

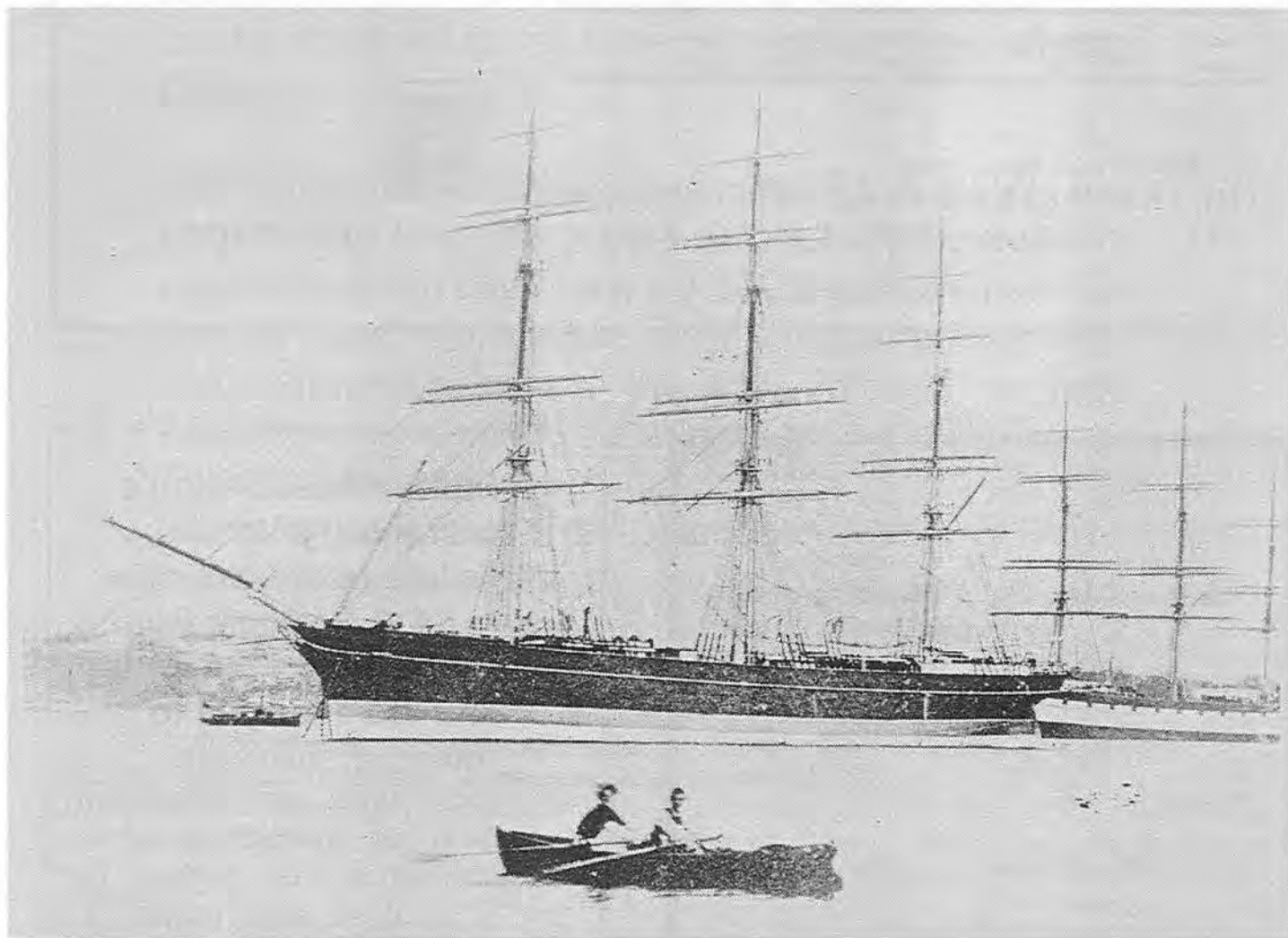
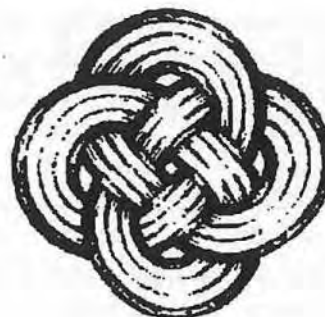
# MARITIME HERITAGE ASSOCIATION JOURNAL

Volume 7, No. 2. June, 1996

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WA 6160

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The clipper SAMUEL PLIMSOLL. This photograph shows what a lofty, magnificent ship she was. There is another large and fairly lofty ship astern also crossing double topgallants and with a spencer gaff on the mainmast. Perhaps it is DERWENT or MERMERUS with her main skysail removed? (See Nick Burningham's article on page 13.)

## Schedule: S.T.S. LEEUWIN ADVENTURE VOYAGES

No.	Departure	Arrival	Remarks
11/96 13 days	BROOME 26/5/96 Sun	DARWIN 7/6/96 Fri	Eco Adventure Voyage \$1750.00
14/96 2 days	DARWIN 21/6/96 Fri	DARWIN 23/6/96 Sun	Weekender: for general public.
15/96 10 days	DARWIN 25/6/96 Tue	DARWIN 5/7/96 Fri	NT Sch/Uni Holidays; visiting Kimberleys.
16/96 10 days	DARWIN 9/7/96 Tue	DARWIN 19/7/96 Fri	NT Sch/Uni holidays: visiting Kimberleys.
17/96 13 Days	DARWIN 22/7/96 Mon	BROOME 3/8/96 Sat	Eco Adventure Voyage: \$1750.00
18/96 10 days	BROOME 6/8/96 Tue	PT. HEDLAND 16/8/96 Fri	Visiting Lagrange Bay, Lacipede Islands.
19/96 10 Days	PT HEDLAND 20/8/96 Tue	CARNARVON 30/8/96 Fri	Visiting Exmouth Gulf, Abrolhos Islands.
20/96 10 days	CARNARVON 3/9/96 Tue	GERALDTON 13/9/96 Fri	Visiting Ningaloo Reef, Abrolhos Islands.



For information on all voyages, contact:

**THE LEEUWIN SAIL TRAINING FOUNDATION**

PO Box 1100 Fremantle WA 6160 Fax: (09) 430 4494 Phone: (09) 430 4105

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Articles will be published at the earliest opportunity.

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**All of the Association's incoming journals, newsletters etc. are now archived at *Porthole Prints*, South Terrace, Fremantle, and are available to members on loan.**

(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; it may just be interested in archiving the collection.)

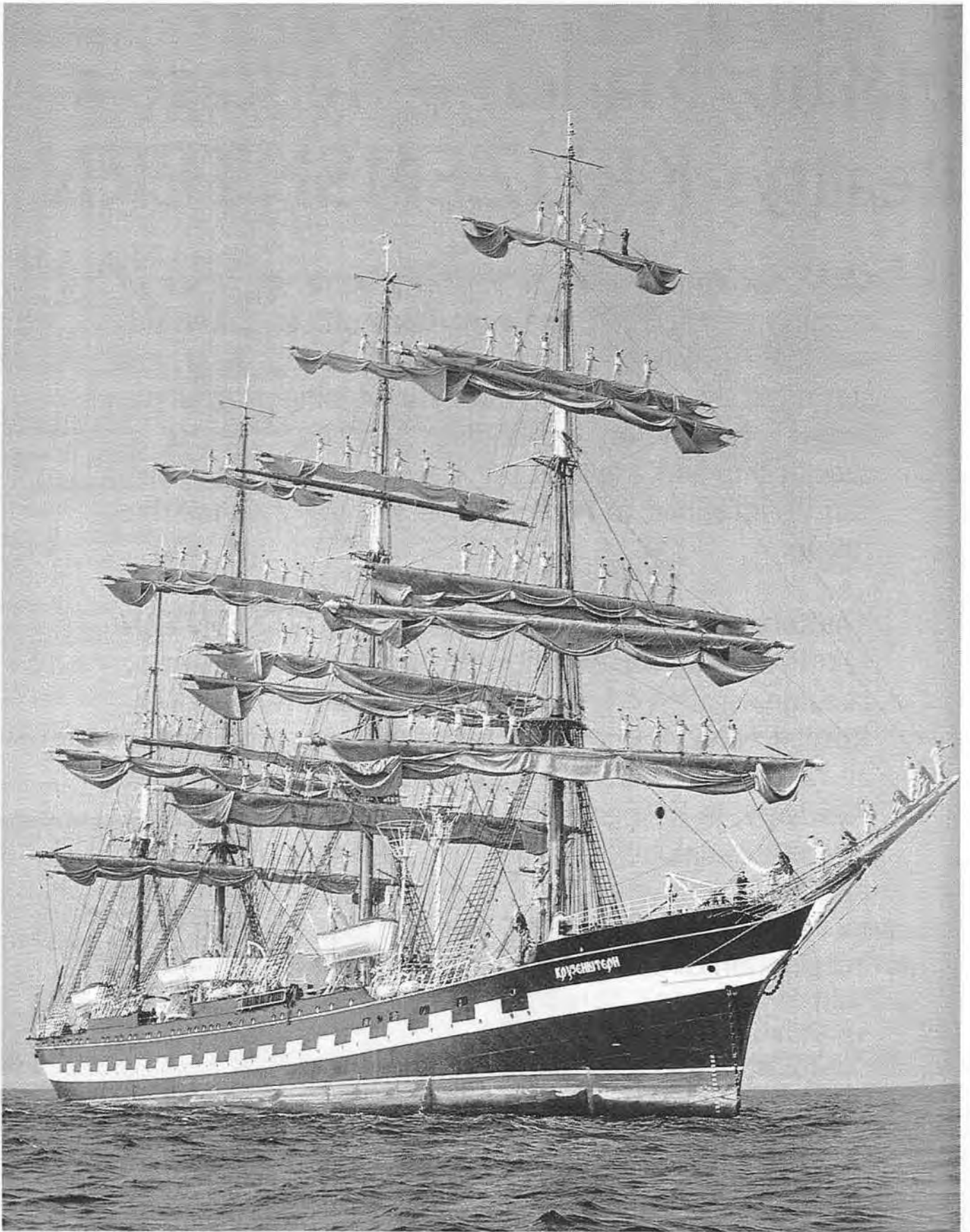
# Making Maritime Heritage a Reality: KRUZENSHTERN

Only two professions in Russia require six years of training - a physician, and a maritime officer. Given this national investment in a maritime cadet, it is not surprising that the Russian maritime training programme focuses heavily on developing such basic tenets as seamanship and a love of the sea. No better experience can be imagined to reinforce this training than tall-ship sailing.

