

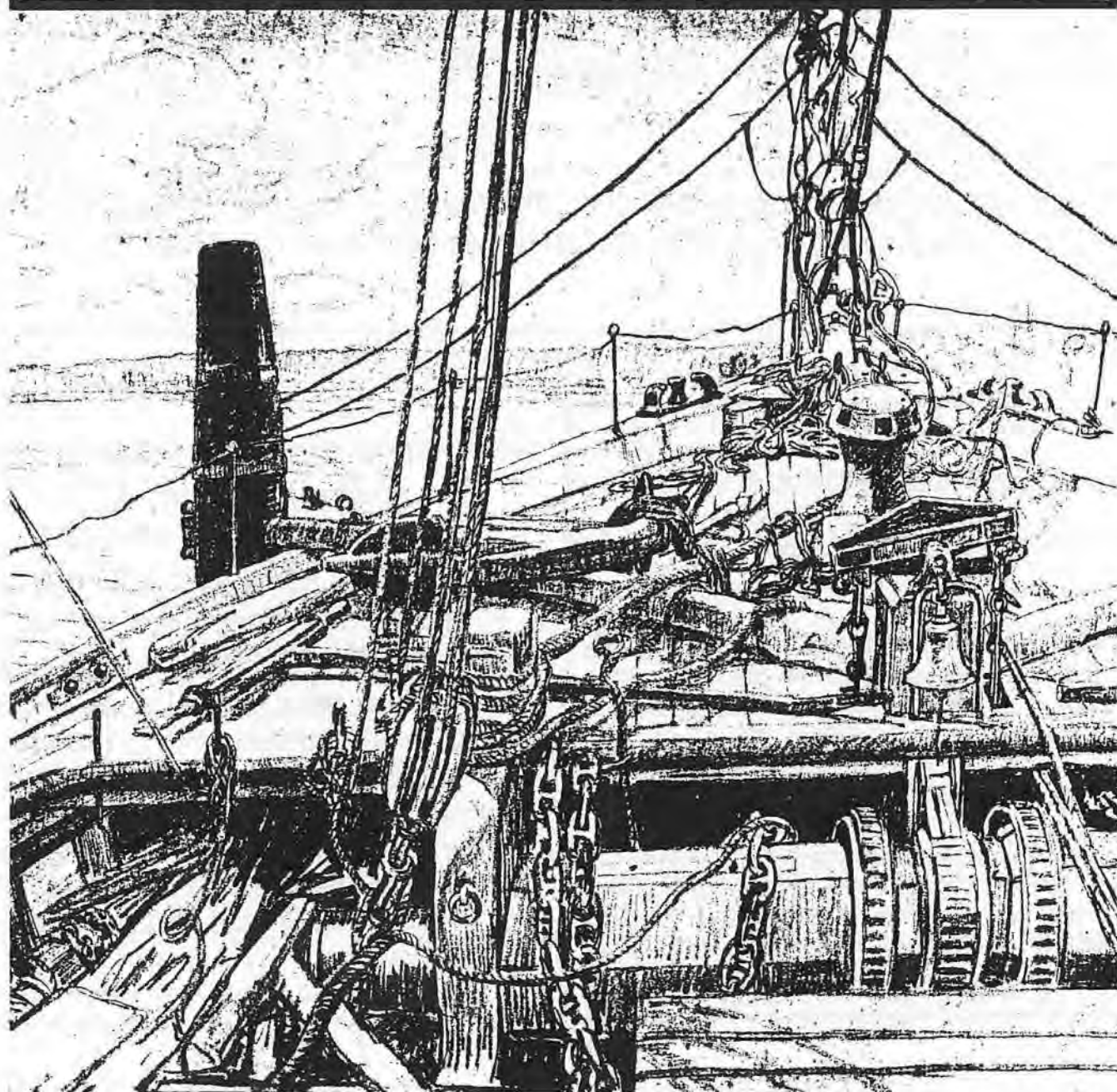
# MARITIME HERITAGE ASSOCIATION JOURNAL

Volume 8, No. 3. September, 1996

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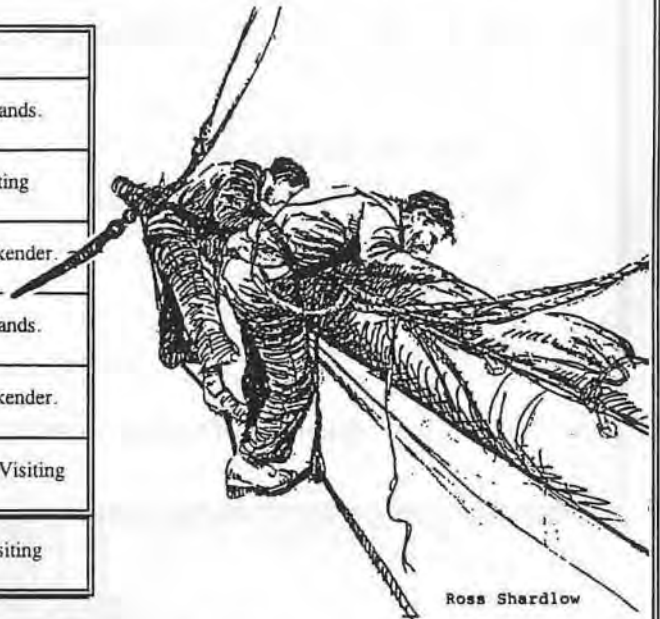
c/o PO Box 1100  
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WA 6160

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

No.	Departure	Arrival	Remarks
21/96 10 days	GERALDTON 17/9/96 Tue	FREMANTLE 27/9/96 Fri	Visiting Arolhos Islands.
21/96 10 days	FREMANTLE 1/10/96 Tue	FREMANTLE 11/10/96 Fri	School holidays: visiting Arolhos islands.
W2/96 2 days	FREMANTLE 11/10/96 Fri	FREMANTLE 13/10/96 Sun	Whale watching weekender.
23/96 10 days	FREMANTLE 15/10/96 Tue	FREMANTLE 25/10/96 Fri	Visiting Arolhos Islands.
W3/96 2 days	FREMANTLE 25/10/96 Fri	FREMANTLE 27/10/96 Sun	Whale watching weekender.
25/96 10 days	FREMANTLE 1/12/96 Sun	FREMANTLE 11/12/96 Wed	University holidays: Visiting Arolhos Islands.
26/96 10 Days	FREMANTLE 13/12/96 Fri	FREMANTLE 23/12/96 Mon	Post TEE voyage: visiting Bunbury.



For information on all voyages, contact:

**THE LEEUWIN SAIL TRAINING FOUNDATION**

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

Material for publishing or advertising should be directed, preferably typed or on disk, to: the Editor, 13 Solomon Street, Palmyra 6157, Western Australia (09) 339 2625.

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.)

# Wooden Boat Works - *Keeping a Tradition Alive*



*Tucked away in premises in Slip Street, Victoria Quay, Fremantle, a small band of intrepid shipwrights are doing their bit to keep alive traditional wooden boat-building skills in the local community, while providing invaluable work experience for the young unemployed. In a time of economic uncertainty and change, Wooden Boat Works, a certified training provider, should not be allowed to go the way of so many other worthwhile endeavours that have fallen victim to government funding cutbacks. Manager, Graham (Tup) Lahiff gives us an insight into the origins and potential future of his enterprise.*

Well, the first thought of a wooden boat-building school surfaced in San Francisco, California, where I had observed the operations of the "Little Boat Shop" on the Hyde Street Pier in the Fishermens Wharf area. This tiny but excellent workshop is operated by the San Francisco Maritime Museum and provides an excellent service to the Museum, the public, and the "Friends of the Museum". In the same area, the Dolphin Swimming and Boating Club maintains a small fleet of recreational pulling boats, almost all of which are of the Whitehall design or style. I had spent most of 1990 working with the boatbuilding/shipwrights on the restoration and rebuilding of these fine old craft - one of which, the JAMES WEALAND, is now some 106 years old.

Returning to Western Australia, I found that Brian Phillips and Mike Reveley had already begun a small operation teaching an enthusiastic group of students - this beginning had only been possible because of the effort of the Maritime Heritage Association and the space made available by the Western Australian Maritime Museum. It was a struggle for a while, but subsequent restructuring of arrangements saw the creation of Wooden Boat Works.

Initially, the objectives of Wooden Boat Works were the fostering and maintaining of the skills and traditions of wooden boat building, assisted in no small way by the full

support of the Maritime Heritage Association and the Museum. Over a period of time, the bond with the Association only strengthened.

Those early days saw predominantly weekend students working on their own dinghies, with hours and hours of patient instruction given by Mike Reveley. The problem was however that the skills were then only available to those who could afford them, so we contacted relevant government departments and investigated the prospects of becoming a fully accredited, registered school, that would specialise in wooden boats - and therefore becoming eligible to tender for government-funded pre-vocational education courses.

A curriculum was designed and, after some months of writing and re-writing a syllabus and modules, we were evaluated then awarded certification. This of course was quite an occasion and one of which we were exceptionally proud. The curriculum was new, innovative and designed not only to focus on the construction of wooden boats, but also to prepare younger students for entry into employment in a variety of trades and vocations.

