



Maritime Archaeological Association W.A.



five year report

january 1979 to december 1983

	<u>Page No.</u>
INTRODUCTION	
List of Illustrations	3
<u>CHAPTER ONE - 1979</u>	
Penguin Island Seminar I	6
<u>Mayhill Report</u>	7
<u>Xantho Report</u>	10
Wreck of Stones	12
Geraldton MAAWA	14
<u>CHAPTER TWO - 1980</u>	
Raising the <u>Trixen</u>	16
Geraldton Seminar	19
Careening Bay Search	22
<u>CHAPTER THREE - 1981</u>	
Swan River Wrecks	24
Commissariat Building, Fremantle	27
Contest (Water Drill Survey)	30
Leeman Expedition	35
Beacon Island Expedition	38
Archaeological Drawing	40
Vale - Mike Pollard	42
<u>CHAPTER FOUR - 1982</u>	
Marmion Beach Wreck	46
<u>Lady Elizabeth</u> Photomosaic	47
<u>Ulidia</u>	49
Southern Hemisphere Conference	51
<u>Cheyne III</u>	54
<u>Rapid Expedition</u>	58
More Ningaloo Wrecks	61
<u>Day Dawn</u>	63
<u>CHAPTER FIVE - 1983</u>	
<u>Gem</u>	66
MAAWA Newsletter	68
North Mole Wreck	69
Beacon Island Expedition	70
Penguin Island Seminar III	72
Albany Weekend	75
List of MAAWA Projects	79
Reference and Publications	84
Acknowledgements	84

Introduction:

Lectures given by Jeremy Green as an introduction to Maritime Archaeology at the University of WA created the enthusiasm for a group of people with varied diving and non-diving interests to form an Association.

The Maritime Archaeological Association of Western Australia Inc. (MAAWA) was thus formed with 23 members in October, 1974.

Since that time the Association has become the amateur wing of the Maritime Archaeology Department of the WA Museum, offering a source of skilled voluntary labour and expertise for Museum projects.

This relationship has worked well over the years, offering many benefits to both the Association and to the Museum.

Association members have participated in major projects on Dutch and Colonial wrecks and joined International expeditions in East Africa and Thailand. In turn the WA Museum has benefited in having a pool of enthusiastic amateur personnel ready to assist on any expedition with labour and technical skills, at no cost.

The Association has also been able to undertake various survey projects on Colonial shipwrecks without direct Museum supervision.

The first four years of MAAWA's activities was covered by a report compiled by Mike McCarthy and published in 1979. Mike was one of the Associations most enthusiastic members and President of MAAWA for a short time before joining the WA Museum as a staff member. He now acts as liaison between both bodies.

Ian Warne (Editor)

list of illustrations

Page

I	Front cover design	Chris Buhagiar
7	Photograph	<u>Mayhill</u> , Mr De Lucy
10	Illustration	<u>Xantho</u> , Ian Warne
13	Illustration	Wreck of Stones, Russel Miners
14	Photograph	D. Totty finds stoneware jar, Pat Baker
18	Illustration	Salvage of <u>Trixen</u> , Ian Warne
20	Photograph	Geraldton Seminar, David Totty
24	Old Chart	Swan River, Battye Library
29	Plan	Commissariat Building, WA Museum
31	Illustration	Water probe A, Ian Warne
33	Illustration	Water probe B & C, Ian Warne
37	Plan	Leeman Wrecksite, Steve Cushnahan
39	Illustration	<u>Batavia</u> pottery shard, Ian Warne
40	Illustration	Double calipers, Ron Stevens
41	Illustration	Profile machine, Ron Stevens
43	Photograph	<u>James Matthews</u> , Pat Baker
47	Illustration	Wooden Hull construction, Capt. Paasch
47	Illustration	Marmion Beach Knees, Ian Warne
50	Illustration	Iron Ship Construction, Chris Buhagiar
52	Illustration	From Adelaide Conference Literature
56	Plan	Engine Room <u>Cheyne III</u> , Ron Stevens
57	Photograph	<u>Cheyne III</u> sinking, Pat Baker
60	Photograph	<u>Rapid excavation</u> , Pat Baker
62	Old Chart	Portion of WA near Pt Cloates
64	Photograph	Cleaning <u>Day Dawn</u> capstan
67	Illustration	Gem drawn from model, SA Museum
73	Photograph	MAAWA Seminar Penguin Island, Pat Baker



MAAWA 1979-1983

To review the past five years we have certainly had good and bad years for getting projects done. One only has to refer to the index to note that only a couple of projects occurred in 1980, yet busy times before and after. Amateur bodies of any kind seem to suffer from these high and lows of enthusiasm. On the positive side I feel that with a strong active committee and a general acceptance that MAAWA must publish more reports, a healthy future is assured.

Our new newsletter being published by Ronnie Hansen is generating considerable interest, especially amongst members who cannot get to all meetings. The newsletter also encourages members to publish progress notes rather than face the pressure of completing final project reports, sometimes an awe inspiring task at the completion of field work.

Whenever possible, MAAWA should continue to initiate projects independently of the WA Museum, but with the same cooperation that has occurred over the past nine years that we have been working together.

A major problem seems to be the retention of interest of new members once they join and to gain support from both old and new in some of the less spectacular, usually shallow water or tedious projects.

Weekend and School holiday family trips, away from Perth have become popular features of the MAAWA calendar, along with the weekend training seminars, previously held at Penguin Island every two years.

In conclusion all active members of MAAWA should feel proud of the past nine years achievements as the Association has maintained active interest in all facets of Maritime Archaeology and History and managed to retain most of the foundation members.

A brief resume of projects and events in chronological order can be found at the end of this 5 year report on the MAAWA.

Ian Warne
President 1981-1983

Chapter one 1979

- | | | |
|----|-----------------------------------|-----------------------|
| 1. | Weekend Seminar (Penguin Island) | Mike Pollard |
| 2. | <u>Mayhill</u> | D. Totty |
| 3. | <u>Xantho</u> | Ian Warne |
| 4. | Wreck of Stones | W. Marshall/R. Miners |
| 5. | Geraldton MAAWA Report | D. Totty |
| 6. | Search for Wreck in Careening Bay | Lindsay Hill |

First MAAWA Weekend Seminar on Maritime Archaeology

On the weekend of 9-11 March 1979, MAAWA held a Maritime Archaeology Seminar at Penguin Island.

Over fifty people assembled in the evening of Friday, 9th on the Island and after sorting out accommodation, we had a most enjoyable and instructive talk and a slideshow by Graeme Henderson on the recent WA Museum expedition to the Ningaloo Wreck.