The four-masted sail-training barque KRUZENSHTERN (ex PADUA), recently in Fremantle Harbour on a circumnavigation celebrating the 300th anniversary of the Russian Navy, is one of the world's biggest sailing ships, and at present belongs to the Baltic Fishing Fleet State Academy, in Kalingrad, the western-most port of Russia. The ship is unique; and shame on any individual with an interest in or love of "real" ships and the sea who failed to make time available to visit her. She captured the imagination of all those who did make the time.

PADUA was launched on June 24, 1926, at the shipbuilding yards of Tecklenborg, in Wesermunde, Germany, one of six "three-island" type replacements for the German Herr P. Laeisz's fleet lost during the First World War. She was the last of the "Flying Ps" series - the POMMERN, PAMIR, PASSAT, PEKING and PRIWALL - all built of steel to carry bulk cargo in an era already long-conquered by steam. As such, these sisters could only compete with steam and motor ships on long-distance routes in which loading was very time consuming.

Large, steel square-rigged ships represented a new evolution in sailing ship design, and it is only to be regretted that their type was not developed earlier instead of the oft-maligned "floating boxes" that followed the advent of steam. The new sailers certainly exploded the idea that capacity could only be obtained at the expense of speed, for they had good hull forms and were equipped with modern labour-saving devices which enabled them to be handled as smartly as many of the smaller ships which had lighter gear but depended on manual strength to do the



*The KRUZENSHTERN.*

work. PADUA's sail plan was large, but was designed for strength and her gear could be trusted to carry all the sail she needed without any fear of her "sticks" going over the side. She had pole topmasts on the fore, main, and mizzen, with a fidded topmast on the jigger. No midship deeptanks were fitted, but she could take 487 tons of ballast water in the cellular bottom, and a further 16 tons in the after peak tank.

The PADUA could carry 4 000 tons of bulk cargo in her holds - saltpetre and phosphates from Chile, or wheat from Australia. This was not the only cargo that the Flying P took on board; even at this early stage of her career, there were 40 - 50 cadets on every voyage who had decided to become professional seamen. These men would work alongside the ship's complement, while preparing themselves for a career at sea.

She was not long in proving that she could sail, for, even as a new ship, and strange to her officers and crew, she made Talcahuano in 71 days from Finisterre, and came back to Delfzijl with a full cargo of nitrate from Taltal in 94 days. She improved on these times once her crew had got used to her, but, what is more important, she consistently maintained good times to the end of her commercial sea-going days:

1933 Hamburg -Port Victoria, South Australia: 67 days (in ballast).  
1934 Port Victoria- Bristol: 109 days; Hamburg - Port Victoria: 85 days.  
1935 Port Victoria - Queenstown: 100 days; chartered for film work.  
1936 Hamburg - Chile: 85 days; Taltal - Hamburg: 88 days; Hamburg - Chile: 67 days.  
1937 Iquique - Hamburg: 81 days; Hamburg - Chile: 84 days; Chile - Hamburg: 88 days.  
1938 Hamburg - Chile: 104 days; Chile - Bremen: 91 days; Bremen - Chile: 68 days.

In the last years of the grain route from South Australia, homeward passages of 100 days or less were considered fast, and were also made by the following vessels:

PRIWALL: 106, 108, 91 days, 1933/34/35  
PASSAT: 100, 87, 94, 98, 98 days, 1935/39  
PAMIR: 92 days, 1932; 98 days, 1936; 98 days, 1937; 96 days, 1939  
HERZOGIN CECILIE: 98, 96 days, 1927/28; 98 days, 1931; 98 days, 1936  
POMMERN: 98 days, 1933; 95, 94, 94 days, 1935/37  
ARCHIBALD RUSSELL: 93 days, 1929; 98 days, 1931; 97 days, 1937  
MOSHULU: 91 days, 1939

L'AVENIR: 95 days, 1937  
VIKING: 97 days, 1935  
PONAPE: 98 days, 1929; 99 days, 1931  
GRACE HARWAR: 98 days, 1936

PASSAT has the distinction of being the inter-war period's best performer on the wheat route, with an average of 95 days over five passages between 1935 and 1939.

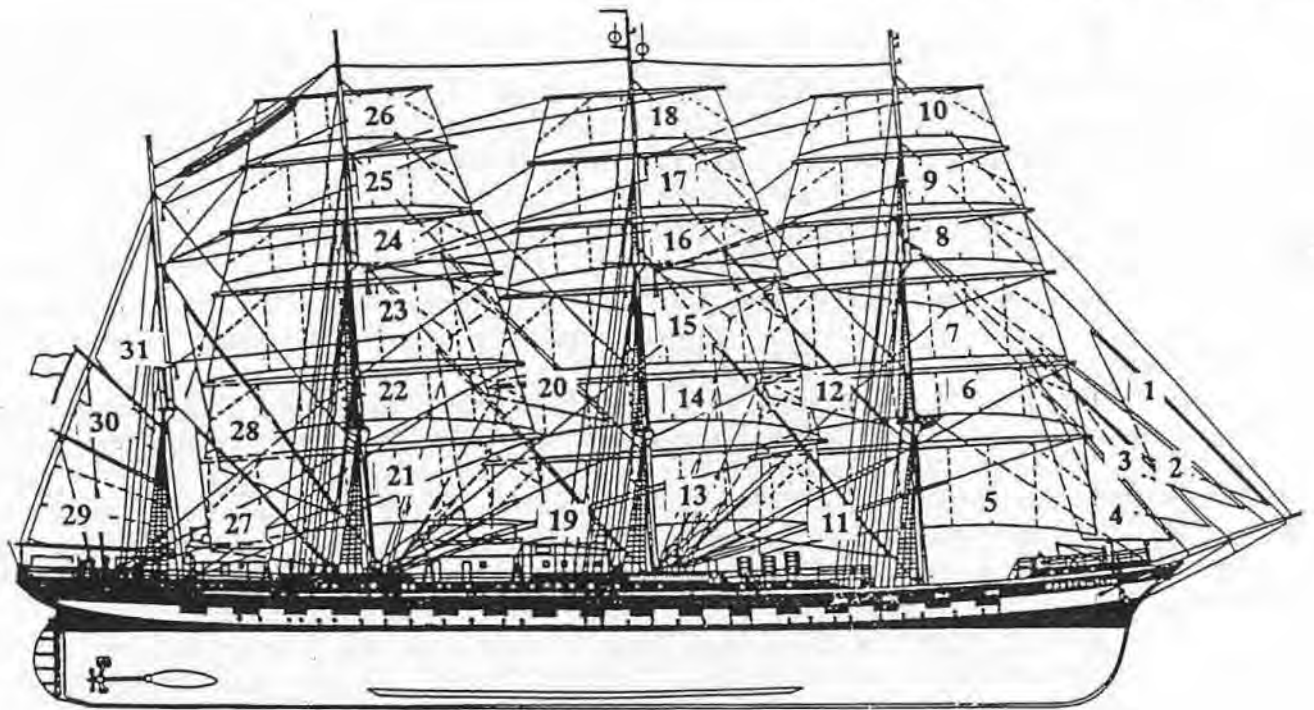
The PADUA's last voyage as a cargo vessel began on October 15, 1938, when she departed Bremen, for Chile. Having taken on a cargo of saltpetre in Valparaiso, she left for Australia on January 14, 1939, and fifty three days later moored in Port Lincoln, South Australia. The return passage to Fastnet (April 3 to July 5) took 93 days. She then discharged her grain in Glasgow.

During World War Two she was used as a self-propelled barge. PADUA was given the name KRUZENSHTERN in February, 1946, when, in accordance with the Potsdam Conference agreements' war reparations requirements, the PADUA - then in Flensburg - was transferred to the-then Soviet fleet, along with the KOMMODORE JOHNSEN (which became the SEDOV, and is also still in service).

