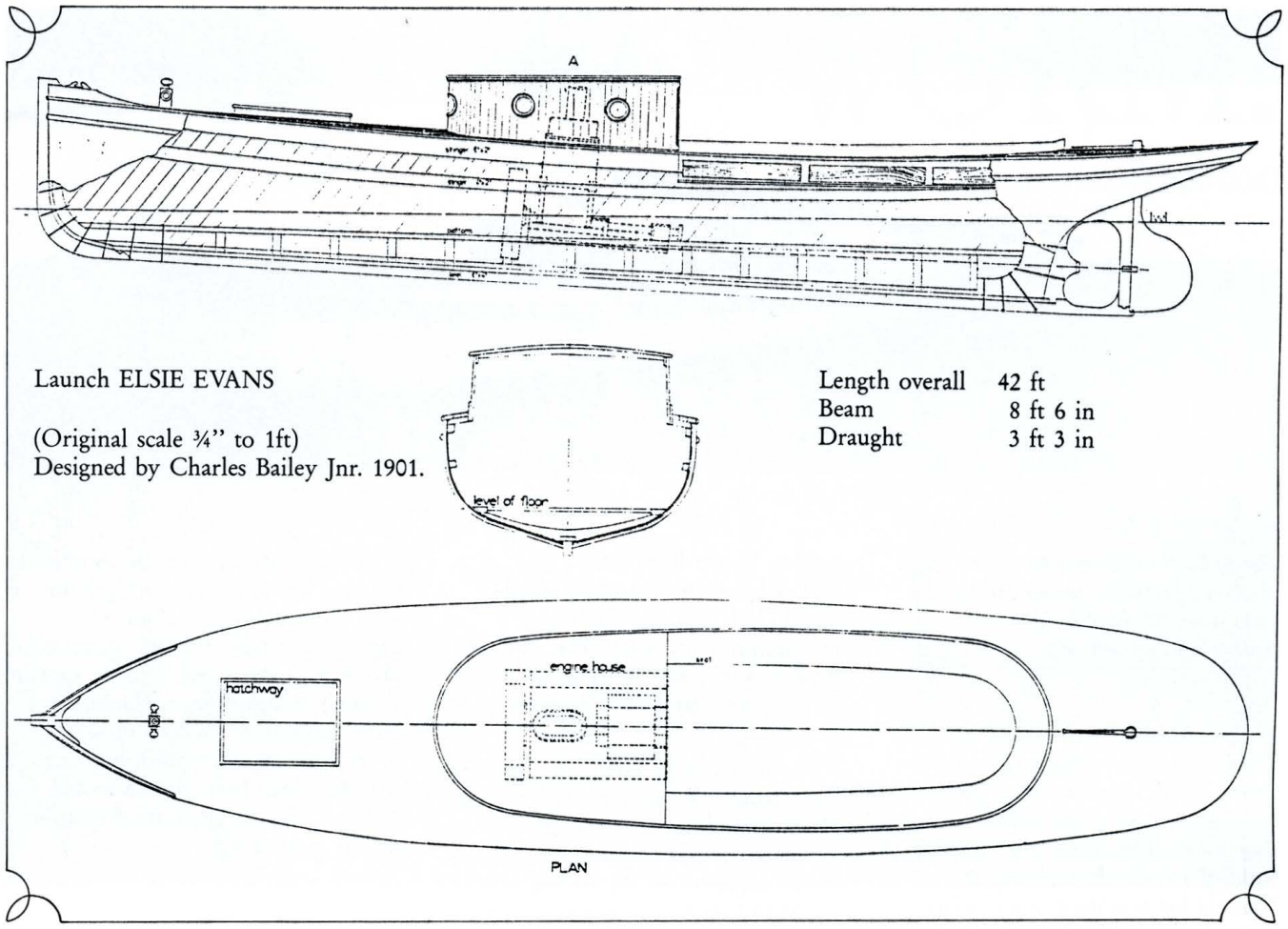


Yvonne Sutherland and the ELSIE EVANS at Portobello. The launch awaits restoration and the installation of a suitable engine. (Sutherland collection)

The ELSIE EVANS was designed by Charles Bailey Jnr and built by Bailey and Lowe of Auckland in 1901. Built for the Timaru Harbour Board as a replacement for the paddle-tug MANA, she was named after the wife of the then Harbour Board Chairman, William Evans.

Originally termed a benzine launch, the ELSIE EVANS had a length of 42 feet, a beam of 9 feet and a hold depth of 3½ feet. The hull was of three skins of kauri, copper fastened and sheathed in muntz metal below the waterline. The original engine was a 20 h.p. Union oil (petrol) engine developing 280 r.p.m., which gave her a maximum speed of eight knots.

The *Timaru Herald* of February 1902 stated: "Attached to the engine is M/s Ryan and Co.'s patent condenser which economises oil consumption, reduces noise and smell to a minimum and adds materially to the power of the engine. The wheel is on the foredeck just in front of the engine house and the engineer is



Construction and arrangement drawing traced from the original.

directed by a bell-pulley. Mention of the deck suggests that in rough weather the boat would be much safer if decked all over, whereas for the after third she is an open boat . . ."

The question of the open cockpit must have caused concern, for the Harbour Board altered the design of the cabin "at considerable expense" to bring it up to the "regulation standard".

The Timaru Harbour Board Annual Report for 1902 noted:

"ELSIE EVANS

Contract price	£700. 0. 0.
Alterations and expenses	£176. 5. 2.
Boat	£ 12.10. 0.

"Before finally receiving the department certificate we were put to considerable expense in making alterations and additions, to bring it up to regulation standard. These completed, it is giving every satisfaction and is admirably suited for the work for which it was originally intended."

That work was towing small craft, tending the big steamers, taking the Health Officer out to deep-sea sailing vessels and carrying the pilots. The ELSIE EVANS was the first pilot boat owned by the Timaru Harbour Board.

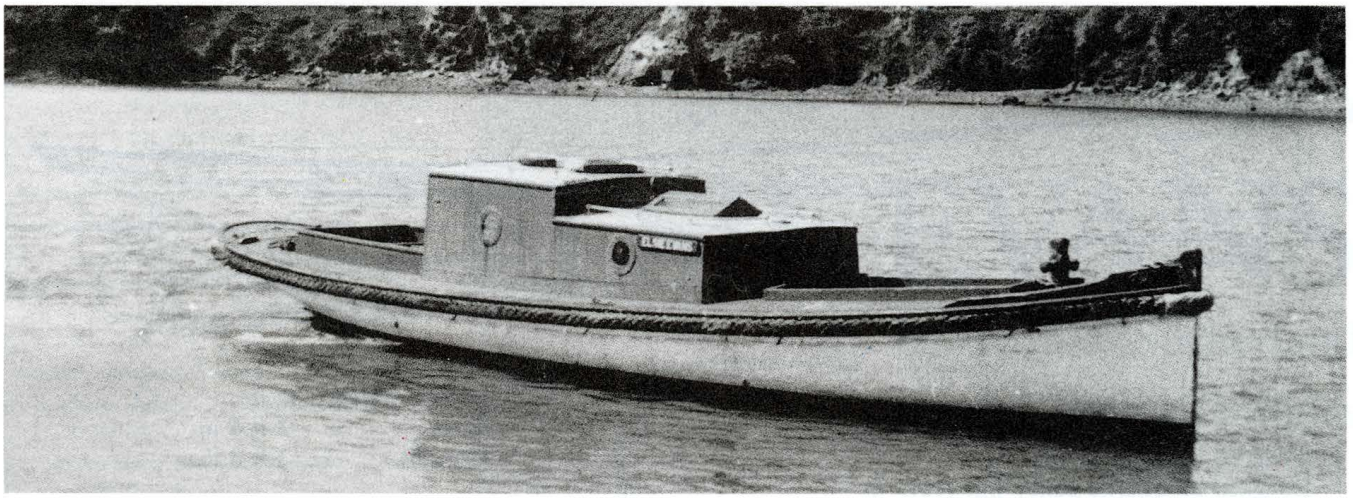
In 1928 she was purchased by Captain Percy Moss of the Portobello Railway and Ferry Co., and licensed to carry fifty passengers. Known as the 'Launch' she was used for towing coal barges, servicing the powder hulk MEDORA, tending such craft as needed her (including flying boats), and ferrying passengers during the surveys of the regular Otago Harbour ferries TAREWAI and MOERANGI.

With the introduction of a bus service on the Otago Peninsula, patronage dwindled and the Ferry Co. went into liquidation.

In 1943 Jim Aitken bought the ELSIE EVANS and she regularly plied between Port Chalmers and Portobello, a distance of about one and a half miles. Her passengers at this time included war workers for Port Chalmers; Peninsula schoolchildren who went to manual training at Port Chalmers; the doctor on his weekly rounds; and Friday night shoppers, whose fare included admission to the Port Chalmers picture theatre.

After the war, the ELSIE EVANS was sold to Joe Fenton, a Dunedin baker who used her to search for Russian submarines in the harbour, for feeding his hens on the wharf at Quarantine Island where he lived, and occasionally for ferrying passengers if and when they appeared on the wharf. She ceased operations as a ferry in 1954.

Tom Stapleton and Colin White of Ravensbourne purchased her from the Fenton Estate and towed her to Ravensbourne, where she lay until Messrs Trounson and Alderton of



The ELSIE EVANS as a ferry on Otago Harbour, probably during the Fenton years after World War Two.
(Sutherland collection)

Waihola bought her in 1957 for £100. They intended to fish with her from Taieri Mouth but had only got as far as refastening one side before abandoning the effort. She then lay beneath a macrocarpa hedge at Waihola for seventeen years before being discovered by John Sutherland in his search for steam boilers.

The Peninsula Historical Society became interested and secured the vessel for their museum with a $10 deposit. The remaining $190 purchase price and $197 cost of road transport to Portobello was raised by donations, including a generous $100 gift from George Evans a son of Elsie Evans.

She was transported to Portobello in 1977, where a preliminary examination by the Marine Department confirmed that restoration was possible but would be costly. That restoration has not yet been started.

The hull appears to have held its original shape and there is little rot. However, the tops of the diagonals need to be cut back a little and replaced with new timber, possibly fore and aft, and a complete refastening is necessary. The counter requires some new framing and the missing decks and deck beams need to be replaced.

The boat can be saved, and made to be a living craft once more, but some philosophical questions of use and authenticity need to be answered. The layout suggested in the photograph of the MANURERE, a sister ship, may be a suitable model: a low round-fronted house amidships with the cabin-top extended aft to cover a large cockpit. This would certainly fit in with her era as built and, as she would be essentially involved in weekend, fine-weather excursions, should suit operational requirements.

The question of what powerplant to use also has to be addressed. Steam suits vintage, but the plant is expensive to buy new and presents problems if the vessel is to be kept in survey. Yet steam has undoubted public appeal. A modern diesel is perhaps the easiest option but one that definitely lacks romance; and 20 h.p. Union engines are very thin on the ground.

Gordon Douglas lives at Otakou on the Otago Peninsula. He has long been involved with traditional craft and New Zealand yachts, and has written for Bearings *and* Traditional Boats.

The steam launch MANURERE, believed to have been a sister ship of the ELSIE EVANS, seen here on Lake Manapouri. She replaced the s.s. TITIROA in 1905. The engine of the MANURERE is believed to be that now in the launch GREENBANK at Paeroa.
(Sutherland collection)

WORM!

by John Morton

A piece of wood riddled with Teredo.
(Paul Gilbert-Light Transport)

Ship-worms evolved long before ships. Fossils of teredo date from one hundred million years ago, when there were still giant saurians in the seas. Presumably, the worms then bored into trees that had fallen into the sea and floated. No resource was wasted in nature's economy.

With the earliest ships built of wood, teredo were the mariner's worst affliction. Even a stout ship could be eaten up inside with worms. In 250 BC, Archimedes of Syracuse had to protect his hulls with lead. In 1757, the British Navy used copper sheathing — expensive but effective.

The clipper ships were sheathed, too, which also kept them barnacle-free. But the copper had to be kept away from the rudder iron, or the two would form a galvanic cell and fiercely corrode each other. Today, there are still teredo in small wooden craft and in wooden wharves and breastworks. In 1917-21, a teredo invasion of old wharves and jetties at San Francisco cost $25 million to repair.

Two centuries earlier, in 1733, an observant Dutchman, Godfey Gellius, realised that teredo were not worms, but in fact — like cockles and mussels — bivalve molluscs. You can make the same observation for yourself by looking at a live teredo.

Currently, there is a nice pohutukawa trunk shore-stranded under the cliff just north of Cheltenham. (Our X-ray photo is taken from a piece split off that trunk.) Here is a chance to follow up your own practical work on teredo, either at school, or in the sailing club perhaps.

First cut off your piece of wood with a sharp tomahawk. Then carefully — and it has to be ever so gently — lift a teredo out of the wood. The teredo will look slightly like a tapeworm, but far less healthy and muscular. The long body is little more than a flimsy membrane tube, totally floppy. The two firm points are at either end, with the worm stretched between them.

At the advancing end, far down in the burrow, is the round knob of the shell, with the two hinged pieces that make it a 'bivalve' at the rear end. At the outside opening of the burrow, there are two more hard pieces, called 'pallets', shaped like wide-topped screws. These are used as a split stopper that can be drawn back into the opening to seal it off securely.

Anyone sceptical about evolution ought to look at the way a teredo is related to — and can be so convincingly derived from — a normal bivalve, like a pipi. Or even closer, from one of those less normal bivalves called 'pholads' that bore into mudstone cliff-bases at low tide. You can find the holes of pholads, too, and dig one out with a pen-knife.

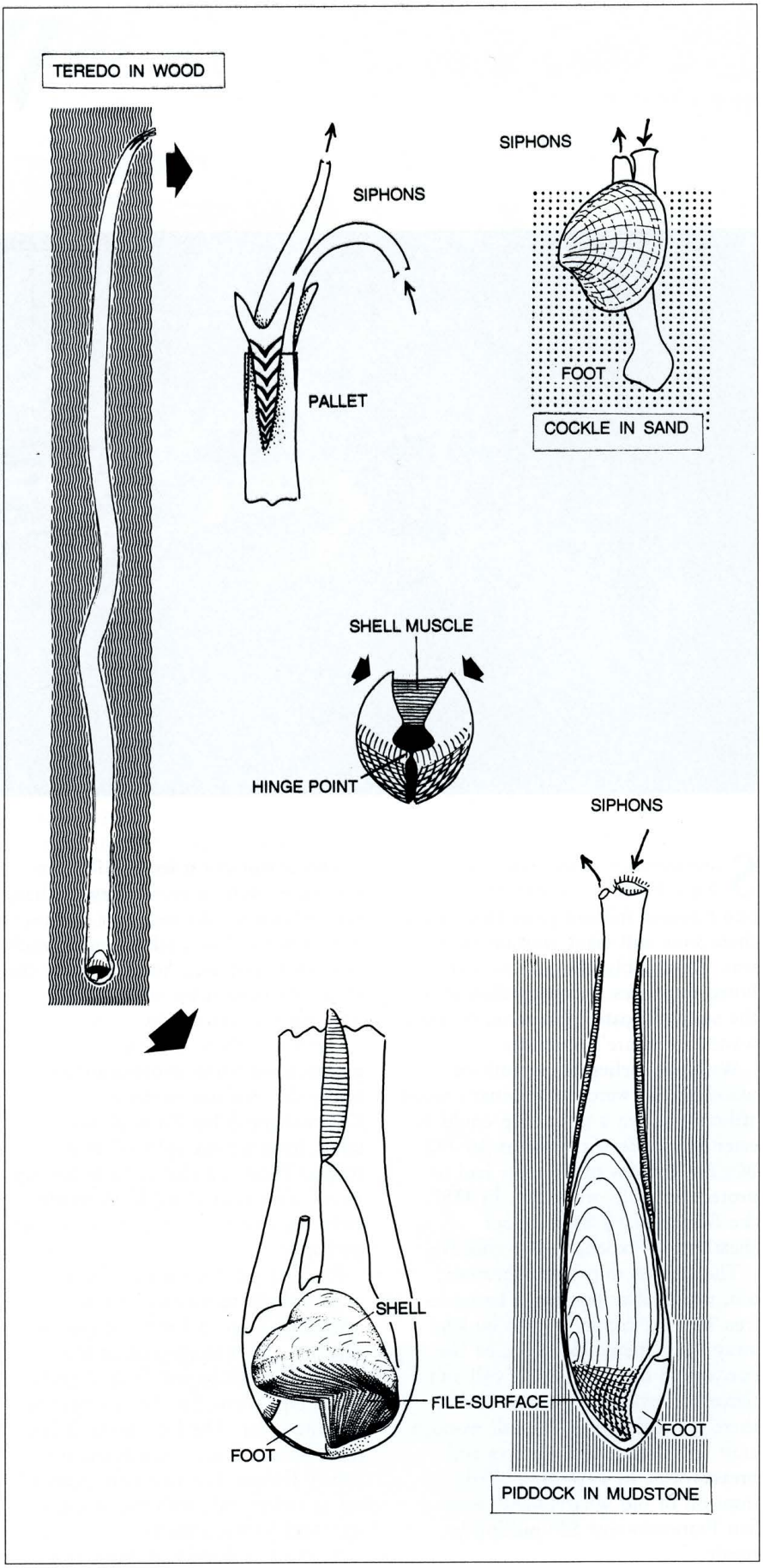
The pholad has the front of its shell sculptured with file teeth that abrade the mudstone as the shell twists left

and right like a drill. Behind its hinge point, the shell is narrow and drawn out. Two siphons, but united as one, come out behind and take in an inhalant current or put out an exhalant jet at high tide. Teredo has evolved far beyond the pholads. Its own shell is now very small, with most of the anatomy outside it, behind its two valves.