The next morning we split up into six (6) groups and work began. Each group reported to an instructor for about 3/4 hour, at the end of which time they moved on to the next. The courses were:

Line Search Techniques	-	Instructor	-	D. Robinson	-	MAAWA
Blind Search Techniques	-	"	-	M. McCarthy	-	WA Museum
Underwater Camera	-	"	-	D. Bathgate	-	MAAWA
Underwater Compass	-	"	-	K. Galbraith	-	MAAWA
Triangulation of a wreck	-	"	-	M. Pollard	-	MAAWA
Use of an airlift	-	"	-	L. Hill	-	MAAWA
Underwater lifting techniques	-	"	-	C. Groen G. Green	-	MAAWA

We then returned to the village for a short lunch after which the afternoon's work began with the same arrangements as the morning with the following subjects:

Position fixing using a theodolite	-	M. McCarthy	-	WA Museum
Position fixing using a sextant	-	B. Marshall	-	MAAWA
Land photography	-	G. Edwards	-	MAAWA
Wreck reporting	-	R. Miners	-	MAAWA

This was followed by an early bar-b-que and drinks and then we assembled in the Island's shop for a series of lectures on:

The Conservation process	-	Dr. J. Pang	-	Conservation
Timber sampling techniques	-	P. Brown	-	Conservation
Textile conservation	-	D. Weston	-	Conservation
How to use the State Reference Library	-	K. Henderson	-	Battye Library
Aerial Photography and Maritime Archaeology	-	D. Edwards	-	MAAWA

The next morning saw us up bright and early, a hurried breakfast, dressed in our wetsuits and off to look at a wreck site in deeper water (The Belle of Bunbury) using Henrietta and about half a dozen smaller craft. After a good look over her we returned to the Island for the last of the classes:

Care and maintenance of Hookahs	-	L. Hill	-	MAAWA
Knots and how and when to use each	-	D. Edwards B. Marshall	-	MAAWA

Small boat handling using
the Museum's Quintrex
and Clark

D. Robinson &
M. Pollard

- MAAWA

Two sessions scheduled but unfortunately unavailable at the last minute were offshore navigation and diver lifesaving.

We then retired to a social lunch and departed the island.

It was a most worthwhile event and I think reflects great credit on the organiser, Mike McCarthy.

The Association hopes to continue the seminars on a biennial basis.

M. Pollard
June 1979

A lighter lies alongside Mayhill removing the cargo of railway lines in 1895.



THE WRECK OF THE BRITISH BARQUE MAYHILL

Gold was discovered in the Murchison district of Western Australia in the late 1800s. This attracted thousands of people to the area. To meet their transport needs the Government started a program of railway construction which was designed for both the gold mining centres to the north and east, and the expanding agricultural and timber interests to the south of the State.

Railway facilities for the Murchison Goldfields began with a line from Geraldton to Mullewa which was completed in 1894. The next stage, an extension to Cue was delayed when a consignment of 2,947 tons of railway line was lost in a shipping accident at the entrance to the Port of Geraldton. Despite this setback the line was opened in 1898.

The Mayhill, a steel hulled four-masted barque of 1,121 tons, had been on charter to the White Star Line of Aberdeen to convey the railway line from Middlesborough, England to Geraldton, a journey which took eighty-three days. The Mayhill arrived on Saturday 10th August, 1895 at 2.00 a.m. in the morning in strong squally conditions.

All hands were on deck looking for the leading lights which would guide them to a safe anchorage in Champion Bay. As they tacked back and forth off Point Moore, the crew saw two white lights but Captain Hume dismissed them as his ship's sailing directory showed two red lights.

Unknown to Captain Hume, these lights had been changed fifteen years before to two bright white lights. In the meantime, they were sailing closer to Point Moore Reef and on seeing this she was put about on the starboard tack.

Captain Hume feared she would not clear the reef and sharply put her about again, but before she came up to the wind she struck the reef. It was now 6.15 a.m., the winter sunrise was still three quarters of an hour away.

The first boat out to rescue the ship's crew got to within a few hundred yards of them when their mast snapped in half. They had to rig a jury and scamper back to the Geraldton Jetty. The rescuers later returned in a lugger and finally landed the Captain and crew ashore at 2.00 p.m. that afternoon. The crew, not having much with them, were given clothes and lodging by the townsfolk and ship's agent.

The following day, Captain Hume and his crew went out to the wreck to salvage what they could. Waves twenty feet high were washing over the stern, Captain Hume was tossed out of his life-boat and almost lost his life. Another sailor, a little while later was also tossed out into the sea. All they managed to get off the wreck were some of the ship's papers and their pet pig named Parnell.

On Monday 12th August, 1895, Captain Hume sent a telegram to Lloyd's agents in Fremantle:

"Mayhill's back broken eighteen feet of water in ship poor prospects of salvage".

An inquiry was held and Captain Hume was charged on six counts of negligence, but his Master Mariner Certificate was suspended for three months on only one of these charges, that was:

"That he incurred unnecessary risk and hazard in the navigation of Mayhill by trying to enter at night instead of laying off until daylight, having no knowledge of the bay".

The other five charges were dropped.

Although the Captain and crew received succour from the townsfolk of Geraldton, they made a genuine effort to provide for themselves. They put on a variety concert which proved extremely good, considering, one must presume, that they had never been on stage before. The townsfolk rose to the occasion and gave them a packed house.

The crew were paid off soon after the wreck and were given the choice of staying in Western Australia or being sent to a port of their choice. Twenty-one members of the crew left for Singapore on the SS Australind en route to London a week later. Captain Hume left for England on the 20th September, 1895.

Robert Ingram, one of the crew who decided to work in Western Australia, was drowned in May 1897 while working in Fremantle Harbour. He was in a small boat which was changing the anchor position of the dredge Parmelia. The anchor and chain, weighing nearly two tons, jammed when being let go and carried the boat and two men to the bottom. Five other workmen were rescued.

The wreck of the Mayhill finally convinced the Forrest Government that a Pilot was needed for Champion Bay. The then Minister of Mines, Mr. E.H. Wittenoom was in Geraldton the week following the wreck, and was questioned on this point by the townsfolk.

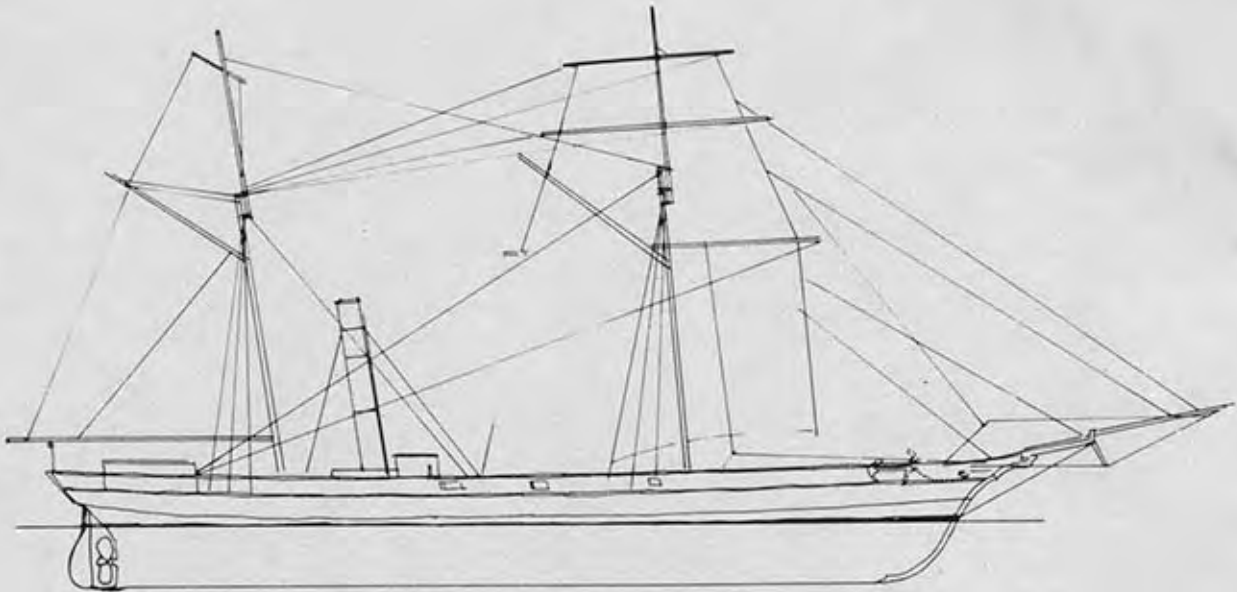
Twelve months later the Mayhill, which was the largest of its kind to have sailed to Champion Bay, was sold for salvage. The vessel fetched £53, while five hundred tons of railway lines fetched £26.