#### As the KRUZENSHTERN

Study and hard work are foremost in the Russian sail training programme. After two years' of study ashore, the cadets go to sea for an initial three-months of practical experience that encompasses all aspects of shipboard life: from working the sails, keeping watch, taking the wheel, acting as lookouts (When all sails are set it is impossible to see from the bridge what's going on ahead of the ship, therefore a lookout is stationed at the ship's bell: if an object is observed to starboard of the ship, the bell is struck once; to port the bell is struck twice; if dead ahead, then three times.), making weather observations, plotting the ship's course, and ensuring safe navigation, to baking and helping to prepare meals. In their free time the cadets organise such distractions as chess tournaments and other competitions, quizzes (with a maritime theme, of course), discos and concerts. A concert or film show is often interrupted by an emergency call for all hands to the sails; then there takes place a scramble to the deck, to climb to a height of fifty metres to combat the stormy winds.

The KRUZENSHTERN is the training ship for cadets specialising in navigation, though engineers and radio operators also have the opportunity to do their practical training on board. The floating school usually makes three voyages each year. She is designed to carry up to 150 cadets, as well as a permanent crew of 70 - which



- |                            |                                 |                               |
|----------------------------|---------------------------------|-------------------------------|
| 1. Flying jib.             | 11. Main topmast staysail.      | 21. Crossjack, mizzen course. |
| 2. Outer jib.              | 12. Main topgallant staysail.   | 22. Mizzen lower topsail.     |
| 3. Inner jib.              | 13. Main sail, main course.     | 23. Mizzen upper topsail.     |
| 4. Fore topmast staysail.  | 14. Main lower topsail.         | 24. Mizzen lower topgallant.  |
| 5. Fore sail, fore course. | 15. Main upper topsail.         | 25. Mizzen upper topgallant.  |
| 6. Fore lower topsail.     | 16. Main lower topgallant.      | 26. Mizzen royal.             |
| 7. Fore upper topsail.     | 17. Main upper topgallant.      | 27. Jigger staysail.          |
| 8. Fore lower topgallant.  | 18. Main royal.                 | 29. Lower spanker.            |
| 9. Fore upper topgallant.  | 19. Mizzen topmast staysail.    | 30. Upper spanker.            |
| 10. Fore royal.            | 20. Mizzen topgallant staysail. | 31. Gaff topsail.             |

*The Four-masted barque KRUZENSHTERN.*

includes four bosuns, one responsible for each mast.

The ship became the first holder of the coveted Cutty Sark Tall Ships' Races trophy, a silver replica of the clipper CUTTY SARK, donated by the owners of Cutty Sark scotch whisky in recognition of the non-competitive qualities of friendship and the quest for greater international understanding. The winner of this trophy is decided by the vote of all the masters of the race fleet. The KRUZENSHTERN received the trophy after taking part in the race from Copenhagen, in Denmark, to Gdynia, Poland, and the cruise-in-company with other race vessels to Portsmouth, England - and was the first time that a Russian vessel had competed. She has participated in a number of sail-training events since the early 1970s, and her crew has cultivated quite a reputation for singing Russian folk songs to entertain the visiting crowds when she is in port. To-date she has had some 20 000 cadets serve on board.

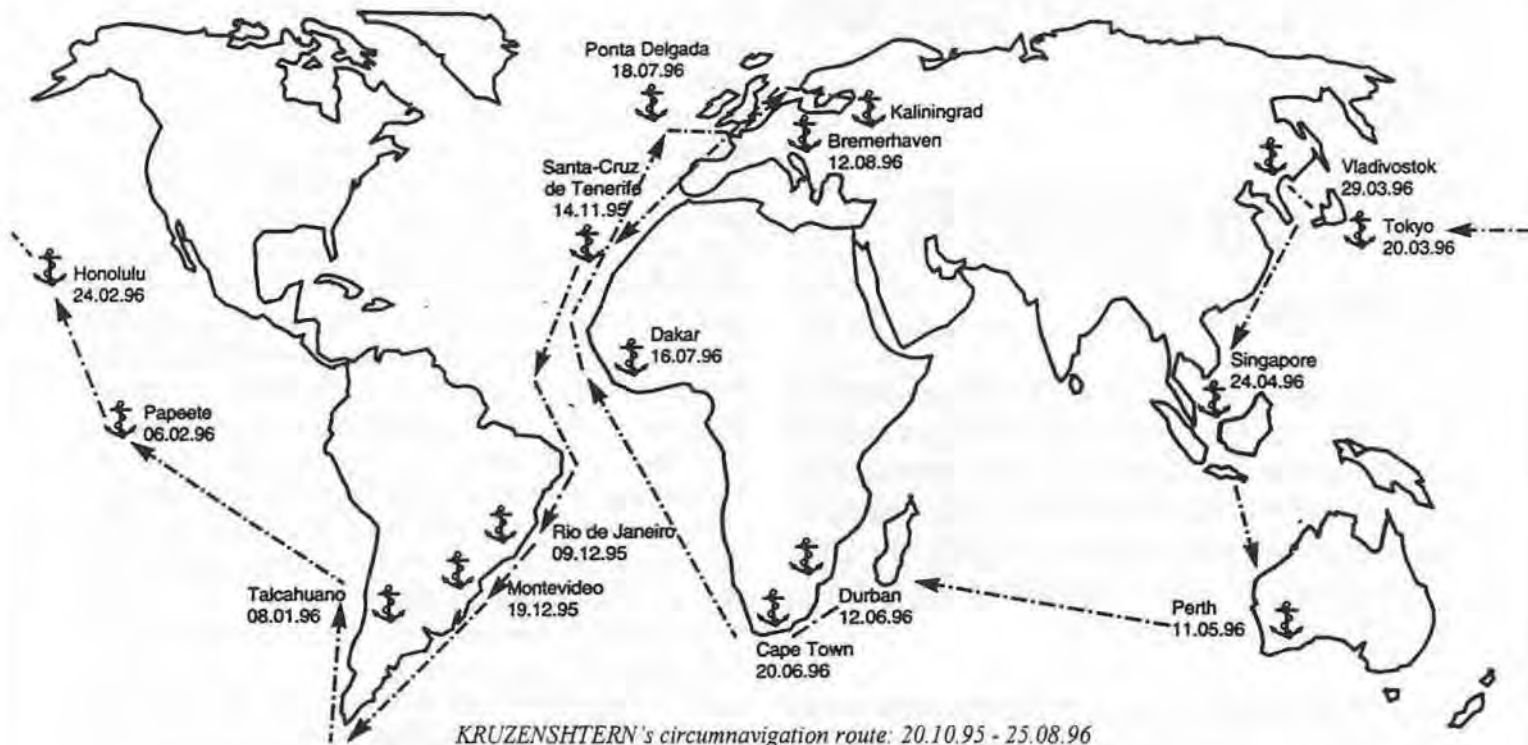
Between 1959 and 1961 the ship underwent a complete refit, during which two diesel main propulsion engines were installed, each of 1160 HP; these were renewed in a

1993 refit. Her current speed when under power is about 8 - 9 knots; with a fresh breeze when under sail she can achieve between 15 and 16 knots.

The vessel's particulars are:

Designer:	J.C. Tecklenborg
Builder:	J.C. Tecklenborg, Wesermunde, Germany
Rig:	four-masted barque
Construction:	steel
Tonnage:	3345 tons (gross)
Displacement:	5 785 tons
Length overall:	375.5 feet
Length of hull:	342 feet
Length at waterline:	320 feet
Poop (as PADUA):	53 feet
Bridge (as PADUA):	65 feet
Forecastle (as PADUA):	31 feet
Beam:	46.1 feet
Draught:	22.3 feet
Number of sails:	31
Total sail area:	36 600 sq. metres

Height of foremast: 50.5 metres, from upper deck  
 Height of main mast: 48 metres  
 Height of mizzen: 40 metres



KRUZENSHTERN's circumnavigation route: 20.10.95 - 25.08.96

The masts are half the length of the ship; everything is manually operated - including the winches and capstans. There are ten "bunkrooms", each with a capacity for ten to twenty persons, as well as a messroom where the cadets have a meal on a two-sitting basis. The ship also carries a library and a museum.

### Admiral Kruzenshtern

The ship is named after Admiral Ivan F. Kruzenshtern (1770 - 1846), who, between 1803 and 1806, led the first Russian scientific circumnavigation of the globe. For the first time in the history of the Russian Navy, two ships, the HOPE and the NEVA, crossed the equator, passed Cape Horn, and entered the Pacific Ocean. Here they anchored at the Marquesas Islands; then the HOPE sailed from the Hawaii Islands to Petropavlovsk-Kamchatskii, and then to Japan. The NEVA sailed to the coast of Alaska.

During the cruise, Kruzenshtern made the first significant corrections to his charts; he was the first to begin deep-water investigations of the world's oceans, and plotted the western coast of Japan and the southern part and eastern coast of Sakhalin, from the north. He made an unsuccessful attempt to pass between the island and the continent in the south.

In September, 1805, the HOPE started its way back,

and met up with the NEVA in Canton, which had sailed alone for 16 months while performing a defensive role off the coast of Russian Alaska, investigating the Sitha and Kadjak Islands and the coast of America. Admiral Kruzenshtern subsequently published several works based on that long voyage.