At this point I should reflect a little on the unwavering support of the Maritime Heritage Association, whose belief in the project had been instrumental in the commencement, investment in, and growth of this small boat works; the

hours and hours spent in Ross Shardlow's barber's chair [*a private joke - Ed.*], discussing seemingly endless ideas and aspects of education in all things maritime - and, of course, the countless cups of coffee!!

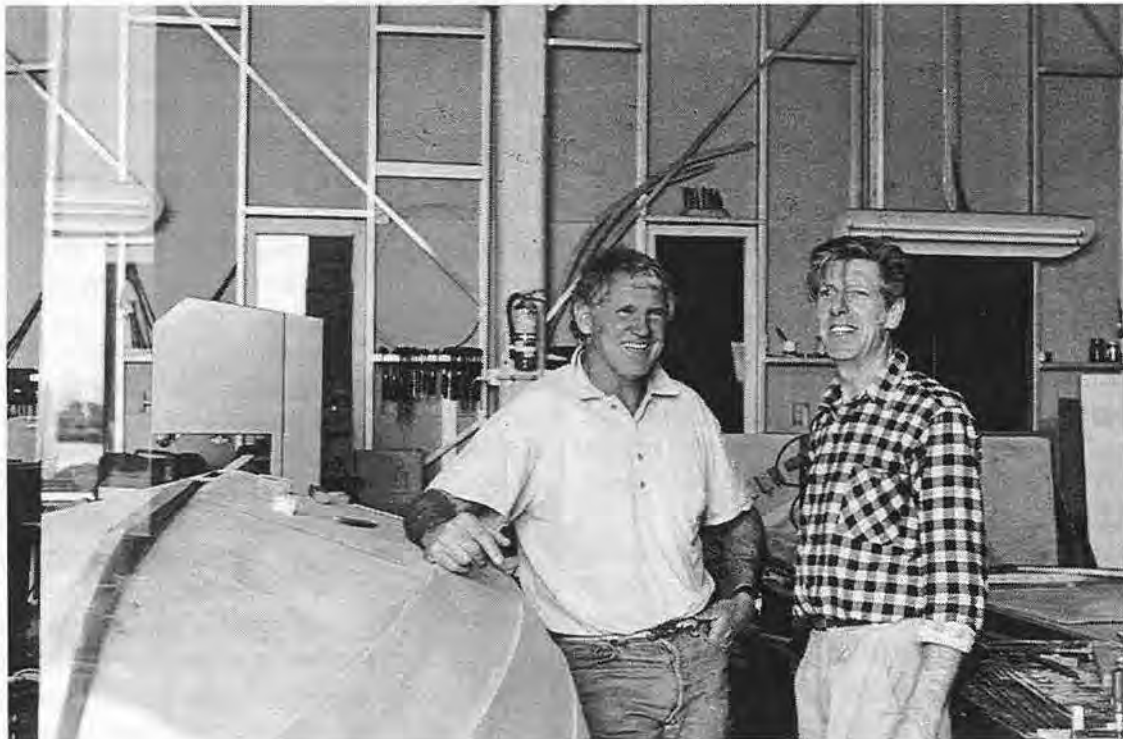
Wooden Boat Works won several educational contracts, and commenced work, via wooden boats, with young people aged between eighteen and twenty-four - all the while building a number of small sailing and rowing craft for private purchasers. Things became really busy, and space a premium. At just the right time the Leeuwin Sail Training Foundation came to the rescue, permitting us to store frames, molds, half-built dinghies etc. in the Leeuwin shed, and moving things backwards and forwards for us as required, almost hourly - well daily! We obviously needed more space, and had to move.

This is when the old plumbers shop in the Slip Street part of the Port Authority's historic workshops became available and, with the master blacksmith, Jan Jensen, as a potential new neighbour, the move became inevitable. Wooden Boat Works thus had a larger, airier and brighter location in which to continue the process of using wooden boats and shipbuilding as a catalyst to excite younger minds and to challenge them to enquire, investigate, and initiate.

A proud result of these educational programmes is the donation of the product - that is, small rowing dinghies - to deserving groups and organisations less well-off than ourselves, for possible resale as a fund-raiser. To date, Wooden Boat Works students have built and donated to such charities six dinghies, supporting mainly childrens' cancer groups, the Cancer Foundation and Canteen, and raising some twenty thousand dollars in the process!

What of the future? Who knows, but it is very satisfying to reflect on the achievements of these past few years and recall the generous and enthusiastic support given from almost all quarters; the advice, commentary and friendship proffered by all who have dropped in, helped, had a cup of coffee, swept the floor, etc., the sausage sizzles and singalongs - even the poetry nights! Who could forget Norm Shorrocks and his attempts, or the Fo'c'sle Firkins entertaining round-the-world sailors from the Whitbread races?

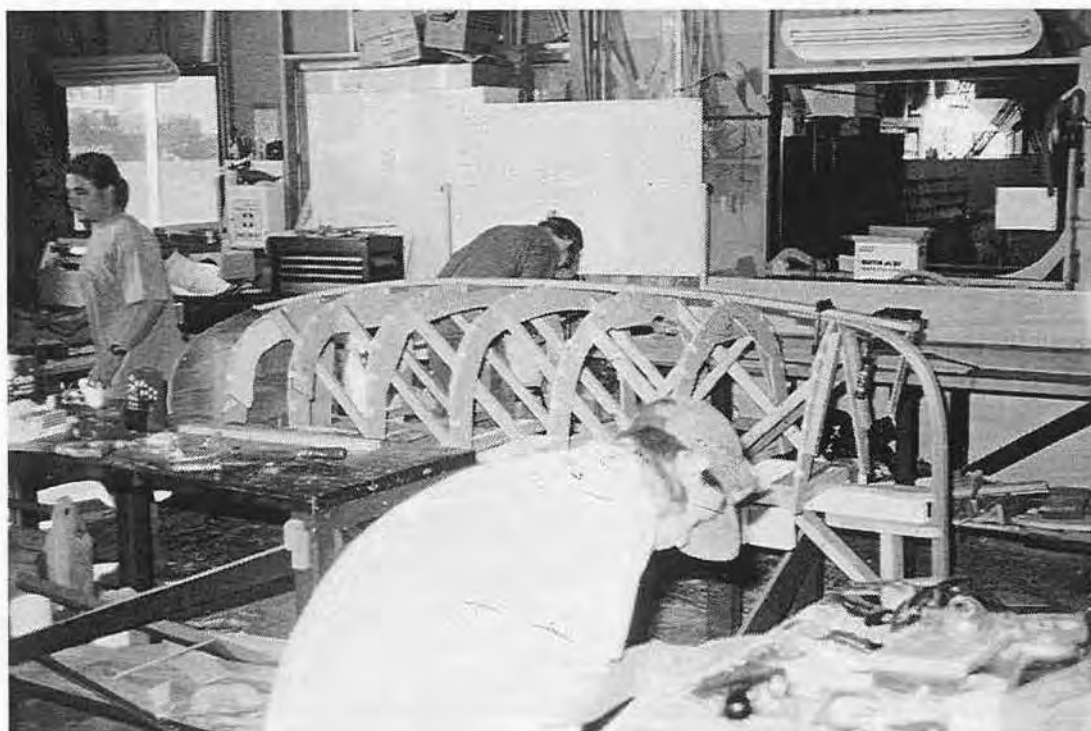
Maybe, in some small way, Wooden Boat Works has earned a paragraph in local history - well, at least a sentence or two - but it has been a lot of fun and we've made a lot of mates and very good friends - essentially through our common love of wooden boats.



*The early visionaries: Graham (Tup) Lahiff (left) and Mike Reveley, circa 1993, in the initial premises in B-shed, Victoria Quay.*



*Norm Shorrocks (foreground) and Tup, posing for the camera, alongside another of their creations. Circa 1992*



*Some of the first group of pre-vocational students hard at work, circa 1994.*

# The Steam Tug TOLLMAN

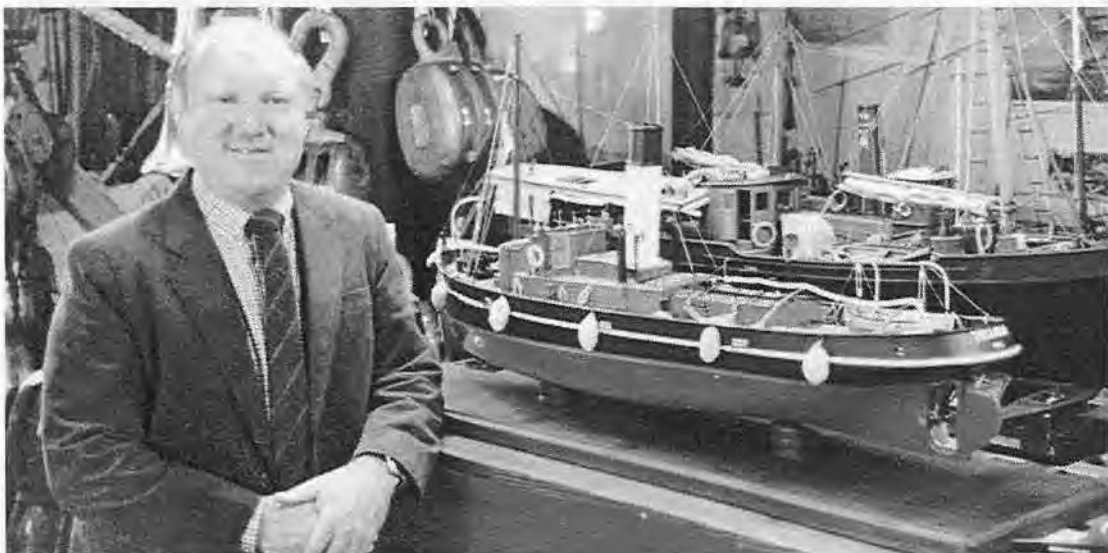
*Yet another finely crafted model has left the hands of Brian Lemon. David Nicolson is the lucky - and somewhat surprised - owner. He was presented with the model of the TOLLMAN (the third model by Brian in his collection) at a gathering of friends at Barry and Robin Hicks' private nauticalia museum, on Sunday, July 21. (Apart from the attraction offered by the numerous privately owned models also on display, is the attraction of the "spread" put on by the Hicks - thank you again Doris!)*

