MARITIME HERITAGE ASSOCIATION JOURNAL

Volume 12, No. 1 . March, 2001

A quarterly publication of the Maritime Heritage Association, Inc.

C/o: 4 Cunningham Street,
Applecross,
W.A. 6153.

Editor: Peter Worsley. 294 Chapman Rd., Geraldton, 6530.

ANNUAL GENERAL MEETING

7.00 PM
26 March 2001

Wooden Boat Works (New premises)
Slip Street, Fremantle

There will be a vote on changing the payment of membership dues as noted in the last journal.

Refreshments will be served

The Maritime Heritage Association Journal is the official newsletter of the Maritime Heritage Association of Western Australia, Incorporated.

All of the Association's incoming journals, newsletters, etc. are now archived at *Wooden Boat Works*, Slip Street, Fremantle Harbour, and are available to members on loan Please note that to access the videos, journals, library books, etc it is necessary to phone ahead on 9335 9477.
(If you have an unwanted collection of magazines of a maritime nature, then perhaps its time to let others enjoy reading it. Contact the Association, we may be interested in archiving the collection.)

Material for publishing or advertising should be directed, preferably typed or on disk, to:
The Editor, 294 Chapman Road, Geraldton, Western Australia, 6530.

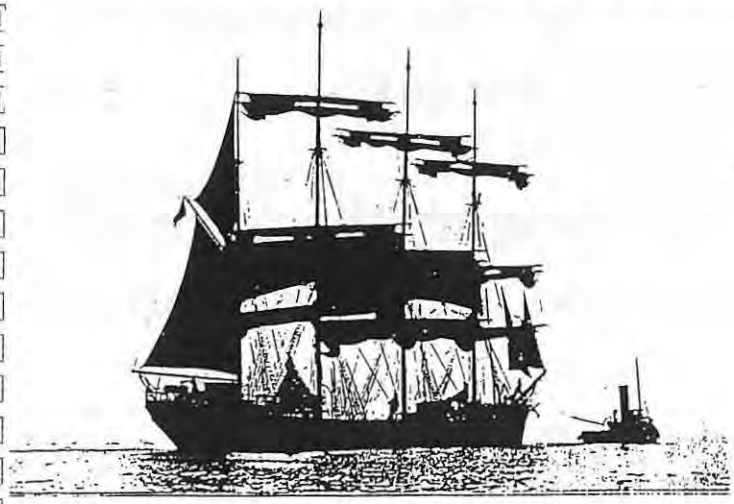
EDITORIAL

It is pleasing to see the amount of interest generated by Ross Shardlow's quest for more information about the rather derelict boat with the unusual stern, now in Carnarvon. (See December 2000 edition of the journal). Enquiries and responses cover an area from Shark Bay to Albany. As evidence comes to light, it is obvious that there is a great deal more to be told about this particular boat and her sisters.

Some members of the Association are hoping in the future to be able to travel to Carnarvon to take off the lines of the *Little Dirk*. This would make a fine contribution to the record of Western Australian boats built early last century. It is interesting to find that some of these boats are still afloat at well over 70 years of age. I look forward to being able to publish more about *Little Dirk* and other boats built by Robin Gourley in this journal in the future.

The Maritime Heritage Association Journal has been produced quarterly for almost ten years. Do members feel that it is time to produce an index to the major articles which have appeared over the years? This may be useful if you, like me, occasionally refer back to articles and information from various contributors. I would be prepared to work on such an index if I get feedback that it would be welcomed.

It is possible that members may not have copies of some of the earlier journals; if there are any articles from these that people would like to see reprinted I can arrange this in future editions where space permits. If an early article is of interest to just one or two researchers, it would be possible for me to make and send a photocopy of that particular article. This would depend on the Association having a reasonably detailed index so that members would know what they are missing out on.



Please make every effort to attend the

ANNUAL GENERAL MEETING

PRESIDENTIAL TIDINGS

Tidings: from the Old English tidung *meaning news and information. (Ed.)*

Good afternoon to all and welcome to the new millennium, (the real one). This year sees the start of some new initiatives in the Maritime Heritage Association. Some time ago Ross Shardlow discovered an unusually built vessel that had been used for Shark Bay pearling lying in a backyard in Carnarvon, and having seen his photographs and descriptions the committee, after discussion, have decided that it would be a worthwhile project to make a proper study of the vessel.

To this end some members are going to travel to Carnarvon and evaluate the condition of the vessel to ascertain whether or not she is restorable. Even if she is not the party will still be taking off the lines and measurements for posterity. It is believed that she was built by Robin Gourley at East Fremantle and that there are some sister vessels still afloat and racing on the Swan River.

Another project for the year is the school's essay competition. I have just sent out the application forms to the schools that responded, so hopefully, at a later date this year we will have some entries to print in the magazine.

I mentioned in the last magazine that I had become interested in the James Matthews project from a research angle. This has gone extremely well and new evidence has come to light which should hopefully lead to more wreckage being found. The work on the hull has now been completed and the timbers reburied under the seabed sand until a decision is made whether or not to raise them for conservation and display.

Rod Dickson.

PRIZE MONEY

Readers of sailing ship history and novels and watchers of the Hornblower series on television will know about prize money shared by the crew of Royal Navy ships that captured enemy vessels. Did you know that at least one lot of prize money was paid out as recently as World War II to a Royal Navy ship.

The 4,224 ton Vichy French *Gazcon* was carrying a valuable cargo of chromium and timber from Madagascar to Dakar when, because of bad weather, she entered the harbour of Lobito in what is now Angola, where she became trapped due to a shortage of fuel in her bunkers. The Portuguese would not sell coal to her.

A Special Operations Executive agent working in Luanda heard of the ship and reported to London. He received orders to contact General de Gaulle seeking permission to arm the seven anti-Vichy crew members of the *Gazcon.* This was given and they were actually secretly recruited into the Free French forces. The agent then bribed the master, Captain Briot, with US$40,000 and persuaded the Portuguese to sell the *Gazcon* 600 tons of coal.

Gazcon sailed on 30 August 1941. The rabid Nazi mate was knocked out and thrown overboard and a previously organised rendezvous made with *HMS Albatross*, a repair ship and seaplane tender normally based at Freetown. The *Gazcon* was boarded by the crew of *HMS Albatross* who subsequently shared prize money of £50,000. The ship and her cargo were valued at £406,000.

Reference

Slader, J. *The Fourth Service – Merchantmen at War 1939-45.* New Era Writer's Guild (UK) Ltd, Dorset. 1995.

LITTLE DIRK

Ross Shardlow made a request in the last magazine for any information on the *Little Dirk*. Here is a response he received, Ross and Tony Larard have kindly allowed the publication of this information so that we can all follow the emerging story.

The stern-on photograph of *Little Dirk* in the latest Maritime Heritage Journal could only be (in my opinion) one of Robin Gourley's. Robin built approximately six of these and possibly more in the 1920's and maybe 30's. Two which are still around are *Mafalda* which was built about 1928 for the Merendino family who were Fremantle fishermen, and *Britannia* which was about 28 feet and owned for many years by a 'Blue' Munro and moored at North Fremantle. *Britannia* was more of a pleasure fishing boat but *Mafalda* was crayfishing from Fremantle until the 1960's. She is still in very good order and retains the original centre case. I purchased *Mafalda* in 1969 and kept it at Port Gregory where we ventured to the Abrolhos and Shark Bay. It was at this time I saw the sister boat (apart from an ugly superstructure) at Shark Bay which I would bet is the *Little Dirk* in your article. *Britannia* now sports an aluminium mast and is used as a yacht. It was approximately a year ago kept in the fishing boat harbour at Fremantle.

