MARITIME HERITAGE ASSOCIATION JOURNAL

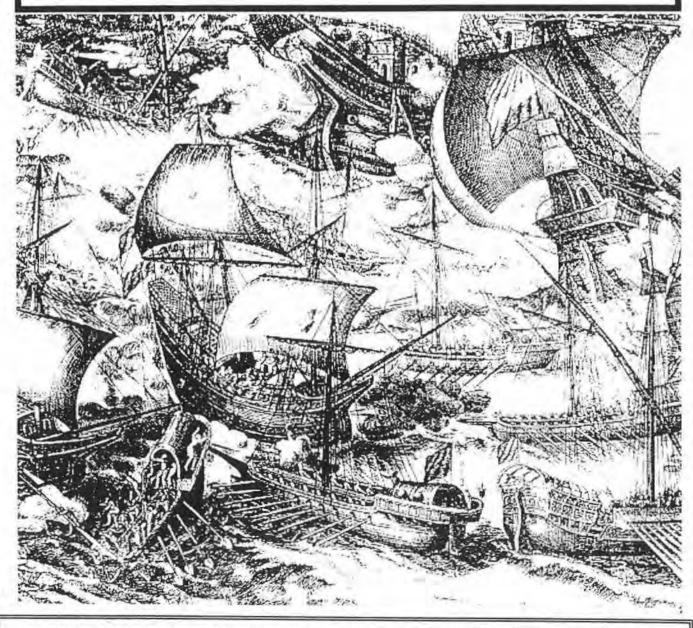
Volume 7, No. 4. December, 1996

A quarterly publication of the Maritime Heritage Association, Inc.

c/o PO Box 1100 Fremantle WA 6160

Editor: Chris Buhagiar. 13 Solomon St., Palmyra 6157





Detail of a 1603 Dutch engraving by CJ Visscher and H Allarts "Battle of Bantam 1601; Duyfken (centre) firing bow cannon at a Portuguese galley. (See Nick Burningham's article on page 5.)

Schedule: S.T.S. LEEUWIN ADVENTURE VOYAGES

Departure	Arrival	Remarks
FREMANTLE 01/12/96 Sun	FREMANTLE 11/12/96 Wed	Visiting Abrolhos Islands, Batavia coast, and Port of Geraldton.
FREMANTLE 13/12/96 Fri	FREMANTLE 23/12/96 Mon	Post TEE. Visiting Port of Bunbury, Cape Naturaliste, and Geographe Bay.
FREMANTLE 02/01/97 Thu	FREMANTLE 12/01/97 Sun	School holidays. Visiting Abrolhos Islands, Batavia coast, and Port of Geraldton.
FREMANTLE 15/1/97 Wed	ALBANY 25/01/97 Sat	School holidays. Twin ocean voyage, visiting Augusta, and rounding Cape Leeuwin
ALBANY 28/01/97 Tue	ESPERANCE 07/02/97 Fri	Visiting Hopetoun, and the islands of the Recherche Archipelago.
ESPERANCE 10/02/97 Mon	ALBANY 21/02/97 Fri	Eco Adventure. Visiting national Parks, Lucky Bay, and Recherche Archipelago.
ALBANY 25/02/97 Tue	FREMANTLE 07/03/97 Fri	Twin ocean voyage. Rounding Cape Horn, and visiting Bunker Bay.
	FREMANTLE 01/12/96 Sun FREMANTLE 13/12/96 Fri FREMANTLE 02/01/97 Thu FREMANTLE 15/1/97 Wed ALBANY 28/01/97 Tue ESPERANCE 10/02/97 Mon ALBANY	FREMANTLE 01/12/96 Sun FREMANTLE 11/12/96 Wed FREMANTLE 13/12/96 Fri FREMANTLE 23/12/96 Mon FREMANTLE 02/01/97 Thu FREMANTLE 12/01/97 Sun FREMANTLE 12/01/97 Sun ALBANY 25/01/97 Sat ALBANY 28/01/97 Tue ESPERANCE 07/02/97 Fri ESPERANCE 10/02/97 Mon ALBANY 21/02/97 Fri ALBANY FREMANTLE FREMANTLE





For information on all voyages, contact:

THE LEEUWIN SAIL TRAINING FOUNDATION PO Box 1100 Fremantle WA

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.

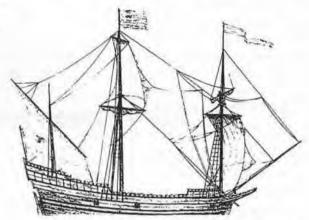
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All of the Association's incoming journals, newsletters etc. are now archived at *Porthole Prints*, South Terrace, Fremantle, and are available to members on loan.

(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.)

DESIGNING A SHIP FOR EXPLORING UNKNOWN **SHORES**





How good was Age of Discovery ship design? No original plans of any ship from the Age of Discovery exist because shipwrights did not use plans drawn on paper or parchment. The only plans were in the master-shipwrights' head and ships were built by eye. Replicas or reconstructions of several Age of Discovery ships have been built in recent times. They look fine and romantic but very few of them can sail anything like as well as the original ships did. There is clearly something wrong with the way we understand the design of these ships. From the outset, one of the stated objectives of the Duyfken Replica Project has been to produce a reconstruction that sails well enough to emulate the achievements of the original DUYFKEN.

THE RESEARCH

Dutch jacht built at the end of the 16th-century and used for exploratory voyages, has drawn on four major types of data:

- contemporary artwork showing sailing ships (the typical forms and ratios of proportions. "iconography")
- of timbers used in ship's construction
- the remains of contemporary Dutch ships discovered by archaeology
- log books and other documents revealing the performance of the ship.

ships with the right external style and appearance. We available, and combining this with the high-stern and large

Research to reconstruct the design of DUYFKEN, a compiled an extensive catalogue of reproductions of Dutch marine art from the time of DUYFKEN and used mathematical and statistical analysis to describe and find

Although this analysis was aimed primarily at learning shipbuilder's contracts specifying the sizes and types the style rather than the technical design of the ships, we began to notice that some proportions shown consistently indicated a hull-form very different from ships of half-a-century later.

In the absence of any plans for a ship of our period there have been a number of theoretical (on paper) reconstructions designed by using the relatively narrow and box-like The first objective in our research was to learn to draw hull-form of the late 17th-century, whence plans are billowing sails of a 16th-century galleon. The results would probably be disastrous if tried at full-size.

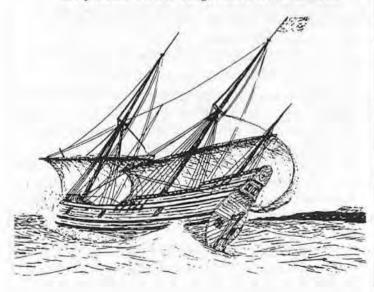
Following clues in the analysis, we began tentatively to move towards a design with more beam, and with longer and sharper bow and stern; but without questioning the shallow boxy cross-sectional shape.