The real TOLLMAN was built in 1935 by Henry Scarr Ltd., of Hessle, Hull, for the United Towing Company Ltd., and was employed in Hull Docks and on the River Humber in the United Kingdom. She capsized in May, 1962, was raised the following month, repaired, and put back into service. She continued to work until March, 1966, when she was sold to P & W McLellan Ltd., and broken up at their yard at Bo'ness on the Firth of Forth, Scotland.

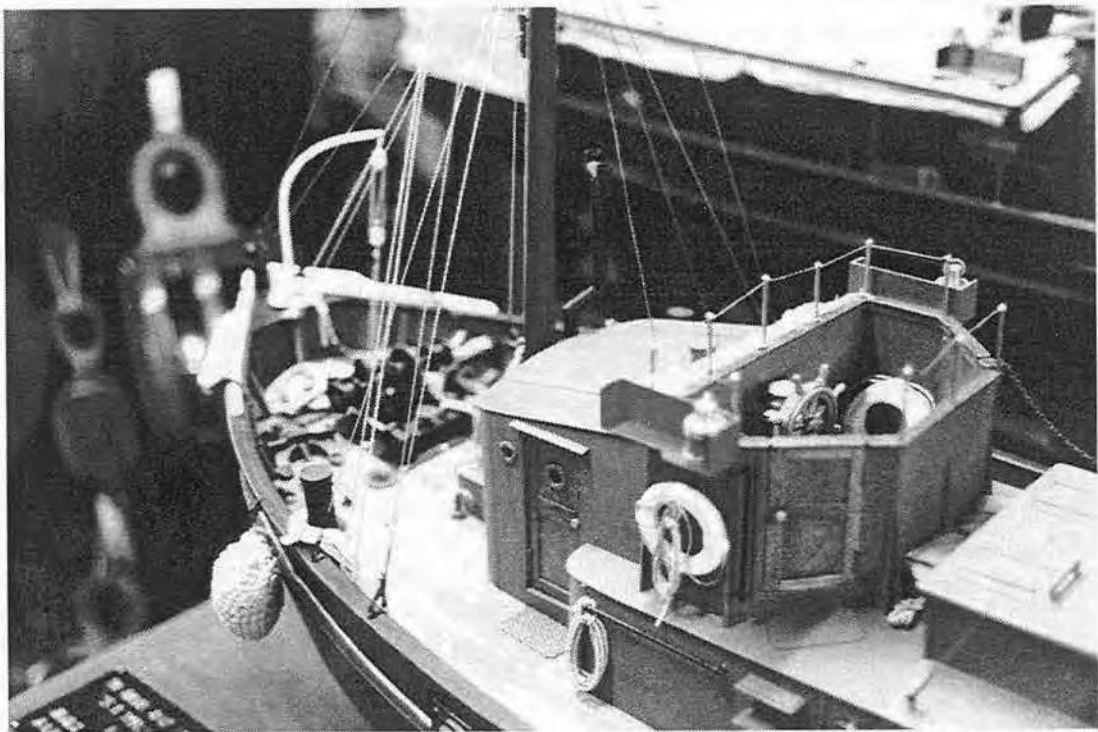
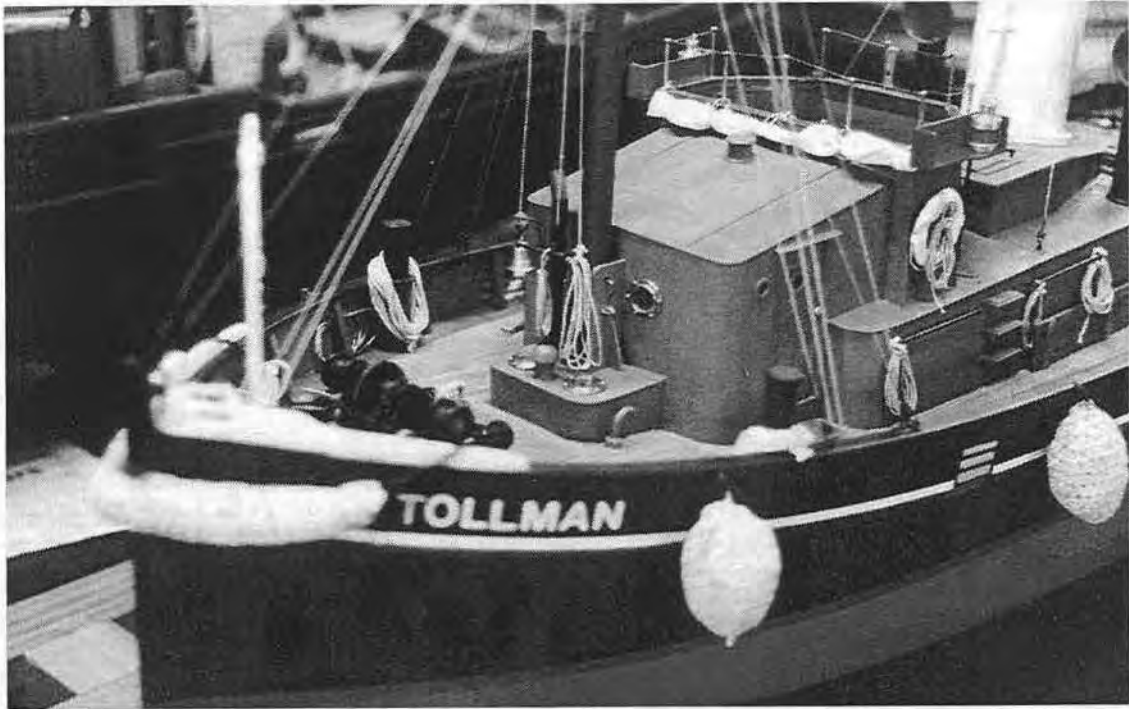
Brian's model incorporates planked wood sheathing from forward of the windlass to just forward of the aftermost towbow. The planking stops a small distance from the inside of the bulwarks to form a waterway. Just abaft the funnel there are two small gratings on the top of the casing, and immediately aft of these is the coaling hatch, detailed with wood board covers. Of the three small rope

guards over the engine casing, the forwardmost is lower than the others in order to clear the towhook (just like the real thing, of course). At the after end of this casing are two access hatches with sliding imitation steel tops. The detail incorporated into the forward windlass and after tow hooks is a joy to behold.

The model is smartly presented in accurate United Towing colours: black topsides, with a white ribband along the bottom of the bulwark plating. Boot topping is green, with reddish-brown underwater surfaces. The spirket plate on top of the bulwarks forward is white, with the inside of the bulwarks painted a golden brown - as is the fore cabin entrance and boiler/engine casing. The funnel is a smart white with a black top.

