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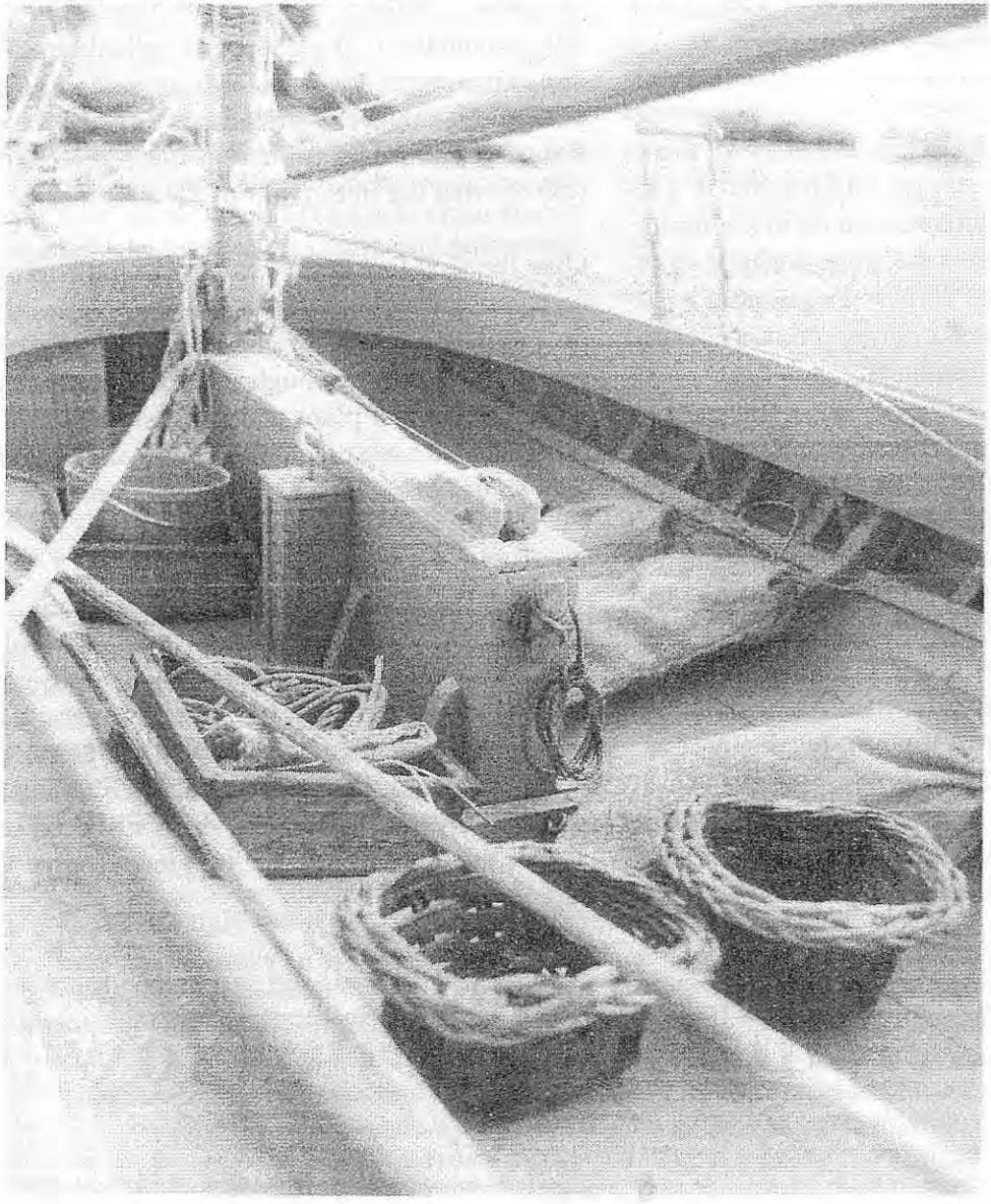


Brian Lemon's model of the Little Dirk showing the centreboard case with its raising tackle, the coaming, mast and boom and the various little extras such as galvanised bucket and baskets that make the model come alive.

See article page 12

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

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

Material for publishing or advertising should be directed, preferably typed or on disk, to:
The Editor, 12 Cleopatra Drive, COODANUP, Western Australia, 6210.

EDITORIAL

This edition of our journal is an important one as it outlines a new direction in our aim of researching, preserving, restoring and disseminating information about our State's long maritime history. Please read the two articles, by Nick Burningham and Ross Shardlow.

The success of the project to take the lines off the *Little Dirk* in Carnarvon during 2001resulted in a rethink of what the Association could do in the future to help preserve this State's maritime heritage. Taking the lines off boats and ships is an essential way of preserving their design for future reference, even if the craft itself should disappear.

There are many vessels in Western Australia that are worthy of having their lines preserved for posterity. I believe that Bill Leonard, master shipwright on both the *Endeavour* and *Duyfken* replica projects and currently restoring the Fremantle Maritime Museum's collection of historic boats, is keen on the idea. He has offered to demonstrate one of the methods of taking lines to interested Association members. It is hoped that a time for his demonstration can be arranged fairly soon.

For those of you interested in taking off lines I can recommend a book that explains the proceedure very clearly and simply. The book is "Sixty Years a Yacht Designer" by Maurice Griffiths (Conway Maritime Press, London, 1988). The Appendix to this book, entitled *Taking Off A Boat's Lines,* is the best explanation I have seen. An allied topic and worth reading is *Marine Drafting Methods,* the appendix to Douglas Phillips-Birt's "The Building of Boats" (Stanford Maritime, 1979), a good explanation of what the lines plans of a vessel mean.

Over the next few years this association could build up a very valuable collection of lines plans. Undoubtedly the physical remains of some of these vessels will disappear through wrecking or neglect, and it may be that our plans and any historical data we can gather to supplement the plans, will become the only record of these interesting and important boats.

To more mundane matters. I am now the Treasurer and Membership Secretary for the Association. Membership fees are due from 1 July so please send your dues to me at the address shown on the cover and on the form on page 19. The Association is keen to get more members and you can help. Try to recruit any of your friends who have an interest in maritime history. Remember that I still need articles for the journal – even short pieces for the Ditty Bag.

Membership Fees Due Now !

A Few Lines on MHA Lift Off

Nick Burningham

At a recent meeting the committee of the MHA resolved that the recording of the lines of heritage watercraft is a key undertaking through which the organisation can remain significant and valuable in terms of its stated heritage objectives.

Heritage is a wonderful thing. Leaving aside "natural heritage", heritage embraces everything we — human kind — know of from our collective past. It cannot include those parts of our past that we collectively don't know of, (in the same way that light would not exist if there were no eyes to see it).

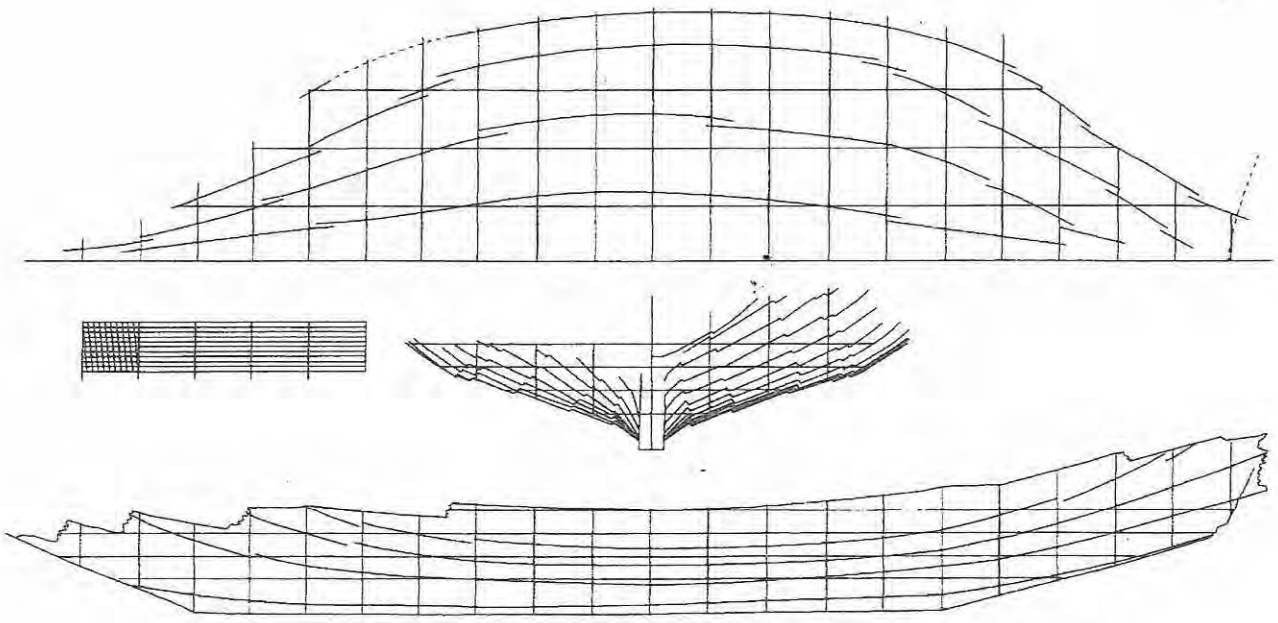
The lines of a vessel are the essential "hard data" record of what distinguished that vessel, and what its builder/designer drew from tradition, and what the design contributed to maritime culture and heritage. But, as I've said, our heritage is only that part of our past that we know of. Everything that has gone before, that we have no recoverable record of, is lost forever.

Dozens of significant heritage watercraft remain extant today: but with each passing year there are fewer of them. The recording of the lines of LITTLE DIRK last year by Ray Miller and team presents a pertinent example. LITTLE DIRK's cartwheel stern is a uniquely Western Australian development (and one of the most elegant sterns ever developed in my opinion) but LITTLE DIRK is falling to bits and unlikely to be saved unless a convincing, professional record of her significance exists. Perhaps she will continue to fall to bits, but if that happens she will not be completely lost.