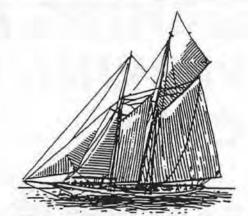
At each phase, reports on the research were sent to experts in the Netherlands for comments and criticism. Confidential information about the on-going under-sea investigation of a shipwreck in Dutch waters showed very strongly the long and relatively sharp bow and stern that we had tentatively reconstructed. Furthermore it provided evidence for an unexpectedly sharp cross-section shape. Since then other types of evidence have helped to support this interpretation, but it is the solid evidence of archaeology that makes it possible to see what other evidence hints at.

The proposed design, a broad-beamed but sleek design, has been tested by computer modelling (using the Western Australian-developed Maxsurf program) and the results are most encouraging, showing a design with good stability and able to maintain good average speeds even in light conditions.

Meanwhile the original DUYFKEN keeps trying to sail ahead of us: we have a design that should sail well, but archival research increasingly shows that the original ship was exceptional; could often out-sail much larger ships, and was manoeuvrable enough to be taken close to unexplored lee-shores during the stormy monsoon.

Nick Burningham: Maritime Museum of Western Australia; Duyfken 1606 Replica Foundation.





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The Amateur History Researcher

The generally unsung heroes of historical research are the so-called amateur researchers, whose behind-the-scenes diligence and enthusiasm for their particular fields of interest probably leave some professional historians well behind. Unfortunately, many of their findings can remain relatively unknown, often only getting as far as very limited and inadequate privately-funded print runs, lacking promotion, be absorbed into museum archives, or, unfortunately, be lost altogether. One of these amateur researchers is Eddie Smith, who is currently undertaking extensive research into the defence facilities in wartime Fremantle Harbour and its environs. A wartime report unearthed by Eddie and kindly made available to MHA readers has resulted in the following article on the often overlooked Fremantle Harbour slipway. Unglamorous yes, but nevertheless an important aspect of any historical examination of the port.

SWAN DOCK Fremantle Harbour



Its Origin and Construction

Until late 1942 there were no major slipway or drydocking facilities at Fremantle Harbour. A small patent slipway on the north side of the harbour, owned and operated by the-then Fremantle Harbour Trust, was available for use by vessels not exceeding 850 tons. Limited repairs to larger ships that did not require slipping could be undertaken by any of several well-established engineering firms in Fremantle and Perth, by the Government Engineering Workshops at Leighton, adjacent to the Port, or by the Railway Workshops at Midland Junction, some twenty-four miles from the port.

Completed four months ahead of schedule, the present Fremantle Harbour slipway, now operating under the name Swan Dock, had its first test on Tuesday, September 22, 1942, when an 1850 ton cargo vessel, the CHUNGKING, was successfully hauled out of the water. The new slip was seen as a great asset for the State and a credit to all those associated with its construction. Practically all of the work had been undertaken locally.

Prior to the construction of the new slip, a 40-plus yearold timber one on the north side of the harbour was the only such facility, but it could not accommodate even the three small local ships which, in pre-war days, required regular attention - the lighthouse tender CAPE OTWAY, the State Steamships Company's KYBRA, and the dredge SIR WILLIAM MATTHEWS.

For two or three years before construction began on the slip, there had been discussions between the Fremantle Harbour Trust and the Public Works Department on the necessity of a new slip with a capacity considerably greater than the 850 ton capacity slip. Discussions centered on the respective merits of a drydock, a floating dock, and a slipway. The latter type was selected.

On October 7, 1940, official instructions were given by the Under Secretary for Public Works, Mr W. S. Andrew, through the Director of Works, to the Engineer for Harbours and Rivers, Mr. J. Stevenson Young. Verbal instructions had however been issued previously and the clearing of the site had commenced on the 4th. Work on the slip itself began on the 23rd of that month.

Rock dredging was a slow and difficult process, the rock having to be blasted out and dredging done for the foundations. The slip was designed with a one-in-twenty grade, and this meant that a considerable amount of rock had to be removed from the seaward end.

With the dredging completed, a gantry was built, and the engineers then constructed a cofferdam of steel-sheet interlocking pilings. Each 100 ft section was then pumped out and the concrete foundations constructed. Work was delayed some two or three months during construction of the second section when the cofferdam collapsed, on July 17, 1941.

With the two sea sections completed, another cofferdam was formed back to the high water mark on both sides and every precaution taken to guarantee the solidity of the foundations.

The length of the slip in the original plan was 740 ft, with a draft of 10 ft to the forward keel blocks, however on April 23rd, 1942, a telegram was received asking that the slip be extended a further 100 ft so that certain types of deeper draft vessels could be slipped. This extension was approved after naval dock inspectors examined the project in conjunction with the resident naval and civil engineers. The change of plan meant that the original dredging had to be deepened another 5 ft and, as the designed winch drums would not hold any more turns of cable rope, it was necessary to plan for a 45 ft strop for hauling up longer vessels. It was originally intended to obtain the 10-inch hauling cable rope from England, however an import license was refused and the order then went to Newcastle, NSW - which also received the contract for the steel interlocking

sheeting. The construction of the cradle was the responsibility of the local State Engineering Works.

Overseeing the early construction was Mr. E. Tindale, Director of Works. He was succeeded by Mr. R.J. Dumas. Mr. J. Stevenson Young was Engineer for Harbours and Rivers throughout the project, with resident Public Works Department (PWD) engineer, Mr. C. P. Morgan, and Mr. T. Fletcher, PWD mechanical engineer at Fremantle serving as inspector of the work in its various stages in the foundry. Plans for the slip were all drawn in the Public Works Department's drawing office.

When work was begun on the dock in October 1940, there seemed little need for hurry in its completion, and it was not scheduled to be operational before January, 1943. The entry of Japan into the War changed all this - the new slipway had suddenly become vital to the allied war effort, and naval engineers freely offered their assistance in the now-urgent project.

The casting and construction of the hauling winch had been first discussed with Hoskins Foundry Ltd. manager, Mr. T. H. Ineson, and from start to finish the huge winch job was in charge of the Hoskins Foundry. All of the iron castings were made there, and the rope grooves in the drums were cut with the aid of specially improvised lathes, a ton of metal being turned out of them. With the exception of the downhaul drum, that was made and turned at its Kalgoorlie foundry, Hoskins undertook all of the turning locally, some of it under exceptional difficulty.