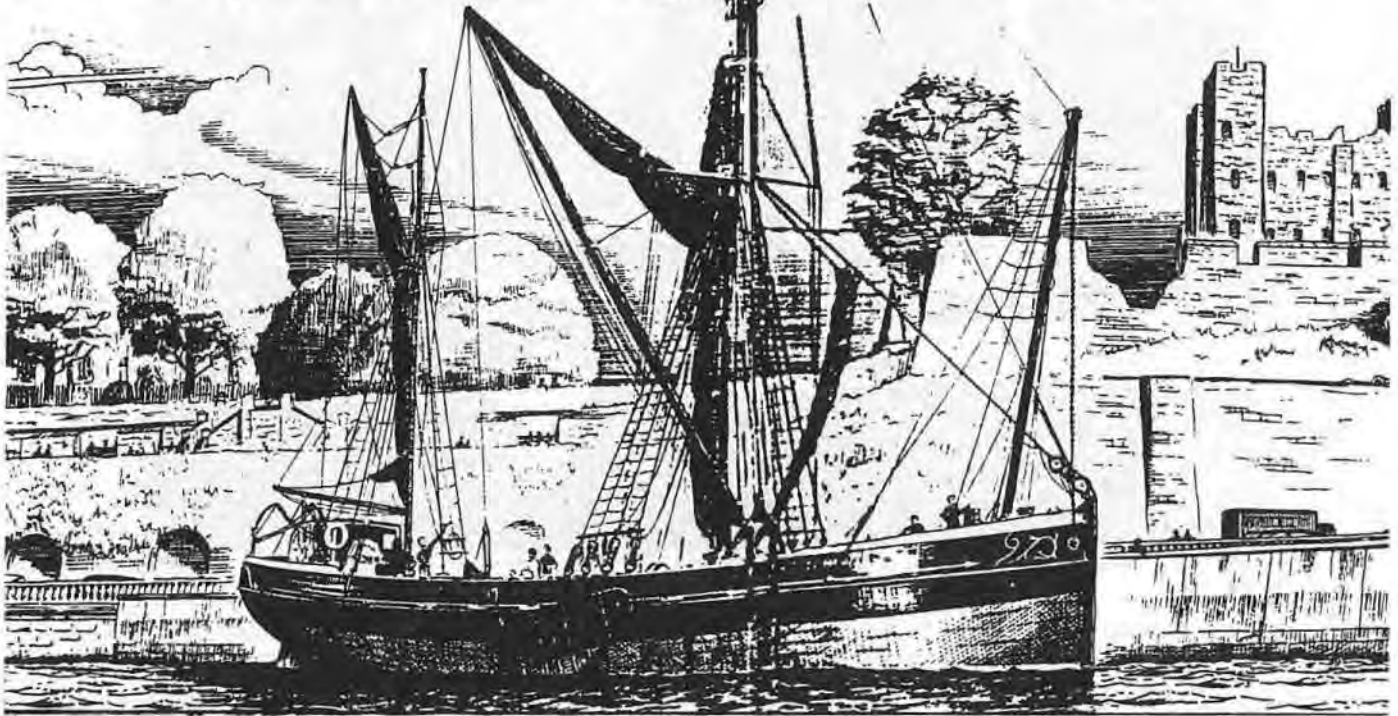


*A picture of contentment: David Nicolson and his latest acquisition. Note the other models also on display, including the KRAIT, which is immediately behind the TOLLMAN (and which is also a Brian Lemon construction).*



*Closeups illustrating Brian's meticulous attention to detail. Note the canvas dodger on the forward end of the open bridge, as well as the grating on the steel deck at the foot of the access door to the bridge. (Brian's wife crocheted the fenders!) (Photos courtesy of Ron Richards)*

# The Spritsail Barge CAMBRIA



*Following in the wake of the previous article is an account of a spritsail barge, the CAMBRIA, also modelled by Brian Lemon. The model is in the possession of Barry Hicks.*

Everyone on London River knows of F.T. Everard and Sons, the shipowners. The Everard family first went into business in 1889 when Frederick T. Eberhardt, foreman shipwright at Wapping, moved downstream, taking a handcart loaded with his tools, to Greenhithe in Kent. There, in that old river village, he took over Keep's Yard. He concentrated upon building spritsail barges, at first for others and later for himself. So well did he build them that he soon gained the reputation of having one of the best barge yards on the Thames and Medway. Old rivermen say that early in this century no stouter and more seaworthy sailing barges were trading on the East Coast and South Coast of England than those which had come from Eberhardt's yard (the name was changed later) at Greenhithe.

Eberhardt sent his sons, William and Frederick, to serve their apprenticeships as shipwrights with Fellowes of Great Yarmouth. Both did well. When they returned to Greenhithe as qualified journeymen their father set each of them to work building a barge, telling them to keep separate accounts and to refrain from comparing them until after the two craft were launched.

The barges received the names CAMBRIA and HIBERNIA. William built the former vessel and Fred the latter. Keeping faith with their father, they then submitted their secret accounts at the end of a year's trading - long enough for the two vessels to have proved themselves to be well and soundly constructed. William's CAMBRIA had cost £1,895 and Fred's HIBERNIA 1,905, just £10 more. To appreciate these figures properly we must see them in the context of the time. When the CAMBRIA and HIBERNIA were launched in 1906, shipbuilding craftsmen stood high in the wage scales, with earnings of about £ 2 a week.

Both vessels were launched on the same day. They looked exactly alike and at sea it was impossible to tell one from the other.

The HIBERNIA had a profitable working-life of 32 years. She met her end on the Norfolk coast, driven ashore at East Runton near Cromer in a terrible north-east gale while she was on passage from the Humber with a cargo of coal. Her skipper was a Greenhithe man, Captain Harry Couchman.

All through these years, and into much later times, the CAMBRIA was kept busy on river and sea. She sailed in



and out of London River and the Medway, and across the Channel to Rotterdam and Antwerp, Dunkirk, Calais and Treport. She loaded in any port between the Humber and Cornwall. She carried a variety of cargoes - generally grain, cattle-cake and rice - from London to Great Yarmouth and Norwich. One of the most frequent was coal from Keadby on the River Trent, mainly for Harwich, Colchester and Margate, and gasworks on the Thames. Her usual cross-Channel cargoes were pitch, coke, wheat and oil-cake. Whenever the opportunity offered, she made the return sailing laden. She could carry 170 tons, enough to fill seventeen railway trucks: this weight put her down to her sea load-line, 11 ½ inches from deck level. If you can imagine standing on her deck with less than a foot of freeboard amidships and with 5,000 square feet of canvas bellying out aloft, you will have some idea of what it was like to be on board her in the North Sea and the Channel - summer or winter, in daylight and darkness, fair weather and foul.

For some reason she was faster than the HIBERNIA. On one occasion when 'Brusher' Milton was her skipper, she arrived at Dover an hour ahead of a steamship which she had overtaken on her way up Channel from the Solent. "We were doing nine knots", said someone on board the steamer, "and we couldn't hold you".

Captain Milton had been sweeping along with nine sails set. The usual maximum is six: mainsail, topsail, foresail, bowsprit jib (Bargees say 'boltsprit', the ancient and correct term for a spar hinged on a bolt), flying jib and mizzen. A mizzen topsail and mizzen staysail were sometimes carried. When Brusher was asked what his ninth had been, he said "The one on the lifeboat in the davits".

The sails of the Thames barges owed their distinctive colour to a brushed-on dressing, generally composed of red and yellow ochre mixed with cod oil, linseed oil and sometimes horse-fat, which made them extremely resistant to wind and water when they were left aloft, and also proof against mildew.

When the annual barge matches came round, the rules allowed the CAMBRIA, as a coasting barge, to set not more than six sails, including the spinnaker. Their total area had to be the same as she had used for trading in the previous year. Some barges, throughout the whole twelve months, carried more canvas than they comfortably needed so as to have an advantage on that great day!

The CAMBRIA is, like a number of coasting barges, 'mulie-rigged'. The word 'mulie' is widely used to describe a vessel, or rig, which is a cross between two different types or classes of vessel, combining some of their characteristics. In this context the derivation is self-explanatory. A 'mulie'-rigged barge has a sprit main sail and a gaff mizzen, forward