What are the "lines" of a vessel? The shape or hull form of a vessel is very complex. The shape is smooth or "fair", it is nearly all curves, but it is not a regular shape like a sphere or an ovoid, for example, that can be described by manageable mathematical formulae or expressions. The shape can only be recorded by mathematically describing the position of a very large number of points on its surface in three dimensions. A lines plan uses contours like those on a relief map to represent the shape, but a relief map only uses contours in the horizontal planes. A lines plan projects contours in multiple planes through all three dimensions.

Some vessels have been designed using a lines plan, but a far greater number of traditional, timber-hulled, vessels were built by eye: or their shape was scaled up from a "half-model" carved by eye. A few years ago I did a Radio National talk about the development of Naval Architecture as a science and the cardinal place of the invention of contours and lines plans in that development. After the talk was broadcast I talked with some naval architects who I thought might be somewhat hostile to my ideas. Never the less, I put forward the view that it was only at the end of the eighteenth century that scientific naval architecture began to be able to improve on the designs produced by illiterate men working on muddy beaches. "Oh no." responded a noted naval architect, "I'm not sure that we've got there yet."

And in that candid admission lies the importance of the lines of traditional watercraft. Every vessel is a unique human creation, every one is the product of traditions that



The lines of the remains of a Medieval Chinese ship were lifted using an electronic measuring device (EDM) The clinker-like arrangement of the planking is an unexpected feature of these ships.

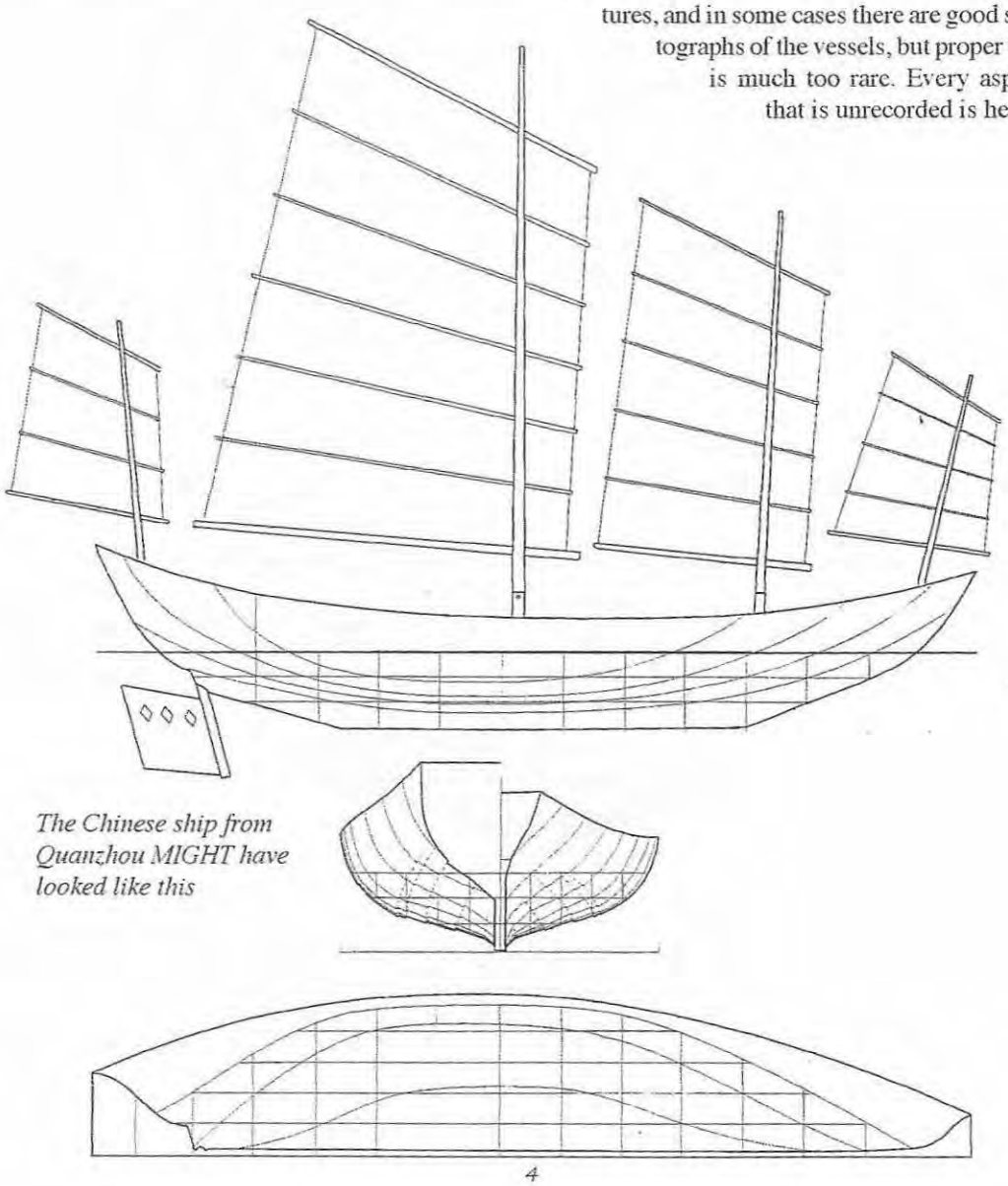
developed and branched yet maintained continuity for thousands of years.

Just down the road from my house in Fremantle, in the marina of the Swan Yacht Club, is a large, white, flashy, cabin cruiser. Its hull was built as a round-bilged, karri-planked, cray boat. If the rest of the motor boats on the Swan river had similarly sweet lines the problems of river bank erosion would be far less severe, and most motor boat owners would burn very much less polluting fuel on the average weekend.

There are many techniques for "lifting" or "taking the lines off" of a hull. I've lifted the lines of some twenty vessels that come to mind, plus a few models in museums. On one occasion I used a reflector on the end of lo-o–o— o — o–o-ng bamboo pole and an EDM (an electronic theodolite) to measure a Medieval Chinese ship that I wasn't actually allowed to touch. On a muddy beach, under a boat where all the village ducks went to crap, I employed local children to do the measuring — they whooped with delight to be paid (a pittance) and threw themselves in the sea to clean off when we finished. I have also grovelled in the mud under bilges myself.

I've come to the conclusion that simplest is best. You need to lay out a simple square grid under the side of the boat that you are measuring. You need a couple of stiff, straight battens, a measuring tape or two, two spirit-levels and a plumb-line — technology that is not likely to go wrong. If the boat isn't completely level you measure it the way it is, draw it that way, and then impose a new set of corrected horizontal and vertical lines on that drawing to project a corrected set of lines.

Every lines plan is to some extent an approximation or idealisation of the truth. No vessel is perfectly symmetrical, yet you only measure one side, project one side, and pretend that the other side is the same. It doesn't much matter — every hull you record in precise detail will be distinguishably unique and there is a good chance that the record will be appreciated and analysed by historians, archaeologists and knowledgeable enthusiasts long into the future. In studying comparative naval architecture or nautical ethnology (or whatever you want to call it) the greatest problem is that there are plenty of written records of what experts have thought about the maritime technology of various cultures, and in some cases there are good sketches or photographs of the vessels, but proper technical record is much too rare. Every aspect of heritage that is unrecorded is heritage lost.



The Chinese ship from Quanzhou MIGHT have looked like this

Light Ship Indeed

I received the following yarn from Chris Buhagiar some time ago. It is from a friend of his, Sid, in England and is one of a number of yarns that will appear from time to time.

Brocklebank's *Maihar* has been featured in Sea Breezes once or twice and I did my first trip in her during the war. After an eventful voyage out to India we went to Lorenco Marques (now Maputo) in what was then Portuguese East Africa and loaded coal - Aden for orders. We sailed in a small convoy to Mombassa with the 1917 built *Maihar* being probably the newest ship. The others were woodbine funnelled tramps of ancient vintage. We eventually ended up unloading the coal in Catania in Sicily and Taranto in the heel of Italy. Royal Engineers unloaded the coal straight into railway trucks alongside and of course it took ages. We were berthed in the Mare Piccolo whilst the Mare Grande - the outer harbour had the unique sight of a line of Italian battleships and cruisers lying on the bottom with their upperworks showing - sunk by the Fleet Air Arm. We sailed in convoy completely light ship and it was said that we were bound for Casablanca to load sand ballast en route to the USA. A day or two before passing through the Straits of Gibraltar the Commodore instructed the two outer columns of ships to slow down and take up stations behind the inner two columns. Then the next two outer columns were slowed and stationed themselves behind the others. The result was two columns of ships stretching from horizon to horizon - a wonderful sight. The speed of the convoy was adjusted so that we passed through the Straits at night and it was then that,we were escorted by cruisers and destroyers from Gib. I was on the midnight to four watch and passing the narrowest part near Tarifa when powerful searchlights suddenly shone from Tarifa lighting up the ships. The lights were played up and down the column of ships. In quick time a cruiser sped into the beam of the searchlights, all her guns, with naval precision swung upwards and then lowered shorewards towards the searchlights which were barely a mile away. Suddenly the lights went out and did not come on again. One could imagine the Spanish operators expecting a devastating salvo in their midst and one could not but admire the quick thinking Royal Navy.