The salvage project was not very successful as the operators were stranded on the wreck due to heavy seas which prevented the work boat getting close enough to pick them off. They spent an uncomfortable night on the wreck and went twenty four hours without food or water before they were taken off. Some hours after they were taken from the wreck, she started to break up. The next morning the stern and midships had gone under and only fifty feet of the bow section remained visible.

In 1979, Geraldton diver Bryan Wheeldon and myself located the wreck and notified the Minister for Home Affairs and Environment, as well as the Department of Maritime Archaeology, Fremantle. This wreck has since been declared historic on the basis that it may become a recreational asset to the Geraldton community.

The wreck lies in five metres of water approximately six hundred metres south of the two buoys which mark the entrance to the deep water channel into Champion Bay, Geraldton.

Dave Totty



THE XANTHO - Western Australia's first sea-going coastal steamer

Built at Dumbarton in Scotland as a paddle steamer in 1848, by William Denny and Co., the vessel was initially schooner rigged with standing bowsprit and a round stern. It was iron clench built, had no galleries and was distinguished by a demi woman figurehead. It had one deck and two masts, dimensions: 114' 8" x 17' 8" x 8' 4" (34.94 m x 6.01 m x 2.53 m). Initially of 62 tons, the Board of Trade noted it was altered to 44 tons, in 1857 and was certified to operate in rivers with partially smooth water. A single engine gave an estimated 64 hp. In 1864, the certificate allowed the vessel to be employed for excursions to sea

During the period up to 1871, Xantho had been apparently employed in the fashion of many other vessels of the late paddle wheel era. About 1871 however, the paddles were replaced by a propeller and the vessel was re-engined with a new but less powerful motor, which had been originally intended for a gun boat.

The vessel was bought by Mr C.E. Broadhurst, who took it from Glasgow to Western Australia, reaching Fremantle on 15th May 1872. The Colonists awaited her arrival with great anticipation. They hoped the vessel would be employed mainly with country trade, also that a regular steam connection on the coast, from the extreme northerly settlement to King George Sound in the south would be commenced. However, this was not to be, as the Xantho was wrecked at Port Gregory, a little to the north of Geraldton on the 16th November, 1872, just six months after arriving in Western Australia.

After an approach by Graeme Henderson, Curator of Maritime Archaeology, WA Maritime Museum, Fremantle, a group of divers and families from MAAWA decided to try and locate the Xantho during the May school holidays 1979.

Horrocks Beach, some 300 miles north of Perth and a short 34 miles from Port Gregory was chosen as base camp.

Using information contained in the report of sinking, newspaper articles, Colonial Secretary's report researched by Graeme Henderson in the Battye Library in Perth, as our base reference, underwater searching commenced.

The first and second day of searching in general areas located wrecks of crayboats and whale bones until local fishermen offered to show us a wreck that they had seen previously on the third day, which turned out to be without doubt the Xantho

A strong rip and poor visibility plagued the site and only very rough measurements, photos and drawings were possible.

Subsequent visits to survey the site have been made with Museum personnel helped by MAAWA Geraldton leading up to a more detailed survey and some preliminary excavation in May 1983, by a team led by Mike McCarthy.

It is hoped to eventually raise the engine and other equipment of this very historic site and publish a more detailed report of the sinking, drawings of the engine and fittings in the near future.

Ian Warne

THE WRECK OF STONES

Local divers in the early/mid-twenties came across a large stone-covered wreck site 125' x 34' x 4'6" (38.1 m x 10.4 m x 1.37 m) which, in the absence of any positive identification they named the "Wreck of Stones". In January 1978 members of the MAAWA began diving on the site to survey and possibly identify the ship.

It was found that the site was the wreck of a wooden ship, at least 47 m in length, approx. 10 m in width and carrying in excess of 200 tons of granite ballast. Several small pieces of coal were found amongst the stones. Although this survey also failed to positively identify this ship, the available evidence suggests that it was the wreck of the Brazilian ship Redemptora.

The Redemptora left Rio de Janeiro on 10th August 1888 bound for Adelaide with a cargo of 233 tons of sugar and 200 tons of coffee. She was a fully rigged ship weighing 1235 tons and had a crew of 23. While rounding the Horn she was caught in a gale lasting 4 days and the Captain, Francisco Cassavechia, took the unusual step of ensuring the safety of the ship and crew by chopping off the top of the main topmast, the upper topyard, the main top gallant mast, and the fore top gallant mast. Despite this the hull was severely strained and the crew were kept at the pumps 24 hours a day. The ship was towed into Fremantle Anchorage on the 24.10.1888 and subsequently sold to a Mr Lilly for £315 and the cargo sold by Mr W. Sampson. The hull was then used as a coal hulk in Careening Bay from the 1.12.1888. After this there was no more known till skin-divers reported a wreck covered with stones in Jervoise Bay.