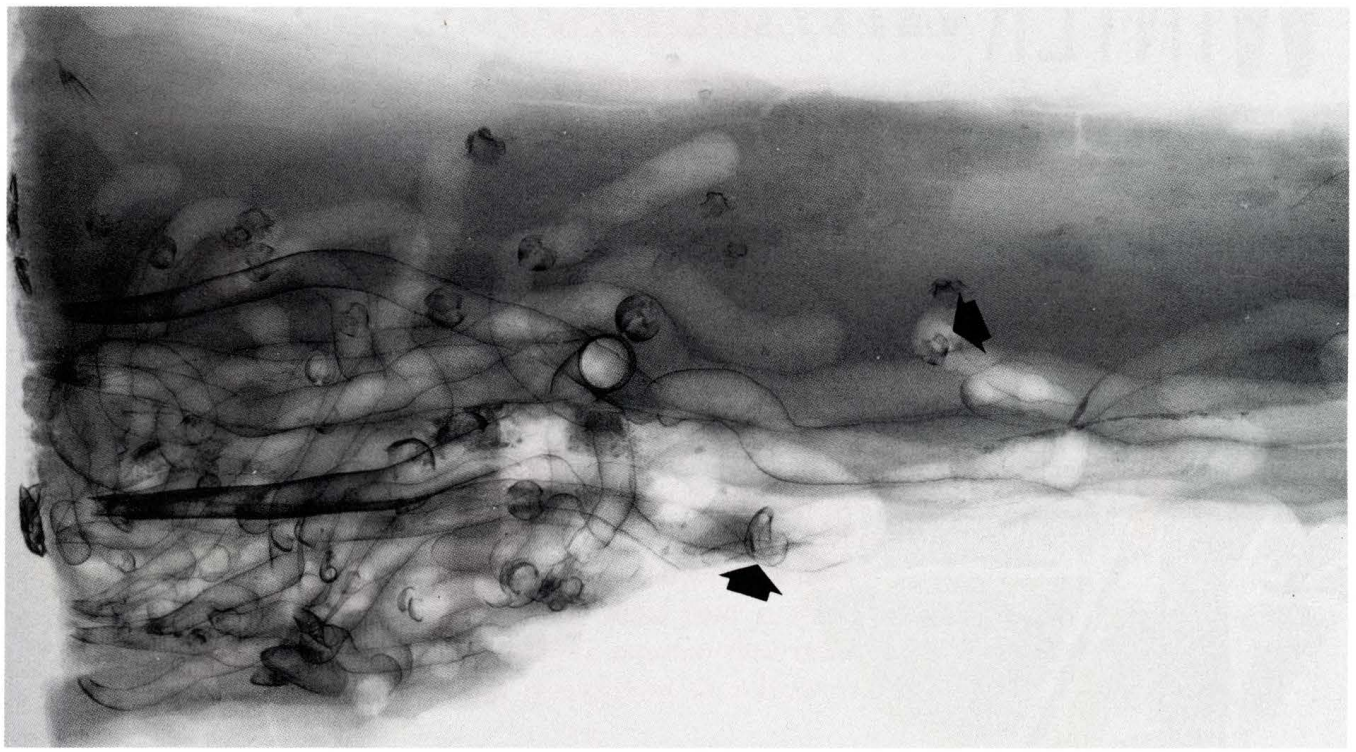
The ship-worm bores long galleries in the wood, roughly straight and perfectly round in cross-section. Running almost parallel, they can intertwine a little but never intersect. They often reach a quarter of a metre long, although two metres has been reported for the largest of the tropical teredo species. The burrow interior is very thinly lined with secreted shell. When all the wood is penetrated and its space used up, the riddled mass is left light and fragile, apt to fall to pieces given a strong push.

If we look for the opening where the ship-worm entered the wood, we can find a little dumb-bell-shaped hole, with one opening for each of two small siphons. The muscles at the base of the siphons and pallets are fixed to the burrow rim. Here is the animal's main fixed point. All the rest of the ship-worm can move freely, as it lies along the burrow, growing the whole time as it pushes forward its boring. The operative site for boring is at the shell end, with its two hard pieces forming an abrading tool against the wood.

As our picture shows, the boring technique is mechanically simple. The paired shell valves rock on each other at just two points — the top and bottom. Behind these contact points, a strong muscle joins the valves together. When this contracts the two pieces are approximated behind the hinge, so as to diverge in front of it. The small adhesive disc of the foot now comes out at the advancing end and takes hold of the wood surface. As the foot contracts, it draws the valves forward to engage the wood, where their file teeth begin to operate. Foot muscles contract alternately at each side, left then right, so the shell



The anatomy of the shipworm and other bivalves. (John Morton)



X-ray of Teredo tunnels in wood. The arrows point to two of the shelled ends of the shipworm.
(Prof. T.D. Koelmeyer, Medical School, Auckland University)

can turn through a half circle each way, as boring goes on.

What happens to all the resulting sawdust? Some is swept away with water through the siphon, like rock-dust from a pholad, or sand from a toheroa. However, most of the detached wood is in fact swallowed, like an earthworm ingesting the soil it burrows through. Nor — as in the earthworm — is this organic material allowed to be wasted. Wood contains nutriment, in the complex carbohydrate known as cellulose. Special cells lining the digestive tract are able to act like amoebae, to take up minute solid fragments. These wood chips are then — with the help of special enzymes — broken down from cellulose to smaller molecules of glucose sugar.

Along with termites and one or two other sorts of animal, the teredo is one of the few commanding the right enzyme equipment to digest the difficult cellulose molecule. A lot of the wood, such as the intractable substance 'lignin' that has no food value, still remains however. This is carried out, in water currents from the siphon as little faecal pellets rather like papier-mâchè.

Wood is not the ship-worm's only food, though. It has never abandoned the old resource of phytoplankton, the traditional mainstay of all bivalves. When the tide is in, and the stopper can be safely relaxed, a water current is drawn in by the cilia of the gill, which lies along the interior of the tube. Plankton is filtered from this, and — as in any other bivalve — passed to the mouth.

The teredo lives, then, a life of periodic changes of activity. Not like ourselves, with changes of light and dark, but wet and dry ... open and shut ... water-filtering or wood-boring. And with a porridge of wood chips alternating with a cold consommè of phytoplankton.

To reproduce, most teredo species — and there are over one hundred around the world — send out both egg cells and sperm into the sea. Fertilisation happens in the water and the larvae swim and feed in the plankton, being dispersed just like mussel or oyster larvae. They finally settle in a shady spot — under a ship or a wharf. They can test surfaces by touching down, but the one where they will stay must be of wood.

Attracted by the wood's slight roughness, they will bore in, developing in the post-larval stage the shell to do the boring. Only a quarter of a millimetre long at settlement, a teredo can grow to 100 mm in three months.

With wooden ships and pohutukawa beach logs, the teredo or ship-worm can probably look forward to a long future. However, while owners of wooden hulled vessels run the age-old risks, they do have help. There are now a variety of recourses and safeguards: copper repellents — if there are any such ecologically 'friendly' marine paints — or better perhaps a coating of fibreglass.

Protective technology may be evolving faster today than the ship-worm, but once the surface coating is eroded or chipped, teredo larvae will enter. Soon, they will be in unimpeded operation, with all the expertise of their hundred million years of evolution.

John Morton is a marine ecologist. He retired in 1988 from the Chair of Zoology at Auckland University.

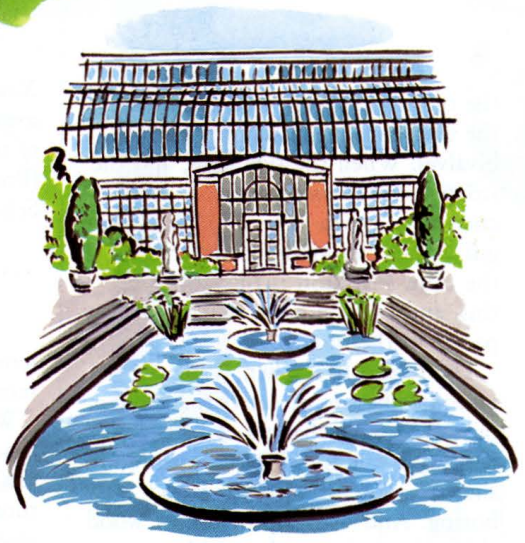
WINTER *Attractions!*

GOLF

Tee off at Chamberlain Park.
Only five minutes from city.
Open 7 days, dawn 'til dusk.
Equipment hire available.
Phone 866-758

AUCKLAND CITY ART GALLERY

Contemporary and colonial New Zealand art in one of Auckland's finest buildings. Cnr Wellesley and Kitchener Streets. Phone 792-020. Open 7 days.



WATERFRONT

Catch a bus to Mission Bay then hire a bike, take a stroll or jog around the bays. A great way to spend a sunny day.

WINTERGARDEN & DOMAIN

Visit Auckland's wonderful Wintergarden and tropical hothouse, then take a stroll through the Domain's idyllic trees and gardens.
Open 7 days.

ZOO & WESTERN SPRINGS

See the Kiwis. Meet a Tuatara — the last link with the dinosaurs. Hundreds of animals in beautiful natural grounds. Then stroll through Western Springs.

AUCKLAND *CITY*

We're on the move
We need your support

FRIENDS OF HOBSON WHARF

Auckland Maritime Museum

The Maritime Museum has established a 'Friends' Club. The full benefits of Membership will be obtainable after the Museum is fully developed in 1992. For those individual people and corporations who recognise the value of the Museum to Auckland and New Zealand and who wish to show their support at the earliest stage, we have launched the Friends of HOBSON WHARF and established a Founding Member category.

Why not join now, show your support of Auckland's exciting new maritime museum/maritime recreation centre and attain recognition as a Founding Member?

MEMBERSHIP BENEFITS

Members will receive

1. The quarterly magazine *Bearings.*
2. Concession entry charges to the Museum.
3. Purchasing discounts at the Museum restaurant and retail operations.
4. A series of discounts which will be progressively negotiated with retail suppliers of goods and services elsewhere in the community.
5. Special programmes and events including exhibition openings, heritage cruises, lectures, cocktail parties etc.

ADD-ON MEMBERSHIPS

For those who have specific interests, and where there are sufficient numbers of people with similar interests, special membership subgroups will be formed. Each subgroup will have its own steering committee and will organise its own specialised programme.

1. Friends of the Maritime Library

This group will be particularly concerned with support of the Museum's library and archives through special-purpose donations and by assisting the Librarian/Archivist in the acquisition of collection material.
Benefits include:
i) library access and reader rights
ii) special library/archive-interest lectures and workshops

2. Friends of Small Craft

This is a group specifically interested in the design and history of New Zealand small craft and whose prime interest in the Museum will be the collection of New Zealand class yachts and other small craft.
Benefits include
i) Support of the director and curator in locating appropriate small craft, small craft design files and other historical data relevant to this collection.
ii) Special lectures and workshops

3. Special Vessel Preservation Groups

The Museum will acquire a carefully chosen, manageable collection of historically valuable water-borne exhibits. It is envisaged that each vessel will have a preservation group attached to it. These groups will comprise people who are enthusiastic about and are prepared to make a commitment to the vessel of their choice.
Benefits include:
i) Participation in the day-to-day maintenance of the vessel and assistance with the Museum's presentation and interpretation of her.
ii) sailing rights.

IF YOU WISH TO JOIN THE FRIENDS OF HOBSON WHARF PLEASE COMPLETE THE COUPON AND RETURN TO:

HOBSON WHARF
Auckland Maritime Museum
P.O. Box 3141
Auckland

FRIENDS OF HOBSON WHARF

Auckland Maritime Museum
P.O. Box 3141 Auckland
Phone: 358 1019 Fax: 776 000

Yes, please register me/us as (a) Founding Member(s) of the Friends of Hobson Wharf.

1. I/we wish to take out twelve months' membership in the following category.

Corporate	(Annual subscription $250)	☐
Single	(Annual subscription $25)	☐ (please tick)
Family	(Annual subscription $35)	☐

2. I also wish to join the following Friends specialist subgroups:

i) Friends of the Maritime Library	(Additional levy $25)	☐
ii) Friends of Small Craft	(Additional levy $25)	☐
iii) Friends of the BREEZE	(Additional levy $25)	☐
iv) Friends of the PUKE	(Additional levy $25)	☐

Note: 1. Total Additional Levy for two or more subgroups — $50.
2. Subgroup members must also be members of the Friends of HOBSON WHARF.

v) Other (please list your area of interest.) _____

Those who indicate a specialist interest will be kept informed of progress towards the formation of specialist subgroups.

3. Please record the following information in the Museum files.

NAME (Surname/initials) _____ FORENAME OR PREFERRED NAME _____

ADDRESS (for Museum mail) _____

_____ TELEPHONE NUMBER _____ Bus.

_____ Priv.

4. My *Bearings* subscription will start with the forthcoming issue.
NB—see Book Order form for details of back issues.

5. My/our membership application was recommended by the following member of the Friends of HOBSON WHARF.

Name _____ Address _____

_____

6. I/We include a cheque

I/We wish you to charge my/our credit card account as follows:

Visa / Bankcard / Mastercard (strike out those which are not applicable)

Card Number: ☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ Expires end of: ☐☐

Total Sum to be Charged $ _____ Signature: _____ Date: _____

Please notify changes to address or telephone number.