### References:

- Concept Note on [the] Preparation of [the] World Cruise of Kruzenshtern Sailer Dedicated to [the] 300[th] Anniversary of [the] Russian Navy.*
- Sail Training booklet [from KRUZENSHTERN].
- A Century of Tall Ships:* Beken of Cowes 1985.
- Sail Training and Cadet Ships:* H.A. Underhill; Brown, Son & Ferguson 1956.
- The Last Survivors in Sail:* J. Anderson; Percival Marshall & Co. 1948.
- The Tall Ships:* C. & P. Liberman; Middle Atlantic Press 1986.
- The Last Tall Ships:* G. Kalhre; Conway Maritime Press 1990.
- The Last Grain Race:* E. Newby; Picador 1990.

Editor

# Profile of a Maritime Heritage Association Member: Jamie Munro

by Nick Burningham

**The membership of the Maritime Heritage Association is not a particularly large group but it does have some claim to distinction. Indeed there are few people in Western Australia with a claim to real expertise in some aspect of maritime heritage who are not either current members or have always meant to get around to joining.**

**Jamie Munro doesn't live in Western Australia and never joined the MHA. His sister, Margaret Rapinara, who made the Endeavour Replica Souvenir shop such a rarity—a souvenir shop that didn't specialise in over-priced junk—joined Jamie when he was living in New South Wales so that he could receive the MHA Journal. He is now living in Victoria.**

Jamie is one of a small number of people alive today, in the Western World, who has extensive experience of sailing a range of traditional craft entirely without engines. And he looks like a pirate! His gap-toothed grin has always intrigued me with the idea of cosmetic removal of a front tooth or two. Jamie actually claims that one of his teeth is missing as the result of a drunken tussle I had with him in Darwin many years ago; but I don't remember being drunk.

I first met Jamie in late 1976. I was in Bali, crewing on a French-owned trimaran, when I met a small, wiry chap called Peter Something-or-other who had a cutter - built in Sarawak (Borneo) - currently lying in Bima harbour (a couple of hundred miles east of Bali) and who was looking for crew for the voyage down to Darwin. I expressed interest but declined travelling back to Bima with him because I wanted to stay on in Bali for Christmas (I think I had equity in a spit-roasted pig).

A couple of days after Christmas I made the terrible

three-day trip by bus and ferry to Bima and was a little dismayed to find that the boat I had come to join had already been joined by about half-a-dozen fairly far-out characters; though I should say that they were all thoroughly pleasant people and two of them were very attractive young women. But it was more than a little crowded.

The vessel, called SRI ULU was something extraordinary. She looked like someone had shown a photograph of a sensible cruising cutter from a battered copy of Eric Hiscock's *Cruising Under Sail* to a man who built thoroughly serviceable river ferries and fishing boats in Sarawak, and said "Build me one of these". And, of course, that is exactly what she was. The profile looked fine above the waterline. But she had too much freeboard, a junk's barn door-shaped rudder, little draft, not enough beam and virtually no lateral resistance. She did have a small diesel motor but it developed very little power and needed huge strength to swing the flywheel and start it. Jamie, who had been with the boat all the way from Sarawak, was the only one who could start the motor: but it was a very dangerous undertaking in that confined space under the aft deck and he hardly ever could be persuaded to do it.

The original crew was Captain Peter, Jamie, and Jenni who was several months pregnant and had formed an attachment with Jamie. Jenni also had a dislocated ankle, and all three of them were suffering from malnutrition, which was why they had felt the need to recruit extra hands for the voyage down to Australia.

With ample funds and sound ideas about diet, adequate provisioning was difficult in Eastern Indonesia in the 1970s, and with neither of those advantages SRI ULU was very poorly provisioned. The galley was arranged in one side of a thatched gallery built out over the stern—not one of Hiscock's innovations—but very practical in the tropics. The stove burnt wood, or charcoal if anyone ever bought it. This would have been OK if things had ever been arranged so that SRI ULU sailed in the dry season but she had followed the wet season from the northern hemisphere across the equator to our hemisphere.

We spent a few days dilling around in Bima. I can't remember what for, because we couldn't have spent much time provisioning. Before sailing we beached SRI ULU in a small cove on the eastern shore of Bima harbour in order to clean the bottom and use the traditional trick of burning coconut fronds under the hull to kill the teredo worm. We beached on the high tide during the night and I volunteered the expertise necessary to lash the legs to the shrouds so that SRI ULU would not fall over. It takes a very firm lashing to carry the load. As the tide went out SRI ULU gradually fell over on to her bilge. Although shallow



drafted, she had some deadrise, a slack bilge and could lay over a long way.

At dawn she was lying on one side in the mud and I was looking pretty silly. Captain Peter was obviously not pleased but not overtly perturbed, and after a breakfast of steaming hot water and rice porridge, he led most of the crew (all the blokes as I remember it) over the hill behind the village to collect palm fronds. We collected them from a beautiful little valley shaded with coconut palms, soft green turf underfoot and the air thick with butterflies. Carrying the bundles of palm fronds like crosses we clambered back over the ridge towards SRI ULU and were met by a villager with the news that our *perahu* had sunk!

We rushed down the track surmising that SRI ULU had filled as the tide rose although she had shown no sign of doing that as the tide went out. Sure enough, she was still lying on her side and the tide was rising around her. It wasn't yet up to the companion way but her topsides were a bit leaky and she was filling. Jenni with her dislocated ankle was leading an enthusiastic bucket team trying to keep ahead of the leaks; others were moving their rucksacks ashore. We all joined the bucket gang and the water level inside the vessel went down while the tide continued to rise. It was fearfully hot on that steamy tropical morning heaving buckets as fast as one could down in the bilge. I was heartened and tremendously impressed when Jenni smiled at me and said: "Cruising in the tropics, eh?"

SRI ULU continued to lie there like a dead whale until we realised that the legs were not so badly lashed on; rather they had sunk several feet into the mud and were now holding the boat down. With the legs unlashed, she rose back to an more even keel and everything was OK. But I was the only member of the new crew from Bali who stayed on board. As far as the rest of them were concerned she'd sunk and wasn't safe even in a harbour. Some of them didn't have the fare back to Australia, but they weren't rash enough to sail on SRI ULU. I moved from the cabin floor to a relatively spacious and comfortable bunk.

We finally sailed from Bima a couple of days later and with the first breezes of the northwest monsoon made a slow trip along the archipelago, north of Komodo and Rinja, and along the north coast of Flores, keeping well off shore until we tucked into Maumere Bay.

We spent some days in Maumere. I remember we went to a village in the hills to visit the home of a delightful old man who sold us some traditional *ikat* cloths. We sat on the floor in his palm-thatch and bamboo house while the rest of the village climbed the walls and picked holes in the roof and walls to see us, but Ignatius and Wilamena were perfect hosts. We drank good coffee and local arak flavoured with wild honey. "And will you stay for lunch?"

Ignatius asked at precisely the same moment as Wilamena dispatched a chicken on the other side of the bamboo-screen wall. One could hardly say "No", even if you had been enjoying proper food in recent weeks.

Full moon in early January was not a smart time to sail, as some of the locals pointed out. A day or two out of Maumere, trying to round the cliff-girt masif of Flores Head we got a real west monsoon storm. Fortunately Peter had been keeping well off shore as he always did if he could. SRI ULU lay hove-to under just a small staysail, on her side again, and going sideways like a hay stack. It wasn't really a very strong gale but she couldn't carry much canvas and was too unwieldy to be luffed through gusts with enough canvas to sail. Fortunately the wind eased and shifted enough for us to get around Flores Head and then sail through the Larentuka Narrows at the end of Flores. Anchored in Larentuka roads we found three fine, powerful-looking, *perahu lambo*, trading sloops, that were rather late returning to their home island for the wet season lay-up and had blown out their sail in the storm the previous night. We stayed a couple of days in Larentuka where Captain Peter found a supply of salt fish much to his liking. They cost virtually nothing and had absolutely no flesh, which made them much easier to cook over a wood stove on a wet evening.

Since I'm supposed to be writing about Jamie I could tell you about the bottles of cheap arak we bought in Larentuka, but I think it better to draw a veil ...

We sailed from Larentuka through the beautiful Solor and Lamakera Straits: deep black waters between mountains and perfect Mount Fuji-shaped volcanoes; and from there made a reasonable passage down to Kupang, Timor, where we could clear for Australia. In Tenau Harbour near Kupang we were fed by the crew of a small, rusty, kerosene tanker and spent most of the Rupiah we had been hoarding against disasters on beer and restaurant meals. We also bought some tinned fish which I thought a great treat but Captain Peter did not.

Anyway, I was writing about Jamie with whom I formed a strong friendship. Captain Peter accused the two of us of roaming the boat in gangs. We made a fairly easy passage to Darwin, it was a little stormy but we were running with it. From Kupang to Darwin navigation isn't too much of a problem even in the rainiest season because you can run straight down towards the radio beacon.

SRI ULU sailed on round to Cairns later that year but Jamie, Jenni and I stayed in Darwin and over the next few years sailed to Indonesia each dry season in a variety of vessels.

In '78 I sailed with my good friend Daniel Dwyer in a 30ft gaff cutter which we had restored from a compost heap. Dan also had half ownership of a Warram catamaran

which he and Jenni had bought half-built and finished to sell for profit.

Imagine Dan's surprise when, one afternoon, as he was sitting on the aft deck of the gaff cutter SRI JUMBUK in Bima harbour (again), sipping palm wine, he saw his own Warram catamaran come racing up the harbour with the sea breeze and anchor a few boat lengths away. Jamie had started his highly successful career sailing other people's boats around the tropical seas without their permission.