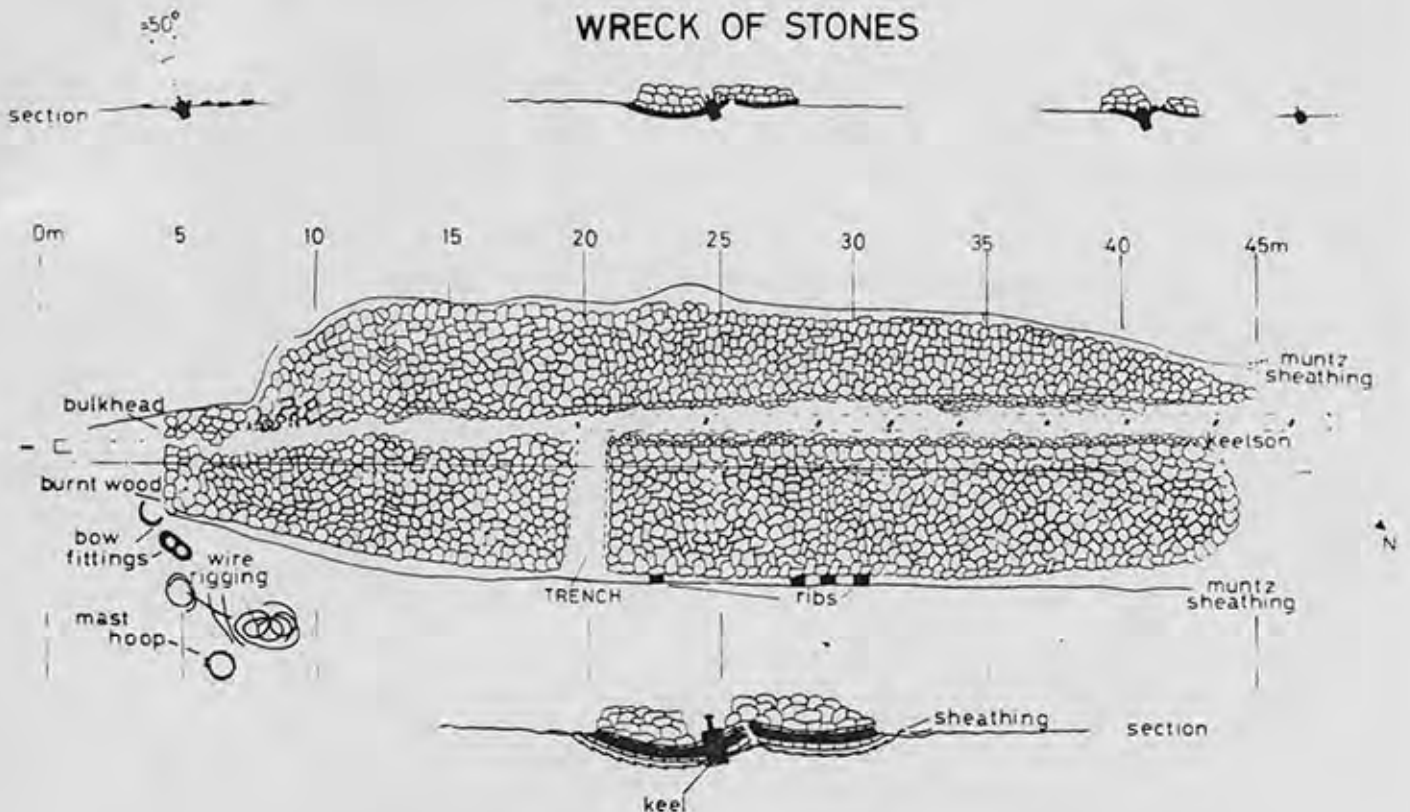
Russell Miners and I took over the survey of this wreck in March 1978 and, ably assisted by other members of MAAWA, completed the measurements of the wreck shown in the drawings. It would appear that the wreck lay on its port side, till the weight of the ballast flattened the hull out. It has not been proven that this is definitely the Redemptora but we can be fairly safe in assuming that it is.

The first two days spent on this wreck we had plenty of divers and these searched around the wreck and checked for any more sections. This search revealed a quantity of Muntz Metal laying just below the sand and close to the wreck but no more wreckage.

A small airlift was used to uncover the ends of the site. A star picket was then driven in each end of these points and a cord line drawn tight between them providing support for a tape. This method was chosen as a tape could not be pulled tight enough to keep it straight in the strong surge.

In mapping the site the distance from the datum line was measured using a shorter tape. One end was held by a diver who placed it over the point to be plotted and a second diver at the datum line held in tight and at right angles to the line. A third diver recorded the measurements. Poor visibility on the site made it necessary to place a diver midway along the short tape to relay information between the divers and ensure the tape was clear of obstructions. Three hours was spent on the port side and three hours on the starboard side. At the same time other members shifted ballast stones along a 2 m wide trench to uncover the hull. This was done about mid-ships and at right angles to the keel. This showed that the far side timbers are lying nearly flat and that their ends are burnt as though the ship had been burnt to the waterline. The datum line was very nearly over the keel line and by

the angle of the keel bolts exposed it would appear that the ship had settled on the bottom and then lay on her port side. The hull datum line on 133° from N which is very close to right angles with the prevailing winds from the SW.



The keel bolts are upright from the bow to amidships. They then gradually lean to port reaching an angle of 40° from vertical at the stern.

The Muntz Metal along the starboard side is nearly upright while on the port side the Muntz is nearly flat.

The fact that no artefacts or any other material has been found indicates that it was most probably burnt to the waterline after being completely stripped.

In the summary of shipwrecks in the Fremantle Port Authority Magazine, spring copy of 1974 Vol.5. No.4., written by Dennis Robinson Association Secretary, "there is no evidence of a wreck anywhere near the tonnage size of the Redemptora which was the largest wooden ship to enter the harbour for many years, and no other ship of that size has been recorded as missing in the Cockburn Sound Area."

Further evidence is being sought and letters have been sent seeking the ship's measurements to places as far afield as Portugal. As yet, these have been unsuccessful and further dives will be necessary to help in positive identification.

W. Marshall & R. Miners

GERALDTON MAAWA - A BRIEF HISTORY

Mid 1979, after some discussion and a lot of assistance from Dennis Robinson, I started up the Geraldton branch of MAAWA, the first Maritime Archaeological Association branch in Australia, and was its secretary until January 1982 when Peter Worsley took over the reigns.

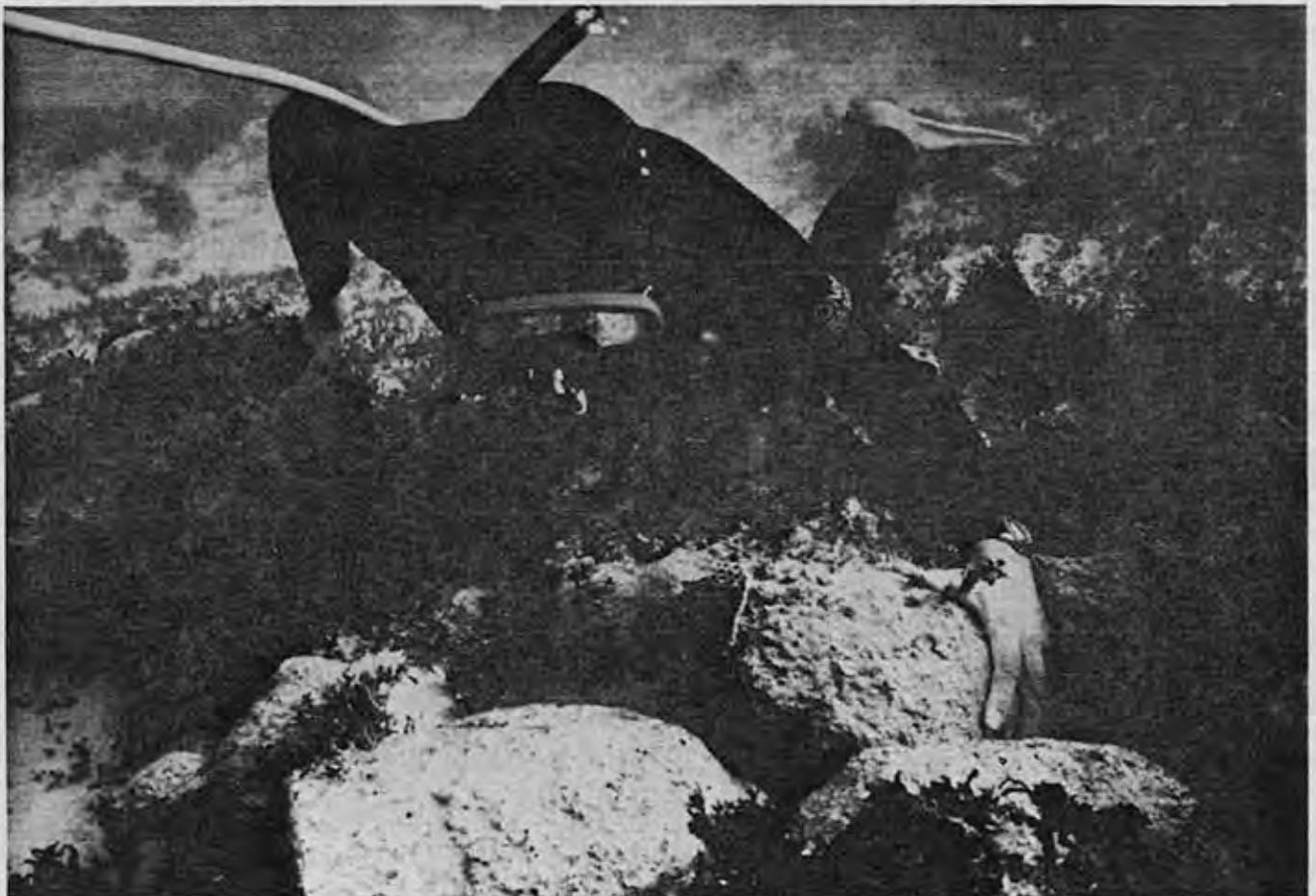
The following is a summary of events in which the Geraldton branch of MAAWA has either investigated by itself, or assisted others with their projects.