OFFICE USE ONLY

Membership No. _____ Category _____ Date Joined _____

Renewal Rcpt No. _____ Expiry Date _____ Start Vol. _____ No. _____ End Vol. _____ No. _____ Date mailed

Update Sub Groups _____

Back Issues _____

Membership Card/Receipt _____

Other Orders _____

Posters _____ BREEZE☐ PUKE☐ BOTH☐

HOBSON WHARF — *BEARINGS*
ORDER FORM

Auckland Maritime Museum. P.O. Box 3141 Auckland. Ph: 358 1019

BOOKSHELF

Office Use	
Date Mailed	Back Order

Please supply the following titles:

_____ $ _____
_____ $ _____
_____ $ _____
_____ $ _____
_____ $ _____
_____ $ _____
_____ $ _____

Sub Total $ _____

*10% Member's discount (Membership No. _____) _____

$4.00 postage & packing _____

$ _____

The HOBSON WHARF Auckland Maritime Museum **LOGBOOK**

Retail	$29.95	$ _____
Members (Membership No. _____)	$23.50	$ _____
Postage & packing	$ 4.00	$ _____

$ _____

HOBSON WHARF **COLLECTOR POSTERS**

BREEZE	$20.00	$ _____
SS PUKE	$20.00	$ _____
Both	$35.00	$ _____
†10% Member's discount (Membership No. _____)		$ _____

$ _____

***BEARINGS* BACK ISSUES**

		Issue No	
Vol.1 No. 1*	$3.50	_____	$ _____
Vol.2 No. 1	$3.50	_____	$ _____
Others	$4.50	_____	$ _____
		_____	$ _____
		_____	$ _____
		Postage & packing	$ 1.00

$ _____

$ _____

*Vol. 1 comprised only one issue.

Make cheque out to Auckland Maritime Museum or authorise payment against:
Visa / Bankcard / Mastercard (strike out those which do not apply)

Card Number: Expires end of:

☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐ ☐ ☐

Total sum to be charged: $ _____ Signature: _____ Date: _____

Name: _____

Address: _____

Telephone: Bus. _____ Priv. _____

† This discount is exclusive to members of the Friends of HOBSON WHARF.

S.V. TRADEWIND
and the 'Southern Ocean Voyages of Discovery'

by Rodney Wilson

The Spring 1990 issue of *Bearings* featured the two Norwegian galeas ANNA KRISTINA and ANNA ROSA, ships which were active on the New Zealand charter scene during 1990. This year we will feature another two attractive ships working for their living under sail in New Zealand waters. The first and, in terms of the inhospitable ocean she choses to inhabit, the more unusual, is the Dutch topsail schooner TRADEWIND.

The TRADEWIND was built on the River IJssel in the Netherlands in 1911, and traded and fished under sail on the Baltic and North Seas. It was not until 1952 that her first engine was installed, and for a further twenty-odd years she traded in her new motorised form before retiring to the canals of Amsterdam.

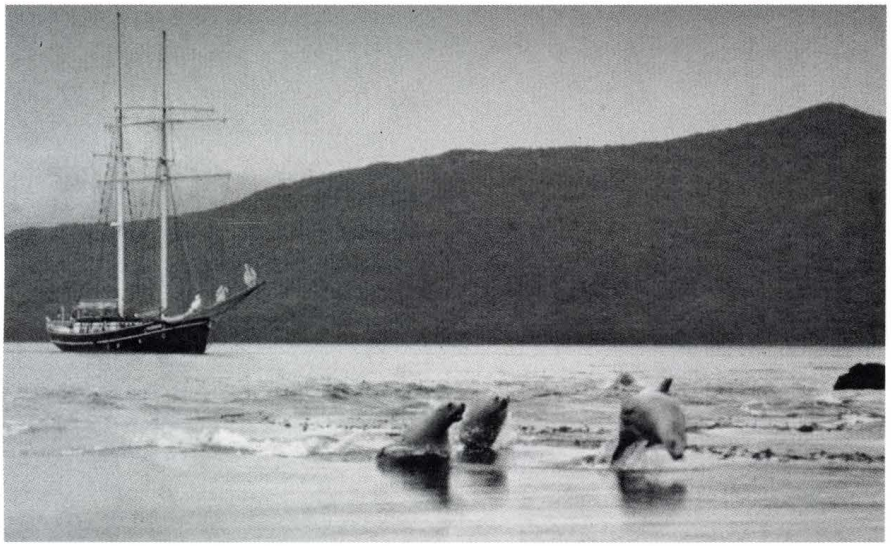
In 1986 New Zealanders Mark Hammond and Alison Brown acquired her and undertook the first stages of a refit programme (now completed). As a charter ship, TRADEWIND joined the fleet gathering in St Catherines Dock, London, for the Australian Bicentenary First Fleet Re-enactment. The fleet sailed from London in April 1987, and although financial and political difficulties attended it most of the way to Australia, the ships finally reached Sydney on Australia Day, 26 January, 1988.

Indeed, it is one of those recurring ironies of life that some of the politicians most vocal in debunking the fleet during its trials and tribulations were the first to publicly bask in the glory of the ships' achievement. For all that, the arrival

S.V. TRADEWIND

Royal albatross 'gaming', Campbell Island.

King penguins, Macquarie Island.



Sea lions 'porpoising' Carnley Harbour, Auckland Islands.

S.V. TRADEWIND — Specifications

Construction:	steel
Length overall:	38 m
Beam:	7.1 m
Draft:	2.9 m
Rig:	Two-masted topsail schooner
Sail area:	583m² in 12 sails
Displacement:	205 tonnes
Registered Tonnage:	107.45 g.r.t.
Engine:	Industrie diesel, 180 h.p.
Accommodation:	19 in two 4-berth cabins, four 2-berth and one 3-berth cabin
Crew number:	8
Survey:	New Zealand Ministry of Transport, Class 2A, 22 passengers, Class 7

of the Fleet, TRADEWIND amongst it, was a wondrously popular public event.

Since that epic voyage, TRADEWIND has sailed on to her new home in Dunedin and has begun some of the most unusual voyages in the new phenomenon known as 'Eco-Tourism'. When chartering under sail is discussed, most people have images of warm tranquillity in the Caribbean, in the Mediterranean, around Tahiti or on Queensland's Gold Coast — and, of course, in the Hauraki Gulf and the Bay of Islands. Mark Hammond and Alison Brown, have developed an entirely different business.

From their base in Dunedin, they have turned their attention to the wildlife of the Sub-Antarctic islands, closed to all except the most intrepid travellers who must carry access permits. Even then, only five hundred visitors per year are permitted to set foot on these highly protected Nature Reserves.

Carrying nineteen passengers in two, three and four-berth cabins, TRADEWIND visits Macquarie and Campbell Islands, the Auckland Islands, the Snares and Stewart Island. For climatic reasons these voyages are restricted to the summer months of November to March. But those are

also the months when the Antarctic birds and animals breed before moving north to warmer waters with the onset of winter.

Because the animals rarely encounter human beings they show astonishingly little fear. Voyagers have first-hand contact with erect crested penguins, Salvin albatrosses, royal and wandering albatrosses, New Zealand fur seals, elephant seals, hooker sealions, petrels, emperor shags, flightless teals, dotterels, parakeets, tomtits, bellbirds, and Antarctic terns; and at the Snares they are able to witness the evening return of an estimated six million sooty shearwaters.

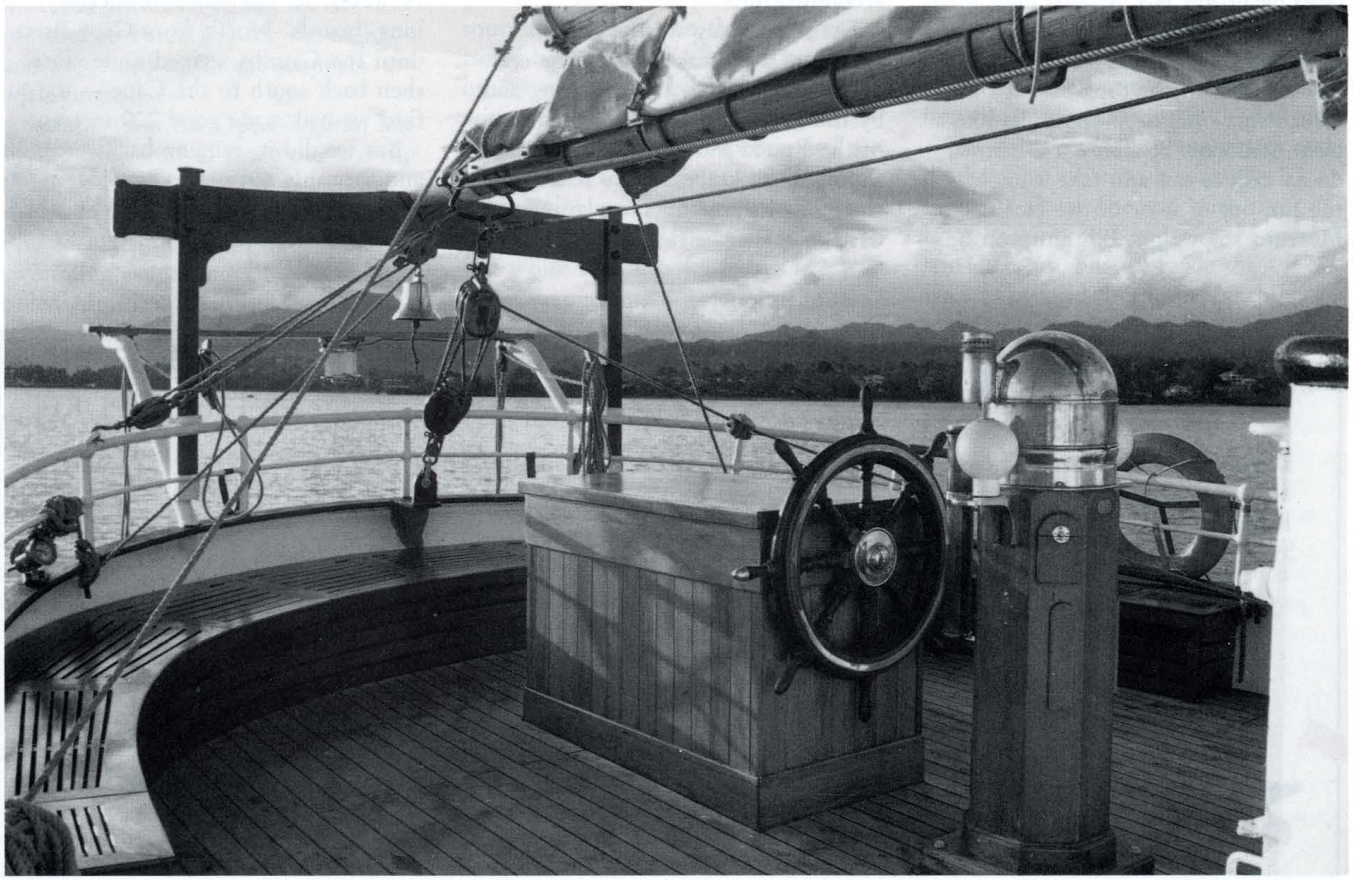
Not only the fauna but also the flora of these remote islands are of interest — the herbfields, tussock-covered hills and the shoreline forests contain many rare endemic plant species.

During early winter, the TRADEWIND sets sail for the warm waters of Fiji where she makes three cruises per year. But even here the emphasis on "Eco-Tourism" takes the adventurers to the remoter areas of the Fijian group, away from the usual tourist tracks.

Further information may be obtained from S.V. TRADEWIND, P.O. Box 1182, Dunedin. Phone and fax 0013-453 6986

The old rigging comes down and new deadeyes stand in readiness, Amsterdam, November 1986.

The new after deck (Photographs: S.V. TRADEWIND, Dunedin)



HOW THE BREEZE WON THE TALL SHIPS RACE IN 1991

by Rob Morton

On a fine, sunny morning in early January, a group of eleven signed the articles on the good ship BREEZE, and without further ado, set sail, poking her jib-boom nor'ard. The destination was Russell, in the Bay of Islands, and the 1991 Tall Ships Race.

If you are lucky, you will have light and baffling headwinds making a passage in a square-rigger. If you are not, you will have half a gale on the nose. Imagine our joy to be 'setting the lot' before a fresh, fair sou'wester! We reeled off the miles, had lunch in the lee of Kawau and afternoon tea crossing Bream Bay.

By this stage, we were well reefed as the wind blew a steady 25 knots. I had my eye on the topsail — it's a big topsail that one; deep and pulls like a team of horses. So here's a dilemma: do we reduce sail and take a bit of the fun out of it or do we face up to Museum shipwright Bill Simpson on our return and ask if he'd kindly make a new topsail yard for the old girl? Carl Portegys and I clambered aloft and tucked in a reef.

It didn't seem to take anything off our speed and the lads in the focsle were laying bets as to what time that evening they'd make the Duke of Marlborough in Russell. However, we decided to stop as we passed Taiharuru and dropped the pick off Pataua Island later that evening. Ben Job cooked up a good binder of stew, Joff Beilby gave us a tune or two on the squeeze-box, and that was the first day accounted for.

The second day was far more typical of a coastal passage. The crew took shore-leave in the morning, and by the time we had driven them out of the Pataua Motor Camp ice-cream shop and back aboard, we had missed the best of the wind that day. We tried to make the most of it, but the wind backed slowly and by mid-afternoon it became the familiar 'dead muzzler'. We decided to give the battens a top-up and motored into Bland Bay for the night.

We started early the following day and used the westerly well, rounding Cape Brett soon after lunch. We'd had a double strike on the trolling gear that morning and two fat little albacore tuna went down very well. We had planned to pick up a nor'east seabreeze at the Cape to take us into the Bay. Needless to say, it blew a fresh westerly that afternoon. However, we did some wonderful long 'boards'. North from Cape Brett, until the Cavallis seemed quite close, then back south to the Cape — to find we had made good 200 metres.

But we did it, ranging backwards and forwards across the Bay, logging a good seven knots on the bowline, and sailing between Motukiekie and

BREEZE heading for victory at the Tall Ships Regatta, 6 January, 1991. Prominent in the background, left to right: TUCKER THOMPSON, SPIRIT OF ADVENTURE and ADELAAR.
(Terry King)

Moturua with everything up. We motored to Paroa Bay for the night, and proceeded to fill the scuppers with gurnard.

Saturday was the Opua Regatta, but by the time we had made our way up there we caught only the tail end of the events. Nevertheless, we watched Phil Mead come second in the men's swimming event, and a big labrador called Alphonso head off the pack to take the large dog (freestyle) swimming prize.

We were tied up alongside the SPIRIT OF ADVENTURE at Opua Wharf. She had about twenty young women aboard, and the BREEZE's crew had to swear to be on their best behaviour. That evening we all went to the Opua dance. What a wonderful and eccentric mixture of humanity! You will be pleased to know the four young sailors from the focsle behaved very gallantly towards the SPIRIT OF ADVENTURE trainees, and danced several times with each one of them.

The following day was the big one — Race Day. It was a well planned event this time, the course laid to take account of the fact that real boats don't sail to windward. It was blowing ten to fifteen knots from the north. There were only four entries in the Tall Ships class.

We made a safe start, slightly to windward of the TUCKER THOMPSON. With good boat speed and clear air, we were strategically placed to dictate the play. The race soon degenerated into the traditional brawl between the Tall Ships and any other vessel that foolishly came within range. ADELAAR, a large Dutch ketch, a little unsportingly (and against the spirit of the Geneva Convention no doubt) threw plums at us. We were still cleaning them off our white bulwarks four days later.

But despite this distraction, the BREEZE slipped along beautifully as soon as she could hold her squaresails full. She was hard to beat. Having a clean bottom helped: thanks are owed to those who gave her a paint at the Naval Dockyard.

We sailed the leg from the Brampton Buoy to the east end of Motuarohia, then clewed up and motor-sailed across to Te Pahi Island, as we had all agreed to do earlier. Here we came together and more or less started the race again.

It was a long downhill run back to Russell — just what BREEZE likes — and under full sail we slowly moved away from the others. We sailed through the TUCKER THOMPSON's lee, passed the SPIRIT OF ADVENTURE, did a quick turn through a school of kahawai (no luck there) and took the ADELAAR to windward. We set a watersail under the boom and rigged the dinghy's sail as a stuns'l off the tops'lyard.