Overseeing the machine construction on behalf of the Navy were Engineer Commander S. L. Beeston and Engineer Lieut. Commander J. Hughes. Every component of the hauling machinery was made in Western Australia. with the exception of the two electric motors and some heavy forgings and roller bearings which had to come from interstate. Hadfields (WA) Ltd.., as sub-contractors, cast the main wheels, the brake shoes and all the steel castings; T. Eilbeck & Son Ltd. undertook the machining of the main shaft, which was forged from Commonwealth Steel Company Ltd. products. Cutting of the keyways in the pinion wheels and rope drums, as well as the wheel section machining, were the responsibility of the Western Australian Government Railways workshops at Midland. Atkins (WA) Ltd. were agents for the two 125 h.p. electric motors. All-up weight was 150 tons.

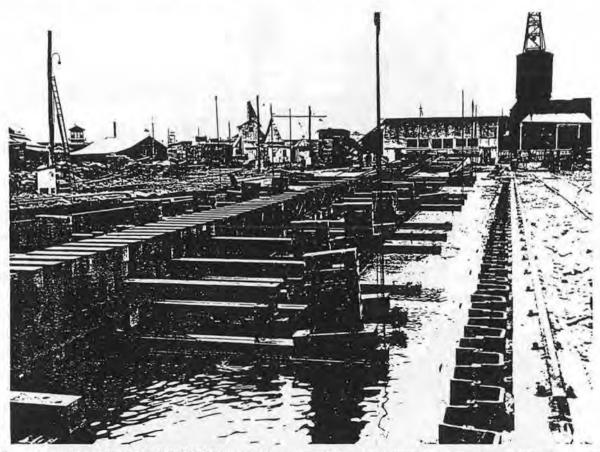
The slip itself comprised a huge telescopic steel cradle with karri bearer blocks set on rollers, and which ran down into the water and out to under the position where the ship would be moored between a series of dolphins.

In the winch house - a wood and fibrolite structure at the hauling end of the slip - were three big winch drums with a maze of gears and wheels. Two of the drums were for uphauling; the other, the centre or downhaul drum, was to pull the cradle, with the ship on it, back into the sea. Attached to each of the outer hauling drums was a heavy continuous rope which, starting from one drum, ran down the slipway and round a wheel on the upper end of the cradle, and then back up the slip to the other drum. The downhaul rope was completely separate, and ran round a pulley in the sea at the end of the slipway and then back to the lower end of the cradle. Ratchets attached to each section of the cradle kept a ship from slipping backwards.

It had been decided that the completed slip would be tested with almost full capacity in tonnage and beam, and a suitable tramp steamer, the CHUNGKING was selected as the test vessel. Tugs and ship arrived from the inner harbour at about 8.30 am on September 22, 1942. Boats took men out and ropes were taken from the ship to the first of the dolphins. A white flag from the ship's bows signalled readiness for the cradle, a yellow one signalled that the cradle was correctly positioned under the ship and was ready for hauling. It was not until 3 pm that the ship was high and dry, the only mishap during proceedings being the toppling over of the cradle's iron centre-line stanchion during downhauling of the assembly into the water.

Before the ship went back into the water three days later, the cradle had to be pulled higher up the slip so that the pawls - which are attached, one to each of the seven sections of the cradle - could be lifted free of the ratchets. With the big rope lying slack, there was a little delay until the ropes were equalised. With adjustments corrected, the ship then began to move down. Once back in the water, the CHUNGKING was moved back into the harbour and the cradle hauled back out and prepared for the next vessel. The specifications of every ship to be slipped had to be taken and the timbering of the cradle re-shaped accordingly.

The men in charge of the winch look right down the slipway from the control platform, and originally maintained contact with the flagman on the ship by a system of flags and lights: Red for Stop; Yellow for Up; White for Down. Wheels on the control platform served as downhaul brakes and clutches, and individual hand brakes with their own platforms, were located at the outer end of each main drum. Warping drums were provided on the side of the shaft, to pull out chocks etc. Gear changing was carried out by clutches operated from the control platform. The winch had a pull of 190 tons and could handle a 2 000 ton vessel.



The slipway in readiness for the CHUNGKING: looking back toward the winch house. Note the turn-of-the-century (likely exwharfside) travelling crane in the upper right-hand corner of the picture, mounted adjacent to the slip. Note also the top of the original harbour gatehouse structure immediately to the right of the pole and ladder, in the upper left-hand corner. (Photocopy courtesy Australian Archives, Victoria. Accession number MP1587.)

Overseeing the hauling of the first few ships were Mr. R. Latta, who had come over from Mort's Dock in New South Wales, and Mr. R. D. Wood, the appointed dockmaster, who had been associated with the Irrawaddy Flotilla Company at Rangoon. Mr. W. Hartley and Mr. W. R. Rogers, of the Navy Office, inspected the slip; the US Navy also provided considerable assistance.

The first US submarine to be slipped was the 298' 1450/2198 ton Salmon Class submarine USS SALMON, on September 29, 1942.

Specifications of Slipway

Extreme length: 944 ft.

Length of adjustable cradle, a maximum of 300 ft.

Width of cradle arms: 48 ft.

Draft at keel blocks at 300 ft cradle and a 2 ft tide: 13' 9"

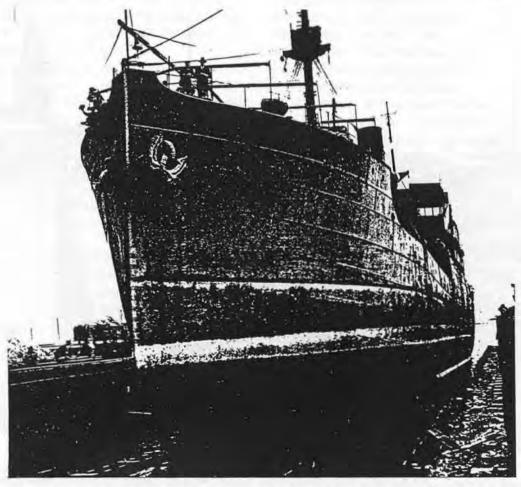
forward, and 28'9" aft.

The earlier north-side slip was 660 ft long, with a 185 ft cradle; the respective drafts being 9'9", and 17'6".

References

- Article largely paraphrased from File 186X: Australian Archives, Victoria: Accession Number MP 1587, Department of Defence (Navy Office), Navy Historical Section, Historical Records Files 1944 to 1975.
- Also Handbook of Information Relative to the Port of Fremantle, Western Australia 1935 Fremantle Harbour Trust, Government Printer, Perth 1935.
- Janes Fighting Ships 1940, Purnell & Sons, Ltd.,
 Paulton (Somerset), and London.