There was another sister vessel *Dorothy* owned at Albany by a fisherman called Prideaux. I am not sure if this one is still there.

Robin Gourley lived in East Fremantle near the Leeuwin boat shed and apart from working for Howson & Murray. He built quite a lot on his own account including most of the Roter class yachts. He still owned and sailed a yacht named *Wangara* when I knew him in the 1950's.

Robin's brother James was a boatbuilder and the other brother, Harry, although he built his own yacht *Pioneer,* was more of a house and building carpenter.

Some of Robin's half models, and I am fairly sure they included the 'cartwheel stern' or 'round stern', were on exhibition in the Maritime Museum when it was first opened at Finnerty Street, Fremantle. Hope this is of some use to you.

Regards, TONY LARARD 14 December 2000

Further information from Ross is that Tony sold *Mafalda* back to the Merendino family some 8 or 10 years ago and that she is now moored at Jo Jo's Restaurant, Nedlands.

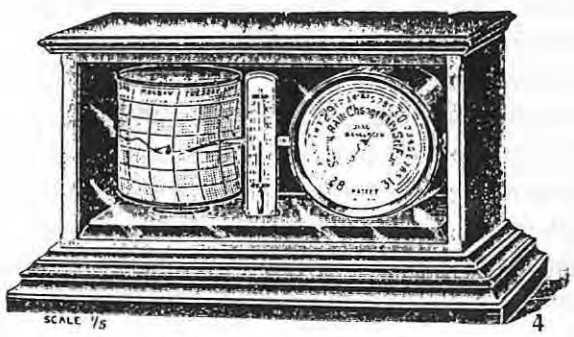
Tony has made mention of another Gourley boat called *Wild...* something – possibly *Wild Rose,* that was wrecked on a groyne somewhere. Ross knows of another three boats built by Robin Gourley:- *Lupa 1927, Amalfi* and *Filomena.* These are listed as 29' x 9' 6" x 5', round stern with outboard rudder.

This then makes a list of eight:-

Little Dirk
Mafalda
Dorothy
Wild.....?
Lupa
Amalfi
Filomena
Britannia

The editor's enquiries through John Kneebone in Albany show that the ownership of *Dorothy* passed to Bill Rickerby, founder of the Albany-Fremantle race and that she was entered in the inaugural race but did not return to Albany after that race. Stan Austin at Albany called her distinctive stern a 'Brown's counter'. Ross presumes this shaped stern to have been named after Alfred Edmund Brown, boatbuilder of North Fremantle.

Rod Dickson's book "They Kept This State Afloat" places Gourly's boat yard at Riverside Road, near where the old H.M.A.S. Leeuwin (now Leeuwin Barracks) is situated.



Barometer, self-recording

The Ditty Bag

An occasional collection of nautical trivia to inform, astound, amuse and inspire.

H.M.S. Warrior, the first warship built of iron, visited Australia in January 1868. She arrived in Port Phillip on 4 January 1868.

In May 1903 the survey ship *H.M.S. Dart* complained that the salt beef issued to the ship had been in brine since 1863 !!

More on the testing tank mentioned in Ditty Bag in the September issue. William Denny & Bros built their own tank in 1882 at Dumbarton on the Clyde. This tank was 330' long. 22' wide and 9' deep and the models to be tested was towed through the water beneath a carriage running on rails each side of the tank. To ensure that the carriage always remained at a constant height above the water the rails were curved to follow the earth's curvature. The machine which shaped the models tested was also invented by William Froude.

Probably the first feathering propeller was that patented by Joseph Maudslay in 1848.

The first H28 yacht, a very popular and famous Herreshoff design, was built in Australia. She is as far as I know still sailing in Victoria. Her name is *Marloo* and she was built by John Dingle and launched in 1944. *Marloo* has garboard, keel and stem of jarrah, frames of Tasmanian oak, planking and cabin top of kauri with all the fittings of bronze, made by hand by Dingle. She cost John Dingle £600 and was built in the back yard of his home at Brighton in Victoria.

An early major export of Western Australia was whale oil and whale bone. The first export of such products was in 1836 and in that year this amounted to 21% of total exports for the state. In 1837 whale products totalled 41% of total exports and 49% in 1838.

The 697 ton American 32 gun frigate *Raleigh* was built in only sixty days in 1776. She was 131' 5" on the gun deck with a beam of 34' 5". She was captured by the British and her lines taken off in 1797. *Raleigh* carried 12 and 9 pounder cannon.

The remains of Henry V's 1400 ton *Grace Dieu* of 1418 lie in the River Hamble. She was triple planked and clench nailed. The nails were iron over 8.6 inches (220 mm) long and having a 0.8 inch (20 mm) square section shank. The heads were domed and about 2.5 inches (60 – 70 mm) in diameter. The roves were rectangular 2 x 2.75 inches (50 x 70 mm). The strength and experience needed to properly clench those iron nails in 1418 is worth considering. As a comparison the nails used in the whaleboat built in Albany last year were soft copper and only about 3 mm in square section.

Jackass-Barque A four masted sailing vessel square rigged on the first two masts and fore and aft rigged on the aft two masts.

Isohalsine lines Lines on a chart joining parts of the sea which have an equal salinity.

VOYAGE TO FREMANTLE

By Captain F. J. Thompson, O.B.E., R.D., R.N.R.

From his time as an apprentice (1896) in ÆTHELBERHT an iron barque of 810 gross tons built in 1876 at Harrington, near Whitehaven, Cumberland.

This article is reprinted here by kind permission of the Fremantle Branch of the World Ship Society. It was first published in their May 2000 Newsletter.

Although considerable improvement had been made in the previous decade owing to Board of Trade supervision of the foods supplied and the introduction of lime juice as a preventive of scurvy, it was still hard going. There were no refrigerators or ice boxes in the average ship and consequently fresh meat and vegetables were only available for three or four days after sailing. Salt beef and salt pork were carried in harness casks, oak brass-bound casks in which the meat was salted down. It was weighed and served by the steward to the cook according to the number of men in each watch. " Harriet Lane " (tinned meat) was served twice a week, Sundays and Thursdays; potatoes after the first week were unknown except for an occasional supply of a dried variety.

Bread was a scarce commodity; one rootie (small loaf) was supplied on Sundays, Tuesdays and Thursdays, sufficient for one meal. The chief stand-by was the hard tack, usually Liverpool pantiles (large biscuits with 52 holes in them) chief component being bran; they were so hard that only very good teeth could tackle them, and could be thrown across the half deck at the bulkhead without breaking. The great trouble was they frequently became mouldy and full of weevils.

One pound of butter and one pound of marmalade were served out to each man weekly; no mustard, pickles, pepper, milk or jam were provided and the apprentices received the same quantities as the men. But the boys invariably started out from home with a tuck-box containing jam, sardines, tinned salmon, lobster, cocoa, biscuits and other luxuries. Ship fare was very hard on growing boys and many first and second-voyagers pawned their good supply of clothing from the outfitters with the men for marmalade or butter. One youth I knew on his first voyage would sit down with a spoon and eat his pound of marmalade, neat, the day it was supplied and then had none for the rest of the week unless he swapped a shirt or plug tobacco with a sailor for his allowance.

Tobacco was obtained from the captain's slop chest at 3s. per pound, having been bought out of bond at 10d. per pound. All slop chest goods realised 100 per cent profit or more from Jack, who frequently went to sea ill-clad and had to mortgage his pay to obtain clothing from the slop chest. Many of the seamen deserted in foreign ports and therefore would not have collected their wages anyhow.