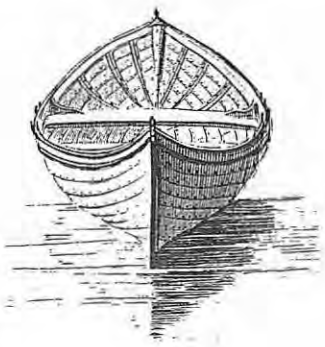
In the event we did not call at Casablanca and carried on with the convoy into the Atlantic. We were the second ship in the centre column. Bad weather set in and the motion of the ship became violent with the flat bottom reaching out of the large swell and crashing down with a thunderous noise. Several times at night we would all hurtle out of our bunks thinking we had been torpedoed. Because of the extreme roll the condenser intake at the turn of the bilge came out of the water and necessitated stopping the engines as, I believe the vacuum was lost (I am no engineer!). Station keeping became impossible particularly for the ships astern and to the side of us and the captain requested that we should take up station as the last ship in the column. This was agreed and we dropped back, occasionally stopping but making it back to the convoy with the engines at full speed until we regained position when we adjusted to the speed of the convoy which was six knots if I recall.

In the night it became very stormy and we were stopped frequently and no sign of the convoy could be seen. Therefore the captain made full ahead in between times but felt that he was miles astern of the convoy.

Just on four a.m. at the change of the watch we suddenly were aware of a small low hull in the sea just by us; the immediate thought was that it was a U Boat. However it turned out to be a "four stacker" US destroyer. The captain shouted for a megaphone, leaned over the bridge wing and shouted to the destroyer which was now close alongside - " How far ahead of us is the convoy?" thinking that this was the rear escort. The reply came in a laconic American drawl - " You are ten miles ahead of the convoy captain. We are the outer forward escort !". During the night hours we had managed to sail right through the convoy without seeing a single ship and indeed as the grey dawn broke we could see the ships far astern.

Another interesting thing about the violent motion was that the bridge which was protected by concrete flags bolted onto the wooden wheelhouse started to part company with same and crashed down onto the deck below. One broke the bridge ladder from the captain's deck. It also became apparent that the whole bridge structure was beginning to move and so wires were passed over criss -cross and tightened with bottle screws in case the whole lot went over the side.

Our time in Philadelphia made up for this uncomfortable passage.



The Ditty Bag

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

Contributions to this page urgently required!

By 1869, the year *Twenty Thousand Leagues Under the Sea* was published, at least twenty-five authenticated crew-carrying submarines had been built and dived successfully.

At Port Gregory one of the shore based whaling enterprises is reputed to have caught a whale which yielded 14½ tons of oil. This was during the 1850s.

The great-great-great-grandson of Thomas Cochrane, 10th Earl of Dundonald, (see September 2000 journal) recently received a special award from the French for commanding a maritime operation during the Kosovo campaign. The 10th Earl in the early 1800s devastated the French fleet and captured or destroyed more than 50 French ships. He was nicknamed the Sea Wolf by Napolean. His great-great-great-grandson, Commander Thomas Cochrane, received the Croix de Vaeur Militaire while commander of *HMS Somerset*, a type 23 frigate. It appears that daring and valour run in the family!

The search mounted for *Koombana* which had gone missing during a cyclone in 1912 covered a huge area off the Western Australian coast. Some of the vessels which took part in the search include:-

Bullara - Turtle and Bedout Islands area
Gorgon - Rowley Shoals
Minderoo -Montebello Islands
Moira - West of the Lacepede Islands
Una - As far south along the coast as Geraldton.

All searches were unsuccessful.

Flûte. Term used, especially in France during the 17th and 18th centuries, for a cargo ship designed to carry construction timber and naval stores and troops. Popular in the western Mediterranean, and used during the French regime in Canada, some as fishing vessels. Many were East Indiamen. Described as carvel-planked, having flat floors, full robust build, and a high round stern. Three-masted, setting square sails, although the mizzen might set a gaff or lateen sail. A vessel was said to be armed *en flûte* when a ship of the line had had some of the lower deck guns removed to provide more space for personnel and storage.

Fluit. Long-distance bulk-cargo vessel that was well established by the late 16th century; original design so successful that it was widely copied. Being designed to carry cargo, they were full-bodied with strong tumble home to the topsides. Wide flat floors; almost angular bilges,becoming rounded towards the stern; broad buttocks below a high, narrow counter; vertical stem and sternpost. Bluff bows, curved stem; strong sheer. Fully decked; very large hold; high poop on 17th century vessels. Deck very narrow originally, wider later. Some had a forecastle. Foremast steped just behind the stem, setting 1-2 square sails; mainmast set 2 square sails; mizzenmast on the poop deck, setting a lateen, later a gaff sail. Some carried a spritsail below the bowsprit.

In July 1857 the last convict hulk in Britain, the *Defense*, was destroyed by fire. The notorious convict hulks were not used in Britain after this. In the USA in January 1992 however a shipyard in Avondale, Louisiana, completed a convict hulk which was then towed to New York and anchored near the East Bronx. The *Vernon C. Bain* was 625 feet overall, with a beam of 125 feet and displaced 18,000 tons. It could accommodate 1,800 prisoners. At that time New York had two other prison hulks, the *Bibby Venture* and the *Bibby Resolution*, both of which had originally been built as troop barges for use by the British Army in the Falklands.

Baldheaded. Said of a square-rigged vessel which carries no sail above top gallant sail, or a schooner with no topsails.

Book Review
Maritime Albany Remembered
Les Douglas *et al*

By Gordon de L. Marshall

A new book on Albany's maritime history was recently launched at a gathering at Barry Hicks' museum. The book makes use of many first-hand accounts of the more recent history of the port from the 1880s up to the Second World War by members of some of Albany's pioneer families, particularly the late Les Douglas. In fact the original impetus for the book was to record Les Douglas's recollections of his life in the maritime industry. Les was a third generation member of the ship-owning Albany family.

First published as *Memories of Maritime Albany* this edition has been enlarged with the addition of more material on the many vessels that were part of Albany's history.

A lot of research has gone into the book and this is supplemented by a good collection of photographs and maps. Many of the photographs are from private collections and have not been published elsewhere. It is a book for both the serious researcher and the person who is interested in the maritime history of this state. It is easy to pick up the book, open it anywhere and find something of interest. For the maritime history student the section on Albany vessels alone makes the book a worthwhile addition to their library.

A criticism is that it does not cover the early maritime history of Albany. This is understandable considering so much of the information was obtained from interviews with Albany residents, but the inclusion of the very early history would enhance the usefulness of the book.

Maritime Albany Remembered is a new edition released on 24 May 2002 which includes a maritime history of Albany from the 1820s to the 1940s, with biographical sketches of Albany mariners, particularly the Douglas and Armstrong families.

Albany used to be Western Australia's main port until the 1900s, when Fremantle became dominant. Emphasis is given to the ships associated with Albany, with particular attention given to well known vessels such as the schooner *Grace Darling*, the ex-Swan ferry *Silver Star* and Albany's once very popular tug the *Awhina*. Albany's unique wooden floating dock, the only one of its type in Western Australia, has also been detailed.

Much original material was obtained first-hand from elderly Albany residents and former residents, in particular Les Douglas, who was the third generation of an Albany maritime family. The Douglases began at Albany with Captain William. Douglas who made a daring rescue of the crew of the *City of York* in his tug the *Dunskey* off Rottenest Island in 1889, and Captain Fred Douglas who rescued the passengers of the sinking steamer *Rodondo* in the schooner *Grace Darling* in 1894.

Research for the book led to the discovery of the wreck of the *Sarah Burnyeat* in Albany harbour, since declared to be the best preserved nineteenth century wooden hull in Western Australia.

The large appendix contains an interesting collection of related sea stories, including voyages of the *Grace Darling*, the story of an abandoned whaleboat believed to be under a curse (P. 319) and a mysterious inscription found at Esperance believed to be made by early Dutch mariners. (P. 298)

The book was written by maritime archaeologist Gordon de L. Marshall, and published by ex-Albany businessman Tom Saggers.
334 pages, including index.
Price : $46.50. Paperback, plus postage and packing.
Copies are available from the publisher:

T.O. Saggers
PO Box 1054,
KALAMUNDAWA6926
Email: saggere @ iinet.net.au

SHOW US YOUR LINES
A new focus for the MHA

Our members have acknowledged the popularity of our Journal, the Maritime Book Readers Club and our respected input on heritage matters; yet at our 2001 AGM a view was expressed that the MHA needs a new primary focus, a reason to exist.

The Association was formed thirteen years ago under a charter of preserving traditional maritime skills. Fortunately, there are now many organisations, workshops and individuals doing fine work and keeping those skills very much alive.

Maritime Museum shipwright, Bill Leonard, floated a suggestion (more a plea) that instead of preserving traditional maritime skills we should be preserving traditional maritime shapes. Bill pointed out that recording the shapes of old boats is, perhaps, even more important than actually rebuilding them - particularly as so many old boats, despite best intentions, will never be restored; if we don't record their shapes they will be lost to us forever. The idea gained momentum when Ray Miller and Nick Burningham offered their considerable experience in this field. LITTLE DIRK, our first trial project, headed by Ray, was an unqualified success *(see Vol. 12, No. 2).*

As a result of the discussions at the 2002 AGM regarding the future direction of the MHA, President Rod Dickson proposed we set a new course - that of recording the shape of old ships and boats. Of course all our existing activities will be retained but recording the shapes of ships, and their respective histories, can be the vehicle by which we record the Maritime History of Western Australia.

LITTLE DIRK Sets the Pace

This project started off simply to record the shape of an old boat before she fell to bits; but as we started poking about, LITTLE DIRK took off at a pace of her own, demonstrating just how encompassing an assignment like this can be.

So far we have recorded her shape as a set of sheer, half-breadth and body plans; we have also included a construction drawing. We have studied her history, her builder, and her owners; compared her with similar vessels and attempted to reconstruct her original sail plan and general arrangement. She has been measured, sketched, photographed and embodied in a superb scale model. Along the way we have been introduced to, worked with, and learnt from some very pleasant people, and created an awareness that may well culminate in the preservation of the vessel itself.