[Interestingly, the two turn-of-the-century travelling cranes originally installed either side of the slip survived in use there until about 1970/71, when they were replaced by the 1925-built pair. One of this latter pair is now crudely preserved alongside the relocated and refurbished E-shed, the other is presumably waiting scrapping. They have only very recently been replaced by the two large 3-ton lifting capacity 1940-built gantry cranes now in use there. The six have all been wharf-side cranes. - Ed.]



The CHUNGKING high and dry: September 22nd, 1942. With undersides freshly cleaned and antifouled, she went back into the water three days later. (Photocopy courtesy Australian Archives. Accession number MP1587.)

On Active Service ...

A perhaps now less commonly-known Australian cargo liner was Burns Philp's lovely motor ship BULOLO, which quietly arrived at the Kaohsiung shipbreakers on May 24, 1968, after an eventful thirty year career that included a distinguished period of wartime service with the Royal Navy - first as an armed merchant cruiser, then as a combined-operations Landing Ship Headquarters (LSH). Her wartime history is studded with central roles in great events, with people of great significance treading her decks. It is such a shame that the ship is gone, as well as a shame (though not surprising) that she is seldom even mentioned in reputable books that recount the events in which she participated.

We join BULOLO now for a wartime passage from Gourock, Scotland, to Port Tewfik, Egypt, as seen through the eyes of a serving Wren officer.

A Mixed Complement:

At Sea with HMS BULOLO

(by Joyce Buhagiar (nee Hardaker), ex Third Officer, Womens Royal Naval Service)

In mid March 1943, HMS BULOLO, then an LSH, departed Gourock with convoy WS-28, for Freetown, Capetown and Aden. Arriving at the end of April, she was then to remain in the Levant area until required for Operation Husky, the invasion of Sicily, where she would act as Operations HQ ship, and from which Rear Admiral Troubridge would conduct the landings south of Syracuse. Among her complement, the BULOLO was carrying a party of Wrens on a "special mission" - the setting up of a fleet mail office on Sicily. I had the privilege of being one of this unique party, though, as luck would have it, we ended up being unceremoniously offloaded in Port Tewfik, Egypt, while on passage, Sicily possibly being considered too much of a risk to our well-being. (It so happened that this simple change of plan completely altered the direction of my life, which is another story.)

January of that year saw me at home in Burnley, Lancashire, on embarkation leave and eager to be away. There were few feelings of sadness, my parents never hampered me with false sentimentality but encouraged me and joined in my excitement and anticipation! When my leave was up I had to report to an address in Golden Square, London, to meet the other girls I was to work with and with whom I would undergo a short period of indoctrination prior to sailing.

The days in London were intensely busy - seventeen of us converged on Golden Square at the same time, each with one suitcase containing only certain items: no civilian clothing was allowed, only nightwear and toilet articles. One day we were marched across London, or so it seemed, to some depot where we were kitted up with tropical gear. Everything was of the highest quality and we were even given a white leather shoulder bag.

I couldn't have been more than a few days in Golden Square before the news came that we were to leave that night, at a few hours' notice, and of course everything was top secret. As usual, we were packed into the back of a 3ton truck and driven through the rain-wet streets of London to a railway station which a lot of us recognised as the departure station for the north and Scotland. It was only then that we realised that hundreds of other service personnel were also joining this convoy - the place was packed with army, navy and air force, everything was pretty dark and there was a sense of drama and urgency. We were also all hungry - it was almost midnight and we had not eaten since six o'clock. Eventually we got into the train and tried to settle ourselves for the long and cold journey. however there was a terrible scuffle when we all had to scramble to our feet, at the unexpected arrival of Dame Vera Laughton Matthews, our officer commanding WRNS, who was paying us the honour of saying goodbye and wishing us well. We already knew that we were on a special mission, something hitherto unattempted, and her presence made us more aware of the significance. Frankly, having each shaken her hand and saluted, our one thought was to get at, and demolish, the bag meals that had just been distributed! As soon as Dame Vera disappeared, the food also disappeared, though it was supposed to sustain us through the long hours of the night.

Trips up and down the train corridor, chats with soldiers, sailors and airmen, laughter, jokes, songs and speculation, where were we all going? and how? This was really living. Rattling and roaring through the night, no lights, only the moon reflected on wet roofs, flashing by. Trying to sleep sitting up, rugged up in our greatcoats and woollen gloves, heads resting on each others' shoulders, gas masks everywhere, queues for the toilets, and finally -Glasgow. Here we all stumbled from the train, trailed down to the baggage compartment dragging two huge trolleys and were told to unload our gear, stack it onto the trolleys and take it up over the ramp and onto another platform! As Leading Wren, I seemed to have to crack the whip at everyone, and everyone was dead tired. Petty Officers Mears and Burkitt did the administration, dealing with our rail passes, etc. and Third Officer Violet Snook, may she rest in peace, trotted around looking important and giving us encouraging looks. Naturally we thought it all a huge joke and bent to with a will, succeeding in dragging the trolleys all the way along the platform up to the ramp which led over the line, with a minimum of trouble - only to find when halfway across that the ramp took a turn downhill, and, of course, the trolleys simply took over and ran away from us! Looking back, it was a miracle we weren't all crushed by our own effects, but we managed to hang on and haul backwards to bring them to a standstill. Then we had to load them on to another train. It was about 6 a.m. and we were marched out of the station and down the streets to an hotel where hot breakfast was waiting.



Third Officer Joyce Hardaker, WRNS. (Photo courtesy of the Author.)

It's all a misty memory, but we were soon back on the train and, after a short journey, offloaded all our gear again, looked around and found ourselves on a stone wharf, gulls wheeling overhead, a choppy dark blue sea lashing the wall and numerous grey ships out in the river. That's all - just us, no one else to meet us, to tell us where to go, what to do or how, or why. A bitter wind and a bitter sea.

Suddenly a man appeared, a naval officer, taciturn and unconcerned, who looked out across the water and hailed a small boat. Finally it came alongside, and we gazed in horror - it seemed so small, with one man at the wheel who told us all to get down the stone steps with our gear, and aboard.

For ages, it seemed, we chugged around that convoy, obviously he didn't know which ship was ours, and as we neared each one he would hail and would be answered with a headshake and an arm pointing away. There were destroyers, large troopships, freighters, an armed merchant cruiser, and another, and then we drew near a mediumsized grey vessel, its companionway heaving up and down, waves lashing high and swinging the ladder close up to and then far down and away. Dear God! how would we ever get on board? But we did, helping each other, and pushing and pulling, falling over each other, staggering up the ladder which continually threatened to throw us all in the sea finally arriving on deck, and saluting, only to be roared at by an RN Commander who ordered us all below again to bring up our gear! Down we fell again and made a chain this time, handing up each case until everything was on deck. It was Gourock, the river Clyde, and HMS BULOLO our new home.