Although the victualling was of such inferior quality the cooking was probably worse and the old sailor's adage " God sends food and the devil the cooks " was justified. Memories are short however and once ashore and enjoying fresh food and fruit (the latter was unknown at sea) hard living was soon forgotten. We received little sympathy on land when talking of hungry ships, for as youths we were sun and wind tanned, broadened with the constant exercise alow and aloft and generally looked healthy.

During this particular voyage, the ship was in fine trim and made some very good runs, besides taking part in interesting ocean races with other ships, overhauling and passing most of them, including the *Derwent* of London. Running the Easting down, the ship had been bowling along at 12 knots with the wind abaft the port beam and freshening. In the second dog watch the order was given to shorten sail and fore and main topgallant sails were taken in. Highton, a parson's son together with an A.B., were furling the main topgallant sail on the weather yard-arm when Highton lost his grip and

fell backwards off the yard. The ship at the time was laying over 25 deg. to starboard and at the cry of " man overboard " from aloft all hands rushed on deck, the mate throwing a lifebuoy into the sea. It was very dark and the prospects of picking up a man from the sea were almost hopeless. To everyone's surprise a voice was heard halfway between the masts "I'm all right, Sir " to which the mate replied in a strained though much relieved voice "Come down then, damn it". It turned out that falling backwards Highton struck the fore topgallant brace (running from the fore topgallant yard to the main topmast head) with his back. This threw him on to the main topmast stay which he grasped with arms and legs and slid down to the head of the main topmast staysail, which was set. In a few seconds he had climbed up the stay and down the rigging to the main deck. His only injury was a slight scratch under the chin. On reporting to the captain on the poop he received the comforting remark: "Well my boy, you were evidently not born to be drowned".

We sighted St. Paul's Island in the South Indian Ocean on this voyage sailing between it and Amsterdam Island , thus checking longitude by chronometer. On Friday, July 17, 1896 we dropped anchor in the harbour of Fremantle after a passage from Montrose of 93 days. Fremantle as a port was new; there were no docks or wharves and only the coastal passenger steamers came alongside the pier, other ships discharging in the roads into lighters. We anchored in Gage Roads an arrival, but shortly after owing to the winter season moved to Owen's Anchorage, 3 ½ miles away along the coast. This was an occasion for as fine a piece of seamanship as I have seen under canvas. We got under way and proceeded under sail (there were no tugs in the place) to the anchorage where other sailing ships were moored in tiers. The pilot was very skilful and handled the ship in between the lines to take up the appointed berth, making a running moor. The question of discharge was a problem for there were more ships than lighters and consequently great competition for preference ensued between the captains of ships. It was then that I appreciated the value of small boat sailing as a boy. The anchorage was 3 ½ miles from the landing place and a long pull under oars. All ships therefore had sailing boats; I was given charge of our boat with an ordinary seaman (a former fisherman) as crew. We had a fine carvel-built cutter in the ship, but unfortunately she had been neglected and having been many months exposed to sun and weather leaked like a basket in spite of all the carpenter's efforts. Consequently we had to use the ship's gig fitted with a false keel and the cutter's gaff and-boom mainsail and jib, by means of which she had rather too much sail and needed careful handling.

Another problem which had to be faced was watering the ship for there was no water boat in the harbour. This was done by carrying casks and beakers between the thwarts, filling up by means of a canvas hose from a tap on the jetty and sailing off to the ship. Some of the regular traders, like the *Arabella*, had a properly fitted sailing boat and a 100-gallon tank. The procedure was to man the boat at 6 am., sail ashore and bring off one load of water before breakfast. After breakfast we would take the captain ashore and queue up with other boats for the tap on the jetty. It was a very happy queue for we did not mind waiting and those at the tail of the line would go into the town for an hour or so. Fortunately it was generally a " soldier's wind " from the jetty to the ship along the coast and my long narrow gig made very good time under such conditions. On arrival at the ship, the barrels of water were hoisted out and emptied into the tanks and we proceeded again for another load. n the meantime the remainder of the crew were discharging the cargo of dressed timber by hand-winch, provided there was a lighter available; otherwise they would be carrying out ship's work. We had many happy days in the boat and frequent races to the jetty.

Our routine was occasionally varied by unexpected incidents. On one occasion, after taking liberty men ashore an Saturday afternoon, the second mate of the *Arabella* approached me saying that his sailing boat had been stolen in his absence. We took him and his apprentice on board and as the wind was light and it was getting dark pulled off in the only direction she could have gone. Very shortly we sighted the cutter making slow progress under sail. We pulled alongside, the second mate and my seaman boarded and a free fight with the four pirates ensued. The boat sheared off for a few moments; our fellows were having a bad time. I had however jumped on board with the

oak tiller and succeeded in felling two of the men by blows over the shoulder - a trick I had learned at school from our drill sergeant. After overpowering the thieves we pulled back to the jetty and handed the miscreants over to the water police.

An unfortunate accident with the sailing gig rather marred our future boatwork. It came about in this way: the captain was staying ashore with friends one week-end and ordered the gig to be at the pier at 11 a.m. on Sunday. He arrived with his friends, two men and two women whom we met on the pier. One of the men, whom we knew fairly well by now, asked the other apprentice and me if we would like to have the day ashore. We said we should and he approached the captain to grant us leave. The latter at first demurred and said there would be no one to handle the sails. Both men volunteered and the captain gave way, instructing me to hoist the sails for them and see them off. The breeze had set in and it was a close haul on the starboard tack to fetch the ship; I deferentially hinted to the captain that he would have to keep his luff to make it. It is a curious fact that many deep-water seamen cannot sail a small boat and many cannot swim; our captain was no exception. He could sail a square-rigged ship and woe betide the helmsman who let the ship fall off when close hauled. I watched the boat for a time and realised they would have to make a tack. As the boat approached the ship the first mate who was walking the poop noted through his telescope that the boat's crew were not there and then saw the boat miss stays and put the helm up to gybe. He at once foresaw trouble and called away the dinghy with two hands, jumped in himself and pushed off. In gybing the gig capsized throwing the occupants into the water. It was fortunate the mate was so alert for some could not swim and one of the women nearly drowned. However they got them all on board; but it was a very near thing.

When my colleague and I arrived on the pier at 5 p.m. as instructed, there was no sign of the boat for the next hour or more. We heard from a boatman that a sailing boat had capsized in the bay and several people were drowned; we felt apprehensive. After dusk the splash of oars was heard and I recognised the mate's gruff voice give the order " in bow" then "way enough" and the ship's lifeboat came alongside. He had come ashore for a change of clothing for the passengers and we returned with him. It cost the captain a £5 fine for breaking the Custom's seal in order to get a bottle of brandy. After this incident the gig was forbidden and we had to use the sails in the lifeboat - anyone who has tried to sail a ship's lifeboat will know what that means.

I had a cousin, a solicitor, living at Northam, some 80 miles up country from Fremantle and on his invitation I obtained a week's leave and spent an enjoyable holiday with him. Conditions were primitive in the country in Western Australia, but the people appeared to be very neighbourly and lived a happy carefree life. My cousin, his wife and myself attended a fancy dress ball some miles from his home. Everybody arrived by horse and trap and as the dance was to continue until dawn the horses were unharnessed and hobbled. After a jolly evening we searched for our horses and rode home at daybreak.

The process of discharging cargo owing to the shortage of lighters (substitutes included a schooner and a ketch) was extremely slow and three months passed before the whole of our cargo was discharged and 100 tons of sand ballast stiffening loaded. We then proceeded to a sandy bay in an uninhabited island, known as Careening Bay some seven or eight miles from Owen's Anchorage. We had taken some photographers from Perth on board, for what reason I never quite understood, unless it was to illustrate the pre-historic manner in which we ballasted.