The project doesn't stop there. As a result of studying other boats built by her builder, Robin Gourley, we have now been invited to lift the lines off LITTLE DIRK'S sister, MAFALDA, and studying her history will, no doubt, reveal more secrets (and pose more questions) about LITTLE DIRK.

There seems to be no shortage of candidates to lift the lines from, recommendations are coming in faster than we can deal with. This includes lifting the lines off models, studying and recording extant plans and reconstructing new plans from existing data. It also includes documenting the history of these craft, the people associated with them and their influence on the heritage of Western Australia.

We would like to hear from anyone who

- is interested in lifting the lines off boats
- is interested in learning how to lift the lines off boats
- has any existing plans that we can publish in our Journal
- has, or knows of, any boat that should be recorded by having her lines lifted.

Contacts: Nick Burningham. (Vice President) 94306457
Ross Shardlow (Secretary) 93610170
Peter Worsley (Editor) 95869003

Take an illustration - lines plan of Rottnest Island Pilot Whaleboat

See pages 10-11 overleaf - These *plans were drawn up by Ross Shardlow to represent a colonial built whaleboat as used by the Rottnest Island Pilot Station in 1853. As no original plans for this vessel have been found, Ross has reconstructed these drawings based on documentary evidence and archival research. Just how he went about the assignment will be related in future editions of the MHA Journal.*

What is an Old Boat?

Just what is a 'heritage ship, boat or vessel'? Perhaps this description could be condensed to 'old watercraft' - but we still don't know what qualifies for 'old'.

We set age criteria for things like furniture, buildings and objets d'art. We give them nice names like 'antique' or 'neo-classical'. For motor vehicles we can have veteran, vintage, post vintage or classic, even racing cars have a heritage category defined by age - ten years. What about ships and boats?

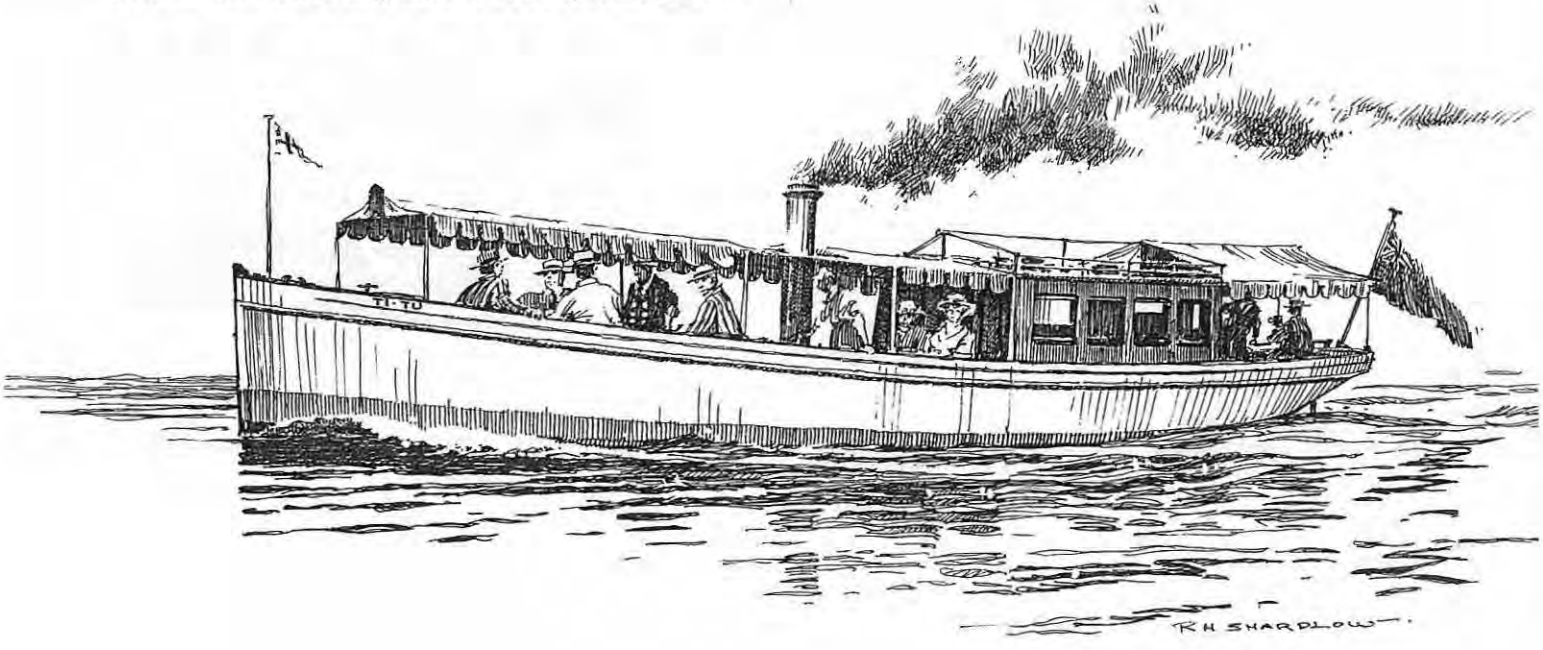
The Classic Boat Club (WA) have given some thought to their definition of 'classic boat', right down to including varnished superstructures and 'some redeeming feature'. *Classic Boat* magazine, on the other hand, dodges the question and tells us classic boats are, 'whatever our readers tell us they are' - perhaps with an arbitrary twenty five year moratorium. Norman J. Brouwer of the National Maritime Historical Society (USA) attempted to define 'historic ship' for his International Register (1985). Interestingly, he defines 'ship' as a vessel over forty feet, anything less is deemed to be 'small craft'. For inclusion in his Register, 'ships had to survive as virtually complete hulls' and no age limit is set on them provided they are intact, above water and of historic or educational value. Lesser ships (presumably of less historic or educational value) have an age criteria set on them such that they have to be built before 1946.

I believe our definitions need to be broader. Certainly we can't have any size limit to our criteria. A twelve-inch half model can be just as significant as an ocean liner. Nor do they have to be of specific historical interest. Most of our old boats probably had a very ordinary life -but they still hold real heritage value and touched the lives of those that built, owned and worked them. Moreover, 1 don't see why our craft have to be complete as even bits of boat or mangled relies can still tell a story - look at the Museum's wonderful GARBO.

Brouwer's cut off point to the end of 1945 has been well thought out but as his statement was made in 1985, 1 wonder if we should redefine the criteria as any watercraft over forty years of age. This also closely correlates to the useful working life of a wooden ship, or a steel one for that matter... and before you race off to tell me about the schooner PEGGY built in 1791 or BOADICEA built in 1808; I'm talking about the nominal working life of a minimally maintained, hard working vessel before the repairs, refits and rebuilds make her a commercial liability.

A 'boat year', then, may be regarded as half a human year! Put another way, a boat will age twice as fast as her owner will.

Ross Shardlow.



PILOT WHALEBOAT
FOR THE ROTTNEST STATION

Based on a whaleboat built for the Station by William H. Edwards in 1853.

SHEET 1 - LINES & BODY PLAN

Drawn by R. H. Shardlow August 1999

NOTES ON WHALEBOATS USED FOR THE PILOT SERVICE DURING THE 1850's.

SEVERAL WHALEBOATS WERE USED FOR THE SERVICE DURING THIS PERIOD AND THEIR SPECIFICATIONS VARIED. SOME WERE BUILT SPECIFICALLY AS PILOT BOATS WHILE OTHERS WERE PURCHASED SECOND HAND INCLUDING BOATS FROM THE WHALE FISHERY.

INSTRUCTIONS FROM THE HARBOUR MASTER - ISSUING PARTICULARS RELATIVE TO THE BUILDING OF A PRE DARED WHALEBOAT FOR THE ROTTNEST STATION.

LENGTH OVER ALL - TWENTY EIGHT FEET (28ft).
EXTREME BREADTH - FIVE FEET SEVEN INCHES (5ft 7in).
DEPTH - TWO FEET ONE INCH (2ft 1in).

KEEL, STEM, STERN POST AND GUNWALES TO BE MAHOGANY* OR OTHER SUITABLE HARDWOOD.
PLANKING BEST YELLOW DEAL OR SINGAPORE CEDAR FREE FROM KNOTS AND RENTS.
ONE FLOOR BETWEEN EVERY TWO TIMBERS. TIMBERS AND FLOORS TO BE NOTCHED TO RECEIVE THE PLANKING.
THWARTS TO BE DOVETAILED INTO RISING.
MAST THWART TO BE DOUBLE KNEE'D.
GUNWALES TO BE FITTED WITH IRON CRUTCHES INSTEAD OF THOLE PINS AND WITH TACK AND SHEET HOOKS.
THE BOAT TO HAVE A GOOD FLAT FLOOR, NOT LESS THAN THE USUAL SPRING OF A WHALEBOAT, AND TO BE FASTENED WITH WROUGHT, COPPER NAILS CLENCHED WITH ROVES THROUGHOUT.
BILGE PIECES TO SAVE THE LANDS IN MAULING UP AND LAUNCHING THE BOAT, THE WHOLE TO BE COVERED WITH TWO COATS PAINT.