To be fair (for once) Jamie's next boat was bought entirely with his own funds and those of his younger brother Michael. They flew to Bali and bought a small (30ft) *perahu lete* from East Java. This type of *lete* is a long, low, open, fishing boat, built of long, thick teak planks and rigged with one large boomed lateen sail. It has a very long, deep rudder that is mounted on the lee quarter, provides most of the lateral resistance, and has to be shifted around the stern every time you change tack. And you change tack by gybing the whole rig over the top of the mast. A crew of several experienced Madurese fishermen can make it look quite easy. *Lete* are very fast craft for their size and remarkably weatherly for vessels that draw almost nothing. The heavy spar and sail can be raised and lowered by the crew, but it is more normal to go aloft and furl the sail up to the spar. On larger *lete* it is essential.

Jamie spent some time at Benoa harbour in Bali, replacing some rotted ribs and building a cabin, or a shelter like on a Viking longship which these little *lete* resemble. And he fixed to carry a cargo of furniture and Balinese stone statues down to Darwin. That year Dan and I sailed back to Darwin rather late in the season and experienced a mix of calms and fierce squalls. Jamie and Michael sailed even later and had a very wet and stormy passage during which they kept fit by almost constant pumping.

In Darwin, Jamie beached SEMANIS at Dinah Beach to offload the furniture and statues. He was concerned that some of the statues might have been damaged by Michael and himself standing on them during the two-month voyage, so I helped him off-load and unpack them before the truck arrived to take them away. Sure enough, Hanaman the white monkey had lost the end of his tail. Jamie and I, working with screwdrivers and hammers, quickly carved a new end on the truncated tail.

The *perahu lete* SEMANIS was sold to the Northern Territory Museum and started that Museum's unrivalled collection of Southeast Asian watercraft. Jamie then went off to Kuala Trengganu on the east coast of Malaysia where, in 1980, a small number of "junk-rigged" Malaysian *perahu tenpinis* and *perahu bedar* were still operating carrying salt up the Gulf of Siam. The best boat builders on the island of Pulau Duyong in the estuary of the Trengganu river were starting to build their traditional

design vessels or western design yachts for foreigners. (When I last visited Pulau Duyong in 1991, the most renowned yard was finishing an eighty foot gaff schooner for a wealthy retired Englishman, a similar sized motor-yacht, and several smaller yachts including a very perfect looking Colin Archer design.) Jamie took over a fifty foot *tenpinis* called JUNG BAHTERA (ship of the flood—Noah's ark) that had been built for a French woman who was married and living on Pulau Duyong.

Initially Jamie chartered voyages around the east coast of Malaysia, but pirates and lack of opportunity led him to sail further afield. Eventually he found himself and JUNG BAHTERA back in Darwin, from whence he wrote to Pulau Duyong explaining where the boat was.

At that time there was a significant fleet of Southeast Asian sailing craft based in Darwin. In partnership with Dan Dwyer, I owned a powerful, high-sheered, gaff ketch which we had built on the island of Bonerate in 1979–80. There was an annual race for traditional sailing craft. The first race had been sponsored by a now defunct political party campaigning for legalisation of marijuana and the race became known as the Marijuana Cup (which probably did nothing to reduce Australian Customs Officer's suspicions about owner's of Asian-built boats) although the trophy was in fact provided by a perfectly respectable Darwin legal firm that could have had no interest in the legalisation of marijuana or anything else.

The Marijuana Cup race of 1981 was probably the equivalent of the great tea clipper race of 1866. Jamie's (borrowed) JUNG BAHTERA, our HATI SENANG and Monkey Bill Stewart's HARAPAN JAYA were all big new contenders, and there was BINTANG MAS, a wonderfully fast little sloop, plus at least half a dozen more. The day of the race turned out to be a cool, blustery day and strong winds were not going to suit Jamie whose sails were baggy and tattered rags. He had hoped to overcome this disadvantage by chaining and padlocking HATI SENANG's mainsail but we were able to hacksaw through the chain before the race got underway.

The first leg of the race, about ten miles out to a buoy, was a windward leg and with the wind blowing twenty to twenty-five knots it was bound to be the biggest vessel, HATI SENANG, that got ahead. We had a tussle getting past HARAPAN JAYA; we couldn't sail closer to the wind than she could but eventually we reached through her lee with our bowsprit touching the leach of her mainsail before I put the helm up. A little later, HARAPAN JAYA conceded and headed for home. Broad reaching back to Fanny Bay with a press of sail she lost her rudder blade.

Jamie's ragged sails had their uses. We had been hired for a film production in Northern Australia, starring an aging Australian actor who was supposed to be playing the



*HATI SENANG.*

role of a crocodile poacher. He was fond of a drink. During the first day's filming, he came on board with an attache case full of warm cans of beer and was delighted to find that we had a bath-sized esky charged with cool beers and ice lashed opposite the water-cask on the aft deck. Unfortunately, he slipped and injured himself while climbing up a rusty iron ladder to the wharf and since he would be out of action for a few days, the producer decided to replace him. Meanwhile they had looked at the rushes and seen that HATI SANANG looked exotic but far too smartly maintained for their scenario on film. "Couldn't you stain the sails and things?" they asked. We couldn't, but we recommended Jamie who had a much scruffier boat, a piratical look and a crew that would have scared Blackbeard.

The following year, Jamie had a smart new set of sail and a freshly anti-fouled hull for the Marijuana Cup. The winds were a lot lighter but HATI SENANG was still the fastest vessel once Jamie turned his engine off.

A couple of years later, after we had sold HATI SENANG, and her new owner had installed an engine and built a rather boxy cabin, JUNG BAHTERA did get the better of HATI SENANG in the race. It was a something

of a grudge race and marked the high point of underhand tactics in the Marijuana Cup. I had been asked to skipper HATI SENANG for the race and I started the night before the race by chaining an old car tyre to the rudder post of JUNG BAHTERA to create a bit of drag and I removed the distributor from the petrol driven pump which Jamie planned to use to douse all the other competitors. During the same night, Jamie, or someone, poured peanut oil all over the decks of HATI SENANG to make them dangerously slippery.

But eventually Jamie had to return JUNG BAHTERA to her rightful owner. His next venture was another Javanese fishing vessel. With Jerry Williams, who had owned a small, junk-rigged, Trengganu built vessel for some years, he went to Jepara in Central Java where Jerry had seen some very spectacular, high-bowed and brightly painted fishing craft that operated around the off-lying Karimun Jawa islands. They were, in fact, locally modified *perahu konteng* from Lamongan, East Java. *Konteng* were one of the last types of Indonesian vessel to have their quadrilateral sails replaced by the relatively easily handled, triangular, boomed lateen sail. Lateen sails are not easily handled, but they are easier and lighter to handle than the

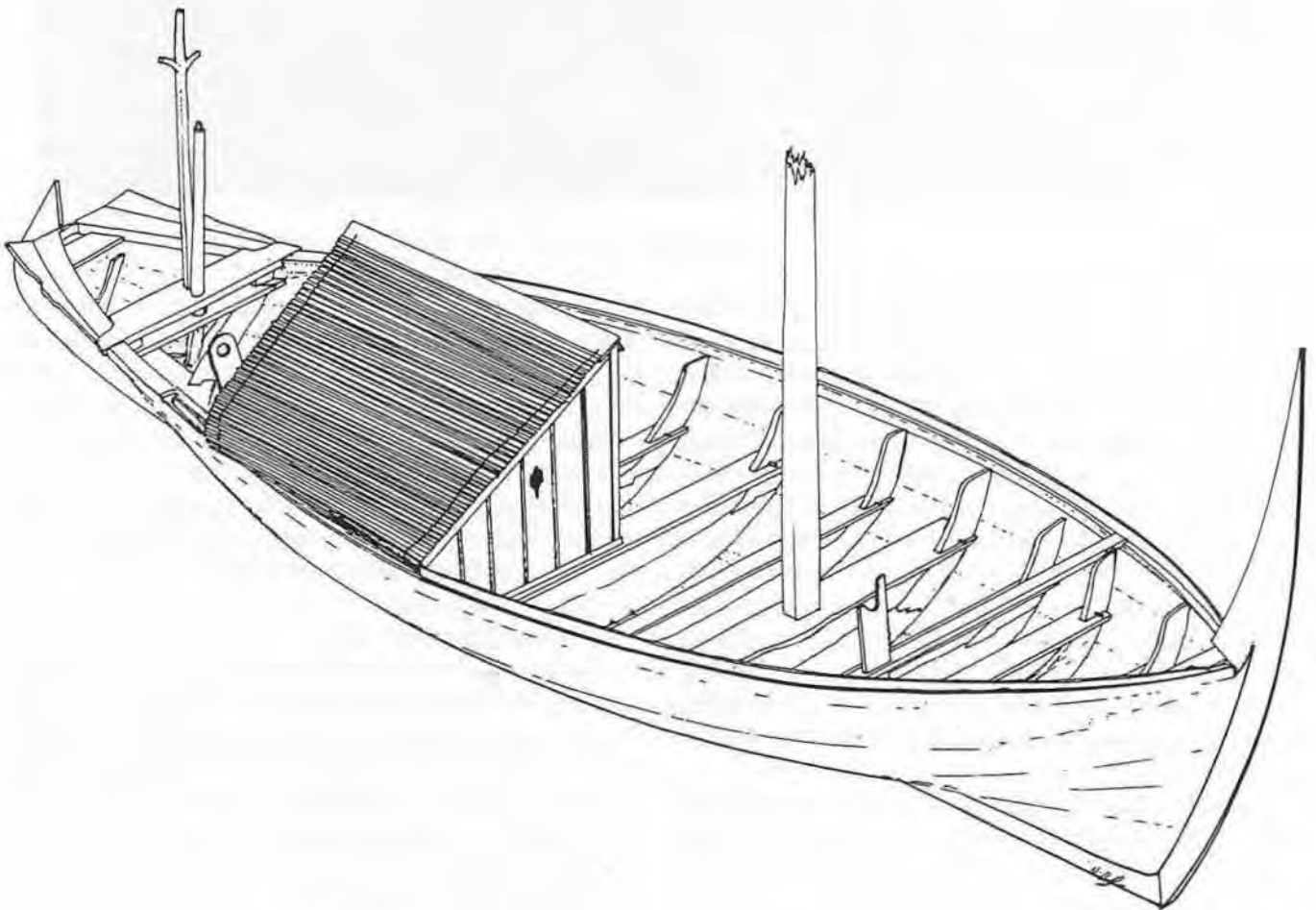
quadrilateral *tanja* sail (though not quite as powerful). Like the *lete* that Jamie had owned some years before, the *konteng* TERIMA KASIH had a large, long-bladed rudder that had to be shifted over the stern to the new lee side every time the vessel changed tack; but gybing the *tanja* rig over the top of the mast was a considerably more difficult and heavier operation.