The morning after our arrival the captain, second officer, carpenter, some hands and myself went ashore and built a jetty on the beach. We had towed a small lighter across from Careening Bay and, after heaving the ship's stern close to the beach rigging a warp to the shore, ballasting began. A number of hands were sent ashore with shovels and wheelbarrows, two hands manned the barge and two the lifeboat to ferry the sand across to the ship, where it was hoisted in with a dolly winch. We averaged about 35 to 40 tons per day by this method. On completion, the captain, a friend of his, his son, who had come over with us to catch wallabies and I, sailed to Fremantle in the lifeboat. Next day I returned with the two passen-

gers, leaving at 11.30 a.m. and arriving on board in the dark at 9 p.m. after tacking against the wind most of the way and having some difficulty in finding the ship. My two passengers got the impression that I was deliberately tacking to delay and annoy them and were near the point of mutiny when we sighted the ship's riding light in the little bay. They were then annoyed that I did not steer straight for it.

The captain returned next day in an excursion steamer with a party who made whoopee of it and were greatly interested in the sea chanties as we hove up the anchor by hand and hoisting the topsails. We then sailed round to Gage Roads, where we anchored and prepared the ship for sea. During this time a stiff westerly gale sprang up, one ship going ashore and another carrying away her cable. We had lost a few seamen who deserted the ship owing to the attraction of the Coolgardie goldfields and there was delay in obtaining substitutes. We eventually sailed from Fremantle on November 6th (after a stay of 3 months 20 days) for Diamond Island for orders.

Can You Date This Map ?

On the following page is a copy of an interesting old map of Australia.

The original map belongs to some friends of mine and came from South Africa. I have examined it quite closely. The only recent addition to it is the rough outline of South Australia in blue biro. There is no date on the front of this map but pencilled on the back is **c1843?** There are a number of things which may indicate an approximate period. Here are ten, but there are many others.

1. Geraldton, founded 1851, is not marked.
2. Darwin is not shown but Essington is marked.
3. The north of WA is called New Holland.
4. The area north east of Melbourne is called Australia Felix.
5. New South Wales covers the whole of the eastern part of the continent.
6. Hobart is called Hobarton.
7. Australind is marked but not Bunbury.
8. Fremantle is spelt Freemantle.
9. Rottnest Island is spelt Rottenest.
10. The odd shape of Lake Torrens.

I do not recall seeing reproductions of this map in any publication dealing with early maps but it is possible that some members of MHA may have come across it before.

If you can give any information or would like to make a guess as to the date of compilation I would be very interested to hear from you. Do you think that 1843 is a reasonable estimate ?

AUSTRALIA.

Longitude East from Greenwich

Engraved by the Omnigraph, E. P. Becker & Co Patentees

LONDON, GEO. VIRTUE, IVY LANE.

SS WAIMANA

An MHA member, Michael Seats, has written regarding the SS *Waimana* mentioned in the journal of December 2000. Reproduced below is his letter with the copy of the exploits referred to in his letter opposite.

Dec. 12, 00

The Editor
Maritime Heritage Assoc Inc
4 Cunningham St
Applecross
WA 6153

Dear Peter Worsley,

I have just finished reading the latest journal, on page 7 reference is made of SS"WAIMANA"

The history of this ship is, in my opinion amazing and I enclose a copy of its exploits as printed by SS&A.

In 1943 I signed on the WAIMANA in New York , she was loading munitions at the Perth Amboy berth . A ship being similarly loaded on the other side of the jetty caught fire.
Needless to say with the jetty having train loads of bombs and other explosives along its length there was a degree of urgency to leave the berth, the 42 odd Liverpool firemen raised steam in record time. The burning ship being abandoned by its Asian crew was very quickly towed away and scuttled, consequently we did not have to cast off.
Loading continued until it would have been difficult to find a vacant few feet of space below and on deck.
The voyage to Sydney via Panama took seven weeks, the Atlantic/Caribbean leg was a bit noisy but we sailed through unscathed and we had a slow but peaceful cruise across the Pacific.
I paid off in Sydney but the ship carried many more such cargoes over the remaining war years.
A very lucky ship indeed.

Visiting Albany last year I was astonished to see her name on the plaque that overlooks Anzac Cove.

Yours Sincerely

The Shaw Savill and Albion cargo liner *Waimana* was broken up for scrap by the British Iron and Steel Corporation in 1952 after over 40 years service.

Built in 1911 by Workman, Clark & Co. Ltd., Belfast, the *Waimana* was a twin screw steamer of 10,389 gross tons, with triple expansion engines giving her a speed of 13½ knots – faster than most cargo vessels when she was built. On her first voyage from Liverpool – commenced on Christmas eve 1911 – over 800 passengers embarked and up to the First World War she carried many hundreds of migrants to the Antipodes.

The *Waimana* earned fame early in the First World War when, on October 11th 1914, she sailed from Auckland with 1,600 men and 500 horses on board, the New Zealand troops being part of the famous main body. The voyage to Alexandria was uneventful but there is no doubt that those who manned her during that war could have told some exciting stories.

After the war she resumed her peacetime role of carrying emmigrants and cargo to New Zealand and food and other cargo on the return journey. In 1926 the *Waimana,* which ceased to carry emigrants after 1925, was chartered by the Aberdeen Line, renamed *Herminius* and transported cargoes to and from Australia apart from one memorable voyage to Hong Kong and Shanghai as a troop transport – in 1927 – at the time of troubles there. In 1932 *Hernius* reverted to her first name *Waimana* and under the Shaw Savill flag continued in service.

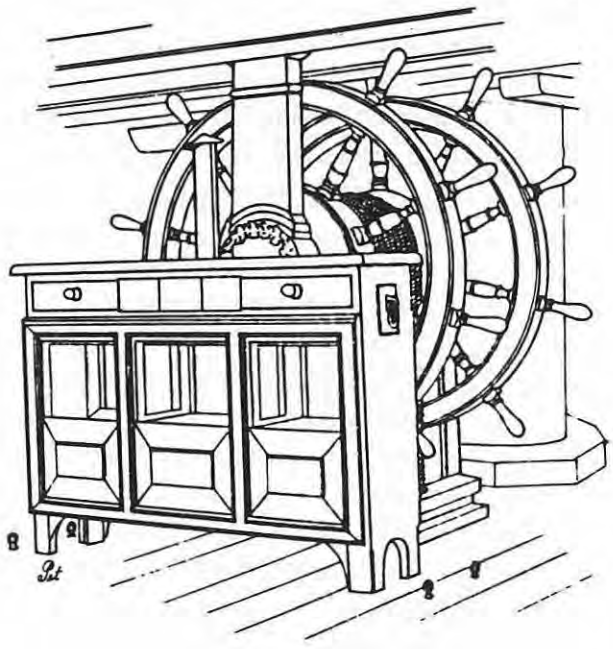
In September 1939 the *Waimana,* with two other Shaw Savill ships the *Pakeha* and *Mamari,* was purchased by the Government for conversion into a decoy Battleship of the Royal Sovereign class and with the two other vessels she was anchored in the Firth of Forth.

In February 1942 she again put to sea as a merchant ship. Renamed *Empire Waimana* she was placed under Shaw Savill management and made a valuable contribution to the war effort. Re-purchased from the Government in 1946, she reverted to the name *Waimana* and resumed her normal peace-time occupation. In February 1951 she added further distinction to an honourable career when she towed into Melbourne – 300 miles – the cargo ship *San Leonardo*, which had lost her propeller and was in danger of drifting ashore near Cape Northumberland, South Australia.

This above is an extract from a book on the Shaw Savill & Albion Co.

Editor: I found a little further information in the book "The Fourth Service – Merchantmen at War 1939-45" by John Slader. New Era Writer's Guild (UK) Ltd., 1995.