19 AUGUST 1852

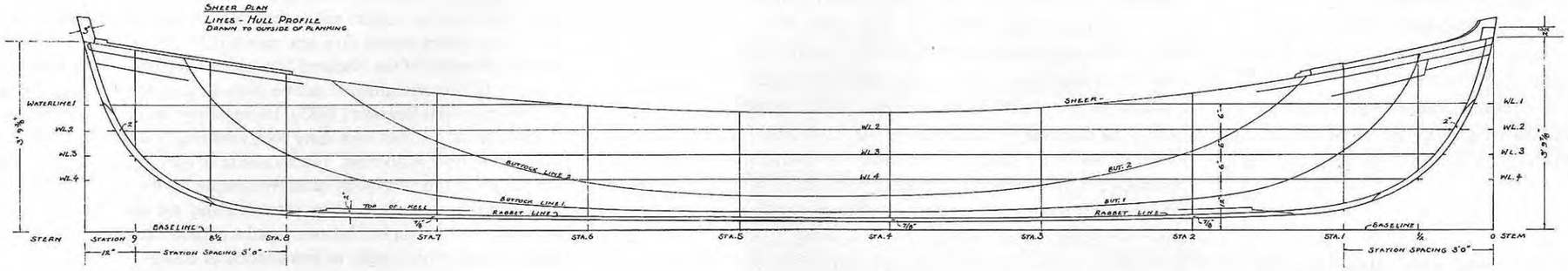
* SWAN RIVER MAHOGANY (JARRAH)

THESE INSTRUCTIONS WERE REISSUED 27 JANUARY, 1853 WITH THE CONTRACT BEING AWARDED TO FREMANTLE BOATBUILDER WILLIAM HUGH EDWARDS.
10 MARCH 1853, CONSTRUCTION TIME BEING SET AT ONE MONTH. THE BOAT WAS COMPLETED ON 27 JUNE 1853 AT A COST OF £33-0-0.

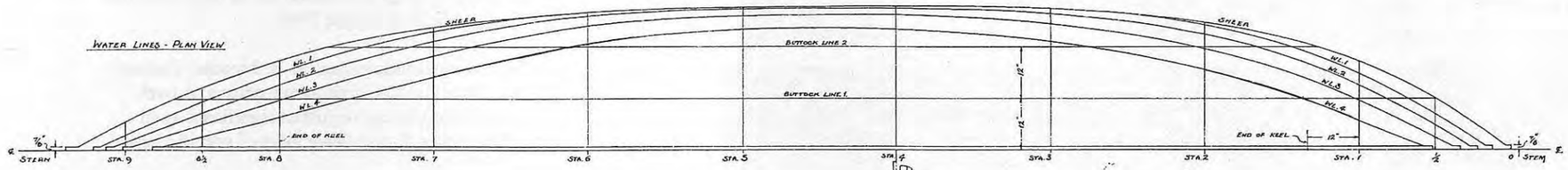
THOUGH OFTEN USED FOR SAILING THIS BOAT WAS NOT FITTED WITH A CENTRE CASE OR RUDDER.
THE COPPER FASTENINGS, FLOORS, NOTCHED TIMBERS AND DOVETAILED THWARTS INDICATE A FINER FINISH THAN THE WHALE FISHERY BOATS.
ALSO NOTE THAT THIS BOAT CARRIED HER LOGGERHEAD IN THE BOW AND NOT THE STERN AS PER THE USUAL PRACTICE IN WHALEBOATS.

COLONIAL WHALEBOATS FOR THIS PERIOD WERE GENERALLY CLINKER BUILT, NARROWER THAN THEIR AMERICAN COUNTERPARTS, CARRIED THEIR MAXIMUM BEAM ABOUT 1/3 FROM THE STEM AND CARRIED THE EXTREME BEAM A GREATER DISTANCE ALONG THE SIDES. THE SHEER WAS MORE EXTREME IN THE EARLY BOATS.

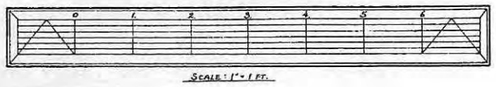
SHEER PLAN
LINES - HULL PROFILE
DRAWN TO OUTSIDE OF PLANKING



WATER LINES - PLAN VIEW

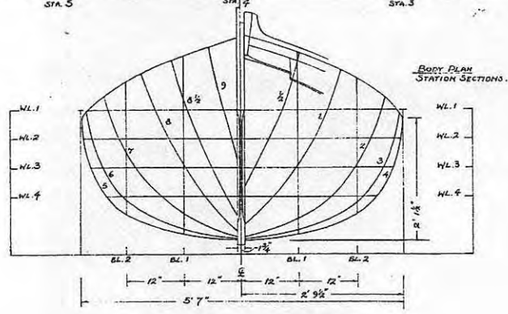


LENGTH OVERALL - TWENTY EIGHT FEET (28 ft).
EXTREME BREADTH - FIVE FEET SEVEN INCHES (5 ft 7in)
DEPTH - TWO FEET ONE INCH (2 ft 1 in).



SCALE 1" = 1 FT.

BODY PLAN
STATION SECTIONS.



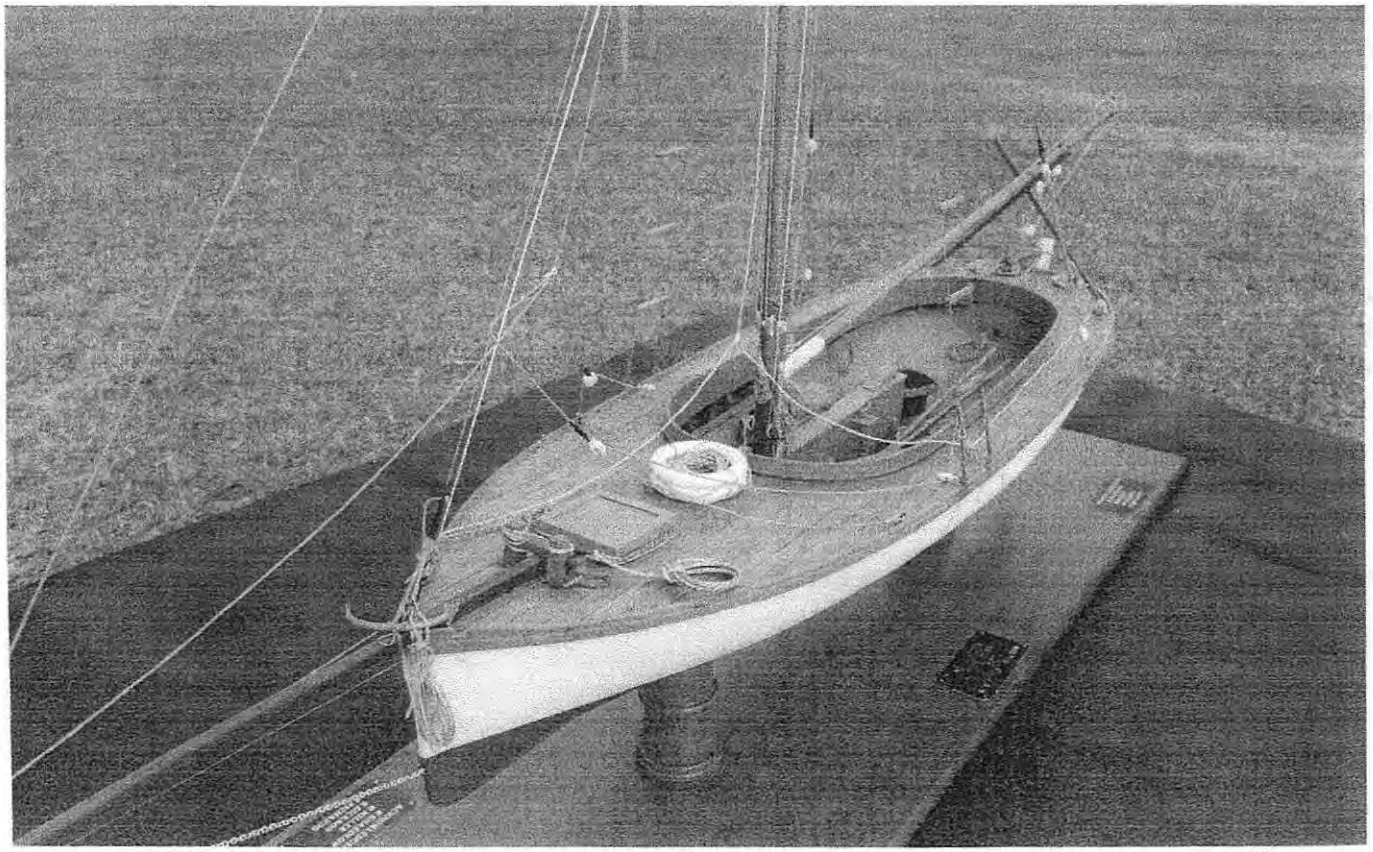
Little Dirk

Once again Brian Lemon has built a superb model. This time his description is of the building of the *Little Dirk* . Brian also made a model (to the same scale) of a 12' clinker dinghy that might have been used as a tender to this vessel.

As is now well documented, Ray Miller, Ross Shardlow, Rod Dickson and Ron Richards ventured to Carnarvon last year (2001) to survey, measure, discuss and finally take off the lines of the hull of the 30 ft cutter *Little Dirk*. Ray Miller subsequently drew up a set of plans and Ross Shardlow after research drew up a sail plan. Both Ross and myself spent a couple of hours on board John Williams' *Mafalda* (a privatised yacht the same as *Little Dirk*) measuring and sketching various areas that were missing on the hull of *Little Dirk*, centreboard casing, mast position, etc. In a couple of areas both Ross and Ray had to make educated guesses based on their extensive knowledge of boats, and various old photos of some of these craft. I guess it was inevitable that yours truly would build a scale (1/12) model of her.