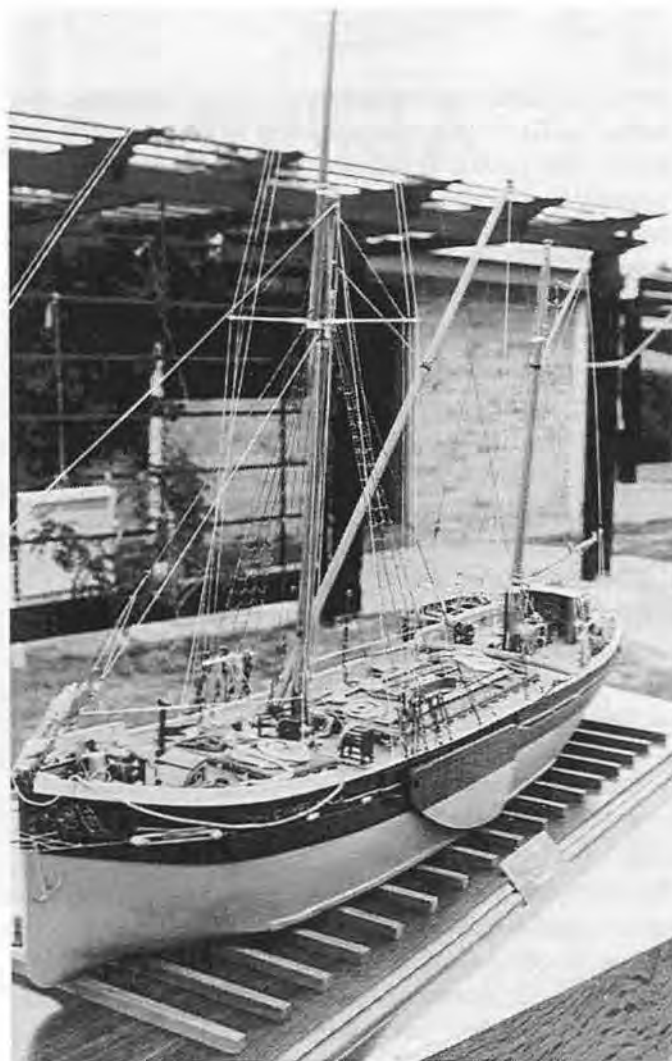
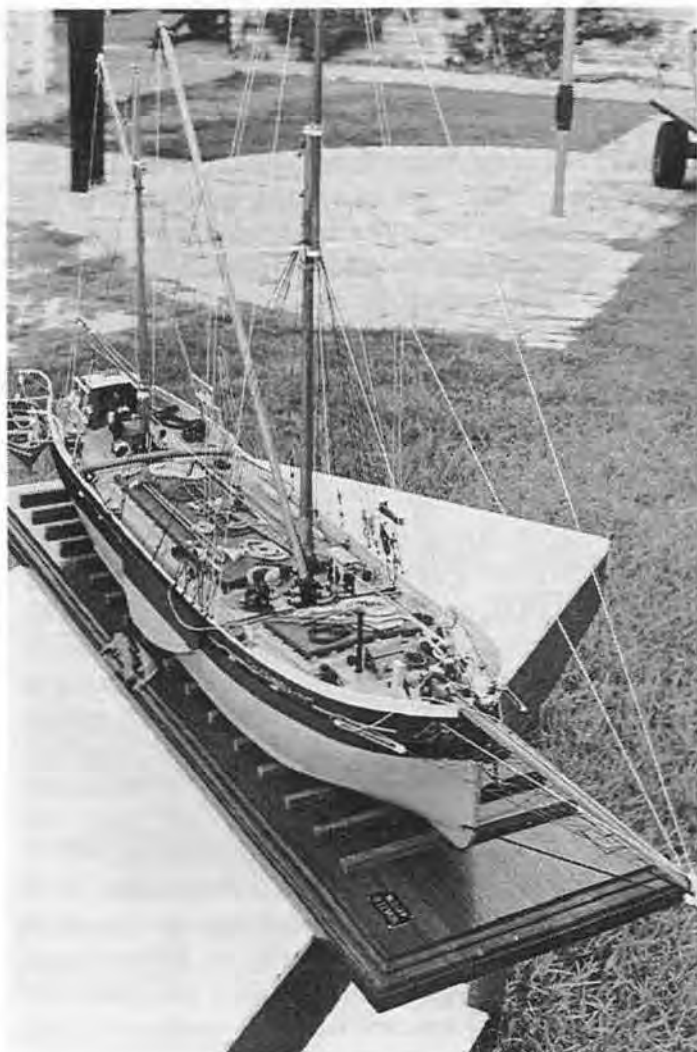
of the wheel with a gaff and boom. Estuary and river barges had a much smaller sprit mizzen which was sheeted to the outboard end of the rudder blade. The sail turned with the rudder and acted, in effect, as a rudder in the air. With the foresail pushing the bow of the barge round at one end, and the mizzen acting with the rudder to push the stern round, she spun on her centre point, pivoted on the leeboard. A barge could thus be turned either way, even when she was not moving ahead through the water, in which conditions the rudder had no effect. This fact helps to explain the extreme handiness of a barge and her ability to manoeuvre in docks and other confined places with the crew of only two.

The CAMBRIA in the year of her launching came second in the coasting class on the Thames and Medway. It was not until 1927, the first matches after the 1914-18 War, that she had the honour of flying the championship pennant for her class in both rivers. She repeated her performance in the Medway the following year. The Thames event proved an especially memorable occasion. Thirty-three barges set off from Gravesend before a strong south-west wind. Weather conditions were very bad. Big yachts which had mustered off Southend for a local regatta crossed over to Sheerness for shelter. In the Estuary the barges came in for a hard time, as the late Edgar March tells us in *Spritsail Barges of Thames and Medway*. The PLINLIMMIN broke her sprit and the CAMBRIA had her topsail sheet part - but in a moment one of her crew was at the peak of the sprit fighting to reeve a new sheet.

These excitements and celebrations belonged of course to one brief period of the year. For all the rest of the time, the sailormen pursued an occupation which many would consider dull and lonely - the conveyance of such prosaic commodities as cement, sugar, coal and cattle-cake, from one familiar place to another along rather monotonous stretches of river and sea. The life would not attract the average modern young man, yet the rarest hint that it might be dull brings a robust guffaw from the men who have lived it.

Bob Roberts had had his share of adventure as a deep-water sailor before he became skipper of the CAMBRIA in 1954. At the age of 14 he left his home in Dorset and went to sea in the WATERWITCH, a barquentine and the last square-rigged merchant ship to trade out of a port in Britain. During the Great Depression, when ships lay pathetically idle in the rivers, he made two ocean voyages in yachts, one of which was wrecked, and also served as mate of an American trading schooner carrying rum.

He went to Everard's after sailing as mate and master in various barges belonging to E.J. and W. Goldsmith Ltd. and G.F. Sully Ltd. When he took over the CAMBRIA he was



*Brian Lemon's magnificent model of the CAMBRIA, now on permanent display in Barry Hicks' private museum. (Photos courtesy of Barry Hicks.)*

already a veteran. He had commanded the MARTINET OF GOOLE in Yorkshire and the sprittie GREENHITHE. The MARTINET, a vessel built at Rye in 1912, able to carry 210 tons of cargo, was the last boom-rigged barge actively trading. She foundered in Hollesley Bay, near Aideburgh, in 1941 after having been badly shaken by bombs that fell close by. To the GREENHITHE (there had been an earlier barge of that name, and also an earlier CAMBRIA) fell the distinction of showing, very strikingly, what a sailing barge could do: she is on record as having carried 172 tons of coal from Hull to Yarmouth Roads, about 105 miles, in fifteen hours, and 150 tons of oil-cake from the Royal Docks in London to Great Yarmouth, about 120 miles. Leaving London on a winter evening, she made Yarmouth pierhead under sail before daylight the next morning.

Under Captain Roberts the CAMBRIA continued her normal trade, still carrying her 5,000 square feet of canvas. But it became increasingly difficult to fit her into the current pattern of coastal shipping, and eventually he had to be content with only a young mate as crew. "When I call "All hands on deck"", he used to say, "up comes the mate".

The young man was Ginger Latham. Until he became the entire crew of the sailing barge CAMBRIA he had been a clerk in a city office with his horizons in suburbia. "I made him mate", said Captain Roberts a couple of years later, "because he had the guts to accept a hard-grinding, hazardous life of which he knew nothing. He was as green as the grass. But he's a man now - and a damn good mate". At present Ginger commands a motor coaster. The last mate of the CAMBRIA, Dick Durham, was the last person to be mate of a traditional, motorless Thames trading barge.

Despite all the difficulties, which were shared by sailing barges in general, the CAMBRIA did well in the trade between London and Great Yarmouth. Even on winter nights Captain Roberts did not hesitate to take the difficult pierhead at Yarmouth Haven under sail rather than pay for the customary tug.

If there was no cargo, the crew and owner received no money. Normally half the gross payment for the cargo went to the owner and half to the skipper. The owner handled the cargo arrangements, paid for the maintenance and insurance of the vessel, and met half of any harbour dues and towage and brokerage charges that might be involved. As profit he had whatever was left.

The skipper kept two-thirds of his half-share and gave the other third to the mate. From these amounts the two then paid, in the same proportion, their half-share of any harbour dues and towage and brokerage charges and also the cost of a third hand if they wanted one. The third hand received between five and fifteen shillings a week, with no charge for his food.

"You must understand" explains Captain Roberts, "that the share-out depended entirely on there being a cargo". Skippers and mates were not paid retainers. While the owner supplied the oil, paint, tar and rope for daily maintenance, the crew themselves did all the work. They also provided their own food, which they cooked on a coal stove in the forecabin. The owner seldom had to provide coal. After a cargo of it had been carried, the lockers were always found to be full. The bargemen used to say "He buys coal" when they spoke of someone who did not know much about life and its ways.

In the late 'fifties and early 'sixties, Everard's laid off their sailing barges and most of the few left were broken up or sold as houseboats. Bob Roberts alone, as master of the CAMBRIA, was given the opportunity to take over his barge as owner. He was quick to seize this opportunity, and by doing so he saved the CAMBRIA long before The Maritime Trust came on the scene.

He ran her successfully for five years, from 1966 to 1971, sailing in and out of London River and East Coast ports. His third hand in those years was 'Penny', a Welsh collie dog who barked a warning in foggy weather when the barge came near any other floating object.

"When we arrive in port", Bob Roberts wrote at that time, "it's not without some pride that we take the hatches off to discharge our cargo. Why? Because it's been brought by a well-shaped hull, 5,000 square feet of sail, the wind, the tide - and Ginger and me. And we have asked nothing of anyone - except perhaps the Almighty".

Throughout the late 1960s skipper and crew (not forgetting the dog, as Jerome K. Jerome might have added)

sailed happily on fresh water and salt, finding cargoes and making good passages. But not even the CAMBRIA, still carrying her 170 tons after six decades, could continue for very much longer in the face of a revolution that was affecting every aspect of the shipping industry. At the beginning of the 'seventies the general mechanisation of small vessels and the modernisation of the ports compelled her owner-skipper to think of giving her up at last.

Fortunately, The Maritime Trust had just been founded. It offered to buy the vessel from Captain Roberts, and the 'last of the sailormen' accordingly disposed of her. His love, as we have seen, had always been in sail; but when circumstances forced him to give up trading in his spritsail barge he had the courage to face facts. In a short time he was at sea again in command of an entirely different vessel, the motor coaster VECTIS ISLE.