We quickly settled into our quarters, the whole of the boat-deck flat, and the first thing we learned was that we had to fend for ourselves in every way - the only thing done for us was the cooking, the food being hauled up from the galley below into our own tiny galley. And so this was to be our home for a completely unspecified time. It was quite ample, a galley, large saloon, five or six small cabins, and one larger one which I took charge of, accommodating myself and four others. Extra bunks had been built into this normally two-berth cabin, but we had the "heads" next door so quite convenient. 3/O Snook had her own cabin and P/Os Burkitt and Mears shared another. Word quickly spread around the ship that the women had arrived and for a while we were observed from all angles! (Commander E. B. Clark, RN, obviously was not going to give us the slightest reason to flout his total authority, and gave us the distinct impression that this wasn't his idea at all.)



LSH, HMS BULOLO, operations HQ ship during the invasion of Sicily. Note the armour-plate belting along the hull at upper deck level, adjacent to the central receiving room, signal control and cypher offices. Immediately above these spaces, at bridge deck level, were the Navy and Army operations rooms, support control, signal distribution lobby, and the intelligence office - all externally armoured. Above these, at boat deck level, were the war command and the wireless transmission rooms. Note also the projection from the bow. Does a reader know whether this was used in the detonation of acoustic mines, or for paravane sweeping? ((Imperial War Museum. Neg. A23597)

All the excitement and exultation that I am sure most of us experienced during those first days of settling in. organising ourselves into working parties, duties and watches etc., gradually wore off when the first girl became seasick - looking back. I think we had not considered this possibility and it hit us with great force. Once down, the girls remained down for days, to be ministered to by those of us still on our feet. The weather was atrocious - although it was my first time at sea, I actually loved it, if anything feeling better than ever. Day by day I trailed from cabin to cabin, bucket and mop in hand, until I was actually the only one still fit and well. The ship's medical officer came around each morning to inspect and dish out medicines and instructions to me; the duty officer would make his rounds mesdames Snook, Burkitt and Mears were also sick and I had my hands full, for as well as the care of all the sick, I had to make an effort to keep our accommodation in good order. And the washing! the washing! sheets, pillowcases, towels, nighties and so on. Still, the first ones to go sick were also the first to recover and I began to have help again. Margaret Hartley became my special friend during this period and we christened ourselves the Chars, clattering up and down the gangways, mopping, scrubbing, polishing brightwork, and being on hand at meal times to yell down the hatch and haul away to bring the food up. Unfortunately the weather just went on deteriorating; ropes were slung across the decks, and if you didn't wait for the right moment in the galley, you would haul up the food only to have it fling itself at you upon arrival at the top, and envelop everyone in a welter of bacon, eggs, coffee, milk, jam, honey and whatever else we were having for breakfast! It was terrible - you were helpless, and would shriek with laughter, skating around in a sea of ghastly liquid, sloshing around amid broken plates, cups and cutlery, while the ship just went on pitching and rolling, pitching and rolling.

Now I am going to copy most of what I wrote many years ago, leaving out the emotional aspect, for we all felt pretty deeply about our ship, but it gives a better picture of life on board: -

Days when Kate and I would stand at the stern, still in blues, feet astride, swaying with the ship's movements. All the other ships following behind, we leading a column, only the horizon ahead. Canteen time - P/O Mears leading us down the starboard aft ladder to the main deck where an LSBA took over and escorted us through the messdecks, down more steps to the canteen, where we could buy all sorts of things, even sanitary towels and talcum powder, or razor blades for the boyfriends we had already made. Each evening at sunset Laurie the bugler would sound those notes so familiar, and recreational activities would begin. Reading, sewing, letter writing, games and so on. Days of

sun and happiness, with an occasional emergency turn to port or starboard. Lying on the deck on a blanket, heads on pillows and a towel over the legs to keep the sun off.

One Sunday, I was the only Wren present at Sunday divisions, and stood firm as the captain came by. I reported everyone sick, whereupon he asked my name and then christened me Leading Wren Heart-breaker, which endeared him to me for ever.

From the first, it seemed that we were not to be allowed contact with any of our male counterparts, but once the weather settled, everyone came out on deck and the process of Sunday mingling was inaugurated. Everyone promptly fell in love, it was inevitable and highly delightful. What a complete joy to have so much glory in our lives. Hitherto, at sunset, a CPO would come along and rope off our deck at both ends, thus declaring us "out of bounds". But this only made the men more determined to spend some time with us. We would all sit out on deck, rugs over our legs, eagerly awaiting the arrival of army, navy and air force, officers only - this was because a line had to be drawn somewhere and there were hundreds of troops aboard! Our greatest pleasure was to sing together, and this was how we met and made friends with those who were to become especially dear to us - through shared music and song, interest in books, theatre, peacetime careers and hopes for the future. Here is a little more copy: -

Uckers on the deck, Lt. Dean sprawled on his camp bed with an old paddy hat over his eyes - Lts. Kidd and Priest deep in conversation, the MO and the padre playing ball nearby. Ena and Stuart "Ena you look cleaner", "Give voice, Joyce", "Bert, you've got a clean shirt", silly stuff like that. David Lockie, trying to teach us the rudiments of fencing, one of a select few known as "Phantoms", from their insignia - others, Alastair Sedgewick, Captain Harcourt, Chris Mayhew, such splendid people. What their mission was to be could only be guessed at. Nick the Porridge Oat boy, and young Paddy Dunlop, the Irish flying officer who talked of home and his medical studies. Nick and his gremlins. Alistair, wise and brave, who read aloud from "Winnie the Pooh". Beatrice and her admiring band of snotties. Ken and Margaret, talking of bee keeping. Monsoon days, when suddenly the rain would pour down in huge drops, great clouds would blot out the other ships, and a thick mist all around. A rush for the shelter of the Flag Deck, until in a few moments all had passed and we emerged into the blue. Then a great wind would spring up. streaking long paths across the ocean, turning the blue into a steely grey. We couldn't hear ourselves speak, the P-boats would creak and have to be secured by boards across the deck.

"Granny" Allen, the doc, and Aden, the song "How beautiful they are", playing buses on the boat deck and the birth of Boat Deck Bill. Scratch, Lt. Tom Foden, such a naughty gentleman. Singing in church down below, our favourite hymns with descants taught by me, sitting adjacent to the officers, where could our thoughts be? Squad drill now taken by Mr. Pilling, a small twinkling man who never spared us as we staggered around in high seas.