The voyage that Jamie Munro and Jerry Williams made from Central Java to Darwin, by way of the Tanimbar Islands in the far east of Indonesia is one of the most remarkable that I know about. Although a *konteng* usually has a complement of at least six men, they took on no extra crew. There would have been no room for extra crew in the tiny hut on the starboard side of the vessel (nets were handled on the port side). Jerry was feeling rather unwell at times during the voyage and was dead from cancer within two years. Indonesian sailors who I know, and who saw Jerry and Jamie sailing TERIMA KASIH said they sailed her so adeptly that they could ham it up and make

jokes as they changed tacks. But she was rather a brute to sail and in the Marijuana Cup proved to be fairly slow, unlike Peter Walker's little *perahu lete* CAHAYA ALAM which won the following year.

TERIMA KASIH was sold to the Northern Territory Museum, as Jamie and Jerry had intended, and today is one of the more spectacular exhibits in the maritime gallery in Darwin's Museum of Arts and Sciences. The specially designed gallery houses a number of large sailing vessels including a pearling lugger displayed setting full-sail. A similar building is needed here to properly display the Western Australian Maritime Museum's collection and including Australia II.

*(Top this saga for exotic originality! I imagine Nick must find a mundane suburban existence somewhat stultifying - Editor)*



TERIMA KASIH: orthographic projection showing bulkheads and thwarts.

## Further Feedback ...

*I find it quite amazing (but gratifying) that so much interest has been generated by Peter Worsley's December 1995 article on the SAMUEL PLIMSOLL. My amazement is due to the simple fact that this sort of response has not occurred before to any great degree since I took over as editor of this Journal. To date I have received, and published, feedback from Ron Parsons, Doug Rickman, and the WA branch of the World Ship Society. It is now the turn of our resident watchdog and MHA Chairman, Nick Burningham, to provide feedback on Ron Parson's earlier feedback. (So look out Ron!) - Editor.*

# Some Excursions on the Clipper SAMUEL PLIMSOLL

Ron Parson's comments on the fate of the coal-hulk SAMUEL PLIMSOLL are illuminating and clearly well-researched. Ron's other comments on SAMUEL PLIMSOLL and related matters provide a fine assortment of generalisations and opinions about which *aficionado*, such as myself, will enjoy quibbling.

Ron must have been looking for a response when he claimed not to believe that SAMUEL PLIMSOLL had ever been classed as a clipper. She was not an extreme clipper, but she was certainly a fast and fairly fine-lined ship, or so I thought.

We will never know precisely what her lines were because the plans of the beautiful iron clippers built by Hood of Aberdeen are lost. I decided to calculate her coefficient of under deck tonnage, which can be calculated using the information in Lloyd's Register and the following formula:

$$\frac{\text{Under deck tonnage}}{\text{register length} \times \text{beam} \times \text{depth} / 100.}$$

To my surprise it is 0.6172, and this puts her about halfway between the two tea clippers ARIEL and TAEPING which finished first and second in "the Great Tea Clipper Race" of 1866. (In third place was SERICA, one of the sharpest extreme clippers, with a coefficient of under deck tonnage of 0.57.) Neither ARIEL nor TAEPING were the very sharpest of clippers, but surely no one would dispute their

status in the first-flight of the ultimate tea clipper fleet of the late-1860s. A copy of SAMUEL PLIMSOLL's mid-section plan from Lloyd's records, kindly made available to me by Rod Anderson, shows that she had the same amount of deadrise as TAEPING.

The coefficient of under deck tonnage is not as reliable as a block coefficient for judging sharpness, but there can be no question that with under deck tonnage of 1343 tons and dimensions of 241.3 x 39 x 23.1 ft, SAMUEL PLIMSOLL was a very sharp ship and a clipper by any standards. It has been observed that coefficients of under deck tonnage can only be used to compare vessels of the same type, so it could be argued that comparison of composite tea clippers and iron wool clippers is not appropriate.

For safe comparison, MERMERUS is usually considered one of the outstanding iron-hulled wool clippers. She was built in 1872, a year before SAMUEL PLIMSOLL, and had a coefficient of under deck tonnage of 0.64 (meaning that she was relatively less sharp). David MacGregor, who must be the greatest living authority on the clippers, has stated that: "The lines of MERMERUS

are sharp enough to class her as a clipper but not an extreme one".

George Thompson & Co. (Aberdeen White Star Line), the owners of SAMUEL PLIMSOLL, were also owners of that most famous of clippers, THERMOPYLAE. Their iron clipper MILTIADES, built a year before SAMUEL PLIMSOLL, was regarded by Basil Lubbock as the fastest of all the iron wool clippers with the exception of SALAMIS, which was built for George Thompson & Co two years after SAMUEL PLIMSOLL and was undoubtedly the last extreme clipper to be built. All three of these outstanding iron ships were built in Walter Hood's yard in Aberdeen.

SAMUEL PLIMSOLL was a particularly magnificent ship. I have had the opportunity to see the photographs of her collected by Rod Anderson, one of WA's most outstanding model-ship builders, who will one day build a fine model of this beautiful ship. Although she was built in 1873 she was given very ornate headrails and trail-boards like a composite-built clipper of a decade earlier. SALAMIS had a much plainer bow.

As a wool clipper, SAMUEL PLIMSOLL had an exceptional record. On her maiden voyage in 1873-74 she made the best passage out to Sydney (74 days) and the best passage home with wool. In 1875 she made the third best passage home; the following year she was the second fastest out to Sydney; in '78-79 she made the best passage home and then made the best passage out in '80, carrying 384 passengers. In '83 she again made the best passage out and was second to CUTTY SARK racing home with a wool cargo. Lubbock includes her in his data on the "seven most regular [fast passage making] ships in the [wool] trade". (Incidentally, the figurehead likeness of Mr Samuel Plimsoll was always painted plain white—tea clipper-style—when on the ship. Perhaps it should be displayed that way and mounted at a more appropriate angle (Sam stares piously at the ceiling in the Western Australian Maritime Museum.)

Ron Parsons also offered us the opinion that "a more reliable description of the 1902 dismasting incident appears in Brett's *White Wings*". He discussed the subject at greater length in *The Australasian Shipping Record*, a very informative journal that Ron edits and writes much copy for. (Copies of *The Australasian Shipping Record* are kept in the MHA library at Porthole Prints in South Fremantle.) Here is what Ron wrote: "What are the facts about the dismasting of this vessel in 1902? I recently received a publication that says, quoting Basil Lubbock ... "The result was perhaps the most extraordinary in all the annals of dismasting — the main cap carried away and the mast somehow leapt overboard, taking with it the fore and mizzen topgallant masts, without doing any more damage