Slader describes how the three oldest Shaw Savill & Albion Ltd. ships mentioned above were used in their dummy roles. While *Pakeha* and *Waimana* were converted to resemble battle ships, *Mamari* was disguised as an aircraft carrier, the *Hermes.* During the earlr part of the war these decoy ships were anchored in the Firth of Fourth and later at Scapa Flow. When the necessity for this form of deception disappeared the *Pakeha* and *Waimana* were reconverted into refrigerated cargo liners. The *Mamari* was wrecked in July 1941 whilst on passage to Chatham Dockyard to have her naval fittings removed.



WATERING SHIP

The author, Frank Bullen (1857 - 1915), went to sea at the age of twelve as a cabin boy, working his way up to chief mate. He was eighteen when he shipped aboard the *Cachalot*, a whaler out of New Bedford. From this long whaling voyage that took him around the world came his famous book, "The Cruise Of The Cachalot, Round The World After Sperm Whales", first published in 1898.

The extract below is from the early part of the voyage (they had been at sea about seven months) when, in the Mozambique Channel, near the Comoro Islands an opportunity to obtain good water at no cost occurred. The method of watering the ship is explained by Bullen.

Preparations, very slight it is true, were made for departure; but before we left those parts we made an interesting call for water at Mohilla, one of the Comoro group, which brought out, in unmistakable fashion, the wonderful fund of local knowledge possessed by these men. At the larger ports of Johanna and Mayotte there is a regular tariff of port charges, which are somewhat heavy, and no whaleman would be so reckless as to incur these unless driven thereto by the necessity of obtaining provisions; otherwise, the islands offer great inducements to whaling captains to call, since none but men hopelessly mad would venture to desert in such places. That qualification is the chief one for any port to possess in the eyes of a whaling captain.

Bullen then goes on to describe the careful navigation required to enter a small bight on the uninhabited island of Mohilla where the ship anchored for the first time since leaving New Bedford some seven months before. Here the crew hoisted out a number of big casks to contain the water.

The cooper knocked off the second or quarter hoops from each of these casks, and drove them on again with two 'beckets' or loops of rope firmly jammed under each of them in such a manner that the loops were in line with each other on each side of the bunghole. They were then lowered overboard, and a long rope rove through all the beckets. When this was done, the whole number of casks floated end to end, upright and secure. We towed them ashore to where, by the skipper's directions, at about fifty yards from high-water mark, a spring of beautiful water bubbled out of the side of a mass of rock, losing itself in a deep crevice below. Lovely ferns, rare orchids, and trailing plants of many kinds surrounded this fairy-like spot in the wildest profusion, making a tangle of greenery that we had considerable trouble to clear away. Having done so, we led a long canvas hose from the spot whence the water flowed down to the shore where the casks floated. The chief officer, with great ingenuity, rigged up an arrangement whereby the hose, which had a square mouth about a foot wide, was held up to the rock, saving us the labour of baling and filling by hand. So we were able to rest and admire at our ease the wonderful variety of beautiful plants which grew here so lavishly, unseen by mortal eye from one year's end to another.

All to soon the pleasant occupation came to an end. The long row of casks, filled to the brim and tightly bunged, were towed off by us to the ship, and ranged alongside. A tackle and a pair of 'can-hooks' was overhauled to the water and hooked to a cask. 'Hoist away !' And as the cask rose, the beckets that had held it to the mother-rope were cut, setting it quite free to come on board, but leaving all the others still secure. In this way we took in several thousand gallons of water in a few hours, with a small expenditure of labour, free of cost; whereas, had we gone into Mayotte or Johanna, the water would have been bad, the price high, the labour great, with the chances of a bad visitation of fever in the bargain.

Learning to sail the *Duyfken* Replica (part II)

Nick Burningham

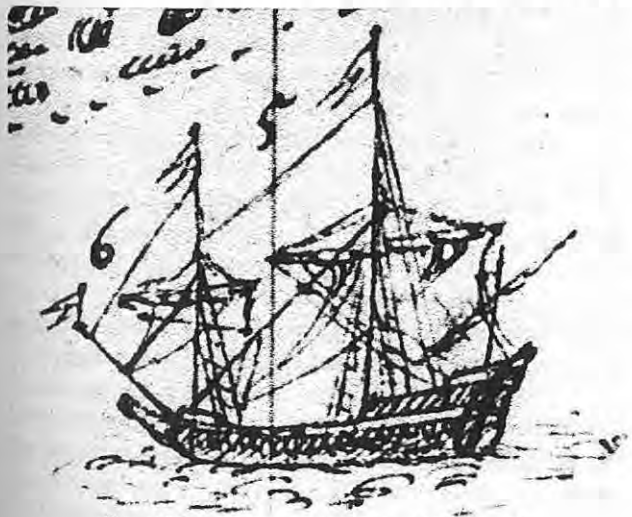
In the first part of this essay about sailing *Duyfken* I discussed the half-masting of the topsails as an effective sail reduction technique, and aspects of shipboard life.

In this second part I'd like to continue the technical description of the effectiveness of the ship as a sailing vessel, including some detail that I'd design differently if we were doing another *Duyfken*.

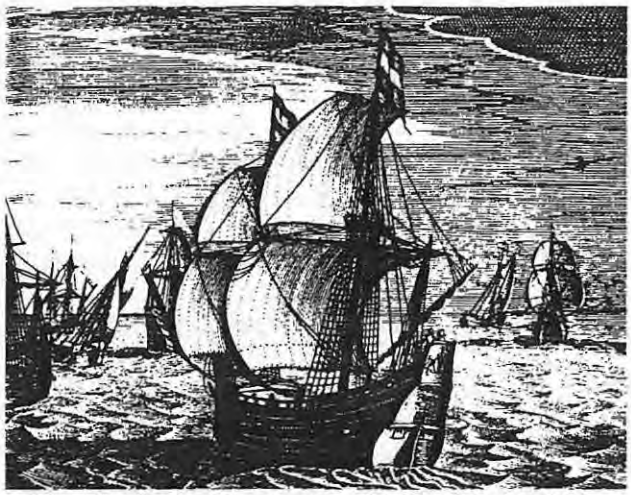
Duyfken's rig was designed largely by application of analysis of rigs shown in contemporary artworks. The basic conformation of the rig — three masts: topsails and courses on fore and main, lateen mizzen, spritsail on the bowsprit — was common to almost all sea-going European ships of the time. Details such as relative mast heights, yard lengths, mast positions, etc were decided by measuring ratios of proportions and trying to determine what was typical, and, if possible, what rules about ratios of proportions riggers of *Duyfken*'s time might have used.

One of the problems facing a researcher doing that type of "morphometric analysis" is something called allometric variation. Allometric variation explains why elephants have proportionally fatter legs than (for example) pigs and spiders. Design that works fine at spider size just isn't strong enough at pig or elephant size. The giants of mythology — men 6 metres tall — wouldn't be much of a threat because they'd break their legs getting out of bed in a hurry. The problem for analysing ratios of proportions shown in art works is that there's no scale provided, so the actual size of the vessel depicted is usually unknown. But you can make an educated guess as to the size of the vessel depicted. Some of the principles of the allometric variation can be discerned . . . and I wish I'd taken a little more notice of those principles that we discerned, particularly when drawing the mizzen mast and sail.