1. MAAWA Geraldton Seminar (September 1980).
2. Talks to different bodies around Geraldton.
3. Put on a display of post Colonial wrecks (Sunset Beach Wreck, Xantho and Mayhill etc.) at the Geraldton Maritime Museum (March 1981).
4. Assisted Scott Sledge on his first inspection of Xantho (October 1979).
5. Relocated and reported the wreck of the Mayhill.
6. Assisted in the conservation and restoration of a cannon from the Batavia which has been housed outside the Geraldton Yacht Club.
7. Assisted on the Ningaloo wreck expedition.
8. Reported the finding of timber from the schooner Favourite, which went down at Port Gregory, 1867.

(A more detailed list of Geraldton's activities has been placed after the MAAWA list in Chapter 5).

D. Totty

Dave Totty recognises a ballast rock to be a stoneware jar on his first dive on Rapid site, 1980.



Chapter two 1980

- | | | |
|----|---------------------------|----------|
| 1. | Raising the <u>Trixen</u> | L. Hill |
| 2. | Geraldton Seminar | D. Totty |
| 3. | Careening Bay Search | L. Hill |

THE SALVAGE OF THE EX LUGGER TRIXEN

Located thirty metres downstream from the Tranby Jetty on the bank of the Swan River in Maylands stood the old pearling lugger, the Trixen. Records show she was built in Broome 1904. The builder was Henry Miller and the owner was Elisa Miller.

Originally, the vessel was 37.83 feet long by 12.58 feet wide and 5.75 feet deep. She was carvel built, wooden hull, one deck, two masts, rigged schooner with elliptical stern, she was 12.735 tons net and 15.73 tons gross. Her registration was closed on the 15th December 1949, however, she was re-registered after extensive alterations. Her length was altered to 50.7 feet, width 14.2 feet and depth 9.0 feet. She then weighed 26.75 ton net and 30.24 tons gross fitted with 30 hp diesel engine built by Southern Cross Engine Co., Queensland and was capable of 6-7 knots. There were no masts and her stern was counter-type.

She was still engaged in the pearling industry around Darwin, Broome and Thursday Island until the mid-fifties and sixties, when she was used as a cray boat around Lancelin. At one stage, she was used as a salvage boat and later as a ferry between Palm Beach and Garden Island. She was then brought up river to Maylands where she sank, causing concern to Government Authorities.

After a number of years, the matter was taken to court and a supreme court decision was that the vessel should be disposed of to the highest tender who would raise her within 7 days. Les Penny, shipwright, was the successful tender with an amount of \$310 and, the WA Museum, concerned for the safety of the hull offered assistance. Through MAAWA, Lyndsay Hill and Colin Scrimshaw accepted the challenge and Les Penny agreed to donate \$250 to MAAWA and the hull to the WA Museum when he had no further use for it.

On the 30th April 1980, work commenced on the salvage operation. Lyndsay Hill's initial plan was to place twenty 200 litre oil drums under the stern and pump them out with compressed air, thereby gaining lift; this method was not successful but in doing so we gained valuable experience which was to secure each drum individually to the object being raised. We had attempted to secure two drums on one rope with one drum either side of the hull, with the result that if one drum inflated more than the other, it would rise to the surface pulling the other one down.

As we could not get sufficient lift (only 4000 kg) with this method we decided to pump the water out of the hull and use displacement to get lift. In order to pump the water out we had to first block up two large hatches plus quite a few holes in the deck and the hull.

The small holes were blocked by nailing pieces of plywood and canvas, the after hatches by first nailing pieces of particle board over the openings and then covering with canvas.

As the wreck was listing to port and sloping to the stern we had only to cover the rear and port side of the forward hatch to seal it. The pumps were started but the seal was not good enough and we could not beat the inflow of water, especially with only 3 of the 5 pumps being operational. It was then decided to abandon the attempt for this weekend and try again the next weekend.

It was intended to make a better wooden cover for the after hatch plus obtain a much larger pump.

Members in attendance were Colin Scrimshaw, Lindsay Hill, Syd Harrison, John Cresswell and Ian Warne.

Saturday 10 May:

The same team assembled. The new hatch cover which had been fabricated on the shore in two halves, was taken out to the site and duly fitted to the hatch. This covered the hatch with canvas which we then secured to the deck by laying lengths of 50 x 25 cm batten along the edges and nailing into the deck.

The owner, Les Penny, hired a pump capable of pumping 76,000 gallons per hour. The pump was started and the water level was soon seen to be falling, but as we lowered the level of water in the hull it was evident we were creating a vacuum on the rear end hatch covering, by the time we realised what was happening, it was too late and the cover collapsed assisted by additional pressure caused by the wake of passing boats.

Attempts were made to repair the cover while it was in place but with strong boat wake the whole structure collapsed and we had to take the cover back to shore for rebuilding and strengthening.

Sunday 11 May:

Les Penny had rebuilt the cover and by early afternoon it was ready to be replaced. This time the Harbour and Lights had been told of our problem with speeding boats and stationed one of their boats nearby to enforce the 8 knot speed limit. A large sign 'PLEASE SLOW DOWN' was hurriedly prepared and taken out by one of Ian Warne's sons in a dinghy and displayed to all boats as they approached.

At 4.20 p.m. the large pump started and the water level soon seemed to be falling. We had taken the precaution of leaving a hole in top of the aft cover to allow air to enter.