Eventually, however, the weather really changed as we sailed south into another climate; it was warmer now, and calmer, and a frenzy was on as we hastened to adjust our tropical gear, to be ready for the great day when everyone would change from blues into whites. Then one day the buzz got around that we would soon be arriving at our first port of call, The captain called the ship's company together on the well deck, for a talk on behaviour ashore, what to avoid etc., and we learned that we were to be granted the

same privileges as the men; that is, shore leave for us all except the duty watch. We also learned for the first time that there were other service women aboard troopships in the convoy, but we never saw them. They, apparently, were granted only one or two organised trips ashore, so we were indeed most fortunate.

I cannot describe my feelings at this first landfall away from my native land - one never can, for it is so personal and different, but I have always regarded the shores of West Africa with a special affection. How we enjoyed those days! When we finally dropped anchor off Freetown, and saw the rest of the convoy settle quietly around, and realised that they too had come through those weeks of mountainous seas, we felt a special kinship with any women who, like us, were now enjoying this exciting experience.

Sierra Leone has a mountainous coastline, green and thick with jungle, the people of Freetown were colourful, noisy and cheerful. There was a rush for the first picket boat



HMS BULOLO, nearest camera, during the Sicily landings. All the freighters in the background are EC2-S-C1 'Liberty' ships. (Imperial War Museum. Neg. A18095)

which deposited us at King Tom Pier with instructions to be sure not to miss the return journey! Its pretty much of a blur now, and I suppose that without the company and protection of our men friends we might have felt nervous, but we walked around the streets and markets, marvelling at the quantities of fresh fruit, vegetables, bolts of bright cottons bananas everywhere! A mad taxi drive up the hills, walking in the forest, dried fish hanging outside the huts, afternoon tea in the local hotel, to meet members of the British community, swimming parties to Lumley Beach, days of sun and scenery and always the trip back to the ship and the evening gatherings on the boat deck.

And of course, one day we sailed away and resumed our journey south, more deeply committed to each other than we realised. Looking back I realise that we all knew that one day soon this halcyon life would end, that we would have to step ashore and go our different ways, but all that could wait.

Eventually we reached Durban, where we learned that we would stay for a week or so and would be given some pay, to enable us to go ashore. What excitement! The only thing we could think of was clothes, something attractive to wear on our off-duty times, to further enslave our new loves, those men who were now regarded as our own -South African shops were not so different from English shops in wartime - all the large stores stocked the same things, and we all found that we had chosen identical garments when we unpacked our purchases. It didn't really matter, for we had a marvellous time, eating banana splits and going to the cinema to see "Me and My Girl". We Wrens were granted unlimited shore leave during the day only, but we had to suffer the sight of our men friends going ashore each evening into waiting cars filled with beautiful women! For the hospitality was unbelievable - parties, excursions, yachting, swimming, everything you could imagine was laid on for officers and men. But the handful of women of the BULOLO had to be content with their own company, possibly a good idea as it helped us to keep our relationships in perspective. After all, so many of our new friends were married men.

If we felt jealousy, and of course we did, it all faded when we saw the lovely gifts that were brought back on board for us - the day we sailed away from Durban there were boxes of flowers, fruit and chocolates, coconuts and other exotic delights distributed among us. And of course, the evenings on the boat deck, each one more precious than the last, the songs, the singing. Bert had been involved in musical comedy and light opera in Darlington, and had a beautiful voice. He and I sang duets - "Drink to me only", but the one that I remember most has held a life-long significance - "My days of philandering are over", Bert's song.

And so the days passed, until quite suddenly Lieut. Kidd called us together to tell us that news had come that their lordships at the Admiralty had decided that the mission was too dangerous for us, and that other arrangements would be made when we finally reached Egypt. Until then, our destination had remained unknown, even the nature of this "mission", which we were now told had been to set up a Fleet Mail Office on the island of Sicily, after the invasion. Disappointment does not describe our reaction - more anger and frustration, a feeling of suddenly becoming superfluous, but it had to be accepted. Many nurses had taken part in previous invasions, hospital ships were so necessary, and many nurses had been lost, killed or drowned. In what way were we different? What had been the deciding factor? Our behaviour had been exemplary, our dedication to duty, enthusiasm for lectures and indoctrination - no, we were assured, it was simply thought expedient to disembark us and find safe jobs at the naval shore establishments in Egypt and the Middle East.

Land again - this time Aden, at the entrance to the Red Sea, a craggy volcanic skyline, with the reputation of being one of the hottest places on earth. Not unnaturally we found it highly romantic, fierce and desolate. I remember little, as we did not stay long, but I have a mental picture of the night sky pierced by many jagged peaks, as I sat on deck listening to "How beautiful they are, the lordly ones". And the heat-small dim islands as we proceeded northwards towards the Gulf of Suez, tiny birds skimming the waves, dolphins, and the constant wondering "when would we have to leave the ship?" and where would they send us?

There must have been an air of finality, though it is hard to recall - I think we went to our bunks one night and woke next morning to land again, all around it seemed - mountains behind us, cranes of distant docks, a few small boats, but still no sign, no word. Someone said that this was Port Tewfik, at the southern entrance to the Suez Canal - Egypt, the country I had always hoped to see. Our gangway had been lowered and a launch approached, one man at the wheel. How interesting it was, we said, as we hung over the side, vaguely wondering why there was no sign of our male friends. Usually as we came into port, everyone was out on deck, but just now it was too quiet. And then the word was passed around - we had thirty minutes to pack and disembark.

It was like a bad dream, but there was nothing to do but jump to it, at the double. We rushed around, dragging our suitcases, snatching washing off the lines in the heads, just ramming everything in that we could lay our hands on. 3/O Snook was grim faced, more than usual, and we knew she had had a romance of her own. Some of the girls were in tears - we could hardly believe it - was this the way it had to end? How undignified, how unspeakably rude, to be

allowed no chance at all to say goodbye to anyone, after so many happy weeks of incomparable fun and companionship. As we fell in again on the boat deck, a dismal lot with all our gear already being carried down the gangway, we looked around for our friends but still there was none. Incredible - a photograph in my collection shows us after we had stumbled down the ladder to the launch, and it was only then, when we were all safely aboard, that some of the men appeared at the rail. They too were sad, there were no smiling faces, just a call here and there, the wave of a hand as the launch drew away and picked up speed.

Soon the BULOLO grew less, against the backdrop the Ataka mountains, riding at anchor on that sunlit day. I was wearing sunglasses, not to hide the tears for I couldn't crymy heart was a stone in my chest. We learned much later that the whole business of our departure had been planned, to completely cut out the farewells, the possible show of female emotion aboard a warship of the Royal Navy. Well-Commander Clark need not have worried - each one of us was Navy too, and were not likely to behave in an unseemly manner. That was the end of that, for the time being.