The Model

As mentioned the model was built to a scale of 1"=1' giving a hull legth of 30 inches. The keel, stem and stem foil was cut in one piece from 6 mm 12 ply marine quality wood. The stern post and stem post were made 1 inch "higher" than the finished size. There was also 1 inch excess wood on the outside of the heel piece for clamping and holding in my vice while setting up the 14 frames on their marked stations. These frames were cut to ½" width as the boat is more or less hollow. Once all the frames were glued in position a series of ¼" square stringers were attached to the stem and stern posts via the 14 frames. These stringers were approximately 1 inch apart and set into each frame flush with the outside of each frame. As these boats had a rather unique style of stern, sometimes called a "Cartwheel Stern", a number of smaller stringers were used to shape this area of the model. I then marked on the inside of the keel the position of the centreboard casing. This area was then cut down to the final outside keel size, but not all the way through the 1 inch surplus. Although these boats were hollow hulled fishing or pearling boats, they had a forward decked area approximately 9 feet from the stem post to a round coaming extending to within a metre of the stern. This coaming

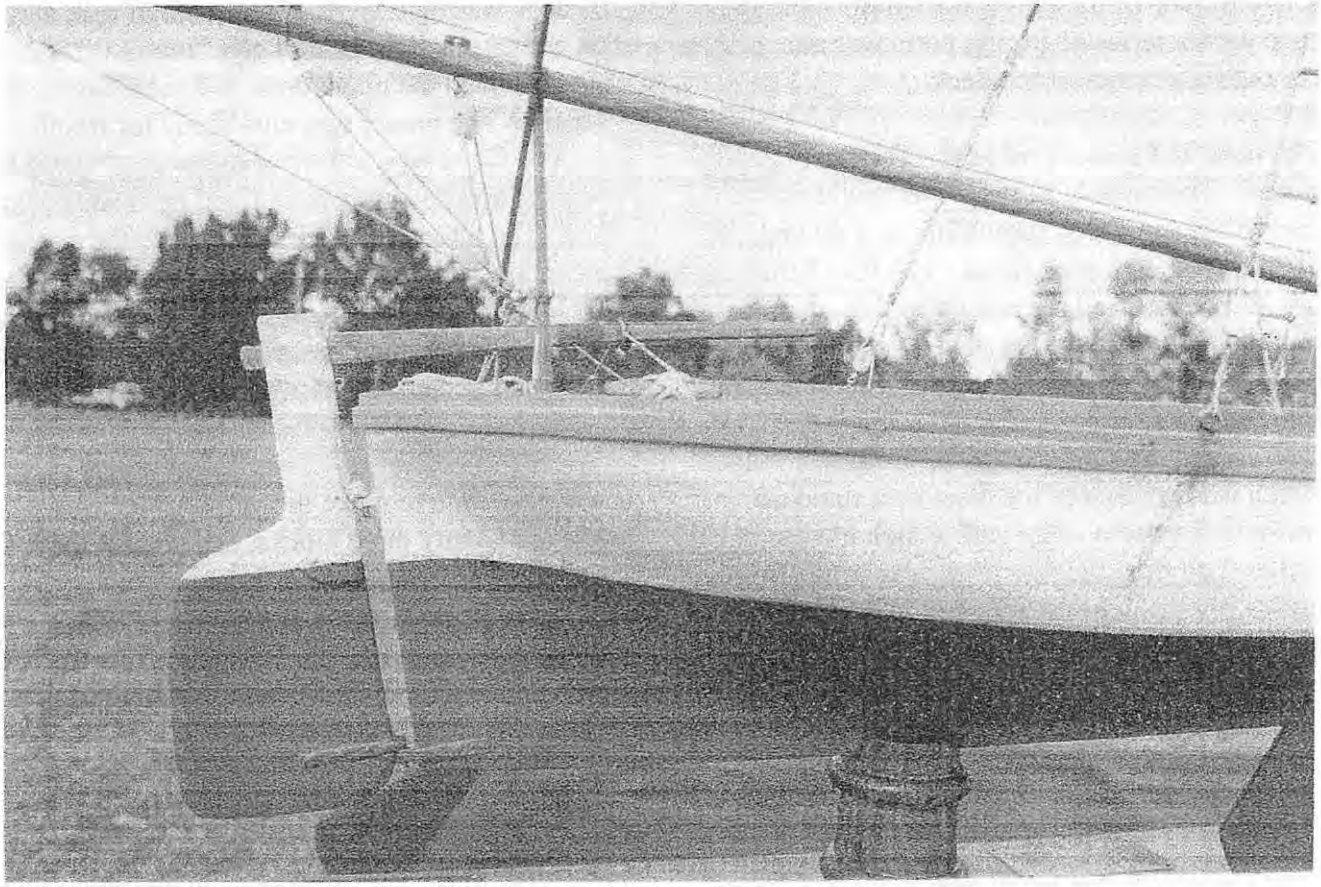


was 18 inches (1½ inches) from the outide of the hull and almost 6 inches (½ inch) high all round.

The next step was to make up the centre case, which measured 7 feet (7 inches) in length and 2 feet 6 inches (2½ inches) high from the floor planking. This was a hollow box sealed at the top, except for a small rear opening with a sheave allowing a fine wire attached to the centreboard to allow it to be raised and lowered via a single and double block arrangement. Although the

done using 1 mm 3 ply. Having completed the hull, a start was made on the detailed areas of the hull.

Three inches forward of the coaming a 2 inch square hatch was built onto the deck. One inch forward of this were twin mooring bitts which also doubled as part of the securing support for the 13 foot (13 inch) bowsprit. The outer end of the bowsprit is secured by the conventional bob-stay system. The bowsprit was shaped from a



centreplate was made from steel on the prototype, the one for the model was fashioned from a 4 mm piece of 7 ply wood. It works perfectly. The forward end of the centre casing is also part of the support for the mast, which is stepped onto the keel. The mast is approximately 1¾" inside the coaming.

Once the coaming and mast area was complete the flooring was made from ½" individual planking to within 1" of the underside of the deck framing. Next step was the laying of the deck. This was made up of a number of □" individual planks. Over 800 treenails were used to secure the decking. Once the deck and interior was complete I the started to plank the hull. This was

piece of jarrah wood, squared for the 3½ inch inboard end. A standard gammon iron system secured the bowsprit to the stem post.

The rudder and tiller were completely missing from *Little Dirk*. This area was of course complete on *Mafalda*, so it was used as a guide for the *Little Dirk*. I made the rudder blade from a piece of 6 mm 12 ply wood and secured it to the stern post by the standard pintle system. The tiller was fashioned from a piece of jarrah wood and measures 7 inches long.

Little Dirk had three chainplates each side of the hull. The forward two each side were for the supporting shrouds of the mast. The others were

positioned some 7½ inches forward of the stern, and were also part of the mast support. These six shrouds were made from fine fishing tackle wire. The six chainplates were fashioned from brass and secured to the hull by fine brass rivets.

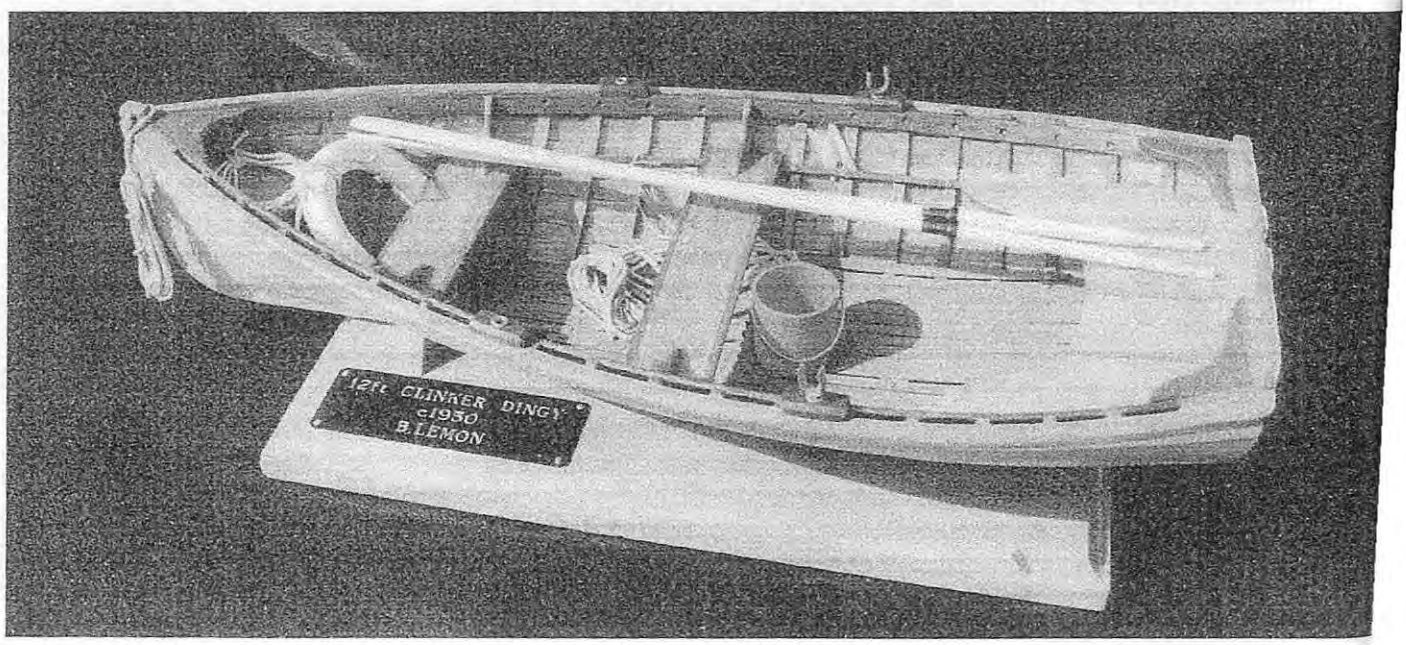
At this stage I cut off the surplus wood from the keel and the piece for the centreboard that had been previously partly cut through dropped out, leaving the hole for the centreplate to operate. A 6 mm by 4 mm rubbing strake was secured right round the top of the hull and a small "kicking" strip with a series of frreing ports was attached on the outer extremes of the deck.