As we mentioned previously, the wreck was lying on its port side, and as the water was being pumped out it started to lift on the starboard side. As the suction of the mud under the side was holding it down, it was then evident that if we did not do something quickly the forward hatch, which only had partial cover, was going to go under water. Six oil drums were lashed to the starboard side to try and turn her until the bottom suction would break. This manouvre did in fact work and at 6.20 p.m. the MV Trixen was once more afloat.

As the level was getting down to the bottom of the hull, dozens of cobbles were seen to be swimming and sliding towards the pump intake. Earlier, Colin Scrimshaw and Lyndsay Hill had been down swimming inside the hull, luckily the cobbles must have been able to see in the dark as Lindsay and Colin could not.

This in attendance were Sid Harrison, Lindsay Hill, Colin Scrimshaw and Ian Warne.

Monday 12 May:

Colin Scrimshaw called at the site to see the Trixen sinking, luckily all the covers were still in place and with frantic pumping she was raised again. this time pulled closer and parallel to shore so that if she did go down her gunwale would remain above water.

THE METHODS USED WERE:

1. Attempted lifting using oil drums. The ropes were secured to the drums by a simple method which was to have some toggles made up out of 12 mm round rod, which had a length of rope spliced to it. This toggle was passed through the large bung hole in the oil drum to the inside allowing maximum space to fill with air hose. Each drum was secured individually using a knot that could be undone under pressure.
2. Lifting using displacement. All holes were sealed where possible using canvas, plywood or other means, taking care to ensure that if large areas are covered, strong timber supports are included. Also an air-vent is allowed to prevent vacuum pressure areas.

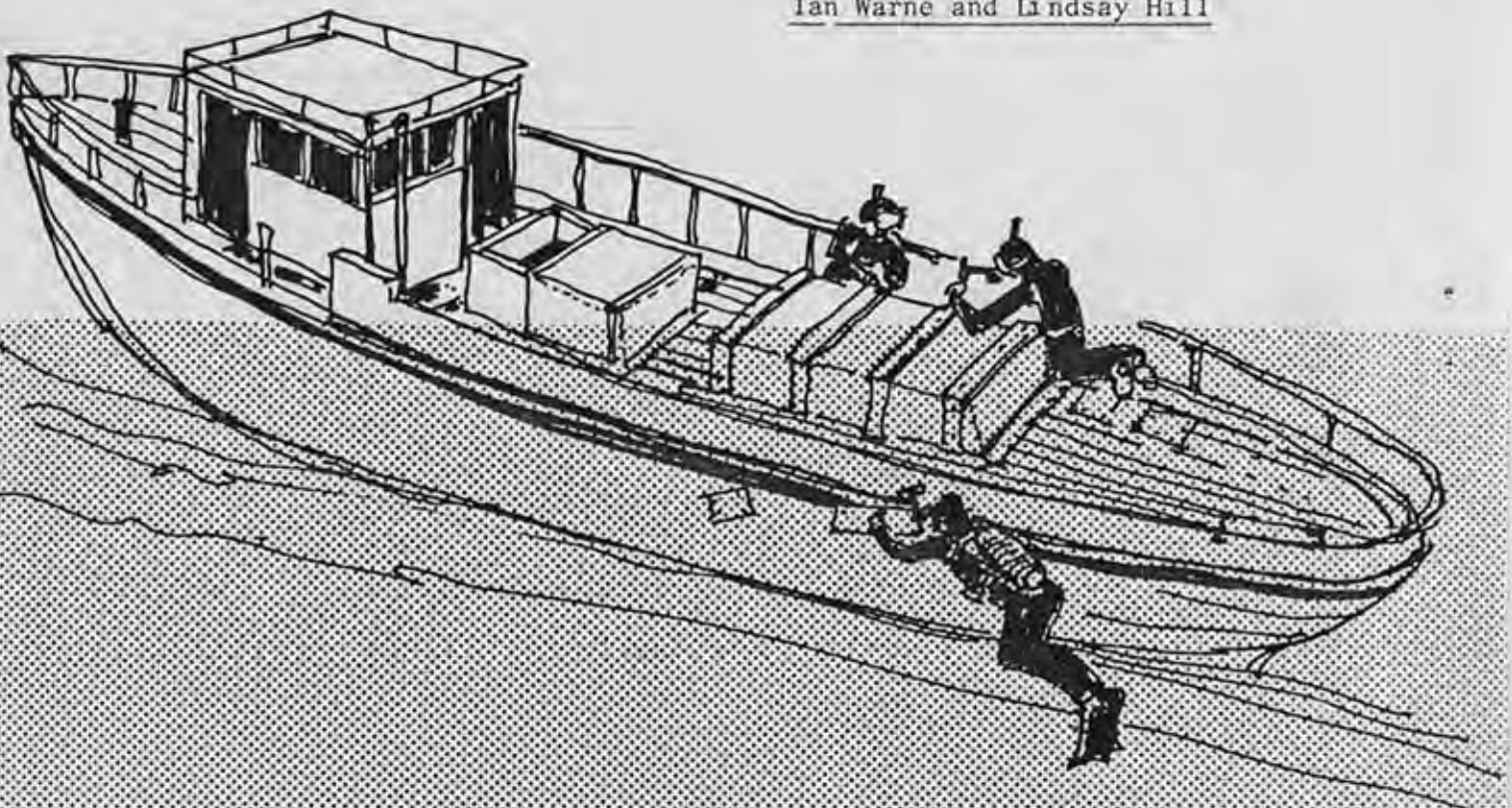
A pump capable of moving sufficient quantities of water to keep up with some inflow of water through cracks and gaps in timber and patches.

Postscript:

The Trixen was later towed to Fremantle. Work commenced on-stripping the old cabin and structures by the owner.

Cost proved too high and the owner through Mr Ray Mudie of Aquarama donated the hull to the WA Museum where she is safely under cover on the hard awaiting lots of hardwork to strip back to bare ribs for eventual display as a fine example of this unique Western Australian style of shipbuilding.

Ian Warne and Lindsay Hill



The Geraldton Branch of MAAWA has been formed just over a year. In this relatively short time our members have been involved in researching shipwrecks, working with the Fremantle Maritime Museum in the initial inspection of WA's first coastal steamer SS Xantho (1872), and the recent excavation of the then unidentified wreck at Point Cloates, North West Cape (Rapid 1811).

Being outside the City we get very little chance to use Marine excavation equipment, hence the decision to hold the seminar in Geraldton on 30th and 31st August.

The week before the seminar MAAWA members from Perth, Denis Robinson and Drew Bathgate, arrived in Geraldton and with Geraldton members, David Totty, Peter Worsley and Bryan Wheeldon, went about setting up the equipment and finalising last minute details.

The two day seminar had a set back as the Geraldton Council closed off the harbour on the Sunday morning. We had planned to demonstrate the methods learned on the Saturday morning by first doing a line search for the old jetty and secondly, to excavate the jetty looking for old artefacts. As it turned out, Sunday's weather conditions terminated any thoughts of diving anywhere.

Friday (29th) night a barbeque was held at Dave Totty's home to get everybody together in preparation for the weekend's programme.