In most cases the truck (top) of the mizzen mast (where there is no mizzen topmast) is a little above the hounds of the mainmast, and that's how we designed it for *Duyfken*. But some vessels that look like small vessels have distinctly shorter mizzen masts. Also they don't have any mizzen stay. Two of the three tiny sketches showing *Duyfken* in the log of the ship *Gelderlandt* show *Duyfken* with a short mizzen mast and no mizzen stay. It was intended that *Duyfken* would not have a mizzen stay, however, the riggers chose to rig one. But it was found that it could not be set up taut and that it never came under load, so it was removed. Duyfken's mizzen mast is still too tall and the yard too long.



One of the three eye-witness sketches of Duyfken shows a short mizzen mast



Note the short mizzen mast on this small jacht which may be intended to represent the original Duyfken

Duyfken's mizzen is rigged in the Northern European manner: inside the mizzen shrouds and with the fall of the halliard on the forward side of the mast. It is tacked by hoisting the yard above its normal set position and then shifting the yard and sail around the aft side of the mast with the yard stood vertical. There is a lift to help control the yard during this operation, but it is a difficult, heavy and potentially dangerous operation when the ship is rolling in a seaway. The heel of the yard has to be manhandled around the mizzenmast and it could take control of the operation injuring a crewmember or throwing them overboard. When making short tacks the mizzen can be left to windward of its mast on one tack.

Although the mizzen was always set during initial sailing trials, it is now only set if trying to sail to windward against a bad headsea when the ship gets lee helm (and for photo shoots). In a less detrimental headsea the ship has slight weather helm without the mizzen set. The mizzen can be backed to help the ship tack in a bad headsea.

Surprisingly, the lateen mizzen does not stand as close to the wind as the square sails and it does not set well. Because the deck at the taffrail is very narrow — the stern almost comes to a point — the mizzen sheet is necessarily on the centre-line of the ship. This means that the clew of the mizzen curls back inboard and therefore pulls to leeward and astern, so the sail probably contributes more to

leeway than to headway. Even when sheeted hard, the mizzen bears against the lee shrouds which spoils its shape, and it luffs before the main course which is the first of the square sails to luff with normal sail setting. The mizzen probably contributes little to forward propulsion of the ship in any circumstance. It is useful to aid steering and certain maneouvres in adverse conditions. If the topsail are not set the ship will not tack without the mizzen except in flat water. Very little of the iconography depicts ships with the mizzen set, it is usually furled. As noted above, a small vessel such as *Duyfken* could have a proportionally shorter mizzenmast and smaller mizzen sail with a relatively light yard. The yard and sail, as rigged, are heavy and tend to be regarded as "more trouble than they're worth". A smaller and lighter mizzen would be more satisfactory.

The little spritsail under the bowsprit is nearly always furled in the iconography. Setting it must have been considered more trouble than it's worth, except on the open sea in a steady breeze. Setting the spritsail from the beakhead is a time consuming undertaking, particularly if the gear has been unbent. And furling it when the weather is getting up, or when motoring into a headsea can be a very wet and unpleasant experience. But once the spritsail has been set, it is remarkably easy to look after. In particular, tacking the spritsail is surprisingly easy. The spritsail yard is controlled by lifts which are rove through blocks at the end of the bowsprit and braces which are rove through blocks halfway up the forestay. Initially we thought that both the braces and lifts had to be adjusted to get the spritsail to set properly when hard on the wind. There were various theories about how to cockbill the yard so that the lead of the sheets was best. In the end, it turned out that the spritsail set best when not cockbilled — it was best squared by its lifts. So, to tack the spritsail, one just cast off the old lee brace and hauled on the new lee brace which flipped the yard over. Someone had to go out in the beakhead when tacking to push the foretack forward and help haul it down. Once you'd done that, you braced the spritsail. If the ship was pitching into a headsea you'd usually get wet up to your ears, but I never felt that I was going to be washed out of the beakhead.

One of the more intense debates when designing the rig was footropes. Footropes under the yards of squaresails are rigged for the crew to stand on when leaning over the yard to furl the sail. But in *Duyfken*'s time they hadn't been invented. The Batavia replica has been given footropes, as have most replicas of Age of Discovery ships. It is argued that furling sails without footropes is too dangerous, and no doubt that is true for a ship of Batavia's size. But at *Duyfken*'s size it doesn't seem to be much of a problem. As I noted in the first part of this article, the topsail yards are only 5 and 6 metres long so two persons standing on the crosstrees and leaning over the yard can gather the sail into a glut in the bunt (a bundle in the middle) and pass gaskets around the sail.

The course yards are twice as long as the topsail yards but there is no need to climb out towards the ends of the yards to furl the sails. The yards are lowered for furling and the martnets control the outboard parts of the sail in much the same way as lazyjacks will control a gaff sail when it is lowered. The martnets usually work well. When lying head to a gale of wind at anchor at Gove, the parts of the sails bundled by the martnets were seen to billow slightly but they did not flog.

Not all details of the rig can be determined by analysing contemporary artworks. We followed data provided in R.C. Anderson's 1927. *The Rigging of Ships in the days of the Spritsail Topmast 1600–1720.* (Republished 1982, Conway Maritime Press, London) for detail such as rope diameters including bolt rope sizes. Bolt rope sizes were determined following the rule four-fifths shroud diameter of the respective mast. Anderson actually recommends "about three-quarters", so we were making some allowance for the relatively large courses of *Duyfken*'s time. Anderson doesn't say anything about the bolt ropes of bonnets. We decided to make the bonnet bolt ropes three-quarters the diameter of the bolt ropes of the sails they latched to. This seems to have been a mistake, they should probably have been given bolt ropes of the same size because unlatching the bonnets is the final sail reduction in heavy weather. The bonnets are carried in quite heavy conditions, after the topsails have been furled, and come under great load in squalls. Indeed the weather clew of the mainsail bonnet probably comes under greater load than any other part of the rig when beating to windward.

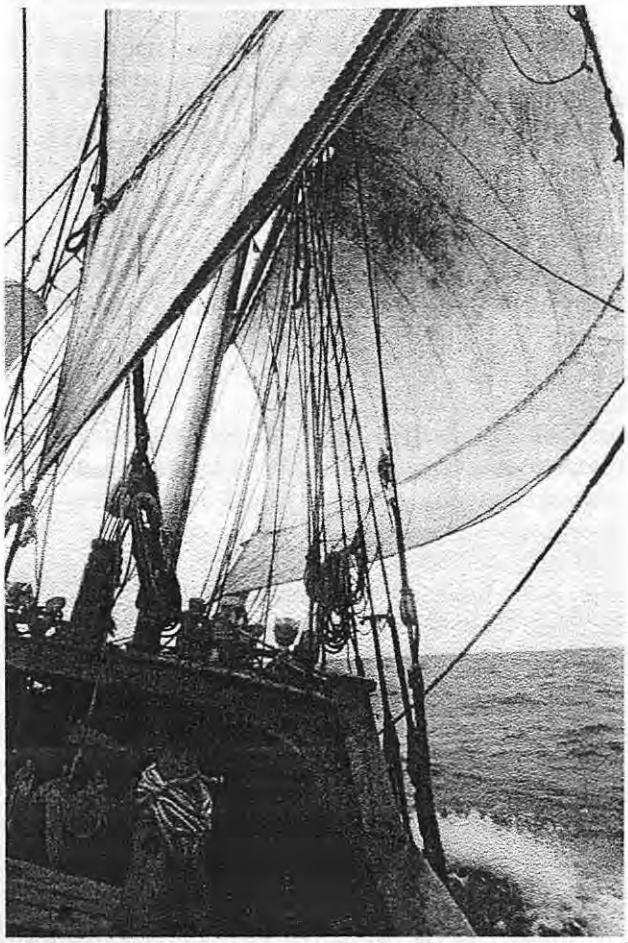
Windward performance

During the three months I spent aboard *Duyfken* we necessarily spent nearly all the time under sail trying to make ground against the wind or steering a windward course. Too often an adverse current driven by the southeast trade winds made progress slow or impossible. In a seaway, with significant seas running, *Duyfken* can make little progress to windward. Three days spent tacking on and off the south coast of Irian Barat with little shift in wind direction resulted in about 15 miles made good to windward on the first day and about half that on each of the next two days (when there may have been some adverse current). Conditions allowed full-sail to be carried all those three days, sometimes with the topsails halfmasted, but a lumpy headsea slowed and sometimes stopped the ship.