We must have put five minutes on the other three between there and Russell. Not enough to carry the race on handicap, but that night at the prizegiving we got a dozen beer and a bottle of strange Irish cream liqueur for our efforts. The cream was quite nice poured over porridge for breakfast or as a substitute for milk in tea.

That night there was a hangi and dance, with an old jazz band, and crewman Lawson Burgess up at the microphone helping out with a bit of 'scatting' during a rendition of *Sweet Georgia Brown*.

The trip home began very early the following morning when the beginnings of a good nor'westerly came creeping into Matauwhi Bay just before dawn. What more could a southward-bounder ask for? That afternoon we dropped anchor at Leigh, a fine day's run. We stayed there a day, during which time the wind went fresh to the sou'west. This enabled us to make Onetangi on Waiheke the following day, a lively close-hauled sail that left just a short hop back to Auckland on the last day.

The wind was still a sou'wester and dead against us now. It seemed a shame to finish the trip with the Lister ticking over and just the fore-and-afters up, but we made the viaduct by mid-afternoon. Nothing for it now but to knock off the last of the Irish cream. By the time we hit the city streets, we were feeling well pleased with ourselves.

Rob Morton, a son of John Morton, is one of the BREEZE skippers. He was mate on her 1985 voyage to French Polynesia to oppose nuclear testing in the Pacific.

CRUISE SHIPS IN AUCKLAND

by Robert Hawkins

The cruise ship DANAE at Queens Wharf, 1991. (R.J. Hawkins)

Most New Zealanders who happened to see the sleek, white-painted hull and superstructure of the passenger cruise vessel DANAE in New Zealand waters during February would probably not have given her more than a second glance. However, there are a few mariners and others who have had more than a passing association with the ship in an earlier age, for she started life as the refrigerated passenger cargo liner PORT MELBOURNE.

Owned by Port Line Limited of London, the PORT MELBOURNE was built in 1955 at the yard of Harland and Wolff Ltd in Belfast, Northern Ireland, and traded from the United Kingdom and Europe to Australasia. General cargoes were carried on the outward trip, with typically a full load of frozen lamb, butter, cheese and wool being taken back to Europe. Beautifully appointed accommodation was provided for twelve passengers.

Port Line vessels were always noted for their clean modern lines and so, when the PORT MELBOURNE and her sister ship, PORT SYDNEY, were sold to the Carras Group of Greece in 1972 they already had a reputation for being comfortable, fast and good-looking. The new owners converted both ships in 1975-76 before leasing them to the Italian shipping company, Costa Line, in 1979. Five years later, Costa Line bought them outright.

Now operating under the banner of Costa Cruises, the DANAE has berths for 497 passengers, and has called at Auckland and other New Zealand ports twice. However, it is not very often that a ship with a thirty-six-year-old basic hull and engines, and the external looks of a much younger vessel, is seen operating in such a cut-throat, high-flying industry as cruising.

The ACHILLE LAURO at Princes Wharf. (R.J. Hawkins)

PORT MELBOURNE	*DANAE*
Built 1955 Harland and Wolff, Belfast	Converted 1976
Deadweight 11,011 tons	3,704
Tonnage 10,470 g.r.t.	9,603
Reefer capacity 336,000 cu.ft.	
Passengers 12	497
Engines 2 x 6,6000 BHP B & W diesels, twin screw	Original engines still fitted
Service speed 17 knots	Same
LOA 533 feet	Same
Beam 70 feet	Same
Draft 29 feet	25 feet

ACHILLE LAURO

Built 1947 (keel laid 1939) De Schelde, Flushing, Holland
GRT 23,629 tons
LOA 631 feet
Beam 82 feet
Engines 8 x 3,375 Sulzer diesels
Service speed 22 knots
Passengers approx 900

For those with a discerning eye, there are some notable features on DANAE which date from her PORT MELBOURNE life. The anchor 'boxes' are distinct; the 'cruiser' stern and the two forward life-boats on either side are original; and the two-ton stores crane on the foredeck used to serve No. 3 hatch. Unseen are the twin B & W diesels which, give the very noticeable 'thump, thump, thump' of slow-speed diesel power, a sound which could be heard across the water when I last saw the vessel in January 1986. A few comparisons for the more technically minded are given in the panel.

As a matter of interest, the PORT SYDNEY underwent similar conversion and is now called DAPHNE, under the same ownership.

Also visiting Auckland on the same day (5 February) as the DANAE was another well-known and less disguised favourite, the passenger vessel ACHILLE LAURO. She started her career under a different name and flag, and, except for her twin funnels and signal mast, is largely unaltered outwardly from her original lines as the Royal Rotterdam Lloyd liner, WILLEM RUYS. Her keel was actually laid down in January 1939; however, World War Two intervened, and by sheer luck she survived the war. Upon her completion in 1947, she was then the largest motor liner in the world.

While the ACHILLE LAURO has featured more recently in the media for a hijacking in the Mediterranean best forgotten by those unfortunate enough to have been involved, she has many more features of interest to the maritime historian.

As the WILLEM RUYS, she was equipped with an interesting propulsion arrangement. This consisted of eight 3,375 b.h.p. engines in sets of four, geared to two propellers. This arrangement has been adopted more recently by the latest cruise ship constructions to save space. By reducing the overall height of the engines, passenger carrying capacity can be increased. Also, the life-boats are housed on the lower deck level, as opposed to the more traditional promenade deck, and a very pronounced tumblehome of the ship's sides make her very distinct, especially when viewed bow or stern on.

The WILLEM RUYS was sold to the Lauro Line of Italy in 1964 and underwent extensive conversion for the tourist and migrant trade to Australasia. By 1973, with much of the passenger trade gone to the airlines, ACHILLE LAURO switched to cruising and has been in that business ever since. She is certainly a rarity at fifty-two years of age!

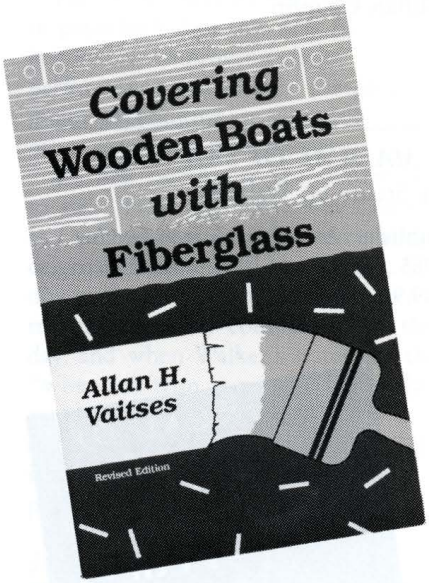
Robert Hawkins, a son of Cliff Hawkins, is a Master mariner now working as a marine surveyor and nautical consultant. He is a skipper for the BREEZE and the SPIRITS, and was a navigating officer for the Port Line.

BOOKS

COVERING WOODEN BOATS WITH FIBREGLASS

By Allan H. Vaitses

Published by International Marine Publishing Company, 1989, revised edition. Paperback, illustrated, 167 pages. $38.95.



Two of the most well thumbed titles in the 'how to do it' species of boat books must be Allan Vaitses's LOFTING and the title under review. The author approaches these two very different tasks with a fundamental practicality, demystifying the tasks for first-timers.

Covering Wooden Boats with Fibreglass describes the Vaitses-developed system for encasing old wooden hulls in fibreglass. Can't be done? Many say so — and many have said so to Allan Vaitses. But in truth his method has been very widely and successfuly applied, providing a new life for many tired hulls. Indeed, it was probably the favoured method prior to the recent fashion for gluing and fastening cold moulded veneers of timber over old hulls — often finishing that with a layer of glass cloth.

What both systems have in common — unlike the often tried, often failed alternative of a thin layer of glass cloth over a traditionally built hull — is mass and mechanical fastenings. Allan Vaitses eschews the use of glass cloth, favouring a massive build-up of chopped strand mat and roving, the inner layers being mechanically fastened to the existing hull. What is produced is an entire glass hull, semi-independent of the original, with sufficient strength to accommodate any movements of the original structure.

The Vaitses method is revealed with great clarity, dealing with the specialist tasks of decks, centreboard cases, rudder tubes, lapstrake, etc. Also included are some very frank 'case histories' and useful appendices on materials, quantities, etc.

If your boat requires a new skin, the Alan Vaitses method might be the answer. A word of warning, however: the cavalier disregard for the problems of epoxy allergies shown by Allan Vaitses should be treated with great caution. There is now too much evidence of the dermatological and respiratory consequences of careless use of epoxy resins, fibreglass particles and acetones for you to willingly plunge into it in quite the same way as Allan Vaitses.

Rodney Wilson

THE PETER PYE OMNIBUS

By Peter Pye

Published by Ashford Press, 1986. Hard cover, illustrated, 626 pages. $29.95.

This omnibus edition contains the four Peter Pye titles: *Red Mains' L, The Sea is for Sailing, Sail in a Forest* and *Backdoor to Brazil*. It is a proper book — that is, it is case-bound — and at $29.95 it is very good value.

Peter Pye and his wife Anne purchased the LILY, a 29-foot ex-Polperro fishing boat, in 1931 for a mere £25, restoring her and turning her into the very capable ocean-going cutter MOONRAKER. After reading Weston Martyr's *£200 Millionaire*, they found the siren song of the ocean irresistible. Mr Pye, a West London doctor, took the bold decision to leave his practice for the itinerant life of a sailor/lecturer/locum.

MOONRAKER carried the Pyes across thousands of miles of ocean in pursuit of far away places and exotic anchorages. Their first voyage to the West Indies won them the Trophy of the Royal Cruising Club in 1950, and at the time of his death in 1966 Peter was Commodore of that venerable organisation.

Death came unexpectedly and cruelly. Peter constantly suffered from poor health and on the return from a Mediterranean cruise, he was admitted to the General Hospital in Plymouth for a long overdue hernia operation. While there, a wrongly labelled anaesthetic bottle was used and he was tragically gassed to death. *Backdoor to Brazil* was incomplete at this time and Anne, his stoical and loving mate, completed the writing for him. MOONRAKER was exhibited for a while at the Exeter Maritime Museum but was eventually sold and is now in private ownership in Denmark.

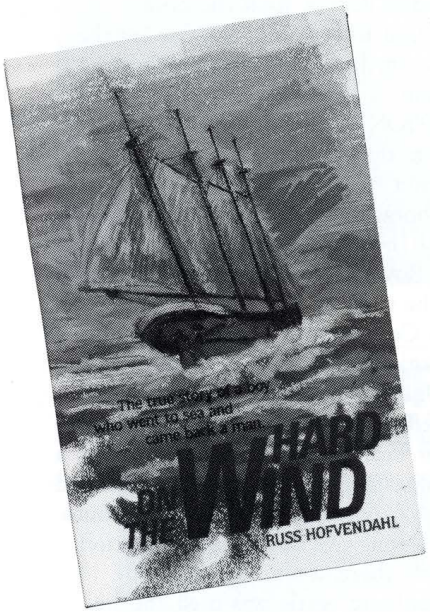
If you have grown tired of the rather repetitive accounts of voyages made across the globe by so many venturesome couples and individuals, the *Peter Pye Omnibus* may rekindle your interest in this kind of literature. Peter Pye was obviously a thoughtful and sensitive man, but decisive and forceful in putting into effect what most people only dream of. His relationship with his wife was

obviously a profound and harmonious union of equals; the stories give a clear insight into this partnership. He writes well, with a fine use of language, with simplicity and style, and with great candour. Read a story — pop it on the shelf — return to it later and try another. I'm sure you will enjoy it.

Rodney Wilson

HARD ON THE WIND
By Russ Hofvendahl

Published by Sheridan House, 1989 (original edition 1983). Soft cover, illustrated, 251 pages. $29.95.



When the fifteen-year-old Russ Hofvendahl triumphantly reported to his uncle that he had secured a berth on a ship out of San Francisco in 1937, his ignorance of what lay ahead was his greatest asset.

The WILLIAM H. SMITH was a Union Fish Company sailing vessel — a four-masted schooner codfishing in the tough conditions of the Bering Sea. His first introduction to the rest of the crew gave the young recruit the impression that he was in the company of the "drunkest sleaziest skid row bums" he had ever encountered. His next shock was to realise that, far from his bright expectations of foreign ports and romance, his first voyage was to start and end in his home town of San Francisco.

The five months in between were to present the author with a vast range of experiences and lessons — from losing a shipmate to confronting death himself — that would change him irrevocably. His descriptions of life aboard the schooner vividly reveal the sheer hardship endured by these men. The stories he tells acquaint the reader with a bygone life; one which leaves an intense impression of men locked into a way of life from which some found it impossible to escape. The companionship Russ Hofvendahl describes is probably more a reflection of his own character than a true reflection of the sorts of relationships possible in the tough and relentless conditions.

He was writing in his later life and I felt that there was more than a little romance injected into the narrative that was possibly a product of nostalgia more than of verisimilitude. Given what he was enduring, however, it is a very forgivable flaw in what is otherwise a thoroughly engaging account.

The author gives us the first-hand reminiscences of a perceptive and sensitive young man as he negotiates what amounts to his rite of passage from youth to manhood. There are gripping descriptions of the way solitary fishermen in tiny dories daily ventured into the bleak wide expanses of the Bering Sea, hoping that the flowing tides would not sweep them impotently past the mother ship when they returned four or five hours later. From a crewman's point of view, there was the fear of muffing the catching of a line and having to watch helplessly as the dory swept away in the stormy ocean. Lives were constantly at risk and the dependence upon each other's competence was total.

Hard on the Wind is as much as anything a tribute to the men Russ Hofvendahl spent those months with and is best summed up by the author himself: "Many men in this world labour in hazardous employment, but on a day in, day out basis I have never known, or heard of, anything comparable to the life of a dory fisherman on the Bering Sea. I marvel now at the uncomplaining courage they exhibited every day that they shoved off in those flat-bottomed dories.

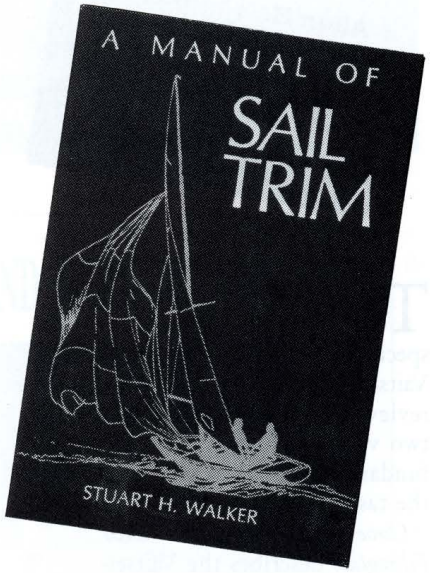
"Perhaps in that Valhalla where Scandinavian merchant seamen finally dwell, they know that someone has attempted to tell part of their story. I hope so. I am proud to have sailed with them."

Hard on the Wind is a very good read.

Gillian Chaplin

A MANUAL OF SAIL TRIM
By Stuart H. Walker

Published by W.W. Norton & Co, 1985. Soft cover, illustrated, 251 pages. $49.95.



Stuart Walker needs no introduction to sailors who have sought guidance from his previous texts. This book will confirm his place as one of the sport's best educators and give invaluable assistance not only to the racing yachtsman, but to all sailors who enjoy a better understanding of the mysteries of their sport.

These mysteries, once described by that all encompassing phrase "seat-of-the-pants sailing", have been given increased attention in the search for performance improvement, and the developments in rigs, sailcloth and

construction have lead to a demand for greater precision in executing the crafts of boat-handling and sail trim. The foreword to the book confirms that "improvements in sail trim provide the big gains in performance", but even the smallest improvement in technique may be sufficient to win the race and this "manual", with its clear format, provides all crew members with the necessary information to secure those gains.