Saturday (30th) 9 a.m., everybody assembled on the foreshore beach starting off with divers learning search line techniques, guided by Denis Robinson. Unfortunately, the visibility was down to minus one metre and although the line search was successful, the divers failed to find Drew's weightbelt which he had (unknowingly) volunteered. The weightbelt was found however when the divers used the underwater metal detector.

While this was going on Peter Board (Dampier) was showing the correct use of knots. Ian Warne took his life in his hands showing those people who had never handled a small boat how it was done.

The water dredge and airlift operation went off smoothly considering these items had not been used before they were brought to Geraldton and all divers managed to get the feel of their operation.

After lunch, Peter Board showed how to correctly plot the exact location of a wreck using a sextant and compass. This took place on the beach, we then moved into the Old Railway Station building which is situated on the foreshore.

This building is to become part of a future branch of the WA Museum. It was constructed in 1879 and was the first Government Railway Station in the State. Along with the Gregory Street jetty it was built to open up the mining areas of the Murchison district.

To start the afternoon lecture series off, the Curator of the Geraldton Museum. Greg Wallace, talked about small museums and in particular the roll of the Geraldton Museum and its future aims. Denis Robinson (Secretary MAAWA Perth) then went over line search techniques and a general discussion of the mornings effort followed.

It was hoped that a photomosaic could have been taken of the unidentified wreck at Sunset Beach just north of Geraldton so Drew Bathgate (Perth MAAWA) could have discussed how this was done. Weather conditions put a stop to that idea but Drew had however brought with him a photomosaic of the Lady Elizabeth, he used this to show the process of making a photomosaic of a wreck.

Ian Warne (Perth MAAWA) gave an enlightening lecture on how to draw artefacts and general procedures which accompany this type of drawing. I am sure those who thought they could draw will now be eager to try. Colin Scrimshaw (Perth MAAWA) shared his experiences with a lecture on raising a vessel, one of WA's older luggers, the Trixen, which had been abandoned in Perth's Swan River. This experience promoted a lot of questions from the people in the room.

Mike McCarthy, wreck inspector for the Fremantle Maritime Museum, outlined the Museum's position in relation to wreck rewards as well as the procedure to register a wreck. Mike went to great lengths in explaining the Historic Shipwrecks Act 1976, pointing out that nineteen (19) wrecks had been declared historic under this Act and another fifteen (15) wrecks are awaiting declaration. He also mentioned that a reward of \$17,500 had been offered to the finders of the Ningaloo wreck and \$2,000 had been offered to the four boys who found one of the cannons off the Dutch trader Zuytdorp (1712) at the end of the jetty at Shark Bay.

To end the afternoon session Peter Worsley (Geraldton MAAWA) gave a lecture on 19th century ship construction.



Experience
in use of
water dredge at
Geraldton Seminar.

The evenings activities were well attended giving a full house. It started off with David Totty (Geraldton MAAWA) describing the wrecks on the coast around Geraldton. This was supported with slides of the wrecks on the coast and the Abrolhos Islands, most of which were taken by Bryan Wheeldon (Geraldton MAAWA).

Graeme Henderson, Curator at the Fremantle Maritime Museum presented a comprehensive talk with slides of the excavation of the then unidentified wreck off Point Cloates, North West Cape. This included the latest findings from this years excavation in April/May.

During the evening four (4) films were to be shown, they being: "Endeavours Anchors"; "1000 piece jigsaw"; "Wasa"; and the "Louisberg". Unfortunately we did not get to see the Louisberg as midnight was fast approaching and we had a dive planned to African Reef to view the wreck of the Stanford (1936) the next morning.

As already mentioned the weather turned foul on Sunday so the African Reef trip had to be cancelled. Considering the Seminar had to be compressed from two (2) days to one (1), everything went off as planned and everyone enjoyed the proceedings and learnt some new techniques and ideas over the period of the seminar.

David Totty

1980 MAAWA SEMINAR - GERALDTON PROGRAMME

08.45 - 09.00	Briefing		D. Robinson
09.00 - 10.30	Dive: Line Search	Boat handling	B. Dunne
	Metal Detector	+ motors	
	Find Position of	Search aids +	P. Board
	old wharf	knots	
10.30 - 12.00	Dive: Excavation of	Air lift design	C. Scrimshaw
	old wharf	Water dredge design	B. Wheeldon
12.00 - 13.00	Lunch		
13.00 - 13.30	Lecture - Sextant + Compass (on beach)		P. Board
13.30 - 14.00	Small Museums		G. Wallace
14.00 - 14.30	Line Search Techniques		D. Robinson
14.30 - 15.00	Photomosaic		D. Bathgate
15.00 - 15.30	Afternoon Tea		
15.30 - 16.00	Drawings + Sketches		I. Warne
16.00 - 16.30	Raising a vessel		C. Scrimshaw
16.30 - 17.00	Reward payments		M. McCarthy
17.00 - 17.30	19th century ship construction		P. Worsley
17.30 - 19.30	Dinner		
19.30 - 23.00	Slides + Films "Geraldton Area Shipwrecks"	($\frac{1}{2}$)	D. Totty
	"Abrolhos"	($\frac{1}{2}$)	B. Wheeldon
	"Ningaloo"	(1)	G. Henderson
	<u>Endeavour/Jigsaw/Wasa/Louisberg</u>	($1\frac{1}{2}$)	M. McCarthy

SEARCH FOR UNIDENTIFIED WRECK IN CAREENING BAY

28 September 1980

Eighteen divers departed from Fishing Boat Harbour aboard the Henrietta. It arrived at Stirling Naval Base at 0930, picked up one C.D.T. diver then proceeded to search for wreck found by Gary Wood and John Anderson. These people having fished on the site and also having sent a diver down to retrieve a lost anchor, the diver reported a sunken wooden ship approx. 150 ft (45.72 m) long in an upright position, (not to be confused with Dato as in upside down position).

An object appeared on the chart of the echo sounder, but when divers went over the side they found that it was in fact a sunken channel marker.

After 3 hours of searching with the echo sounder it was decided to send down a group of divers to do a swim line search. This also proved unsuccessful and at 1330 hours it was decided to call off the search for the day.

Gary Woods arranged with Brian Brownran (the Navy diver) that they would attempt to locate the site the following Sunday.

Had a brush with the Navy when lying at anchor, a Patrol Boat came and checked activities and whilst coming close they managed to impale themselves on Henrietta's bow. A hole approx. 100 mm in diameter noted on Patrol Boat, no damage to Henrietta.

No further search has been made and the wreck still to be found, along with a one man Navy sub lost in training and never located.