In relatively flat water, windward performance is very much better. The hemp rigging and relatively tall lowermasts (which give a small angle of spread to the shrouds and backstays) combined with adjustable parrels, allow the lower yards to be braced round quite sharply. The topsail yards could be braced fore and aft if desired.

The weather foretack is taken down to the windward side of the beakhead and led through an outlicker or botteloef projecting below the beakhead. This means that the windward tack of the foresail is almost on the fore and aft midline of the ship and the sail sets almost like a fore and aft lugsail.

The main tack is normally rove through a fairlead in the gunwale a little aft of the fore channel. The mainsail is the first sail to lift or luff when sailing too close to the wind:



The forecourse tacked down to the beakhead outlicker and the maincourse tacked down to the windlass barrel: the sails set almost like fore and aft lugsails allowing good windward performance.

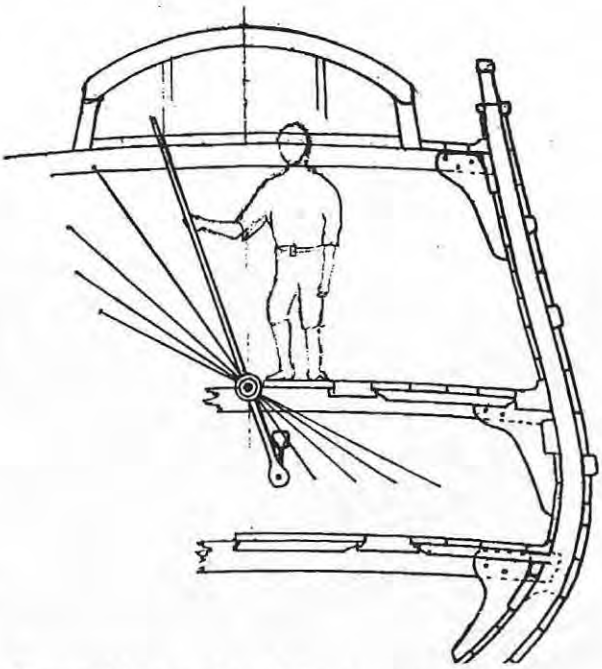
the iconography shows that Dutch ships circa 1600 were often sailed on the wind with the mainsail furled. When sailing close hauled a "jigger" is used to haul the tack forward and inboard towards the forecourse halliard knight. Alternatively the tack can be taken to the windlass barrel so that the tack is nearly on the fore and aft centre-line of the ship and the main course also sets rather like a lug sail. It is not known that precisely this arrangement was used circa 1600, but the iconography does show that the main tack was sometimes taken inboard rather than to a chesstree or fairlead outboard, and sometimes the mainsail appears to be tacked down close to the centre-line of the ship.

In a seaway, in reasonable conditions, *Duyfken* has a tacking angle of 125–130° which is slightly better than the 135° (six points either side of the wind) given as the standard tacking angle for square riggers (Harland 1984 *Seamanship in the Age of Sail*). In flat water the tacking angle is 120° or better. In a seaway, leeway reduces ground made good to windward to a few degrees; in smooth water leeway is very much less making *Duyfken* reasonably weatherly by traditional sailing craft standards. Captain Peter Manthorpe and 1st Officer Gary Wilson were confident that *Duyfken* was more weatherly than some schooners.

Steering

Duyfken is steered with a whipstaff connected to the tiller. The tiller swings about 18° at full helm. The helmsperson stands on a low platform on the main deck, looking out through the forward facing aperture of a hutch in the quarter deck. Originally the helmsperson stood on the main deck and could see upwards to the upper part of the mainsail leach, but could not see forward to the horizon. This was considered unsatisfactory. However, it seems, on the evidence of the *Wasa*, and inference from the architecture of other ships depicted in the iconography, that the helmsman of ships in *Duyfken*'s time normally had a very restricted view. We think that helmsmen were expected to look either at the mainsail leach when sailing on the wind, or to steer by the compass. Short-statured members of *Duyfken*'s crew still cannot see forward unless they stand on a bench on top of the helmsperson's platform or on the compass binnacle.

Duyfken was built with the rowle — the bearing through which the whipstaff passes in the main deck — a little too far forward. For this reason the top of the whipstaff would not swing through the steersman's hutch and she was given a rather short whipstaff. This proved heavy to steer with in windy conditions. In Indonesia a suitably crooked piece of timber was acquired to make a whipstaff with a cranked shape that would not foul on the quarterdeck head forward of the hutch. This longer whipstaff proved easier and much more comfortable to steer with. Hard on the wind, in a seaway when the seas slow the ship and throw her off course, steering is fairly arduous, but never impossible. In more favourable conditions steering is easy and responsive. In the best conditions steering is simulator-like in its responsiveness and certainty.



Near midships a relatively large movement of the whipstaff produces only a small movement of the tiller which probably reduces a novice helmsperson's tendency to over-steer.

Relieving tackles for the tiller were prepared before sailing but have never been used. *Duyfken* is a small ship: a significantly larger ship would presumably be very heavy and difficult to steer with a whipstaff in a strong wind with a big sea running.

The mechanics of the whipstaff are such that five degrees helm on the whipstaff translate to only about a degree of helm on the tiller, yet, in good conditions this is all that is required to steer an accurate course. This is unexpected: during construction it had often been remarked that the rudder did not look big enough to steer the ship. *Duyfken*'s rudder is small in lateral area and very thick in transverse dimension. The thickness is that of the sternpost, and the sternpost should have been tapered down towards its aft face to a greater extent than it was (an error for which the author, not the shipwrights, is to blame).

When sailing on the wind, steering is sensitive to sail balance: the wrong sail balance will produce strong lee helm or weather helm, this is particularly the case when headseas reduce the ship's speed. However, it has been noted that setting the fore topsail before the main topsail does not contribute to lee helm, presumably because it contributes to speed through the water and thus helps steering. With the wind aft of the beam steering is much less sensitive to sail balance. The large mainsail blankets the foresail with the wind on the quarter or further aft, but steering is easy and is not improved by clewing up the weather side of the mainsail to allow wind through to the foresail.