The book looks expensive at $49.95 in paperback, but this may be justified by improvements in performance that obviate the need for major expenditure on new sails or other expensive componentry.

My first reaction to the content was to ask, "How did I ever win a race?", as I encountered graphic descriptions of errors of the past. The answer, obviously, is that I made fewer mistakes than my competitors on the day, and when Walker's statement that "when sail trim is correct, it is only momentarily so and probably by chance rather than design" (page 22) is considered, one gets a telling perspective of the task in hand.

I'm sure all will respond to descriptive phrases like "Go Gear-Plus"; a setting that sounds like the miracle cure for a slow boat, and brings to mind the old adage "boat speed makes you a tactical genius".

Stuart Walker's complete *Manual*, including chapters on organisation of the boat and action required in special conditions, leaves little to chance. It even provides advice on what to do when finding recovery from a heavy air broach difficult. The answer? BAIL!

Peter Walker

TAMATEA - A20

Length 48 ft o.a. 31 ft 6 in w.l.

Beam 8 ft 6 in Draught 7 ft 3 in

Designed by A.C. Robb

Built by A.F. Couldrey

Launched January 1937
Owned by N.H. (Pat)
and J. (Hal) Newcomb

Obviously enjoying the taste of innovation, ten years after the launch of TAMATEA in 1937, the owners, Pat and Hal Newcomb, launched another unique idea —
Neville Newcomb's Reprographics.

This firm has grown to be the premier reprographic concern in the Southern Hemisphere. It specialises in plain reproduction, copies of photos, charts, etc and display graphics.

NEVILLE NEWCOMB REPROGRAPHICS LTD
70 Shortland Street, Auckland.
Phone: 303 2878

SERVICES DIRECTORY

Museum News

HUTCHWILCO LIFEJACKET SPONSORSHIP

Hutchwilco, New Zealand's best known manufacturer of marine safety gear, has recently gifted seventy lifejackets to the Museum. This is a magnificent gesture, one which will be greatly appreciated by all those involved on our active vessels.

Lifejackets belong in that category of equipment that one hopes one will never have to use. So thank you very much Hutchwilco; long may your jackets remain safely stowed — all, that is, except those regularly used for safety drills!

'The last row of the season' 1872. Not a lifejacket to be seen!

MUSEUM EDUCATORS CONFERENCE

The Museum Educators Association of New Zealand held its 1991 conference in Auckland. The theme was 'Communicating with your Public'.

Our section of the programme began aboard m.v. KESTREL, with Rodney Wilson outlining his philosophy for the Auckland Maritime Museum and bringing colleagues up to date on the development of the project. This was followed by Linda Burns from the Department of Conservation, who briefly described the role of DOC in the Hauraki Gulf Maritime Park.

Next came a hands-on experience for delegates in the form of a sail on the BREEZE, skippered by Peter Sewell, and on ANNA KRISTINA. John Sorensen, ANNA KRISTINA's skipper, and Erwin Van Asbeck from the Maritime Museum staff spent some time during the afternoon explaining the joys and the agonies of square-rig sailing, and delegates were given the opportunity to work the sails.

Auckland Maritime Museum would like to thank Mr George Hudson of Gulf Ferries (Fullers) for his generosity in allowing us to use KESTREL in lieu of a lecture hall. Without our own venue, finding an appropriate place to seat over sixty people is not easy. KESTREL could not have been better.

Thanks also go to the BREEZE crew; to the Hardanger Jakt Sailing Company, skipper and crew of the beautiful ANNA KRISTINA.

A most enjoyable and informative afternoon.

GIFT OF DEKS OLJE

Aquatrol Pacific, the New Zealand importers of the wood-finishing oil developed in Norway for fishing boats, and now well known to the owners of traditional boats, have donated a quantity of Deks Olje to the Museum workshop for use on certain of the Museum vessels. We are grateful for their generosity.

DONATION FROM THE BRIAN GEORGE WINSTONE MEMORIAL TRUST

The Museum has recently been gifted $500 from the Brian George Winstone Memorial Trust for its displays featuring the Auckland scows.

The scow history of the north will come in for close attention at HOBSON WHARF, both in the coastal shipping display and on the water, and we are grateful to the Trust for their generous support.

GIFT OF HARDBOARD

H.D.Smith Ltd have given a large number of sheets of hardboard, for use in the construction of displays, and in the workshop. Our thanks to Bill Trevren of H.D. Smith Ltd for the firm's generosity.

COUNTDOWN TO CONSTRUCTION COMMENCES

During the last months of 1990, the Auckland Maritime Museum Trust Board struggled to resolve a number of problems surrounding site availability on one portion of the HOBSON WHARF Museum site.

With the positive support of the City and Regional Councils, and Ports of Auckland Ltd, all of whom participated with the Museum Trust Board on a joint working party, significant progress was made in identifying the problems, the requirements and the options available to achieve resolution. In the end, however, the involvement of Mace Development, who are responsible for the Princes Wharf development, was instrumental in reaching a solution.

As a consequence, the HOBSON WHARF project enters 1991 with greater political and commercial support than at any time hitherto, as well as a universal determination to get construction underway in the very near future. The synchronicity between HOBSON WHARF and the Princes Wharf development has become very strong, and the Museum's position as a major public focus in the whole redevelopment of the Auckland harbour edge is assured.

Under the new solution the Museum will consist of a two-storey building running the full length of Hobson Wharf; restoration of the historic Launchmans Building; and the construction behind it of a cluster of village-like, two-storey buildings with elevated walkways, board-walks and low-level quays and two marinas. A first-floor walkway will lead to temporary exhibition facilities, an auditorium and classrooms on Princes Wharf.

Future development opportunities could provide for the inclusion of the western Hobson Wharf berthage, development of low profile buildings on the Western Viaduct and inclusion of the historic Viaduct drawbridge as part of an extended site in which the Museum is integrated with existing fishing fleet operations.

The building on Hobson Wharf will interpret the architectural vernacular of the old Auckland waterfront, calling on the forms and materials of the early sheds but bestowing upon them a refinement and an elegance absent in more recent port structures. The buildings behind the wooden Launchmans Building will repeat the shapes and forms of early utilitarian port offices of the period of the Launchmans Building. They will be wooden-clad structures, and will cluster about the water's edge, containing openings and spaces reminiscent of the scale and form of an early port.

Within the buildings the displays will also change in mood, pacing and appearance. Each will be a micro-environment so that the visitor will undergo a constant unfolding of different sensations and experiences. The HOBSON WHARF concept has always stressed active displays, active vessels, active workshops and interactive attractions. That remains,

as does the determination to provide a rich cultural and educational experience through the pleasure of discovery, involvement and participation.

Thanks to the support the HOBSON WHARF project has received from Mace Development, Ports of Auckland Ltd, and the Auckland City and Regional Councils, the Museum Trust Board is now positioned to get construction underway. The winter issue of Bearings will feature drawings of the revised site plan and buildings, and report further on the project.

THE HERITAGE VESSEL RACE

Stop-Press Results
Inaugural Event 1991
Square-Riggers
Line Honours and Overall Winner — FRITHA
Fore-&-Aft Traders
Line Honours and Overall Winner — UNDINE

Prize giving and party after the race. REWA's stern is in the foreground, BREEZE behind, ETHEL and RIPPLE at right. (Paul Gilbert, Light-Transport)

Gaff Rigged Yachts
Line Honours — SORCERESS
Overall Winner — LEXIA
Bermudan Yachts
Line Honours (spinnaker) — TAMATEA
Line Honours (without spinnaker) — ARAMOANA
Overall Winner — THELMA

Our thanks to New Zealand Wines and Spirits for the prizes.

TRUST BOARD UPDATE

Late in 1990, Eric Salmon OBE, a founding Trustee of the Auckland Maritime Museum and a private benefactor of the project, died in Auckland. Eric was a man who devoted a large portion of an industrious and caring life to his city and its cultural life.

Sir Rochford Hughes, a fellow founding Trustee now resident in Taupo, resigned his trusteeship; Dame Catherine Tizard vacated her ex-officio Mayoral Trusteeship to be replaced by Mr Les Mills; and Commodore Auckland, Ian Hunter, makes way for his successor, Commodore Tony Lewis. We extend our congratulations to Ian on his promotion to Chief of Naval Staff and the rank of Rear Admiral, R.N.Z.N.

New members of the Trust Board are Admiral Sir Gordon Tait, Chairman of the Museum's Business Council, and a well-known benefactor of the New Zealand waterfront; and the noted naval architect and immediate past Commodore of the Royal New Zealand Yacht Squadron, Don Brooke.

New members of the Business Council of HOBSON WHARF are Alan Gibbs and Robin Congreve, both of whom have supported the Museum generously during 1990.

COLLECTION

The COMET when owned by the Welch family of Kerikeri. Note the batten-seam topsides and the high chine and hollow entry forward.

THE COMET

The V-bottom runabout became popular in New Zealand in the 1920s. Some boats were built from plans published by the *Rudder* magazine in the United States; others were designed by their builders in the American fashion.

One such boat has been generously gifted to HOBSON WHARF by David Stretton-Pow of the Stone Store at Kerikeri. As well as representing the type, the COMET has strong associations with the Hauraki Gulf: it was for many years a fishing boat and general knockabout for the Chamberlin family of Ponui Island.

Built by one Danby at Orapiu, Waiheke Island, in the late 1920s, the COMET was bought by Earnest Chamberlin in the early 1930s. It remained with the Chamberlins until 1969 when Phil Welch took it to Kerikeri. David Stretton-Pow acquired it three or four years ago.

The COMET is 15½ feet long and 4ft 8in of beam. It is built of kauri, and has a small foredeck and three seats (originally two) across the boat. The original engine was a 7 h.p. Evinrude, giving a speed of ten knots. This was followed by a 3½ h.p. Anzaui, a 15 h.p. Evinrude, and a Seagull.

The COMET is in sound condition, needing only paint and some work on the windscreen, and the refurbishing of a suitable outboard motor from the Museum collection.

RECENT ACQUISITIONS

HOBSON WHARF wishes to thank the following people for their recent presentations of collection and archival items:

Basil Irwin — Shaw Savill and Nordeutscher-Lloyd Bremen memorabilia.

Hugh Johansen — marine steam-engine drawings.

Michael Koutze — Newcombe painting.

Mr and Mrs V.F. Godber — whale's tooth, ship prints, memorabilia.

Marius Dryfhout — Stanley No.50 plane.

Stewart Keven — deadeye from unidentified vessel wrecked south of Port Waikato.

Jim Thompson — bronze bilge pump.

The Navy Dockyard — slipway winches.

Our thanks to all who have donated material, and a reminder that a copy of the Wish List, which contains many of the artefacts sought for the Museum, may be obtained from the Project Office at Princes Wharf.

RADIO ONERAHI

Leith Jackson of Seacom has presented the old SSB radio set used for years by Noel Lloyd at the Onerahi Yacht Club to provide a nightly check-in for yachts racing to and returning from the Pacific. The set, an AWA Teleradio 100, was in constant use until a lack of spare parts forced its retirement last year.

The radio and Noel Lloyd have been instrumental in many ocean rescues and helped many yachtsmen make safe landfalls. The set has been replaced by a state-of-the-art radio and the nightly scheds continue.

Leith Jackson has also given the Museum one of the first sat-nav sets to be brought into the country, a Walker 801, smuggled in by a well-known yachtsman and buried on a Northland beach, so the story goes.

R.N.S.A. 14-FOOT DINGHY

The Royal New Zealand Navy has gifted to the Museum one of the rugged 14-foot sailing dinghies used by the Naval Sailing Association for training and recreation. The boat is clinker-planked and very ruggedly built, with the traditional English steel centreplate and even a steel rudder blade. It is rigged as a gunter sloop. Like the 32-foot cutter and the Montagu whaler already gifted by the Navy (*Bearings* Vol.2 No.2), the 14-footer will be actively sailed by members of the Friends of HOBSON WHARF.

The boat came complete with trailer, gear and spare parts. Our thanks to the Navy for this addition to the small craft collection.

UNION SHIPS

Dick Offwood of the Union Group has given the HOBSON WHARF archives six volumes of the Certificates of Registry of Port Union Company ships, from the famous AORANGI of 1924 to the WANAKA. In addition, there is a volume of operations planning drawings of thirty-six of the company's ships from 1951 to 1968, giving all the dimensional and operational information required for docking, loading and planning voyages. A small treasure trove for the ship enthusiast.

MODELS

Modelmaker Rex Rouse has begun to build models of three of the famous old Waitemata steam ferries. The examples chosen are the 119-foot side-wheeler BRITANNIA, built by Charles Bailey in 1885; the 124-foot vehicle ferry GOSHAWK, built by George Niccol in 1909, and scrapped after fifty years service when the Harbour Bridge was opened; and the classic 131-foot double-ender MAKORA, built by Charles Bailey Jnr in 1921. The MAKORA was buried in the St Marys Bay reclamation in 1981; her machinery survives at the Paeroa Historical Maritime Park.

The three models are to the traditional scale of ¼ inch to the foot, or 1:48, giving a length of about 31 inches or 830 mm for the MAKORA.

The building or acquisition of other models is currently being planned and we should like to hear from modelmakers and owners. The Wish List gives an indication of the range of models needed for the displays at HOBSON WHARF.

THE LIBRARY

The magazine *Sea Spray* first appeared in 1946, put together by Harry Hardham and a very enthusiastic crew who were happy to be home from the war and boating again. The style (and ownership) of *Sea Spray* has changed several times over the years, as has boating in New Zealand, and the early issues especially are a fascinating and invaluable record of quite different times.

The Museum set has recently been greatly augmented by the donation of a couple of hundred issues by Dan Luther, who is known in Auckland yachting circles for organising the Golden Oldies' gatherings of ancient and not so ancient yachties. He is also collecting historical material associated with the V-class eighteen-footers.

Dan Luther has collated the Museum's *Sea Sprays* and identified the gaps. Most of the missing issues are from the late 1950s, with a few from the 1940s and early 1950s. If you can help with these, or indeed with any issue of *Sea Spray* — we wish to have an archival set and a working set — please get in touch.

The *N.Z. Yachtsman* and *N.Z. Aquatic* are also essential to the Library, as is the Australian magazine *Seacraft* which, like *Sea Spray*, was started by servicemen returning from World War Two.

Other material recently gifted to the HOBSON WHARF Library includes copies of *Lloyds' Rules*, and *Ship* and *Shipowners Registers*, presented by Ian Forrest; Bligh's *Journal of the BOUNTY's Launch*, edited by Mansir, with instructions for building a model, presented by John Webster; and Bassett-Lowke model and plans catalogues, and Craig-Craft and Crestliner runabout catalogues, presented by Barry Cardiff. Our thanks to all who have given material for the Library.

The book *Small Boat Building* mentioned in *Bearings* Vol.2 No.4 is in fact by Edwin Monk: his name was confused with that of Edson Schock.