There were thousands of Thames barges. The CAMBRIA happens to be the one unaltered surviving representative of those extraordinary vessels which for generations played a useful and important part in the daily life of South-Eastern Britain. As such, she forms a worthy memorial to the craftsmen who built and rigged and repaired them, to the seamen who sailed them with superb skill and confidence, and to an honourable and 'very English' tradition that goes back to Chaucer and the springtime of our society.

#### PRINCIPAL DETAILS

Built 1906 at Greenhithe. Cost £ 1,895.

Owners F.T. Everard and Sons.

Length 91.1 ft.

Beam 21.9 ft.

Depth 7.3 ft.

Gross tonnage 109 (79 net).

Cargo capacity 170 tons.

Mainmast 49 ft; topmast 43 ft;

Mizzen 45ft; sprit 62 ft;

Bowsprit 38 ft.

Sail area; 5,000 square feet.

**(Reprinted from "The Story of the Cambria", published in 1973 by Ships Monthly magazine in association with the Maritime Trust, UK. Article made available through Barry Hicks.)**

*[Nick Burningham informs me that "the CAMBRIA is not currently successfully maintained by the Maritime Trust." He saw her literally falling to bits in Milton Creek a few years ago; he gathers there is now grass growing on her decks! - Ed.]*

## Did You Know ...?



It appears there is more to the term *brass monkey* than meets the eye. Tony Stanton, of the Albany Maritime Heritage Association thinks that the Universal Dictionary's definition of the term, as supplied by Doris Hicks in the MHA Journal of June last, "appears to be questionable". He goes on:

"When I first went into the workforce in 1947 I was told that it was cold enough to *freeze the balls off a brass monkey*, or, alternatively, to *freeze the balls off a pornbrokers shop*. I spent time in the naval reserve and have been interested in sail and sailing ever since but cannot see how the explanation provided could be practical.

Seamen were very practical people and how or why they would pile cannonballs on a flat brass plate or even one with a lip around it on a ship at sea escapes me as the cannonballs would continually collapse or roll around in any sort of weather.

As I understand it, cannonballs were stowed below to help with the ship's stability, and brought on deck in wicker baskets or similar for battle. They stayed in the baskets and were returned below if not used. Also, the coefficient of expansion/contraction between brass and iron is surely not so great as to cause movement to cause collapse of a pile even if it did not exist.

The only thing I know that may be relevant was a brass gauge through which cannon balls were passed to ensure they would not jam in the breach was used - but here I think this was done ashore. There may be something in the name given to the seaman who handled the cannonballs and gun powder - the *powder monkey*.

I am investigating the saying and will keep you informed."

True to his word, Tony sent the following addendum shortly after:

"... I received the following from Peter Jeans who writes for the *My Word* column in the West Australian's Big Weekender.

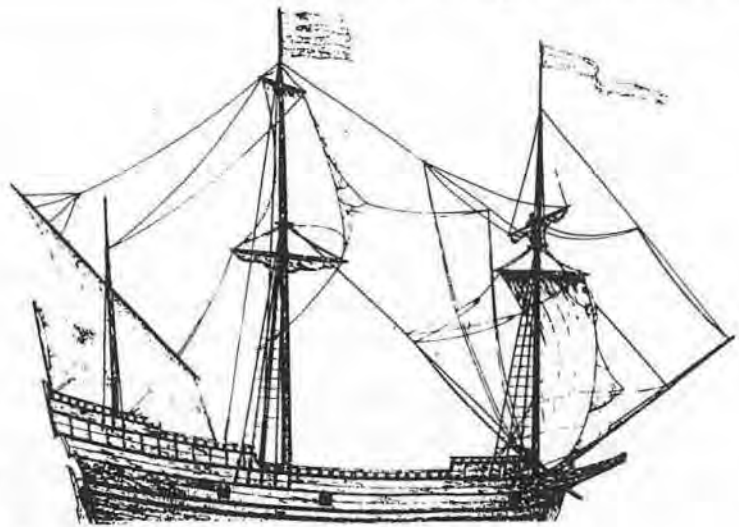
*Freeze the balls off a brass monkey* is a naval expression that is slightly corrupted; the *off* should be *of*. A brass monkey was a small cannon made of brass, usually employed for close work rather than the long-distance guns (always called the great guns, never cannon) which were used for full-scale engagements.

The balls were iron and in very hot or cold weather the iron balls and the bore of the cannon were an indifferent fit for each other, particularly when it was almost freezing, when the balls contracted to the point when they became a sloppy fit in the bore of the brass monkey, and thus not flying true.

It wasn't long before seamen, being earthy types, changed the expression slightly to show just how cold it was. It is one of those phrases that does double duty very admirably.

Some cannonballs were kept at the ready in a wooden rack each side of the gun with recesses for a row of balls. This was called the shot garland. This of course is a practical solution on a rolling vessel ..."

*(I wonder if this is the end of the matter? Thanks, Tony, and to Doris Hicks, who initiated this correspondence - Ed.)*



# An update on the Duyfken Project ...

*In 1606 the small Dutch jacht named DUYFKEN made a voyage of exploration from present-day Indonesia to the Cape York Peninsula of north-eastern Australia. That voyage to Australia is the first recorded in history and begins the transformation of our continent from Terra Incognita to Australia, a participant in Global History. A replica, or reconstruction, of the DUYFKEN will be built by the Duyfken 1606 Replica Foundation in the "Duyfken Village Shipyard" in the grounds of the Western Australian Maritime Museum.*

*The Duyfken Foundation has recently been granted permission for the shipyard to be constructed in front of the historic Museum itself. The design of the village shipyard includes a strong commitment to educational and museological aspects. This is not only a reflection of the ideology and altruism of the Duyfken Foundation Board and Executive, but also makes the shipyard more attractive to potential sponsors.*

*The overall project will draw on the expertise of the Maritime Museum's Centre of Excellence in maritime archaeology and experts in the Netherlands to reconstruct the design of the DUYFKEN—a three-masted vessel of only about 20m between stem and sternpost, but relatively swift and weatherly by the standards of her time.*

Reconstruction of Age of Discovery ships has been problematic: The Columbus 500th anniversary ships do not sail anything like as well as the originals and there are other examples of similar problems.

The Duyfken 1606 Replica Foundation and the Maritime Museum have both been very firm that this should be a ship reconstruction project of maximum possible authenticity and that we must strive to improve on the record of previous projects.

At the outset we had noble ambitions and not-terribly-clear ideas as to how to achieve our aim.

Our research to design the ship needed to be thorough, and equally importantly, had to be seen to be thorough by the experts in the Netherlands and elsewhere.

In communicating with those experts it became clear that none of them had a complete picture of what the design should be. At an early stage Ab Hoving from the Rijksmuseum wrote warning me "everything before 1630 is

pre-history". There are certainly no plans of any Dutch ship built at the time of DUYFKEN because plans on paper were never used. The ship's plan was in the head of the master shipwright. We hope to recreate the authentic process of building a late 16th-century ship but it is very unlikely that we can recruit a late 16th century shipwright whose memory is reliable, so we do need to reconstruct plans, in detail, on paper.

Some of our early attempts to draw plans were said by Ab Hoving to look too much like English ships.

One of the first things we had to do was learn the style of Dutch ships such as DUYFKEN.

For this we compiled a catalogue of contemporary drawings, paintings and engravings of Dutch ships. These pictures cannot be regarded as accurate scale drawings, yet they must have looked like the ships they were intended to represent. This is a little like the way that good caricature resembles the person caricatured: but how do you recreate an accurate likeness from a caricature?

Our answer has an impressive name—morphometric analysis of the iconography [!!! - *Ed.*]. In terms of the caricature analogy, this is a little like measuring the distance between the eyes and comparing it mathematically to the width of the mouth. We have measured lots and lots of relative dimensions from lots of pictures and used statistical analysis to look for clusters and averages which should represent something close to the truth.

All the iconography—the pictures—only shows us what is above the waterline. The most important part in terms of how the ship performs is hidden. This has been quite a problem for reconstructing ship design. The answer for previous reconstructions of Dutch ships has been to assume that ships of 1600 were not very different in the basic underwater shape from ships of about 50 to 100 years later when plans become available. I thought this was a reasonable assumption and thought that I could construct an argument to defend it by saying that Dutch ships of about 1650 were distinctly different in their underwater shape from ships of other nations and therefore represented a native Dutch tradition not influenced from outside and therefore not much changed. I wrote to Thijs Maarleveld, Head of the Netherlands State Underwater Archaeology Services asking him whether he thought that was a reasonable argument.

"No" came the reply. There was evidence from a shipwreck of about 1590 to show that some ships had quite a different hull form. The research on that wreck is still in progress and not yet published, but Thijs was generous enough to send me, in confidence, the plan showing the shape of the ship. In some respects it is a much better hull form than we had dared to reconstruct.

Some features such as the wide beam midships and the narrow bows very strongly reinforced what we thought the iconography was showing us and really started to give us the feeling that we had made progress. What it shows is that the iconography contains a great deal of information, but you have to know a lot about what you are looking at to understand it, and there is no easy way of getting to that stage.