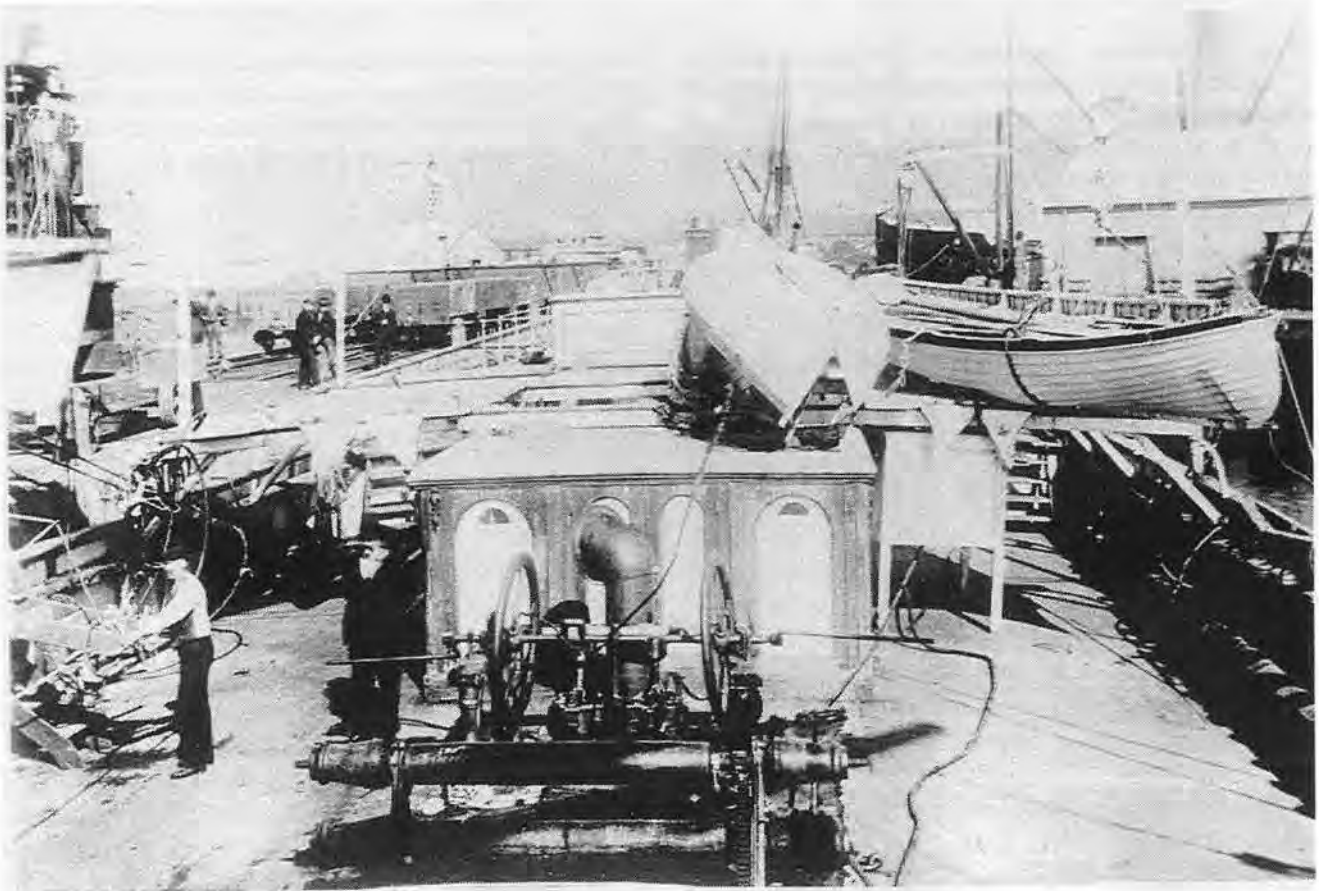
than slightly bruising the teak topgallant" [rail].

"This didn't seem to be quite right, and I checked with Henry Brett's *White Wings*. ... While in the past, I have sometimes found details of the ships he mentions incorrect, I have NEVER found his material incorrect in other matters, but his report of the dismasting gives a different version. *White Wings* p. 211, Vol 1 says: "She left Glasgow for Dunedin and Auckland on June 18, 1902, in command of Capt. Jaffray and all went well until after she passed Nugget Point Light on Sept. 17. She then encountered a heavy south-west gale, which lasted several days, and when off Cape Saunders a heavy squall struck. The lower main topsail carried away, then the maincap broke, and the mizzen and mainmasts went over the side with a terrible crash. Singular enough no one was hurt, then nor in the exciting time the crew experienced before they cut the wreckage clear. The gale was blowing great guns, there was a tremendous sea running, and every moment the crew expected the ship to founder. She had been rolling so violently that something had to give, and no one was very surprised when the main and mizzen went with a crash. In their fall they smashed the ship's four boats lashed on the boat booms midships, and carried away a lot of the bulwarks ..."

The extract goes on to describe unsuccessful efforts to make the ship heave-to, which doesn't make much sense—with the mizzen and main masts gone she would surely have run with the wind—and the subsequent tow to Gisborne Roads and then to Port Chalmers. Ron concluded his piece: "I just wonder what really did happen?"

It seemed to me that Brett's account couldn't be entirely right. The man was a journalist and it is not in a journalist's nature to report facts correctly. Besides that, I remembered one of Rod Anderson's photographs of SAMUEL PLIMSOLL being towed into Port Chalmers which showed no sign of the reported damage to the bulwarks, so I contacted Rod who sent me the following report detailing the damage: "With regard to the controversy surrounding the 1902 dismasting of the ship SAMUEL PLIMSOLL, the only reliable evidence for the extent of the damage done to the ship is a series of photographs taken in New Zealand immediately after the event and a photo of the stern of the ship as a hulk in Fremantle Harbour. They show that the fore topgallant mast, main mast and mizzen mast have all been lost. It is evident from the damage that they fell to port.

The only sign of damage to starboard fittings supports this view. The starboard railing on the Aberdeen house is bent but not the starboard poop rail. However, on the port side, the rail of the house is gone and a significant section of the port poop rail in the way of the mizzen shrouds is



On board the SAMUEL PLIMSOLL in New Zealand, after the distmasting.

badly bent. There is some sign of damage to the starboard pin rail adjacent to the main shrouds consistent with the rods for the deadeyes having been pulled violently to port, thus splitting the rail. Also the fife rail at the main mast is missing its forward sections, port and starboard adjacent to the mast. The deadeyes and rail on the port side are undamaged, however the capping rail, of wood, on top of the bulwarks in the way of the port main shrouds is broken, but the bulwark beneath is undamaged.

There is no evidence of any damage at all to the iron bulwarks, port or starboard, or to the Aberdeen house [projecting through] the poop. The boats on the skids aft of the main mast have been split open but not crushed, while the boat skids and the after deck house below them are undamaged. The after port davit is slightly bent but still operational. The fly wheels of the pump abaft the main mast are out of alignment but handles on the pump show that it was still operational. It would appear that the damage to the fly wheels, boats and davit were the result of them fouling the mizzen lower stay [or starboard main brace?] as the mast fell.

The lack of any other damage to decks, boat skids or the after deck house indicates that they were not hit by either the mast or any of the yards. This and the other damage supports the case for the masts falling clear of the ship to port and slightly aft. As the main mast is reported to have broken four feet below the deck, the lack of any evident or significant damage to the starboard side of the deck adjacent to the main

mast is remarkable. The only possible explanation for this is that the main mast either broke much closer to the deck level, if not at deck level, or "leapt free" as reported.

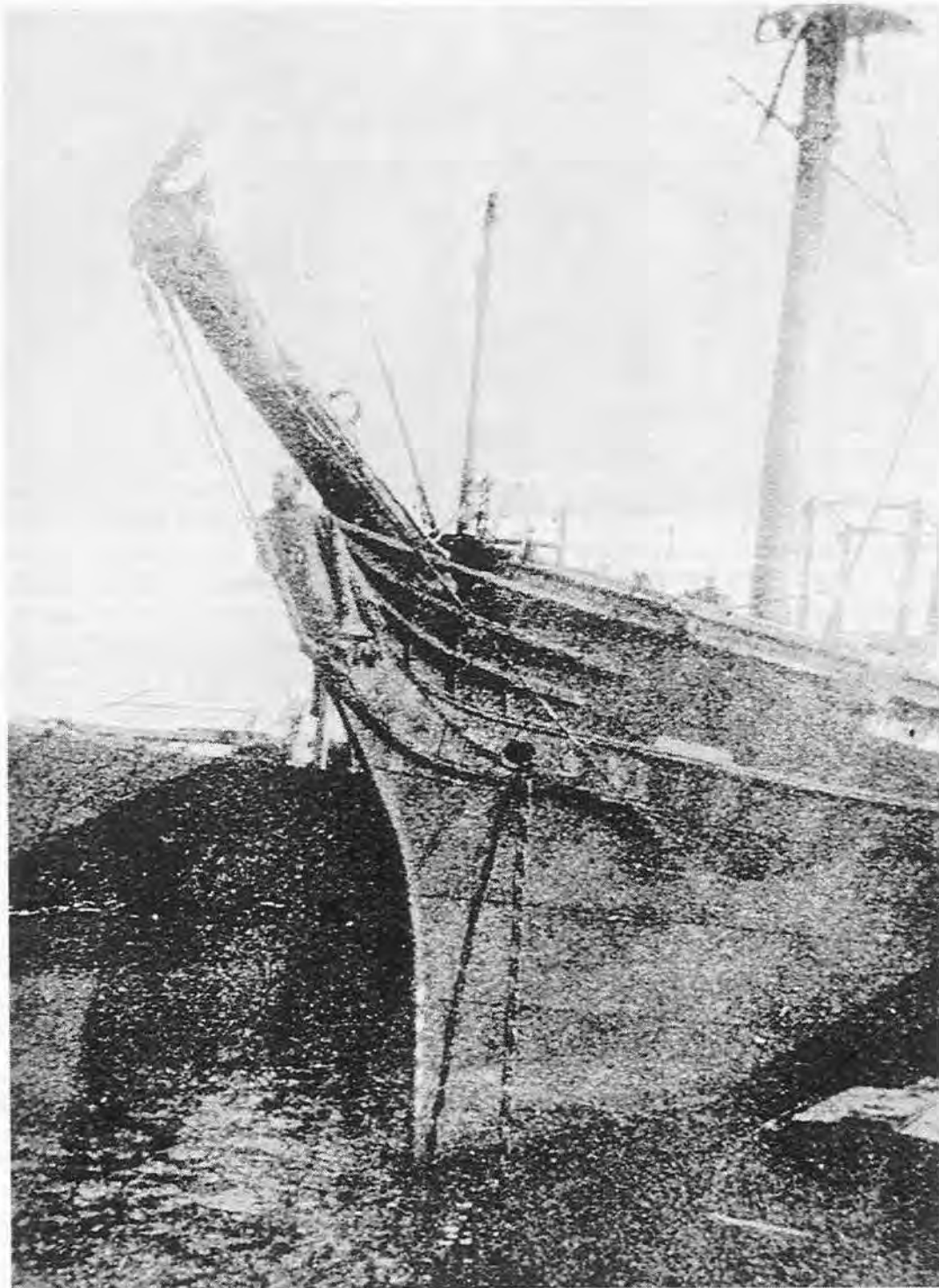
Considering the great amount of steel wire rigging holding it in place, all of which had to be cut to clear the debris, this is unlikely in the extreme and it must be considered most probable that the break was not greatly below deck level. [Since she was still rigged with lanyards and deadeyes it is possible that the starboard lanyards carried away when the mast broke. Presumably it was the lanyards rather than the wire rigging which were cut to free the debris.]