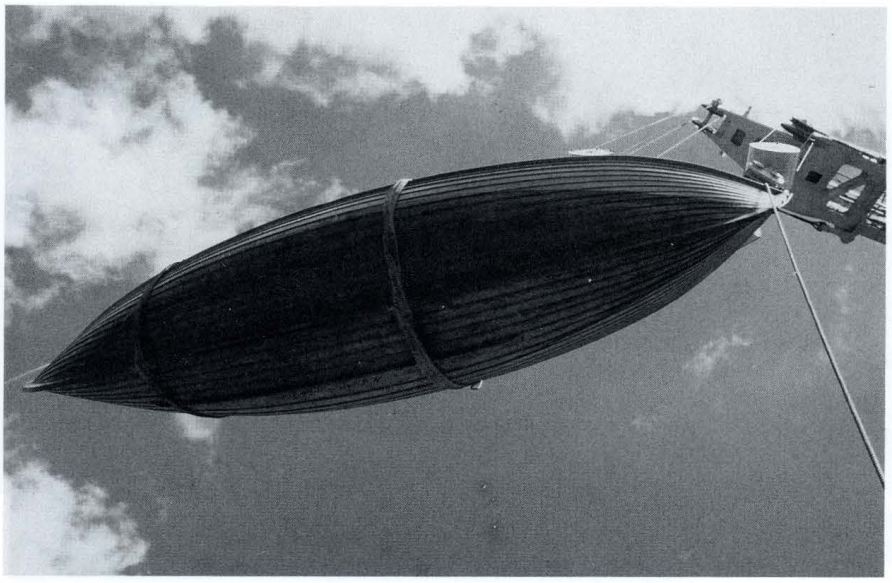
This quarter's requests for the Library:
Thomas Gilmer — *Working Watercraft*
E. Keble Chatterton — *Old Ship Prints*
C.W. Hawkins — *The Dhow*

Please contact the Curator if you can help find these books, or can assist in any way in the development of the Maritime Museum Library.

RESTORATION AND MAINTENANCE

Water-borne vessels in the small Museum fleet have had some essential maintenance. In December, the BREEZE was hauled out at the Dockyard for scrubbing and bottom painting by volunteers from the Friends of the BREEZE, and for minor repairs to the garboard seams at the forefoot.

The cutter and the whaler were lifted into the first-floor shed by the Navy Dockyard floating crane HIKANUI — their help is much



The Montagu whaler suspended, about to be hauled into the 1st-floor shed. (P.J. McCurdy)

appreciated — for scraping and painting. The runabout PIRI PONO, too, is in the shed for paint and varnish, as well as some mechanical work, including the replacement of the engine instruments by less anachronistic versions.

At the time of writing, the newly acquired mullet boat RAKOA has her mast out for varnishing and detail work on standing and running rigging, while the boat itself will be on the hard for a minor refit in preparation for the Lipton Cup in March.

The steam launch PUKE has had some essential work on deck and hull seams, together with a coat of paint and some mechanical work, including the fitting of an extra boiler feed pump.

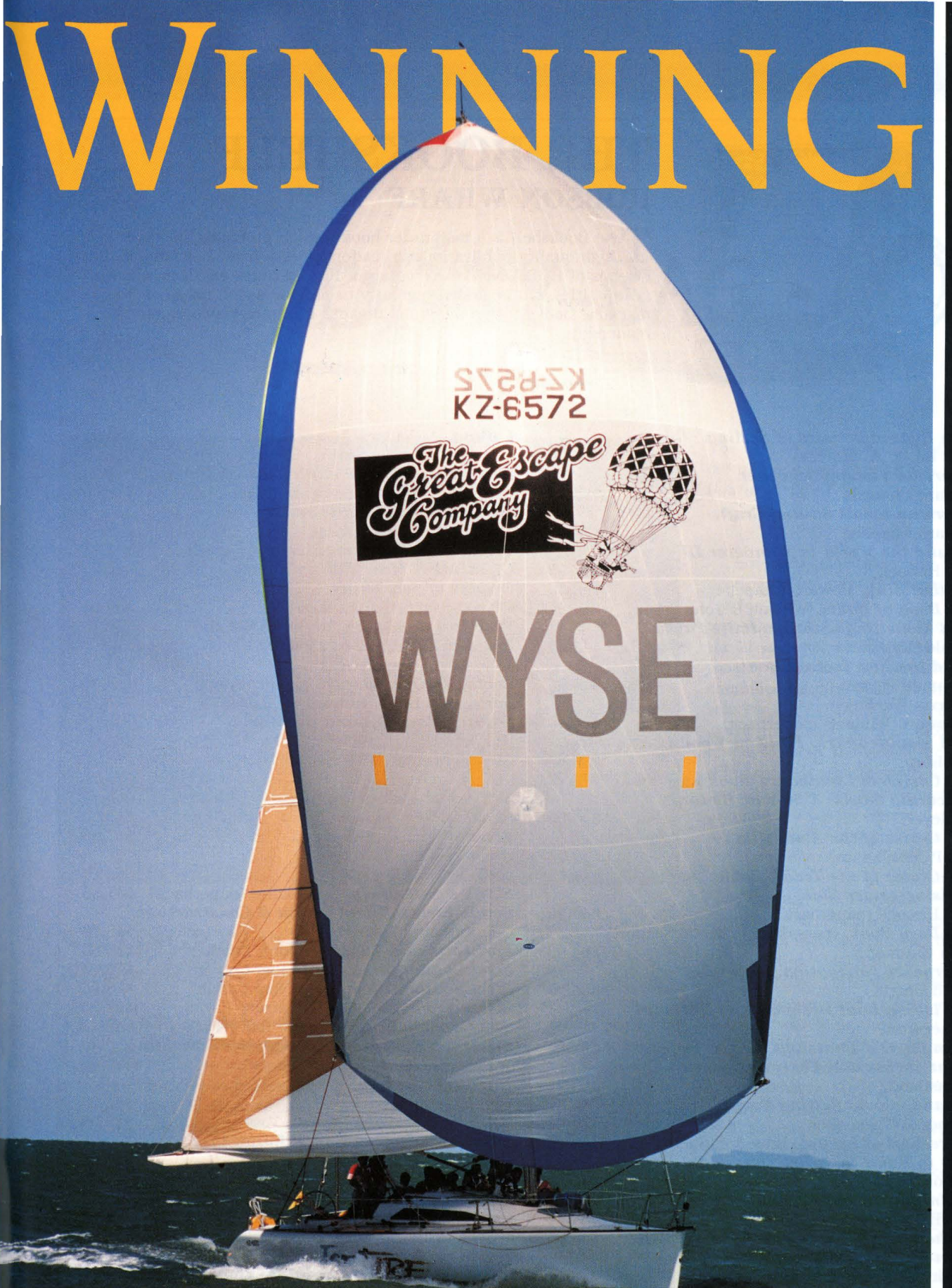
Current restoration of small craft in the collection involves the Silver Fern FLYING CLOUD II and the Zeddie JANET ANN — both paint and varnish jobs.

Skilled volunteers are very welcome to help in restoring the boats — our thanks to those already involved — and there is a wide range of craft to choose from. Please ring the Curator at HOBSON WHARF if you are able to help.

Foreyard cockbilled, the BREEZE on the slip at Stanley Bay for a bottom scrub and paint.
(Sgt A. Vandewater R.N.Z.A.F., reproduced courtesy R.N.Z.N.)

The cutter DZ2, or the GREY GHOST, suspended by the Dockyard floating crane HIKINUI while Bill Simpson removes the slime with a water-blaster.
(B.L.S.F. van Asbeck)

WINNING



Name: ICE FIRE - Sail No.: KZ6572 - Length O.A.: 13.78 - Length W.L.: 12.50 - Beam: 4.32 - Draught: 2.60 - Designer: Mummery, Dixon, Ball, De Thier - Built: 1988 - Owner: Malcolm Lerner.
Results: FIRST Handicap PHRS-Sydney-Mooloolaba (480 mile Blue Water Classic) - 3/4/1990 ■ HAMILTON ISLAND RACE WEEK: ①FIRST Handicap - 25 mile South Molle Trophy Race - 21/4/1990 ■ ②FIRST Handicap - 15 mile XXXX Classic - 22/4/1990 ■ ③FIRST Handicap - First on line - 85 mile Coral Sea Race - 24/4/1990 ■ ④FIRST Handicap - 25 mile Ansett Challenge - 27/4/1990 ■ ⑤FIRST Handicap - 22 mile Lindeman Island Trophy - 28/4/1990.

WYSE

MONITORS

WY-840
WY-7190
WY-700
WY-660
WY-650
WY-550
WY-530

TERMINALS

WY-370
WY-212
WY-185
WY-160
WY-120
WY-99GT
WY-60
WY-50
WY-30

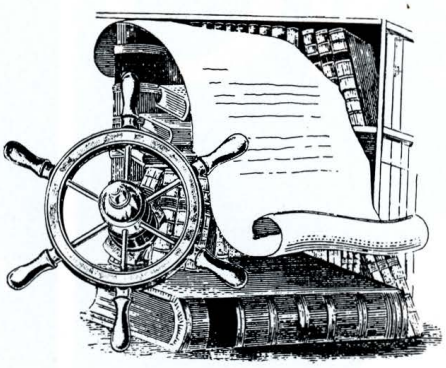
COMPUTER SYSTEMS

WY-3225
WY-3216
WY-3116 SX
WY-2116
WY-2012 i

The Great Escape Company

WITH WYSE & THE GREAT ESCAPE COMPANY

Auckland: (64 9) 395-965 ■ Wellington: (64 4) 801-8505 ■ Sydney: (61 2) 693-2022 ■ Melbourne: (61 3) 598-6666 ■ Brisbane: (61 7) 236-1566 ■ Perth: (61 9) 246-2377



THE BOOKSHELF

HOBSON WHARF

The Bookshelf is a mail order book service providing selected high quality publications to readers of *Bearings*. Members of the Friends of HOBSON WHARF obtain a 10% discount on all purchases.

New titles will be added regularly to provide a rich range of maritime books that reflects the breadth of interest among our readership.

Aero Hydrodynamics of Sailing. (2nd Ed.) C.A. Marchaj	$210.00
American Fishing Schooner. Howard Chapelle	$84.95
American Small Sailing Craft. Howard Chapelle	$73.50
Around the World in Wanderer III. Eric Hiscock	$31.95
Boatbuilding. Howard Chapelle	$68.50
The Book of Boats. William & John Atkin	$19.95
Boat Modelling with Dynamite Payson. Harold 'Dynamite' Payson	$42.95
Build the New Instant Boats. Dynamite Payson	$47.95
Canvas Work. J. Howard Williams (paperback)	$26.95
Cold Moulded/Strip Planked Wood Boatbuilding. Nicolson	$83.95
The Complete Liveaboard Book Katy Burke	$95.95
Concordia Yawls, A 50-Year History. E. Meyer	$300.00
The Cruise of the Amaryllis. G.H.P. Muhlhauser	$19.95
The Cruise of the Teddy. Erling Tambs	$29.95
Cruising Under Sail. Eric Hiscock (paperback)	$59.95
The Dory Book. (paperback) (Mystic Seaport) John Gardner	$64.00
Emergency Navigation. (paperback edition) David Burch	$35.95
85 Fishing Boat Designs from National Fisherman.	$19.95
From My Old Boatshop. Weston Farmer	$69.95
Great Yachts and Their Designers. J. Eastland	$83.95
A Handbook of Sailing Barges. Cooper & Chancellor	$34.95
Herreshoff of Bristol. Bray & Pinheiro	$108.00
How to Build the Gloucester Light Dory. Payson (paperback)	$18.95
An Introduction to Yachting. L.F. Herreshoff	$84.00
In the Wake of the Spray. Kenneth Slack	$45.95
John G. Alden and his Yacht Designs. Carrick & Henderson	$78.00
Kaipipi Shipyard and the Ross Sea Whalers. J.P.C. Watt	$52.50
A Ketch Called Tahiti. S. Doherty	$65.95
Lofting. A. Vaitses	$52.95
The Marlinspike Sailor. H. Garrett Smith	$35.95
Maxi: The Ultimate Experience: (Whitbread Great Yachts, Interview with Bruce Farr)	$99.95
More Building Classic Small Craft. John Gardner (paperback)	$59.95
Ocean Cruising Survey. Jimmy Cornell	$34.95
Of Yachts & Men. William Atkin	$31.95
Origins of Sea Terms (Mystic Seaport) John Rogers	$39.95
Practical Jumk Rig. Hasler & McLeod	$210.00
Practical Small Boat Designs. John Atkin (paperpack)	$40.95
Roving in Open Boats. Ian Nicolson	$29.95
Sails. (6th Ed) J. Howard Williams	$117.95
Sailing Alone Around the World. (Hardcover edition) Joshua Slocum	$31.95
Seaworthiness: The Forgotten Factor. C.A. Marchaj	$75.95
Self Sufficient Sailor. Larry and Liz Pardey	$49.95
Shackleton's Boat Journey. Frank Worsley	$19.50
Shipcarver's Handbook. Jay Hanna	$42.95
Singlehanded Sailing. (2nd Ed.) R. Henderson	$64.95
Skiffs & Schooners. R.D. Culler (paperback)	$47.95
Small Yachts: Their Design & Construction. C.P. Kunhardt (paperback)	$48.00
Spritsails and Lugsails. John Leather	$126.00
Steel Boatbuilding. Vol.1. Tom Colvin	$78.95
Steel Boatbuilding. Vol.2. Tom Colvin	$78.95
Symmetry of Sailing. R. Garrett	$92.95
The Capable Cruiser. Lin & Larry Pardey	$40.95
Tradition & Memories of American Yachting. W.P. Stephens	$120.00
Ultralight Boatbuilding. Tom Hill (paperback)	$42.95
Venturesome Voyages. J.C. Voss	$27.95
Wood and Canvas Kayak Building. George Putz (paperback)	$42.95
Wood, Water and Light. Mendlowitz/White	$128.00
30 Wooden Boats Building Plans. (2nd Ed.) Catalogue. Editors of Woodenboat Magazine	$21.95
World Cruising Routes. J. Cornell	$147.00
World Cruising Survey. J. Cornell	$79.95
Yacht Designing & Planning. Chapelle	$74.95
Yachting. Vol.I. Ed. Earl of Beaufort	$49.95
Yachting. Vol.II. Ed. Earl of Beaufort	$49.95
100 Small Boat Rigs. P.C. Bolger	$45.95

To order, please use separate form in centre of magazine.

DITTY-BAG

The TAPUHI II (ex-AUCKLANDER) in her new berth off Oriental Bay. (Gavin McLean)

WELLINGTON PORT NEWS

Plans by Wellington businessman Clem Griffiths to open the capital's first floating restaurant moved a step closer to fruition in December when the former tug TAPUHI II was towed to her permanent berth near the Freyberg Pool off Oriental Bay. The TAPUHI II will be better known to northern readers as the Auckland Harbour Board steam tug AUCKLANDER (454 tons, 1958).

The project to refurbish the TAPUHI II has proceeded more slowly than originally envisaged. Now, however, the old tug, stripped of much of her equipment and painted in Union Company colours, rests securely behind a specially constructed rubble breakwater just off Wellington's plushest grazing district. Mr Griffiths has announced that the restaurant hopes to open in September. Opinions on the aesthetics of the project vary widely; like recent Auckland and Wellington 'facadism', it is bound to be controversial, especially among ship-lovers.

Shipping movements through the port have been brisk despite a late start to the annual influx of Japanese squid jiggers and Soviet fishing craft. The Port of Wellington Company is expecting to handle between 5.9 and 6.0 million tonnes of cargo this year, a useful increase in spite of the deepening recession. Although the container terminal trade remains light, the port is enjoying an upsurge in Interislander throughput, as well as small but useful additions from the new trades pioneered last year.

Those new trades have been developing strongly. The banana trade has brought a variety of ships, from the brand-new ERICKSON FROST to the 21-year-old SKIATHOS REEFER, to the city wharves. The log trade has continued steadily, while the Italian ship PAOLA PITTALUA is expected to arrive in February to load 7000 tonnes of scrap, the second such shipment in a year. Seatow's barges have also been frequent visitors, bringing substantial amounts of Tarakohe rock across the Strait for the Seaview marina project.

The winds of change continue to blow through the Thorndon Container Terminal, which recently handled its first conventional ship, the Soviet-owned ALEXANDER OVCHINNOV. Perhaps as a result of Soviet economic and political reforms, this ship was flying the flag of Cyprus, where she is now registered. As for the terminal itself, it now has a new manager, Mr P. Snow. A former P & O employee, Mr Snow took over from Rex McKee, who retired late last year.