We have sent copies of our drawings and a paper summarising the research to our expert contacts in the Netherlands and the response has been favourable. No one can say: "Yes, this is definitely correct." but the quality of the research and some new understandings have received definite approval.

The design has also been tested using computer hydrostatic modelling: the results are encouraging. The ship has good stability and is easily driven at speeds up to about seven knots reaching four knots very easily.

A stated aim of the research from the outset has been to create a ship that can sail as well as the original. This has been emerging as an increasingly big challenge. DUYFKEN was a very remarkable little ship.

Thanks to the research of Marit van Huystee we now have a microfilm of the entire logbook of the ship GELDERLAND which DUYFKEN accompanied from 1601 to 1603. Adriaan de Jong has started to read sections of it. It is a really fascinating document — it contains drawings of animals including dodos and cockatoos, a French castaway discovered living like Robinson Crusoe on Mauritius, and many views and charts of islands and anchorages which are interesting to compare with similar views in the Admiralty Sailing Directions. DUYFKEN was not only able to keep up with the much larger ships but to actually sail ahead of them and beat back to them against the wind. The research has produced genuine new understanding of Dutch ships such as DUYFKEN. The commitment to build a reconstruction of oak, using authentic techniques is in place. This will be a ship reconstruction project to rival and, I hope, surpass any in the World.

DUYFKEN's voyage to Australia was certainly not the only notable point in her history. An abstract of that history follows:

Built about 1595 in the Netherlands. A fast, lightly-armed ship probably intended for small valuable cargoes or privateering in the manner of the "Sea Beggars".

1601 - Selected as the jacht, or scout, for the "Moluccan Fleet" sailing to the Spice Islands.

DUYFKEN's captain for this voyage, Willem Cornelisz

Schouten would later discover and name Cape Horn after the city of Hoorn.

On Christmas day the five ships of the Moluccan Fleet reach Bantam (Banten), Java and encounter a blockading fleet of Portuguese ships totalling eight galleons and twenty-two galleys. They engage this fleet in intermittent battle until driving them away on New Years day. This is a turning point in history: the undisputed dominance of the Iberians in the Spice Trade is over.

**1602** - Survey of Jakarta Bay, where the Dutch would later build Batavia their capital in the Indies, then sailing by way of Tuban, East Java to the Spice Island of Ternate. Loaded cloves at Ternate then to Banda for a cargo of nutmeg. Sent on a voyage of exploration to the east. The newly-formed United Dutch East India Company (*VOC*) was granted a monopoly on trade to the Spice Islands: they resolved to purchase some of the smaller ships belonging to the "Old Company" that were operating in the Indies, and this included DUYFKEN. On the voyage home from the Indies DUYFKEN was separated from the larger ships in a storm off Cape Angulhas. DUYFKEN reached the Netherlands two months ahead of the larger ships early in 1603.

**1603** - In December DUYFKEN set out on a second voyage to the Indies in the *VOC* fleet of Steven van der Haghen and with Willem Janszoon as skipper.

**1604** - The *VOC* fleet captures two Portuguese ships in Mozambique Channel and sails to the Spice Islands via India, finally reaching Bantam, Java on New Years Eve.

**1605** - DUYFKEN is in the fleet that captures the Portuguese fort of Ambon in the Spice Islands. Later in the year she is selected for another voyage of discovery to the east, but first she is sent to Bantam Java for urgently needed provisions.

**1606** - Early in 1606 Willem Jansz takes DUYFKEN southeast from Banda to the Kei Islands, then along the south coast of New Guinea, skirting south of the shallow waters around False Cape and then continuing east-southeast until they reach and chart the shores of Australia's Cape York Peninsular.

**1607** - DUYFKEN may have made a second voyage east to Australia. Later in the year she is sent to Java to get supplies for the beleaguered Dutch fortress on Ternate.

**1608** - Engaged in a five hour battle with three Spanish ships. In June DUYFKEN was sent with larger ships to capture the fortress of Taffaso on Makian Island. A month later she was brought in through the reef at Ternate for repairs. It seems that she was hauled on her side to repair the bottom but this caused further damage and she was condemned as unrepairable, and was left to the probable ignominy of being used as firewood.

**Nick Burningham (Maritime Archaeologist, Duyfken Foundation)**



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# The Wrecking of the MV STANFORD



June 1996 marked the sixtieth anniversary of the wrecking of the Norwegian vessel STANFORD on African Reef, some fifteen miles south of Geraldton, on the night of June 24, 1936. The STANFORD was owned by Mr J B Stang of Norway and under charter to Westralian Farmers Ltd when she hit the reef during stormy weather about 9.40pm that Wednesday night. She was on a voyage from Rotterdam via London with a cargo for Geraldton and Fremantle consisting of 6250 tons of cement and 1300 tons of coke.

The STANFORD was built in Norway in 1928, by Helsingors Jernskibs & Maskin, of Elsinore, was of 4803 gross registered tonnage with a capacity of 8375 tons and had a speed of 11 knots. At the time of the sinking she was commanded by Captain Carl Bech, and had a crew of 31 and 2 passengers. She had an overall length of 387.8 feet, beam of 54.2 feet, and a draft of 25.8 feet. She was a twin-screw vessel, with the official number 85477 and call sign LGVH.

As the STANFORD was fitted with radio, an SOS was sent out very soon after the grounding. Captain Bech requested a boat be sent from Geraldton to take off the passengers but the already bad weather had deteriorated even further and this could not be undertaken. The two passengers were Douglas James Jeans and his wife Evelyn Dorothy Jeans, who was six months pregnant at the time. They had travelled from England to start a new life in Australia but lost everything they possessed in the wreck.

Captain Bech was 63 at the time and had been with J B Stang, the owners of the ship, for thirty years. He had commenced his sea career in sailing ships and was in command of the steamer STALHELM when she was twice torpedoed during the First World War - firstly in the Mediterranean, where she sank but was subsequently salvaged, and then again in the North Sea, when her cargo of wool kept her afloat.

Captain Bech's story, as told to the Western Mail and published in the July 2 1936 edition, went:

"We went on the reef about 9.40pm Wednesday night, heavy rain was falling, there was a dense haze stretching over a wide area and obscuring Point Moore Light, and the sea was rough. The light of the Point Moore lighthouse did not show up until after we had struck the reef. Then we could see a white, flashing light, and later on a red light, which appeared to be further down the coast. We saw the white, flashing light at intervals throughout the night after the ship grounded. A point of red light was sighted during one break in the weather. We had a good position at noon on Wednesday, and for some time before the mishap we kept 'lifting' her (adjusting the course) to keep away from the shore. Still we grounded.

I was on the bridge with the chief officer when the mishap occurred. All night the visibility was very poor, and intermittent squalls of rain made matters worse. I estimated that our visibility was about six miles - that is when the rain lifted - but that is only an estimate. Suddenly we felt the ship bump, and then she started to labour in the heavy sea, with a strong swell running: then she stopped. We realized that she had hit something between numbers 1 and 2 hatches forward, and we directed out attention to getting her off. Every method was tried. We attempted to get her off by using the helm; then we tried to send her astern; then ahead,



but it was no use. She would not move. Instead she started to roll and pitch; she would lift upwards then smash down again again on the reef with a sickening crunch.

Very soon after the STANFORD went aground an SOS was sent out by wireless, and a little later I had a message sent to Geraldton asking that a boat be sent from shore to take the two passengers off. The request was not complied with. With the glass falling and the sea becoming rapidly rougher, we made contact by wireless with the KOOLINDA, and from her got a message to the effect that she was coming to our assistance with all possible speed. Meanwhile we could do nothing but wait for the dawn or for whatever the night was to bring. The state of the ship became worse and worse as the night wore on. The steering gear, we found, was smashed, the rudder was broken, and the holds filling. The engine room was also damaged.

We saw the KOOLINDA's lights about 1 o'clock on Thursday morning. When the weather lifted for a few minutes they could be seen in the distance. Everybody was on deck by then. Help had arrived, and with the dawn we could set about getting to safety. Daylight came, and at about 8.30 o'clock we launched our starboard boat. The two passengers were in the boat, and 15 members of the crew - the youngest members - were told off to go to. She got away in a choppy sea, the men facing a long and hard pull.

It was impossible to launch our port-side lifeboat. It would have been smashed to pieces when it hit the water - or sooner. The weather was far too rough. Then a message was received from the KOOLINDA that she was launching a boat. Not long afterwards that boat came alongside, and the rest of us left the ship".

The STANFORD had contacted the State Shipping Service vessel KOOLINDA, under the command of Captain Buckeridge, which was about thirty miles north of Geraldton and en-route to that port. She made speed and arrived at the wreck in the early hours of Thursday morning but could only stand by because the weather prevented immediate assistance. It was 8.30am before one of the STANFORD's starboard lifeboats could be lowered and the two passengers and the fifteen youngest crew members rowed the four miles to the KOOLINDA, which was standing by to seaward off the reef. It was impossible to lower the STANFORD's port lifeboat because of the seas and the KOOLINDA therefore had to send one of her's across. This boat rescued Captain Bech and the remaining crew, the whole rescue being completed by about 11am. The KOOLINDA then headed direct for Fremantle despite having eight passengers to collect at Geraldton.