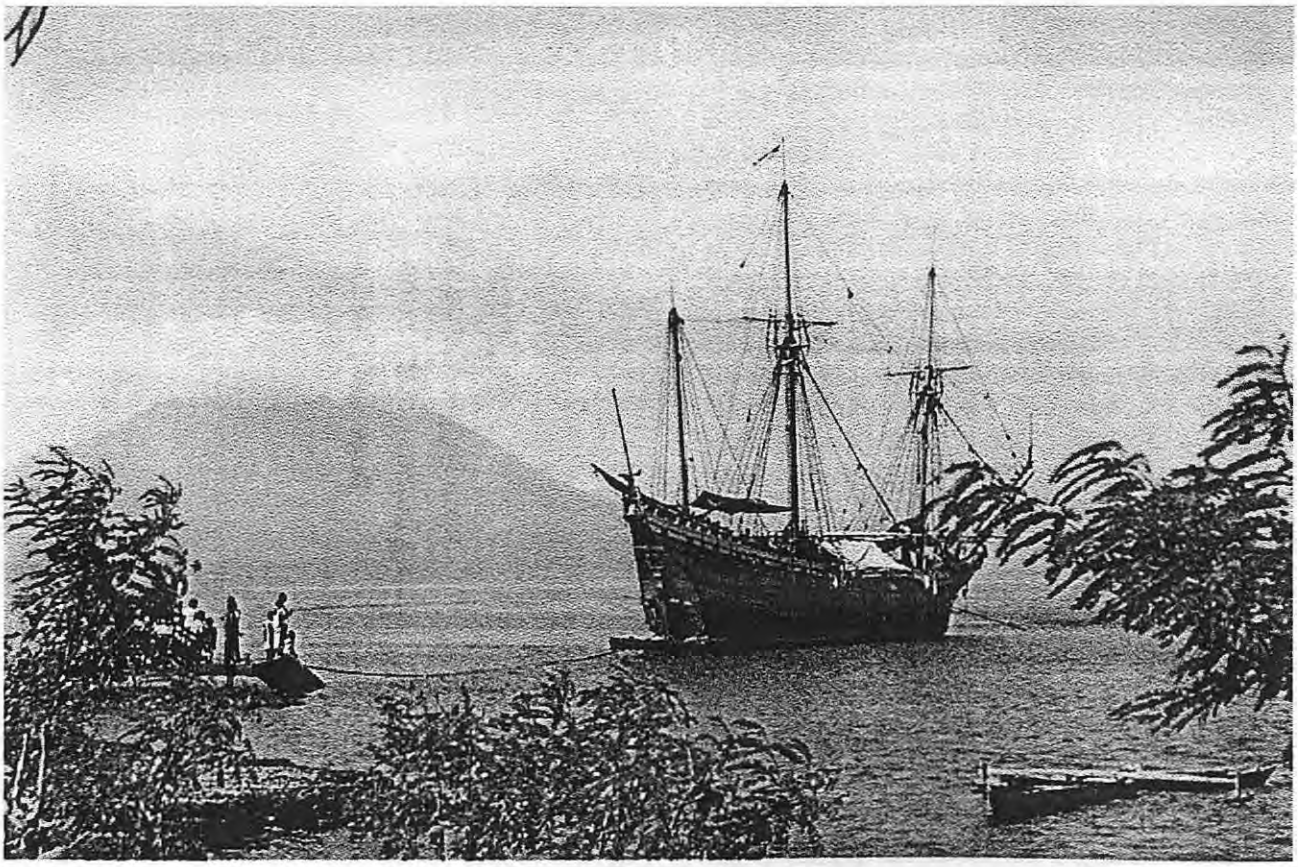
Over all, Ist officer (now master) Gary Wilson describes the steering as "entirely satisfactory".

Discussion

The original *Duyfken* was a jacht, selected for voyages of exploration. This role and comments in the log of the ship Gelderlandt which *Duyfken* accompanied 1601–2 indicate that the ship sailed well. At times she got ahead of much larger vessels and she was able to tack to windward. It was a stated objective of the replica project to integrate performance data with other types of data in designing the replica and to produce a ship that performs in a similar way to the original.

The *Duyfken* replica has demonstrated plausible and satisfactory performance. The performance and the modest size of the vessel make her a very convenient vehicle for experimenting with sailing techniques.

Detailed analysis of sailing techniques shown in contemporary iconography has contributed importantly to developing techniques for sailing the ship efficiently. It seems that the artists responsible for the iconography were conversant with contemporary techniques of seamanship.

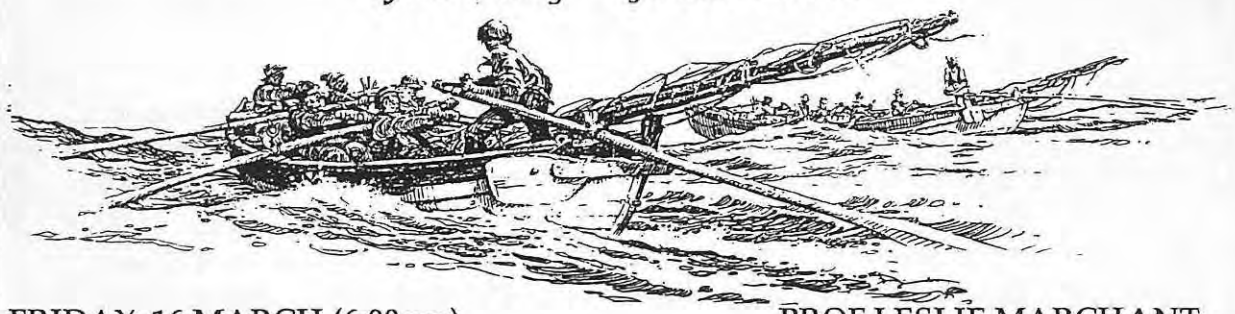


Duyfken anchored in the tiny harbour of Menanga, Solor island. The original Duyfken's skipper, Willem Jansz. was later Governor of the fort here. There is probably nothing in this picture which would seem out of place to Jansz

WA Maritime Museum

BATAVIA GALLERY LECTURE SERIES

January – June 2001



FRIDAY, 16 MARCH (6:00pm)

PROF LESLIE MARCHANT
Chevalier Ordre National due Merite, FRGS
University of Notre Dame Australia and visiting scholar LISWA.

Unveiling the Dark side of the World

Commemorating 500 years of French exploration. The search for the Southland, the Exploration of Australia and the documentation of its natural history.

SATURDAY, 21 APRIL (6:00pm)

ROBERT L HOHLFELDER
Dept of History, University of Colorado, USA

Swimming over Time –

A Survey of the submerged ruins in Aperlae, Turkey

FRIDAY, 11 MAY (6:00pm)

DR IAN MACLEOD
Head, Department of Conservation & Director of Museum Services
Western Australian Museum

Presenting the *Titanic* –

Corrosion on the wrecksite of the *RMS Titanic* and the impact on Artefacts.

FRIDAY, 15 JUNE (6:00pm)

ADJ. ASSOC.PROF JEREMY GREEN
Head, Maritime Archaeology, Western Australian Maritime Museum

Into the Deep Blue Sea –

Recording a 4th century shipwreck in Turkey

Lectures start at 6pm
Cost $6.00 per person (includes GST)
Function Room, Cliff Street, Fremantle

Education Section 9431 8455

QUIZ

Answers to December 2000 quiz:

1. **Vigia** – A reported rock or shoal whose position and even existence is doubtful. There are a number of vigias on charts covering various parts of the western Pacific Ocean. Turtledove Shoal off the mid-west coast of Western Australia was a vigia.

2. The three groups of islands which together form the Houtman's Abrolhos are, from north to south, the Wallabi Group, the Easter Group and the Southern Group. North Island is an isolated small island to the north of the Wallabi Group.

3. The cup won by and subsequently named after the 170 ton schooner *America* in 1851 was originally called the "Hundred Guinea Cup" and was presented by the Royal Yacht Squadron.

The first America's Cup challenge was held in 1870 and was won by the American schooner *Magic* (LOA 90 ft) which beat the UK schooner *Cambria* (LOA 108 ft). There was just the single race and the start was from anchor, as was the rule then. *Cambria* was the sole challenger and finished tenth behind the American yachts which included the *America*.

Quiz

1. The 167 ton snow brig *James Matthews* was wrecked near Woodman Point on 22 July 1841. What was her name prior to being re-named *James Matthews* ?

2. A moot was used, in days well and truly past, in wooden shipbuilding. What was a moot used for ?

3. What is the scientific name of the humpback whale which is found along the Western Australian coast at certain times of the year ?

Maritime Heritage Association Inc.
4 Cunningham Street, Applecross, Western Australia 6153