One or two specialist ships continue to add to the quayside variety. In December the port again played host to the Italian research ship OGS EXPLORA. That month it also received visits from 'poachers turned gamekeepers' in the form of the whale-chasers SHONAN MARU and SHONAN MARU No.2. These ships were on their way to Antarctica to conduct whale-tagging operations. Minus their harpoon guns, they flew

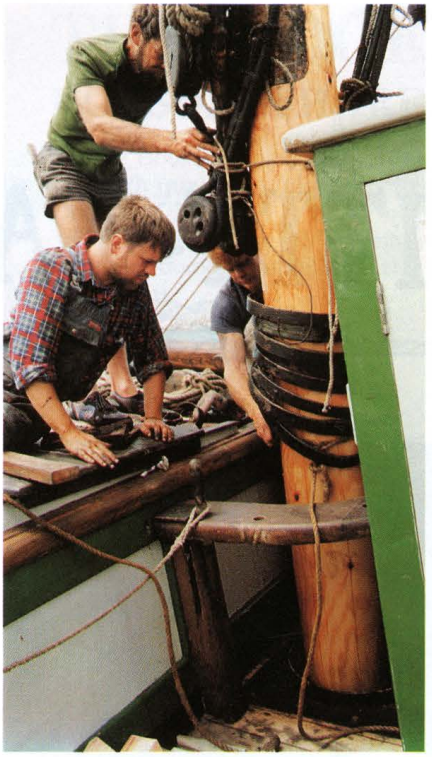
the flag of the International Whaling Commission.

Cable laying will return to Wellington in February when the Norwegian-flag ship SKAGGERAK arrives to begin laying the new Cook Strait power cable. Although the weather will obviously have its say in things, the Norwegian craft is expected to remain on the coast until the middle of the year. During that time she will be assisted by the local diving support craft LITTLE MERMAID, which will lay the short section leading to the shore.

Gavin McLean

AUCKLAND ANNIVERSARY DAY

The Auckland Anniversary Day Regatta, 1991. (Rob Tucker)



A NEW MAST FOR ANNA KRISTINA

The Norwegian ketch ANNA KRISTINA has been sailing for some time with a sprung mizzen mast reinforced by a steel tube. However, the generosity of Timberlands has come to the rescue. Three large Douglas firs from Rotorua were felled, brought to Auckland and hoisted into the Museum shed. One log was for the KRISTINA's mizzen, one is for the eventual replacement of the ANNA ROSA's mainmast, and the third is in reserve for HOBSON WHARF vessels.

Martin Skov, a Danish shipwright from the KRISTINA, transformed the 20-metre log with chainsaw, electric plane and hand tools into the new

Ian Olsen, John Sorensen and John Bennett guiding the new mast down onto its step. (Helga Richard)

The TSCS on the Puhoi River. The clinker 14-footer IKA at the bank and the Swampscott dory SMUGGLER under sail. (Paul Gilbert, Light Transport)

mizzen mast, which was then carried as deck cargo aboard the ANNA KRISTINA to Tauranga to be stepped.

The old mast was sent down, and its fittings and standing rigging transferred to the new stick. Then the reason for the straining of the old mast was found — the step and the partners were misaligned, and the mast had been sprung aft to give the proper rake. By recutting the tenon at the foot, and allowing the new mast to rake forward a little, the replacement could be made to stand straight.

The Museum and the crew of the ANNA KRISTINA are grateful to Timberlands for gifting the Douglas fir logs.

THE TRADITIONAL SMALL CRAFT SOCIETY

The Auckland group of the society has again been active over the summer. In November, a weekend cruise took members to Waiheke, where they stayed at Ostend on land owned by Robin Harris and joined the local traditional boaties in evening celebrations. This was followed by the traditional Christmas row up the river to Puhoi from Wenderholm.

There was also a good turn-out of Traditional Small Craft Society boats for the Mahurangi Regatta. Apart from the sailing and rowing races of the regatta, there was the opportunity to try other boats, among them a clipper Mahurangi punt built by Neil Beken for Trevor Johnson. The boat is based on the lines of a traditional Mahurangi four-plank 22-footer, but narrower on the bottom and built very lightly. It is very fast under two or three pairs of oars and likely to be fast under sail once sufficient lateral plane is provided by leeboard or daggerboard. More on this boat and on Mahurangi punts themselves (or Mahurangi flatties, as one local insists — can anybody give *the* word on the terminology?) in the future.

Numerous events will be planned during the year — attend your local meetings or ring the local contact for details.

MEETINGS

Auckland — the second Wednesday each month; 7.30 p.m. at the Ponsonby Cruising Club, Westhaven: 10 April, 8 May, 12 June.
P.C.C. Vintage and Veterans' Regatta — Sunday 7 April; start off Westhaven. Races for mullet boats, historic yachts, N.Z. dinghy classes and traditional small craft. Entries to the Ponsonby Cruising Club, ph. 09-760 245.
New Developments in Power Tools — talk and demonstration by the Bosch company at the 10 April meeting.
Mahurangi River — Saturday 20 April. Sail and row up to Warkworth. High water 11.39 a.m.
Contact: Colin Brown, ph. 09-416 6654.
Hamilton — the fourth Wednesday each month: 24 April, 22 May.
Contact: Jack Eason, ph. 071-64508.
Tauranga — the fourth Thursday each month: 25 April, 23 May.
Contact: Barry Dunwoody, ph. 075-65373.
Whangarei — the last Thursday each month; 7 p.m. at the Northland Regional Museum, State Highway 14: 24 April, 30 May.
Other Centres — for local contacts, and enquiries about back issues of *Traditional Boats:* Peter McCurdy, 15 Cowley St, Waterview, Auckland 7. Phone: 09-884 680.

PUKE GETS INTERNATIONAL COVERAGE

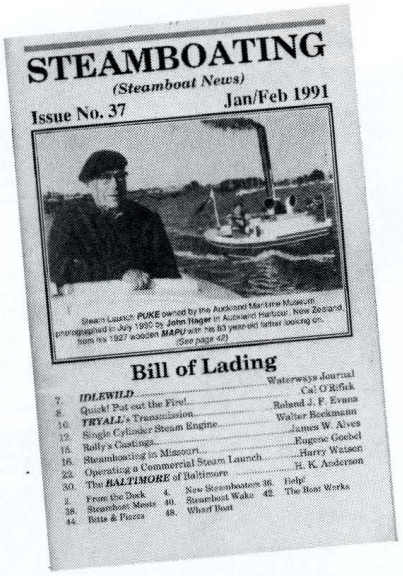
The HOBSON WHARF steam launch PUKE appears on the front cover of the January/February 1991 issue of *Steamboating*. The photograph shows PUKE steaming down the Tamaki River on her way back from the 1990 Auckland Steam Engine Society meeting held at Chris McMullen's workshop (*Bearings* Vol.2 No.3)

Steamboating is published bimonthly by the International Steamboat Society and has a worldwide circulation of approximately 1500 copies. It contains articles about hulls, engines, boilers and anything else related to steamboats old and new.

The number of active steam launches continues to grow, especially in the United States, where several manufacturers offer new engines, boilers and components. The annual steam launch rally held last September on beautiful Lake Winnipesaukee in New Hampshire attracted a record thirty-three launches ranging in size from three to twelve metres, and in age from one to one hundred years.

This increasing interest in small steamboats is also apparent in New Zealand, and it is hoped that the present two Auckland launches PUKE and GYPSY will share the Waitemata Harbour with at least two more small steamers in the near future.

Steamboating
Rt.1, Box 262
Middlebourne
West Virginia 26149
U.S.A.
(Subscription: $US15.00)


STEAMBOATING
(Steamboat News)
Issue No. 37 Jan/Feb 1991

Steam Launch PUKE owned by the Auckland Maritime Museum photographed in July 1990 by John Hager in Auckland Harbour. New Zealand from his 1927 wooden MAPU with his 83 year-old father looking on. (See page 42)

Bill of Lading

7. IDLEWILD ..... Waterways Journal
8. Quick! Put out the Fire! ..... Cal O'Rifick
10. TRYALL's Transmission ..... Roland J. F. Evans
12. Single Cylinder Steam Engine ..... Walter Beckmann
15. Rally's Castings ..... James W. Alves
16. Steamboating in Missouri ..... Eugene Goebel
22. Operating a Commercial Steam Launch ..... Harry Watson
30. The BALTIMORE of Baltimore ..... H. K. Anderson
2. From the Dock 4. New Steamboaters 36. Help!
38. Steamboat Meets 40. Steamboat Wake 42. The Boat Works
44. Bits & Pieces 48. Wharf Boat

The cover of the U.S. journal STEAMBOATING, Issue No. 37; PUKE on Tamaki River July 1990 with Chris McMullen at the helm, while 83-year-old Geoff Hager steers the photographer's 63-year-old launch MAPU. (John Hager)

THE SEASON OF THE NON FORECAST

Sadly, we too often read of drownings and mishaps at sea, frequently with the assertion that the victims did not consult the weather forecast. They should be so lucky!

Getting a good forecast in Auckland this summer has been nigh on impossible. The automatic telephone marine forecast is constantly engaged and at times when people are intending to set out is simply unavailable.

VHF Channel 21 Coastguard forecast is there — as long as you are in something like direct line of sight with the transmitter. It appears that there are no repeaters for this, one of the most important channels, and so many corners of the Hauraki Gulf are out of its reach.

Not that their forecasts would help much if you could get them. With all forecasters now located in Wellington, local forecasts are made 700 kilometres away. What we have been able to receive has been grossly inaccurate.

The best forecast for Auckland boat owners has been radio 1ZB. The data they receive from the 'Met' office is presumably no better, but they add a secret and valuable ingredient. Well, perhaps not all that secret — they simply have somebody who looks out the window.

Does the centralisation of weather forecasting save money or does it cost lives?

CAPTAIN PETE CULLER

Devotees of Captain Pete (and who isn't?) may be interested to know that his boat plans are available from
George B. Kelley
20 Lookout Lane
Hyannis
Massachusetts 0261,
U.S.A.
Ph: 001-508-775 2679

George Kelley tells us that his policy is to absorb mailing costs and to send all overseas orders by air mail, exclaiming "maybe that's a silly policy — so be it"! His prices seem quite affordable so if you have half a mind to, do it. The world would certainly be no worse for a few Culler boats gracing New Zealand waters.

OPEN CANOES AND SEA KAYAKS

Because of their relatively small numbers, users of open Canadian-type canoes and sea kayaks are seldom catered for by local canoe clubs, yet over the whole country they form a significant interest group. Each field of interest has its own newsletter to link individuals into a national group. The *Open Canoe Newsletter* has been running for over four years and the *Sea Kayak Newsletter* half a year less.

The newsletters cover events, trips, techniques, canoe design and building, and environmental and water-access issues. This year, a third newsletter — the *Paddler's News* — has been added to the stable. The new publication deals with technical matters and news common to both areas of interest. For example, the January issue discusses the arrival in New Zealand of the parasite *cryptosporidium*, which is worse than *giardia*, and answers readers' queries on all canoeing subjects.

Both groups hold national gatherings. The open canoe paddlers met for a basic skills forum in Rotorua in February, and on the Rangitata River in Canterbury in March for a white-water gathering. The autumn forum for sea kayakers

will be held in Nelson in April and will concentrate on practical skills. The Auckland Sea Kayak Symposium will again be held at Takapuna.

SUBSCRIPTIONS

The Open Canoe Newsletter:
$10 p.a. for ten issues.
The Sea Kayak Newsletter:
$8 p.a. for eight issues.
Paddler's News:
Free to subscribers of the main newsletters. Available separately at $7.50 p.a.

EVENTS

Sea Kayak Forum, Nelson — 13-15 April.
Sea Kayak Symposium, Takapuna — 26-28 April.
All enquiries to
Graham Egarr
P.O. Box 26, Nelson.
Phone: 054-22400
Fax: 054-22556

BOAT STOVE

For those on the look out for hard-to-find traditional items of quality, here is something you might like to know about. It is the Rega stove.

Newly made, and solidly built in cast-iron, the Rega is a beautiful little boat-size stove detailed with solid brass knobs on the door and grate. It measures 250 x 250 mm in plan and is 370 mm deep from front to back of flue. The legs can be removed and the stove bolted directly to a base.

Made by Otago Casting and Manufacturing Co. Ltd, 14 McNab St, Kaikorai Valley, Dunedin (P.O. Box 9038; Ph: 03-884 324), the Rega stove is $345 including GST.

Now let's be honest, there isn't anywhere in New Zealand where a tot taken in the company of this little beauty wouldn't make a fitting end to a sail on a cold winter's day.

The Rega stove.

M.V. OCEAN OPAL loading logs at Mt Maunganui — winning entry in the AMS Photographic Competition.
(Denis Eales)

AUCKLAND MARITIME SOCIETY

The 1990 end of year function on 28 November was the photographic competition for society members. With such a variety of excellent material, the judge — Mr Mike Patterson from the Auckland Photographic Society — had a difficult task deciding on the winning entry. A night scene depicting the loading of logs aboard the vessel M.V. OCEAN OPAL at Mt Maunganui in September 1990, taken by Denis Eales, was eventually singled out as the favourite. Denis won free membership to the Maritime Society for 1991.

We began 1991 with a well attended meeting on 23 January, at which Don Meehan spoke about his recent travels to Europe (mainly on business) and his experiences on those busy waterways. Don illustrated his travels on various ferries and aboard a Lauritzen reefer ship across the North Sea with beautiful colour slides. He visited the famous port of Mariehamn in the Aland Islands, home of the Erikson sailing ships and more recently a fleet of refrigerated vessels. To be able to cover such a range of ports as Don did all in the name of work, and still record it as he did, is a credit to him.

1991 MEETINGS
24 APRIL
Subject to be advised.
22 May
Annual General Meeting, with a film to follow.

AUCKLAND MARITIME SOCIETY
P.O. Box 129, Auckland 1.
Chairman: Robert J. Hawkins,
ph. 09-781 254 (day)
09-410 4786 (evening)
Secretary: John Webster,
ph. 09-778 915 (day)
09-790 202 (evening)
Treasurer: Graham Perkins,
ph. 09-452 4590 (day/evening)

THE 1991 MULLET BOAT REUNION

The second Mullet Boat reunion was held at the Ponsonby Cruising Club on Saturday 2 February, and was again very well attended.

People were invited to put the name of the boats they were once associated with on their name tags. Curiously, RAKOA was the most commonly nominated boat, even though most people had been associated with more than one vessel. So we had several discrete sets of RAKOA people wandering about looking blankly at other RAKOA people. Of course they represented different generations of ownership. The value that this boat has had to the boating fraternity in its long life was clear.

I was touched to see two older lads recognise one another and overhear, "Christ, Dusty. I haven't seen you since 1937".

Lincoln Wood and Keith Peachey, whose combined age is close to 180 years, tied for first place in the photo quiz. This is perhaps not that

surprising, considering they have been around making it happen for most of this century.

Through occasional newsletters and this sort of function, the Mullet Boat Association is generating pride in mullet boats, their past, present and future which, we are trying to show, form a continuum.

Harold Kidd

EVENTS
Saturday 6 and 13 April — Harbour Races
Sunday 7 April — Vintage & Veterans Regatta, Ponsonby Cruising Club
Saturday 20 April — Cruising Race to Mahurangi
Saturday 27 April — Closing Day Regatta, Ponsonby Cruising Club
The Mullet Boat Association
P.O. Box 100-006,
North Shore Mailing Centre.

Secretary: Paul Cato,
ph. 09-479 6800
Subscription: $20 p.a. — supports restoration projects and the quarterly *Mullet Boat News*.

THE OLD TIME MAHURANGI REGATTA

The 1991 Mahurangi Regatta saw the biggest turnout, since the Regatta's modern revival, of a wonderful assembly of historic, traditional and strange craft filling Sullivans Bay.