Among the crew who were rescued was the cabin boy, Alfred Clayton, aged 17, an Australian later killed in action on HMAS SYDNEY. Much publicity focused on the ship's

cat and her litter of kittens born only a few days prior to the wrecking and which were rescued by being carried down the front of the seamen's shirts.

At Perth, the passengers were interviewed by reporters (including Henrietta Drake-Brockman) and when their plight became public they were assisted with clothing. The Jeans had become friendly with Captain Buckeridge of the KOOLINDA and they subsequently worked on his small farm just out of Perth until they got on their feet again. Mr Jeans was killed at El-Alemain in 1942, his wife dying in 1969.

The STANFORD salvage rights were bought by Adolfo Calligaro for 425 pounds but he had considerable trouble in hiring a boat in order to go out to the ship and the local fishermen would not help. When he eventually made it out to the wreck he found that looters had beaten him to it, and had plundered much in the way of stores, silverware, linen, and the lifeboats. He and his brothers however managed to salvage a lot of equipment, doors, ship's bells, etc. Things that would float were thrown overboard to be collected later from the beach near Greenough. Some items were given away but most were sold, including many at an auction. The ship's bell is now the school bell at Nagle (formerly St. Patrick's) College in Geraldton. The school also has a small display of artifacts and photographs. The ship's navigation lights hang at the front of the Mission To Seamen in Geraldton. Another smaller bell is held by the Geraldton Region Museum; this was presented to the Museum by Winifred Stirling of South Perth in 1988. It had been given to her late husband, Athol Stirling, by Captain Bech, at the time of the accident. Mr Stirling was the Geraldton manager of Westralian Farmers at the time and it was his wish that the bell was returned to Geraldton.

A number of doors off the ship were used around the Geraldton area; Adolfo Calligaro started the Bootenal brickworks, and timber from the STANFORD was used to construct a bridge and some of the doors used in buildings. Mr Calligaro was interned in 1942 and the Police confiscated such items that he still held, such as the ship's chronometer, barometer, clock and other souvenirs. These were never returned, and there present whereabouts remain unknown. A piece of the ship's lifeboat, with the ship's name on it, is on the wall of the Customs building in Geraldton and it is believed that a number of Geraldton residents have various other pieces of gear from the ship that were acquired in 1936, or since then by diving on the wrecksite.

The wreck of the STANFORD remains a popular dive site with the locals.

**Peter Worsley, Geraldton**

## Book Review: **The Four-Masted Barque LAWHILL**

by **Captain Kenneth Edwards, Roderick Anderson and Richard Cookson.**

**Conway Maritime Press, Anatomy of the Ship series.**

One of the co-authors of this latest in Conway's excellent Anatomy of the Ship series, Roderick Anderson, is also one of Western Australia's foremost ship modellers and a member of the Cape Horners Association. During the meticulous research he undertook to build a 1:48 scale model of LAWHILL he contacted Richard Cookson who had in the 1930s "spent hundreds of hours aboard [the last big sailing ships] when they visited nearby British ports. He measured, sketched, photographed and recorded faithfully the details of deck gear, fittings and rig, and over the ensuing years built up on this basic data by writing to owners, crew and institutions, eventually compiling a reference collection possibly unrivalled in private hands. This vast amount of information begged the writing of a book".

The resultant book is everything one would expect from Conway's Anatomy series. It presents a short history of the ship (she was the last big sailing cargo carrier to load a cargo in Western Australia when she visited Bunbury in 1947); detailed text description of her design and fitting out; masting and rigging including the lead of just about every line in the running rigging and details of every block;

a reconstruction of the builder's specifications; arrival and departure details of every voyage; a list of the masters with outlines of their careers; crew lists for three voyages; call signs and house flags throughout her career; a generous selection of photographs, many of them from Cookson's collection; and over sixty pages of scale drawings with enough detail and accuracy for you to build a 1:10 scale model on your nature strip. Rod tells me that there are a few errors and typos but I could only spot one (transposition of photos and captions of p.59) which is very good in a work of this kind. This book clearly represents a huge amount of meticulous work.

I have slight experience of how much work is involved because I failed to complete a few of the drawings myself, nevertheless, my negative contribution is generously characterised as helpful criticism in the acknowledgements. Even if it wasn't, I would have no hesitation in recommending this book to anyone interested in the last of the big square-riggers.

**Nick Burningham**

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## ANNOUNCING

# “Flotsam and Jetsam”

*An exciting new exhibition of maritime heritage-inspired artwork, to be held in the Moore’s Building, Packerham Street, Fremantle, in collaboration with the Maritime Education Society of Australasia (MESA)’s Sea Week, March 1997*

The Maritime Heritage Association invites exhibitors to submit artworks for exhibition and potential sale, in the categories of:

*Fine Art:* paintings and other graphic arts that reflect aspects of maritime heritage, past and present;

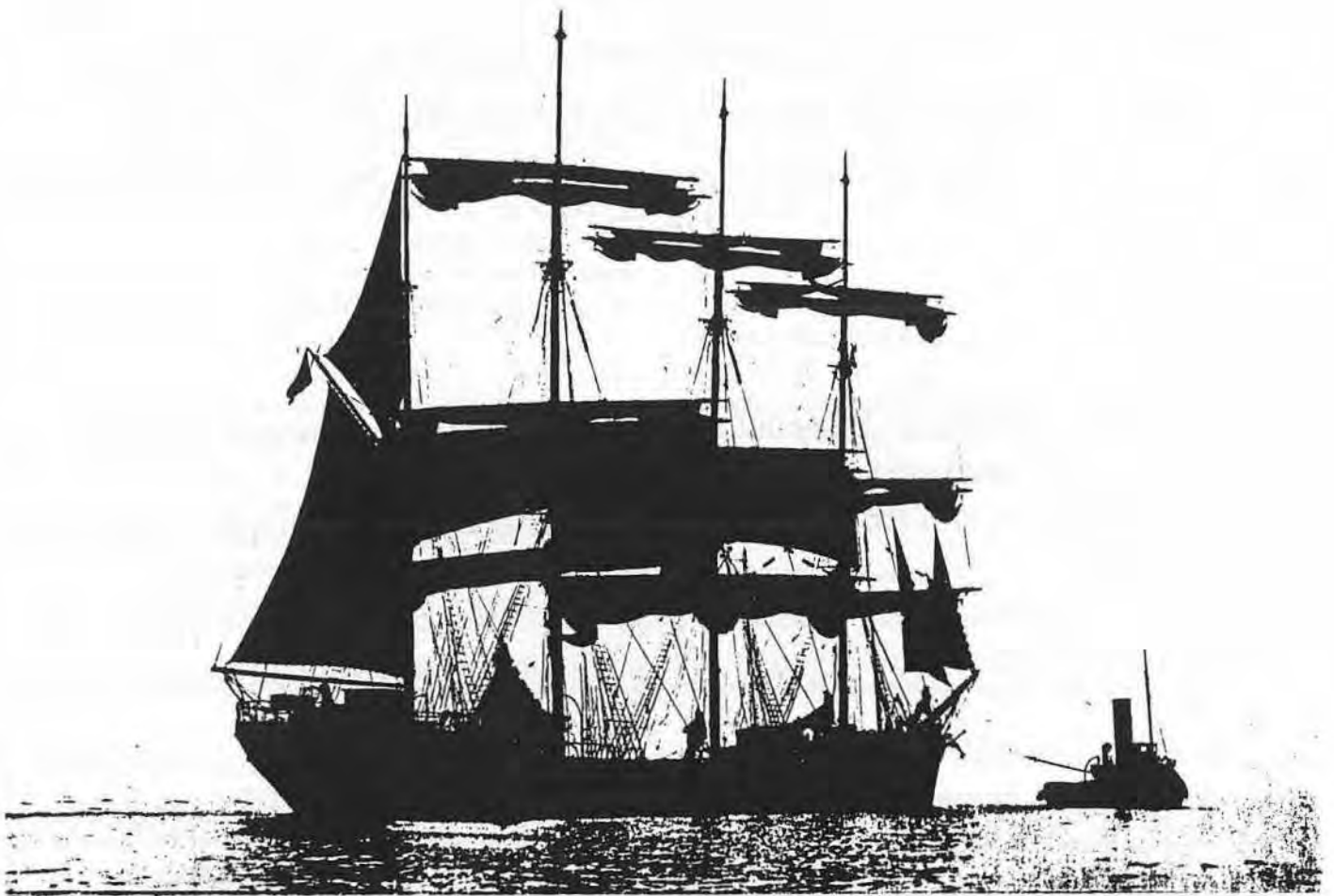
*Applied Arts:* for example; scrimshaw, rope work, blocks and other fittings, ship and boat models, finely drafted plans of historic or heritage watercraft.

The exhibition will be partly aimed at school groups. To this end, exhibitors will be encouraged to practise /demonstrate their skills during the running of the exhibition.

*If you are interested in exhibiting, please contact MHA Committee member Bob Ivery, on 458 3671*

The Committee of the Maritime Heritage Association reserves the right to determine whether or not an item offered for display meets the necessary selection criteria.





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