The mast and spars were next. The boat is gaff rigged. The mast is 32 inches in height from the keel to the top. This started life as a 40 inch piece of 25 mm square pine wood. The first 4 inches was left square and the mast was then shaped round and tapered for the next 21 inches. The final 6 inches was tapered square. The boom was also fashioned from apiece of 10 mm square pine, tapered and rounded except for the first 2 inches which was secured to the mast by a standard gooseneck system. The gaff, which measures 15½ inches including the jaws, was also made from square pine which was rounded to within 1½ inches of the end where the parrell jaws fit. The mast, spars and bowsprit were given one coat of teak varnish stain and when dry given two coats of flat clear varnish.

The hull was now ready for painting. As is my usual parctice it was given four coats of a white undercoat, rubbed down well between coats and when I was satisfied, colour coated. The hull below the waterline was given several coats of anti-fouling red, using Humbrol matte 70. The hull was then masked at the waterline and given several coats of flat white, Humbrol matte 34. The rubbing strake and coaming, inside and out were given several coats of Humbrol matte 65. A light coat of Wattyl flat clear varnish was given to the whole boat, which gives a very realistic finish in keeping with these types of boats in the 1920s-30s. The deck was then given a light coat of teak varnish and later a light coat of clear matte varnish. This enhanced the plank deck and accentuated the treenails. The model was now ready for rigging.

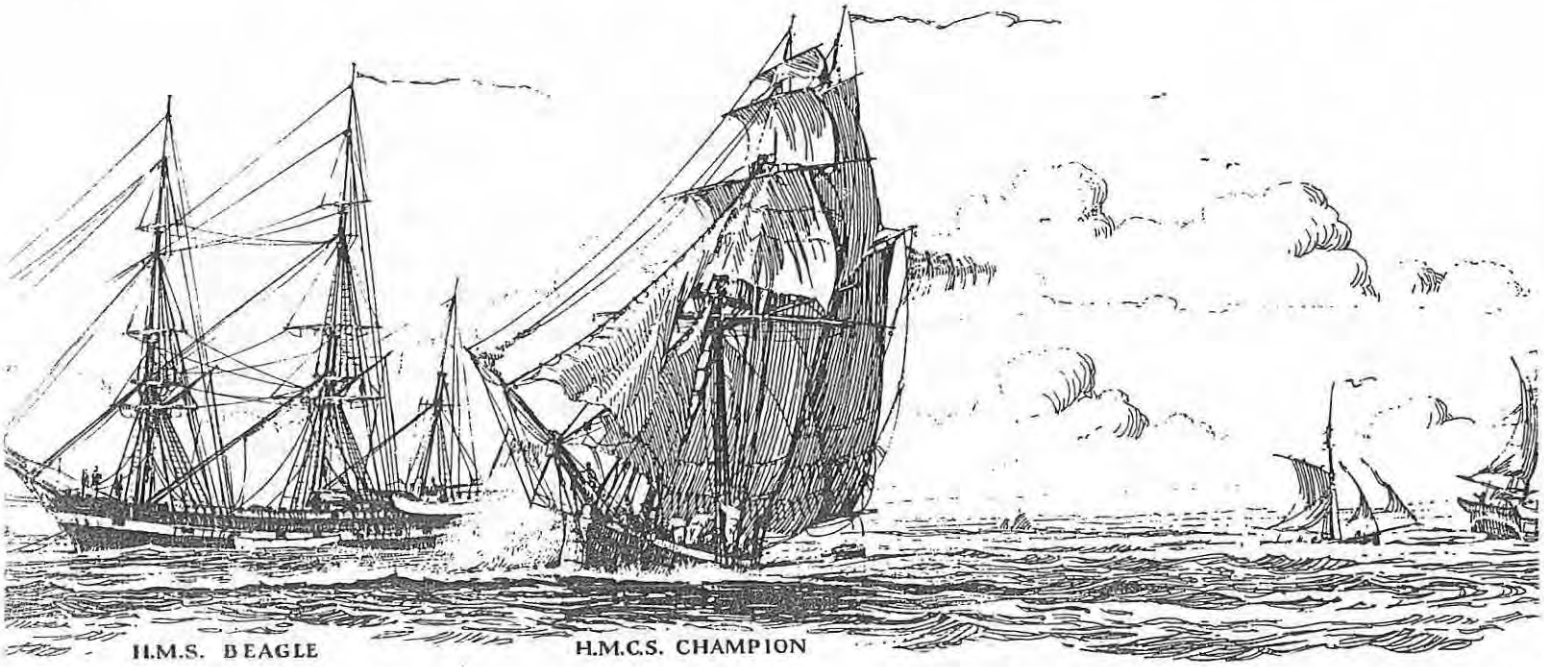
The mast and bowsprit were fixed permanently in place. The mainsheet boom was set to the gooseneck on the mast and supported temporarily at the right height above the deck. The two main mast wire shrouds either side were secured to the mast and the chain plates, making sure that the mast was vertical.

It was now time to make the various blocks. There are twenty three blocks, eighteen of these are single 3 inch blocks and five are 4 inch doubles. In addition to these, there are two 2 inch single blocks for handling the foresail tackle. All blocks were made by hand from appropriate wood. Eight small thimbles were made and three shackles. The whole of the interior of the model was apinted grey, Humbrol 126, and then flat clear varnished. All the blocks were painted flat white before setting to the various ropes. In addition to the



standing rigging I included all the boltropes for the sails. I find, apart from enhancing the rigging, this also gives an accurate idea of the sail area.

The model was mounted via two sheoak supports on to a piece of varnished sheoak. There are four engraved plaques (two each side) giving the relavent information pinned to the stand. The model is in the keeping of one of the four men responsible for the research and will be available to the Maritime Heritage Association and possibly other interested parties.



Colonial Schooner CHAMPION coming to anchor Fremantle

HELP WANTED !

Can you help Rod Dickson out regarding his question on Japnese dions? My apologies to Rod; I received this plea for help a year ago and mislaid it. I hope someone can help and that it is not too late to be of use.

In my research on the pearling industry I have come across a file based on the Broome Admiralty Court. This court was set up to sue the owners of the luggers for wages due when they went broke. In almost all cases the crew won the case and the luggers had to be sold by auction to recover their wages, etc.

In the inventories of the luggers, all dated in the 1920's, there is an unusual item listed that I have so far been unable to discover what it is. Apart from the usual items such as sails, rigging, dinghy and diving gear in each case there is either one or two JAPANESE DIONS. What on earth are they???? Here is a copy of one of the inventories.

INVENTORY OF LUGGER *CECIL, B263.*
1 jib; 1 foresail; 1 mainsail; 1 staysail; 1 awning; 3 anchors; ***2 japanese dions****; 1 dinghy; 1 life buoy; 2 tanks; 1 compass; 1 barometer; 1 life line; 1 helmet; 1 corselet; 1 bag helmet tools; 2 diving dresses; 5 lengths diving hose; 4 pairs woollen stockings; 2 pairs woollen drawers; 2 woollen singlets; 1 pump complete; 1 tin pump leathers; 5 x 4" blocks; 16 x 6" blocks; 5 x 6" double blocks; 1 wooden bucket; 1 deck broom; 1 basket; coir rope halyards; manilla rope; 1 divers ladder; 1 pair divers leads; 1 pair divers boots; 1 hurricane lamp; 2 tomahawks; 1 camp oven; 1 fry pan; 2 kettles; 2 saucepans; quantity of manilla and coir rope; 1 kerosene pump; 5 paddles and 6 shackles of chain, nearly new.*

The Storm of 1873

This is a further story from the late Robert J. Cooper's history of the Tapper family of Fremantle
(see "The Strathmore Tradgedy" in the previous two journals)

September '73 was to be long remembered at Fremantle for the storm which raged on the weekend of the 6th. and 7th.. Altogether, twelve vessels were driven ashore, ranging in size from the 7 ton *Annie* to the 533 ton *Robert Morrison*. Some were none the worse for the battering, but others were badly damaged. The *Argo*, with Kelly master and probably with John junior also on board, was out of harm's way at Bunbury at the time. At Fremantle, John and his other son Thomas, took leading roles in assisting where they could before their own boat, *Two Sons*, was swept ashore.

The main victim of the storm was the *Robert Morrison* which was anchored in Gage Roads, a position that was risky in bad weather, and the ship was also close to the Minden Reef. Captain Thomas Coates would have liked to get into Cockburn Sound in the shelter of Garden Island, but his ship drew 5.3 metres (17.4 feet) of water and so it was impossible for it to sail over the sandbanks.

"The Herald" reported that for some days the wind had "been blowing pretty stiffly at intervals", never the less, on the Saturday morning Capt. Coates went ashore in a boat manned by members of his crew. Before he could return, the wind freshened to a gale and the Harbour Master told Coates not to risk going out as his boat was too light for such a storm. This left the ship short of men and without its captain.

Just after 8 P.M. the 12 ton cargo-boat *Little Eastern* broke from her moorings and drove ashore "opposite the boatshed", by the Watering Jetty. Then, 8.40 P.M., the *Robert Morrison* started showing blue distress lights, putting up rockets and firing her guns. Harbour Master James Croke, made a signal to the ship to let the crew know that their signals had been observed. The night was fairly bright because of a full moon, but the wind brought fierce squalls of rain and at the same time there were sheets of spray torn from the crests of the waves and also from the seas breaking over the 2 jetties. The anxious watchers on shore could not decide what was the trouble with the ship; whether it was leaking, or had drifted onto the Minden Reef.

After Harbour Master Captain Croke had signalled the ship, he ordered his whale-boat to be manned, and then put off from the Jetty. By this time the gale had risen to a tempest and the boat was forced to return. Apparently, since the drowning of Harbour Master Harding and his crew in 1867 (see pages 18-24) Fremantle had acquired an English style life-boat, for "The Herald" goes on to say, "To be ready for a possible emergency, Capt. Croke ordered the sails to be put in the Deal-boat, and, making his men put on their life-belts, awaited a chance to make a fresh start".