Footnote: On the outbreak of war, the BULOLO was taken in hand for conversion from an Australian cargo liner to an armed merchant cruiser, then commissioned into the Royal Navy; then, later further converted to a combined operations LSH. The BULOLO flew the flag of Rear-Admiral Burrough during Operation Torch, the North African landings in November, 1942, as well as serving as communication ship at the Casablanca Conference. Following the period referred to in the foregoing article, the ship flew the flag of Rear Admiral Troubridge, as Flag Officer, Force A, directing the landings in "Acid" area of Sicily: hoisted the flag of Rear-Admiral Peters, Flag Officer, Force M; then again with Rear-Admiral Troubridge, Flag Officer, Force P, of Operation Shingle, the Anzio landings; and the flag of Commodore Douglas-Pennant, naval commander, Force G, of Operation Neptune, the invasion of Normandy. (On May 24, 1944, His Majesty, King George V1, visited the BULOLO and reviewed the assault craft of Force G from her bridge. While engaged in directing the landings off the Normandy coast, the ship was hit by a 250 lb phosphorous bomb, which killed two RAF officers and an RN officer, as well as a rating. The RAF officers were Flt. Lts. (Signals) Bert Drury and Ken Gate, mentioned in the article. Both were asleep in their bunks at the time in their shared cabin; Bert was killed outright, and Ken died of his burns a few hours later. They were buried at sea the following day. It is said that between D-day and D-day plus twenty, the ship handled 42,298 signals!) The ship also flew the flag of Rear-Admiral Martin, Flag Officer, Force W. Beginning September 9, 1945, the ship directed the post VJ-day landings at Port Swettenham (Operation Zipper), in Malaya. It is said that the surrender ceremony of the Japanase forces in Singapore took place on the BULOLO three days later.

She was returned to her owners, Burns Philp & Co., of Australia, on June 11, 1948, and scrapped twenty years later.

Ship's Particulars, as an LSH

Built by Barclay, Curle & Co., Glasgow; launched May 31, 1938.

Dimensions:

Length, extreme 412'6" Beam, extreme 58'2"

Displacement:

Spent 7,992 tons Deep 9.111 tons

Tonnage:

Registered (Net) 3,441 tons Gross 6266 tons

Speed:

At full power, loaded 15 knots Economical 12 knots

Endurance:

9,300 miles at 12 knots 7,700 miles at 15 knots

Machinery:

Main engines, diesel, B. & W., twin screw Makers, J.G. Kincaid & Co. Ltd. Horsepower 3065 BHP each set.

Armament:

2 x twin 4" Q.F. Mk.XV1 on HA/LA Mk.X1X mtg. 5 x single Bofors Mk.III 14 x single Oerlikons Mk.IIIA 12 x PAC

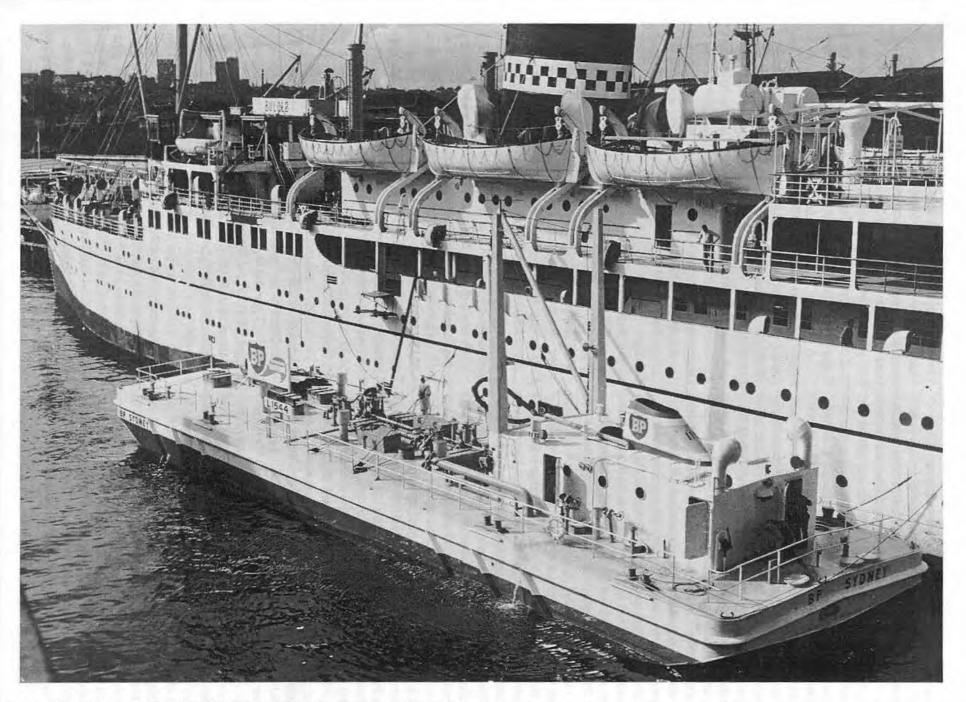
4 x depth charges Mk.VII

Radar: Type 273P; Type 291; PPI, type B.

Transmitters: 5 x Type 88, 2 x Type 89, 1 x HSL 2, 1 x HS2, 5 x Type 60ER, 3 x Type 60FV, 4 x Army 12, 1 x TV5, 4 x T1131, 1 x Type 86.

Receivers: 2 x CAB, 21 x B28, 6 x HRO, 1 x B29, 4 x R1132A, 1 x SRE, Type 458, Transceiver 1 x TR1143, D/F outfit FM7.

[Article, courtesy of the Author; also letter from Major Ken Kenworthy to the author, June 10, 1944; and from Norman Harvey, June 6, 1982. Ship's history abstracted from "The Log" magazine, June, 1980, titled Burns Philp Liner - M.V. Bulolo, by R.K. Willson; ship's particulars supplied by Naval Historical Branch, Ministry of Defence, London, UK.]



Back in peacetime garb, Burns, Philp & Co. Ltd.'s M.V. BULOLO, taking on bunkers in Sydney, some time towards the end of her career. (British Petroleum Co. Ltd: photograph, Ref. No.0948, through Photography & Exhibitions Branch.)

Back onto the subject of the amateur researcher: I noticed in one of the numerous community newspapers that congest my letterbox, a request by Charles Vaughan for information and photographs on certain long-gone ferries that used to ply the Swan River. Figuring that even in tiny Perth it is still highly likely that the person had never heard of the Maritime Heritage Association nor met some of its knowledgeable members, I gave him a call. After sending him copies of some of the Association's relevant back-issues of the Journnal, I received the following reply:

... I found [the Journals] to be most intersting, especially the story from Ross Shardlow titled George McCarter, Barrack Street Boatbuilder [Volume 7, No.1, 1996]. Yes, the MAYFLOWER had a colourful life, and a sad one, what with running aground, a fire off Rottnest, a sinking at Maylands, and the superstructure removed and left to rot away at Bull Creek ...