It is most likely that when she is described as being so badly damaged as to be unrepairable, in 1902, that this was an "economic argument". She was at the time nearly thirty-years old and the returns on ships of her type and size not what they had been. It would simply have cost too much. That her hull was sound is evidenced by her long career of more than forty years as a coal hulk in Fremantle Harbour until sunk in a collision with a steamer in the mid-1940s.

So, it would appear that Brett's account is not particularly accurate. Lubbock's account also contains some obvious errors, plus the hyperbole and licence that he is known for, but it seems to contain a nub of truth about the main mast leaping overboard without damaging the bulwarks.

While I am quibbling: Ron is being a bit dogmatic when he says: "the statement that British composite-built tea clippers were relatively small when compared to American softwood clippers" is incorrect. I'd say the statement was a fair generalisation. Ron compares the largest of the British tea clippers CUTTY SARK with the American FLYING CLOUD,

which was not very much larger. Some American clippers were smaller; but the famous American-built clippers that brought immigrants to Australia in the Gold Rush were very much bigger ships. The crack clippers were all more than 2000 British register tons.



*Detail from a rather grainy photograph of SAMUEL PLIMSOLL, the coal hulk. The figurehead, trail boards and head rails can be seen in some detail. (All photographs from the collection of Roderick Anderson.)*



## President's Report to the Annual General Meeting April 15, 1996

This has been a year without major new directions in the activities of the Association. The MHA has continued its role as a lobby group for the preservation and promotion of various aspects of heritage. For some years Ross Shardlow has spearheaded the Association's activities, particularly in the efforts to preserve and enhance the heritage value of Victoria Quay. It is with considerable regret that I have to report that Ross is not standing for re-election to the committee this year. Ross's knowledge of the heritage of Victoria Quay is unequalled. I do hope that we will be able to call on you, Ross, for expert advice from time-to-time.

Ross will be concentrating on his work as one of the world's outstanding maritime artists and on his researching of the history of the colonial schooner CHAMPION, so the loss to our committee will be balanced by the benefit to maritime heritage in general.

During the last year, I have represented the Association on a steering committee asked by the Premier to investigate and recommend on the housing of Australia II, within a world-class maritime museum in Fremantle. Bob Johnson took the MHA place on that committee while I was away from November to January. I have put the view that the new museum should have access to sheltered water and include mooring pens which would be available to classic watercraft. This is consistent with the idea of the maritime museum integrating its activities with the community rather than keeping everything behind glass. "Museums without walls" is the current terminology for this kind of philosophy. The site of the proposed new museum has not yet been confirmed.

The MHA has continued to engage in active debate with the Maritime Museum when there has been question about the Museum's policies. In particular this has been the case regarding the relationship between the Museum and Wooden Boat Works. WBW is now entirely independent of the MHA but a relationship of close mutual support still exists. Graeme Henderson, director of the Maritime Museum, kindly (and bravely) addressed a public meeting which we called in November to debate the Museum's perceived competition with WBW and other issues.

As a non-profit making community group, the MHA has sponsored two Landcare and Environment Action Program training schemes which were run for us by WBW. Tup Lahiff and his team at Wooden Boat Works have run

these LEAP schemes and also Jobstart pre-vocational training schemes, teaching traditional boat-building skills to unemployed young people, with considerable success. Not all the young people have been converted into model citizens, but an exceptionally high number have found work and Tup has a file of letters from grateful employers in the boat-building and ship-building industries giving fulsome praise to the training programs run by WBW.

Our quarterly *Journal*, edited by Chris Buhagiar on the up-graded computer equipment, continues to be a publication of real quality. The Australian National Maritime Museum's publication *Signals* has more glossy presentation, but I don't think it is ahead of our *Journal* in terms of content. Our thanks to Chris for his very fine work. The *Journal* is now subscribed to by the Albany Maritime Heritage Association and is drawing contributions from inter-state. The print run has been increased.

There is always some doubt as to whether Chris will have enough material to continue with the twenty page format that he has run for a couple of years now, so, please, if you've got an article in you, get it out and send it to Chris.

Our Register of Classic and Wooden Boats has not been so conspicuously successful. It still exists as a valuable computer data base but has not yet been published. I applied in collaboration with the Western Australian Maritime Museum for a Maritime Museums of Australia Program Support Scheme grant of \$5000 which would have allowed us to reformat and publish, and also put it on the World Wide Web, but the application was not successful.

In August, we were lucky enough to secure a private preview for our membership of Ed and Julia Punchedard's documentary about Alan Robinson and the development of underwater heritage protection legislation in Western Australia - entitled "Gelignite Buccaneers". Ed and Julia presented the video and answered questions.

We have been in communication with a new British organisation called Heritage Afloat, which has some similar interests to our organisation.

This year's Classic and Wooden Boat Show organised by members of this organisation and Leeuwin STF was as successful as previous years in raising funds for *Leeuwin* and in the quality of the vessels and displays. Mike

Iglesden, who is unable to be with us this evening, played a major role in the planning. Mike has also taken the role of minutes secretary for much of the year.

The Association receives newsletters from Fremantle and Burnie Branches of the World Ship Society, *Australasian Shipping Records* and also the ANMM *Signals*. These are now kept in a small library for members at Porthole Prints in South Fremantle, thanks to Bill and Susanne Brown.

Frank Marchant has been on the committee of the MHA for several years now and has been a treasure of

living maritime heritage. Unfortunately ill-health prevents Frank for standing for re-election this year. Our thanks go to Frank for his services over the past years.

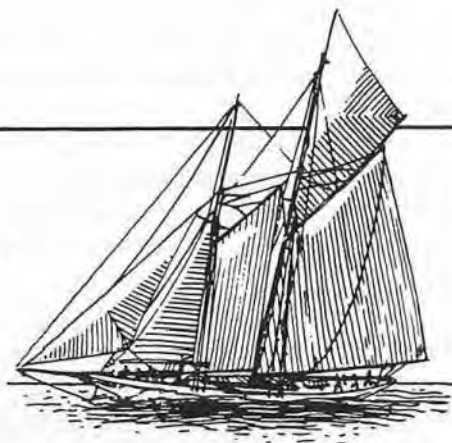
Our thanks go to Tana Bailey who as membership secretary continues to keep our membership records much more organised than some other aspects of our organisation.

And thanks also to Bob and Leeuwin for the use of this conference room throughout the year.

Thank you all for listening to this.

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# Unstable Wood

Wood has a mind of its own! It warps, contracts and swells. It splinters, bows, cups, puts splinters into sore hands and it changes colours.

And yet wood can be a source of great joy and pride to both men and women. Without wood there would be no life on earth. Together with water and stone it is the most basic of all materials from cradle to coffin.

By its very nature wood is a joy to work with and a finished article is a heavenly piece to feel and caress. But understand there is no such thing as perfection in wood. A small blemish, a minute worm hole, or perhaps a small mistake which you hope only you will know about but feel that everyone will notice, will make the article unique. A blemish is part of the joy of wood. It shows that it is real wood and not chipboard or some other man-made material, and adds character in its own way. Sheoak, for example, is susceptible to forest fire and it is not always possible to get the last bit of burn out. Don't try to disguise it, let it be. It is part of history and adds character to the article made. This is especially true of second-hand timber which may have been re-claimed from old buildings. This will have a history all of its own.

If you are a lover of things made of wood, take it at its face value. It is said that a thing of beauty is a joy forever; this is especially true of wood and can never apply to chipboard and laminex and other synthetic material. (Barry Hicks)

Did You Know ...?



In Western Australia it rarely gets cold enough for us to use the term 'Brass Monkey Weather' but nearly thirty years ago when we lived in England it got (politely) very cold indeed! I was a little surprised to come across the following definition in my Universal Dictionary and wondered whether it is generally known:

*"British slang - exceptionally cold weather. A brass monkey, in the days of sailing ships, was the tray on which cannonballs were piled. In very cold weather the brass tray contracted much more rapidly than the iron cannonballs and so the pyramid of balls collapsed".*

It is surprising how much easier it is to use the term when you know how it was derived!! (Thanks to Doris Hicks - Editor.)

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