The day was calm and warm, and the racing competitive but friendly. As well as the multiplicity of short races along the beach — canoes, rowing boats and swimming, in various combination of number, age and sex — there were the major races further out.

The Mahurangi Cup, for yachts of design or construction before 1955, on a course twice around Saddle Island, was won by the cutter UNDINE of 1887 (*Bearings* Vol.2 No.4), owned by the Duder, Marler and Burgess families. Second place went to Martin Farrand's SCOUT, built by the Ewen brothers of REBECCA fame, Third went to John Gorten's THELMA, a Bailey 2½-rater of 1895 that spent most of its life on Otago Harbour.

First across the line for the Minerva Trophy was the ARONUI of Jon Foreman, a 43-foot yawl designed by Arthur Robb.

The Te Haupa Trophy for the

Traditional yachts in the Mahurangi Cup, and open-water rowing boats in the Master of the Mahurangi.
(Paul Gilbert, Light-Transport)

20-foot division, once only around Saddle Island, was won by the Maritime Museum's 9-foot Squadron dinghy DECOY (entered under the nom-de-querre PUFF for a reason never explained), sailed by Bill Simpson. The ELLY, a Chas Mower racing dory with stern cropped, built and sailed by John Gilmour, was second, and Martin Robertson's Frostbite WAIMARIE third. The FROSTBITE also took line honours with another, Rex Maddren's SMART MOVER, second.

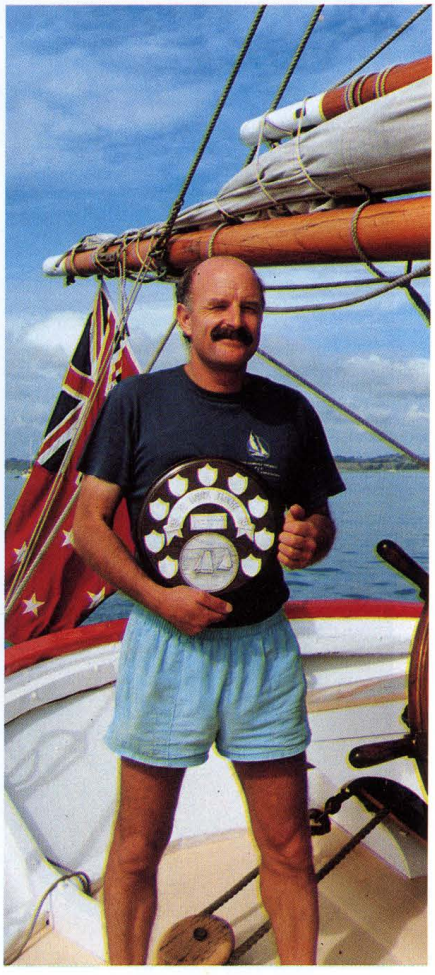
The Traditional Spirit Cup, for classic yachts of other ages and materials, was won by Fred McElrea's schooner JERSEY LILY, designed by William Garden, with the PUFFIN, a visiting Lyle Hess 28-footer owned by Doug Schmuck second; they crossed the line the other way about.

The Master of the Mahurangi, a rowing race over a mile or so for solo boats without outriggers, was a battle among old rivals Neil Beken, with his CHIEF WEASEL, Howard Lush in a fibreglass boat of his own design, and Don McDonald in his Garden Queens Gig; they finished in that order. Howard Lush won on handicap. The CHIEF WEASEL is a very simply-built narrow, flat-bottom 19-footer of American bateau type, recently modified with slight V-sections in the bow to cope with the chop.

There were many interesting vessels of all kinds: several famous and unusual yachts racing, such as the VICTORY and a Herreshoff leeboarder; the schooner QUEEN CHARLOTTE, the brigantine BREEZE and a three-masted junk; white painted and varnished launches such as the TASMAN; steam in the form of the tug WILLIAM C. DALDY and the 18-foot launch GYPSY; numerous local flat-bottom craft, many involved with oyster farming; and a fantastic line of small craft, traditional and modern, along the water's edge. Everywhere something beautiful, fascinating or odd to look at, try out or talk about.

Congratulations to the Friends of the Mahurangi on this event; and thanks to the race handicappers — Hugh Gladwell for the yachts and Peter Cole for the Small Craft; and to the ARC rangers at Sullivans Bay.

The 63-foot schooner-to-be MAGGIE motor-sailing. The spritsail is borrowed from the 16-foot Whitehall tender MAGGIE MAY. (P.J. McCurdy)



HOBSON WHARF shipwright Bill Simpson running up the Mahurangi Harbour in the Museum's Squadron Dinghy (left). Winning on handicap (but definitely not taking line honours), Bill proudly displays the Te Haupa trophy back aboard the BREEZE. (Michele Sigerist)

FRIENDS OF HOBSON WHARF

MEMBERS NORTH AND SOUTH

Recently, we received a membership subscription from the traditional sail-maker Louis Bartos in Ketchikan, Alaska. Louis, is the most recent — and most distant — in a series of international memberships. This allows us to boast of members from Stewart Island to Alaska, quite literally 'poles apart'. We wonder whether any other cultural body in this part of the world can claim such a wide geographic spread of its supporters?

Louis Bartos is researching the design and construction of historical/traditional sails, and has established extensive oral, video and textual documentation. He is also interested in the sailors' ditty bag and ditty box.

If you believe you can help Louis in understanding something about these phenomena in this part of the world, you can contact him at
Mariner Sails
705 Cook Street
Ketchikan
Alaska 99901
You might even wish to ring him at 001-907-225 2983.

NEW SAILS FOR THE BREEZE

Last year saw many highs and lows for the Auckland Maritime Museum. As well as our many successes, there were times when it seemed the Museum might not survive the trials of fund-raising and the ramifications of waterfront politics.

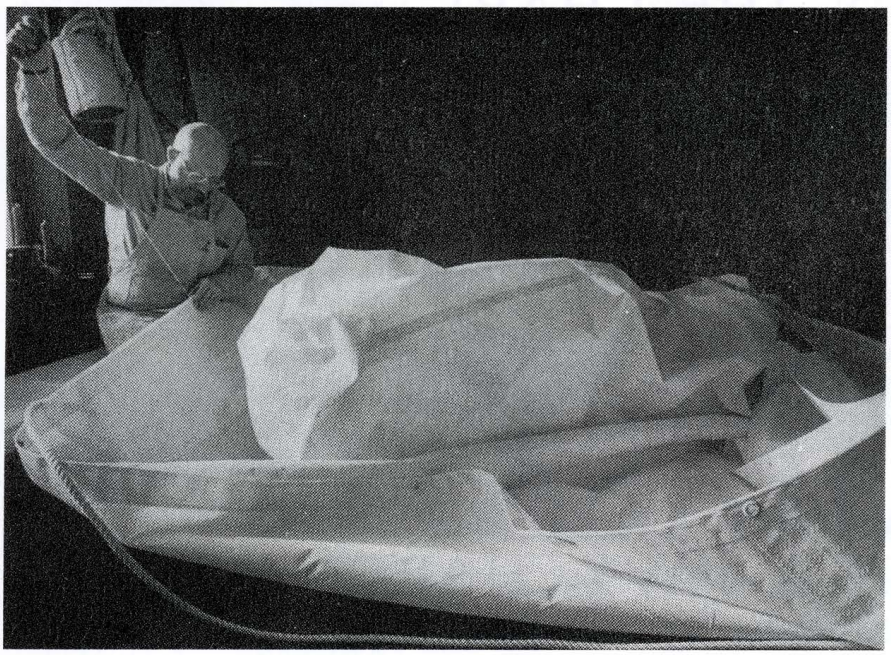
It was therefore very heart warming to gather with members of the Friends of the BREEZE and a number of Friends of HOBSON WHARF at the Richmond Yacht Club on 12 December. The evening was intended initially as a fund-raising event but doubled also as a Christmas celebration. Miles Allen in particular, and Bonnie Pedersen and Peter Sewell, showed a wonderful range of slides taken on numerous voyages under square rig.

The Richmond Yacht Club was again extremely generous with its space, especially as a carpenter had just started a long awaited refit of the room. Our special thanks for the space and the club's co-operation. Miles assisted with the decorations so that the room looked lovely as people began to arrive.

Most especially, however, we would like to thank all those who came along and so generously contributed to the fund-raising. We are delighted to announce the BREEZE is over $300 closer to having a new topsail.

We will hold similar evenings through this year, and can recommend them as enjoyable opportunities to meet old friends and make new ones.

Louis Bartos, sailmaker, at work maintaining a tradition, 1986.
(Hall Anderson)



A PREVIEW OF WHAT MIGHT BE

During the winter of 1990 I was fortunate indeed to spend a month in the United States. That country is impressive in so many ways, but my lasting impressions are of two Maritime Museums.

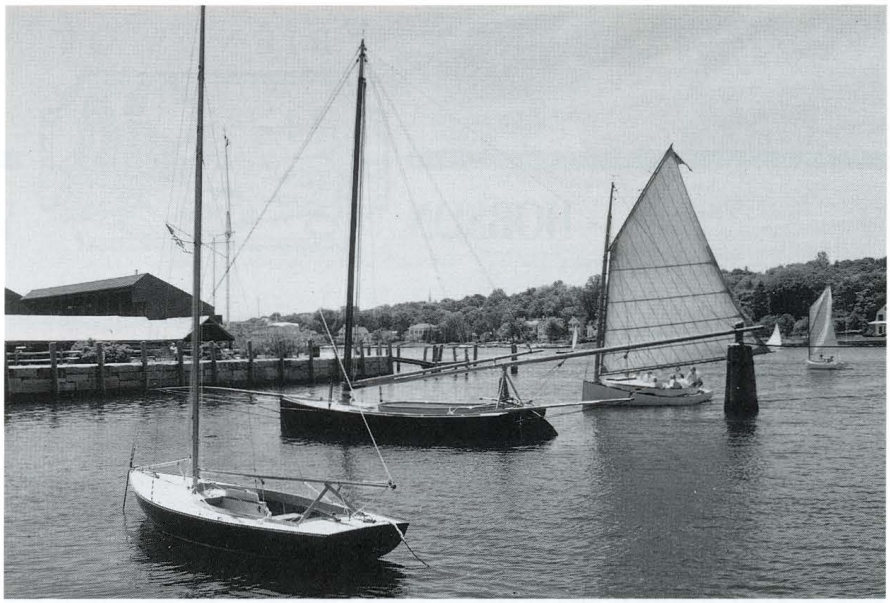
Several large square-riggers and other small sailing craft are visible from the water at South St Seaport in New York City. Piers 15 and 16, where these floating museums are set against a backdrop of towering skyscrapers, is a sight out of the history books. Pier 17 and nearby refurbished warehouses provide a wonderland of boutiques, restaurants and bars, all with a maritime theme. Unhappily, time did not allow a visit.

Better was to come. Joined by

friends, I spent a day at Mystic Seaport Museum on the Connecticut coast. Two or three days could easily be spent soaking up the history and atmosphere of this splendidly organised and set out museum. As well as a huge variety of working marine trade exhibits, there are also excursions on vintage sail-boats and a steamer, and sail-handling displays on the yards of the two big square-riggers afloat at the waterfront. Mystic Seaport has saved and restored most of its historic waterfront buildings to create and preserve what was once a thriving ship-building port. To our shame, most historic waterfront buildings in Auckland have been lost.

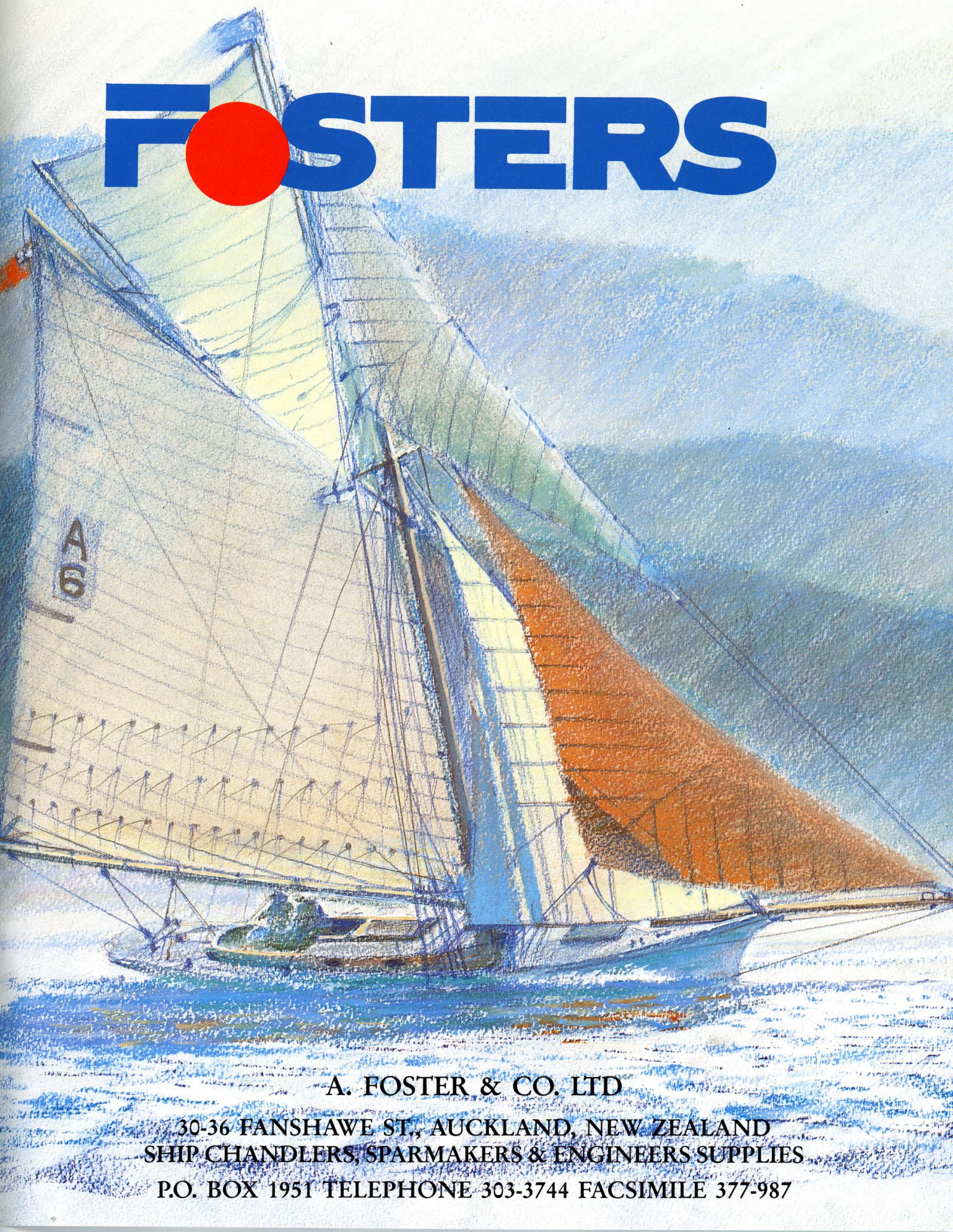
Friends of Hobson Wharf who plan to travel near that part of the United States should visit this museum and enjoy a preview of what we will one day have in Auckland.

Martin Barriball



Centreboard yacht, sandbagger (mulletboat origins?) and catboat at Mystic Seaport. (Martin Barriball)

(Detail) Chalk drawing "Pastime" by David Barker 1989



A. FOSTER & CO. LTD
30-36 FANSHAWE ST., AUCKLAND, NEW ZEALAND
SHIP CHANDLERS, SPARMAKERS & ENGINEERS SUPPLIES
P.O. BOX 1951 TELEPHONE 303-3744 FACSIMILE 377-987

KZI New Zealand
(Rob Tucker)