Meanwhile, Capt. Coates had come down to the Jetty and was anxious to get on board his ship, but none of the boatmen would offer to take him because they did not consider that the ship or its crew were in any danger, despite the storm. If she sank, her decks would be 6 feet out of the water, and if her cables parted, she would only be driven up on to a sandy beach. But Capt. Coates would not be pacified and at 11 P.M. he was joined by Capt. Reid of the schooner *Rose* who also wanted to return to his ship. Then, (to quote from "The Herald" once more), "Mr. John Tapper, who is 'all there' when the bell rings, fell too to man a whale-boat. For the consideration of £10, he agreed to put Capt. Coates on board the *Robert Morrison*". (This event is mentioned in the few notes that John's son Thomas has left us. He said that his father received £20, so it appears that Capt. Reid also paid £10). There must have been a lull in the storm, for as soon as the boat was manned and the two Captains aboard, they put off and got safely through the surf, "pulled by five pair of strong arms, and steered by the undaunted Johnny himself".

After putting Capt. Reid on board the *Rose*, John set out for the *Robert Morrison* and on the way, he came upon Capt. Croke's boat, heading for the same destination. For some time the two boats kept company, "But, (and I quote again), John's crew were whalers. And, his boat was as light as a cockle shell, and as strong as a new hospital. Capt. Croke had a good crew, and they struggled gamely and well to gain their end. Tapper's boat was some distance ahead, and both boats were close to the vessel, which was evidently drifting and bumping, when in a howling squall a heavy sea struck them both. The Harbour Master's boat, a clumsy government thing, unable to live in a heavy sea, went into a wave instead of over it, filled to the thwarts, and had to put back a second time. Both garboard strakes were opened by the force of the sea that struck her.

The same sea struck the other boat, but she rose to it like a duck. However, the steer-oar was unshipped by the blow. Tapper made a grab at it,. missed and fell overboard ! Capt. Coates put out his hand just in time for Tapper to seize it and scramble on board with its aid. The whale-boat reached the stern of the vessel in safety and the Captain managed to 'tumble up' on board". (End of quote).

Soon after John and his crew returned to shore, there was further excitement as the moonlight broke through to reveal a small craft racing into the bay with only a staysail set. John Bateman was the first to see it and he recognised it as his cutter *Mazeppa*, arriving from Champion Bay. When she dropped anchor, Bateman was soon out there in a whale-boat to help get her fast to her moorings, but all attempts failed, so Bateman took a warp (hawser) from the *Mazeppa* and made it fast to a pile. There were passengers on board, but they had to remain there.

As it was now about 2 A.M. Sunday morning and there was no sign of the storm abating, the spectators left the jetty and went home. But there was no respite for the men at sea, particularly the crew of the *Robert Morrison* who put up fresh distress signals about that time. The Water Police now made an attempt to get off to the ship, but they were forced to put back. The weather had become even worse, and there was 1.2 metres (4 feet) of water in the ship's hold, with the pumps manned full-time. At 6 A.M. the cutter *Annie* went ashore near the Watering Jetty, which was near the end of South Street.

We now turn once more to the notes of Thomas Fred. Tapper. "The next morning T.F.Tapper took the lighter *Two Sons* up to the South Jetty, took in a 2 ton anchor, a 100 fathoms of chain, went out and laid it for the ship. J.Tapper, with whale-boat and crew, was there to run a hawser (from the ship) to the lighter to bend on to the end of the chain; the end of the chain was put onto the ship. (We) then proceeded ashore". (End of quote). Thomas makes it all sound so easy that we are nearly lulled into thinking that the storm had passed.

It must have been when Thomas was returning *Two Sons* to its moorings that the tempest took control and at 7.55 A.M. *Two Sons* went ashore, "about opposite Mr. Manning's office", which was near the corner of Henry Street and Marine Terrace, before the Esplanade was filled in.

By now it was daylight and what a sight there was for those brave enough to venture out into the gale and go to the shore. Schooners *Macquarie* and *Rose* were bumping on the beach south of the Watering Jetty. The *Dawn* had crashed into the north side of that same jetty and nearly demolished it. (She had been guilty of the same offence a year or two earlier, during another storm. The cutters *May* and *Annie*, and the cargo-boat *Little Eastern*, were further north along the beach towards Fremantle.

The *Mazeppa* snapped her hawser and dragged her anchor to finish up near the foot of Norfolk Street. There she crashed into some piles which had recently been put in place as part of a foreshore reclamation project. The passengers were put ashore, two of them, a woman and child were carried through the surf and landed drenched to the skin. Two more small boats, *Vixen* and *Alma*, both intended for pearling at Shark Bay, had gone ashore and broken up. At Rockingham the 144 ton *Anna*, parted her cable and went ashore.

On the *Robert Morrison*, Capt. Coates was worrying about the risks that his exhausted crew were exposed to from pulley blocks and yards that could fall from the masts because of the terrible jolting as the ship pounded on the bottom. Around 8 A.M. on the Sunday the Captain heard a loud ominous crack, and being in the state of stress that he was, he imagined that it was the breaking of the ship's back. At the time, the Harbour Master had put up a signal telling Capt. Coates to slip his anchors, put up a small sail and run the ship onto the beach. Unfortunately, the wind was in a direct line from the ship to the flagstaff so that from the ship, only the edges of the flags could be seen and they had no chance of reading the message. No one on shore seemed to realise this, so that they were amazed when the signal was ignored and instead, Capt. Coates had the boats lowered and he and the crew, all came ashore. The Captain then reported to the ship's Agent and said that he expected the ship to break up in about an hour. With the Agent's clerk, he tried to engage a boat-crew to take him back to his ship, offering £100 for the service, but not one of the boatmen came forward. They all realised that the ship was now abandoned and if they could get aboard before the Captain or the Agent, they could claim salvage. It was quite legal, but savoured of taking advantage of another man's misfortune.

Boatman William Back made the first move; using Bateman's whaleboat he and 8 of his friends were soon aboard the *Robert Morrison* where they set to with a will on the pumps. Another 8 men joined them and they pumped the ship dry and then slipped the anchors, hoisted a sail and ran her hard aground in sandy shallows near the South Jetty. When an exasperated Capt. Coates and the Agent's clerk finally got on board, Back demanded £500 salvage before he would return the ship to them. They had no option but to agree to pay, and when they did, the salvage crew left the ship. At first it seems like a case of legalised extortion, but Back and his men did save the ship, and with its cargo still undamaged, after the Captain had convinced himself that all hope was lost.

On Sunday afternoon the gale dropped to a breeze, and on the Monday several of the stranded vessels were again afloat and repair work had started. The *Two Sons* was one of the fortunate craft that came out of the ordeal undamaged. The *Robert Morrison's* fate seems to have hung in the balance. It was November before she was refloated and taken to Garden Island, and then it was 4 months later before repairs were started. Bateman and Pearse undertook the task and the bill was £1,600. At last, around the end of April 1874, the ship sailed with a consignment of horses for Singapore.

I have told the story of 'The Storm of 1873' at some length, partly because the Tappers were involved and it offers an opportunity to see and admire, the skill and bravery of both father and son, as they went about their hazardous occupation; and also because it gives us an idea of the environment in which they lived and worked.

The above story is based on articles published in "The Herald", 13-9-1873 and 20-9-1873. Battye Lib. microfilm. Also notes of T.F.Tapper.

MARITIME HERITAGE ASSOCIATION

Our History

The Maritime Heritage Association was formed in 1989 to promote a living and working record of Western Australian maritime heritage, and to foster national and international interest in our maritime heritage for the benefit of the local community and visitors.

Aims

- To promote, encourage and support the preservation, restoration and knowledge of Western Australian maritime heritage by providing resources and facilities for employment, education and training in all aspects of maritime heritage.
- To invite and encourage public participation in all these activities.

Membership Entitlements

Ordinary Member

* Open to anyone.
* One vote on Annual General Meeting resolutions.
* Open to stand for election to Committee.
* Receive quarterly newsletters.

Family Member

* Open to any two adults and dependent children under 18 years of age.
* One vote for each adult on Annual General Meeting resolutions.
* Adults open to stand for election to Committee.
* Receive quarterly newsletters.

Institutional Member

* Open to any institution.
* One vote on Annual General Meeting resolutions.
* Receive quarterly newsletters.

Associate Member

* Open to pensioners, students, children under 18, or unemployed persons.
* Are not entitled to vote on Annual General Meeting resolutions.
* Receive quarterly newsletters.

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Maritime Heritage Association Inc.

Membership Application Form

(Circle appropriate amount)

	1 Year	3 Years	5 Years
INSTITUTIONAL	$100	$275	$440
FAMILY	$40	$110	$175
ORDINARY	$30	$83	$130
ASSOCIATE	$10	$28	$40

NAME.....

ADDRESS.....

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PHONE (H) .....(W).....

Please forward remittance to:-
Peter Worsley (Treasurer),
12 Cleopatra Drive,
COODANUP Western Australia 6210.

QUIZ

Answers to March 2002 quiz

1. The 444 ton *Cumberland* (Capt. A. Steel) was wrecked near Cape Leeuwin (34° 17.5'S 115° 02.3'E) in March 1830. She is the earliest post Western Australian settlement wreck found so far.

2. When the wind moves clockwise i.e. from north to east, south then west it is said to veer. It backs when it moves anticlockwise.

3. The Suez Canal was opened on 17 November 1869 by Empress Eugènie of France, the cousin of the canal builder Ferdinand de Lessep.

Questions

1. In what year and where was the four-masted, 2121 ton barque *Mayhill* wrecked on the Western Australian coast?

2. When referring to lighthouses what is meant by the term 'occulting'?

3. What is a snotter?