About the EMPRESS and PRINCESS, both came from Lake Wendouree, and were carted to Melbourne on bullock wagons, and shipped to Fremantle as deck cargo on the coastal steamer BURRUMBEET. They proved unseaworthy, passengers being forced to dodge flying sparks from the boilers! The PRINCESS was nicknamed CRAB because of a tendency to run sideways; she was replaced by the DUCHESS 1 in 1898, then owned by Sam Copley. The COOLANUP, ex COUNTESS [Ross's article has the names the other way round. Who's correct? - Ed.], when on the Mandurah - Pinjarra run, was owned by the Murray Fish and Freezing Co.. She plied the river there between 1897 and 1905, before coming to Perth to go onto the South Perth run. Later sold to Tilley for further service as a lighter, she carried salt from Rottnest. She was eventually lost off Pt. Cloates.

About the TI-TU [Volume 5, No.4, 1994]. The article by Frank Marchant said she carried passengers to Garden Island; can I the call her a ferry? If so, can I use some of the details of this vessel? [I don't see why not. - Ed.] ...

Charles goes on to pose two questions:

Did the ALPHA look like the TI-TU? If not, could anybody tell me what she did look like? The ALPHA was a 7 H.P. steam launch of 1875, owned by R. Sanders, of Mosman; of 12 tons, a timber hull, $50 \times 9 \times 4.5$ ft., and built by G.S. [W & S? - Ed.] Lawrence and Randell; licensed to carry 40 passengers. What did the ENCHANTRESS look like? She was a large paddle steamer owned by Randell, Knight & Co., and built in 1875. The paddles were at each end of her $90.6 \times 12.68 \times 5.75$ ft. hull; the engine alone took up 24.58 ft. of the length ...

Over to the readership!

FREMANTLE'S MARITIME PRECINCT

An Oxymoronic Onion?



The State Government's election platform included the undertaking to proclaim "Australia's first Maritime Heritage Precinct" in Fremantle. Ouite what this would mean has not been clear to anyone. Fremantle Council has formed a committee to discuss the concept, and on Friday 8th November. 1996. Peter Ridgway for the Australian Association for Maritime History convened a seminar to discuss the same question.

There were six speakers. I will not attempt to precis the content and from the floor, were seemingly in direction of the genuinely interesting favour of a more refined precinct presentations of each of the other five concept. It seemed to be a multi-layered speakers. I chose to speak (as I have before) about the benefits of integration in another version, with a somewhat of shipping and boating activities, in different geometry, there would be an particular the heritage watercraft indefinite number of superimposed I am told. The human brain deals with into community. conservation of maritime culture.

seminar and spoke on the basis of a to Bombay whence St John's church naive assumption that rendered my contribution irrelevant. I had thought that the Government's vague intentions would be seen as an opportunity for tangible, beneficial outcomes in terms of the conservation of Fremantle's maritime associated cultural heritage.

It had occurred to me that there was a risk inherent in privileging part of Fremantle as a Maritime Heritage conception, Precinct (MHP) in that it might be used as an argument for undermining the conservation of other parts Fremantle. And perhaps that concern was behind the ideas expressed by some of the other speakers, but it was foundation for an MHP which ought to never stated. Or if it was, my attention be devised as an aspect of planning had wandered. Jenny Archibald, the strategy and an opportunity for Mayor, was frankly against the MHP concept, arguing, I think, for more integrated policies for Fremantle as a conservation of cultural heritage within whole.

precinct without defined boundaries. Or impediment to clearly defined planning. heritage Freo-centric precincts stretching across Gauge Roads to include the many As it turned out, I went to the shipwrecks, to Kalgoorlie, and beyond was once administered, and London whence the Admiralty issued instructions to Captains Freemantle. Stirling, et al. etc., etc., etc., (I'm sure it was only lack of time that excluded Capo d'Orlando from the list of Fremantle's satellites.) [I was there, and heard it all as well!! - Ed.1

> It is a wonderfully poetical Fremantle's conservation should be informed by the kind of knowledge that accept that about anthropology, but was demonstrated. But is it really necessary, or even useful, to have such a literary perception as the very directing Government funds?

Of course, planning for any precinct, area, call -it-what-you-

Other speakers, and commentators will, should be cognisant of the wider cultural milieu. But a precinct without boundaries is a contradiction in terms and, as such, is likely to be an

> Compartmentalising of information is necessary even for very clever people complexity through modularity. Planning without boundaries (and we seem to be dealing with temporal and cultural boundaries, as well as the obvious spatial ones, here) is seemingly impossible. And how much notice would Bombay take if they were included in Fremantle's MHP planning anyway?

In the end, I was left with the disquieting feeling that I was being shown that Heritage Planning is an area so complex, high-flown, and ultimately and decisions about time consuming that it must be left to the professionals. I'm prepared to Heritage Conservation is too important.

Nick Burningham



CONGRATULATIONSWooden Boat Works!

Congratulations must be extended to the two Wooden Boat Works trainees, Ben Dundas and Les Crawley, who have been awarded scholarships to the Shipwright's Point School of Wooden Boat Building, in Franklin, Tasmania. Graham Lahiff and his staff must be immensley proud of this significant achievement.

Apparently the two students are among only ten selected from hundreds of applicants Australia-wide. Let's hope that after qualifying, they will not be lost to Western Australia!

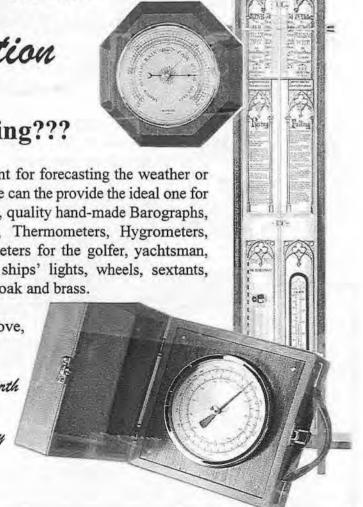
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You are welcome to view some of the above, but by appointment only.

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The Classic and Wooden Boat Festival for this year will be held over the Weekend December 7/8, at the Royal Freshwater Bay Yacht Club, Keane's Point, Peppermint Grove.

There is a limit to the number of floating exhibits that can be accomodated, however the venue will provide an intimate and bustling atmosphere. Please show your support and bring the family and friends along.

Admission is \$3.00 per head; times are 12.00-5.00 Saturday, and 9.00-4.00 Sunday.

HELP WANTED!

MHA members who are free to man our stand in the marquee or assist in the erection or dismantling of it, please contact Mike Igglesden, on 397 6209.

S