Lindsay Hill
(from field notes)

Chapter three 1981

- | | |
|---|-----------------|
| 1. Swan River Wrecks | Colin Scrimshaw |
| 2. Commissariat Building, Fremantle | Ian Warne |
| 3. Wreck Surveying with the Water Drill | Drew Bathgate |
| 4. Leeman Expedition | Mark Staniforth |
| 5. Beacon Island Expedition | Lindsay Hill |
| 6. Technical Drawing | R. Stevens |
| 7. Vale Mike Pollard | Dennis Robinson |

SWAN RIVER NORTH FREMANTLE TO PERTH

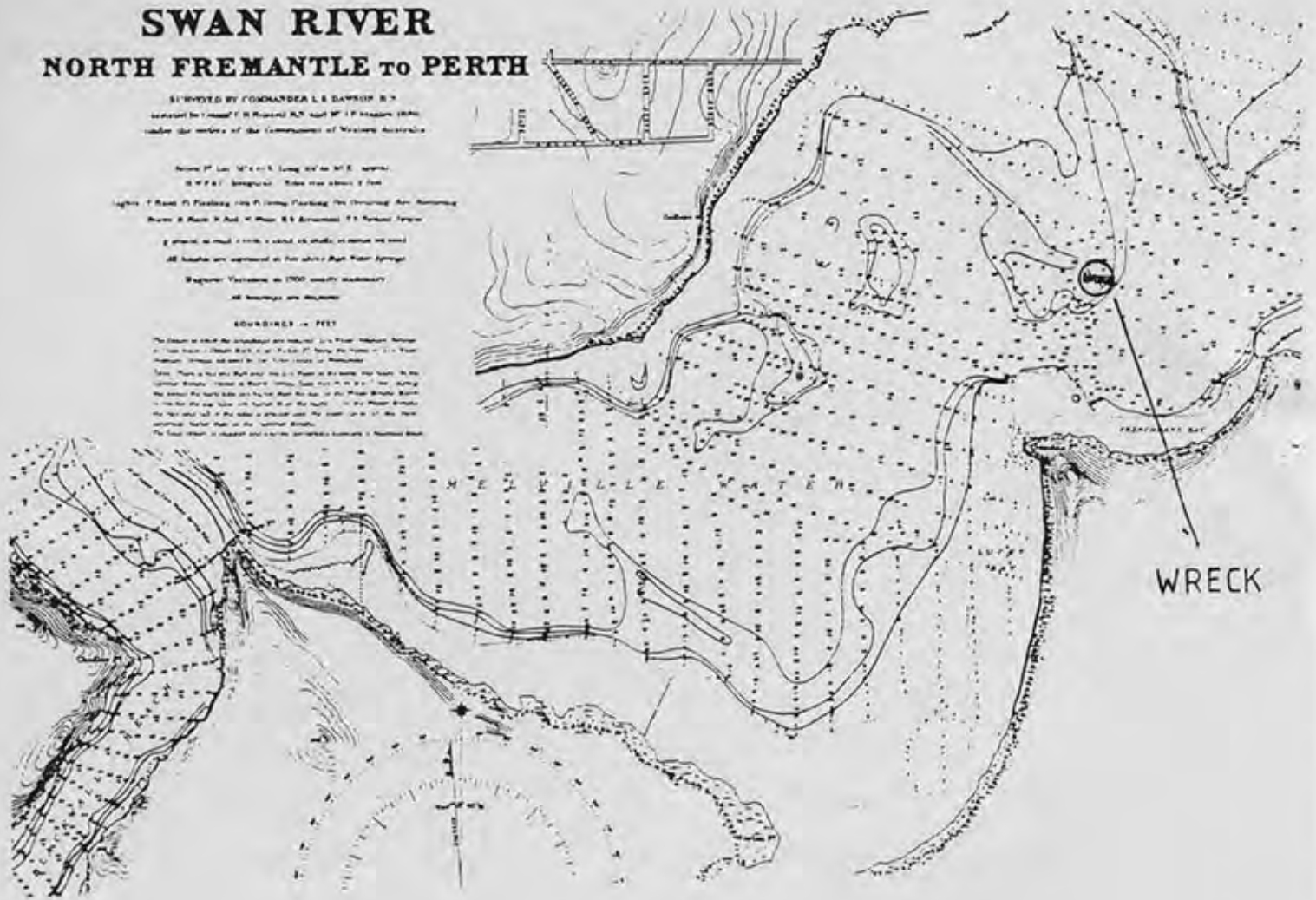
REVISED BY COMMANDER L. S. DAVISON R.N.
REVISED BY T. R. BROWN R.N. AND W. J. P. HARRIS R.N.
UNDER THE SUPERVISION OF THE COMMANDER OF WESTERN AUSTRALIA

Scale 1" = 1 Mile. Long 10 1/2" x 10 1/2" approx.
W.P. 171. (Imperial) - This map shows 1/2 inch
height of Sound of Fremantle and of Canning Channel (the Canning River) -
Sound of Fremantle 1/2 inch = 1/2 mile. Canning Channel 1/2 inch = 1/2 mile.
A general method of charting is used, as usual, in nautical charts.
All bearings are given in true unless otherwise stated.
Magnetic Variation in 1900 nearly everywhere
all bearings are magnetic.

BOUNDING - FEET

The limits of the map are indicated by the following figures:
Top edge - 32,000 feet. Bottom edge - 32,000 feet. Left edge - 110,000 feet.
Right edge - 110,000 feet.

Note: There is a full scale map of the Sound of Fremantle and Canning Channel in the
General Charts issued by the Hydrographic Office, London. This map is 1/2 inch
scale. The full scale map of the Sound of Fremantle and Canning Channel is
in the full scale map of the Sound of Fremantle and Canning Channel, which
is the full scale map of the Sound of Fremantle and Canning Channel.



SWAN AND CANNING RIVER WRECKS

At the November 1978 meeting of the Maritime Archaeology Association of Western Australia, I received a file begun by Mike McCarthy on the Bullcreek wreck, the Heathcote wreck and the wreck of the convict fence. I had volunteered to continue and expand it to a booklet on the Swan and Canning River Wrecks.

My initial aim was to locate and list as many of the sites as possible and then measure each one individually. This was impossible however, because I found that as I enquired where each wreck was, it became also necessary to find out how long it had been there, what it was used for and why it was abandoned. Along with the simple list of sites given, grew a pile of notes.

The Swan River Management Authority supplied information on some of the sites and became interested in having the records obtained for their own files.

The list of vessels grew rapidly to nineteen existing sites and about seven unlocated sites. A lot of vessels which had been broken-up by the owners or Government Authorities came to my attention and this will be the subject of another study.

A booklet based on the existing wrecks was published in 1980 and is a record of the wrecks in the Swan and Canning Rivers. The wrecks were entered if they were over 12 m (40') long and were built before 1945. Each entry states the vessel's location at the time of writing, and was made when evidence points to a wreck site and there is no record of it having been removed.

The Maritime Archaeological Association of Western Australia (MAAWA) was involved with all the diving and researching for this report.

Although these sites have no scrap value, each has a little piece of Perth's history surrounding it.

Taken from the introduction to Colin Scrimshaw's fine publication on the River wrecks, containing maps, photographs and historical information. The following is an abbreviated list of the sites, Editor.

1. Carnac: Built in 1929 for Bunning Bros. used as a ferry to Garden Island. Sunk about 1940, 50 m upstream of Fremantle Traffic Bridge.
2. Priestman Grab Crane: Built prior to 1945, 70 ft (21.33 m) long, weighed 194 tons. Sunk 1968, 100 m upstream of old Fremantle Traffic Bridge.
3. Eva Barge: Built of timber, 20.4 m length in 1897. Used as slipway landing in 1944 amongst the jetty piles at Point Direction, North Fremantle
4. Mayfield: Registered in 1899, to be towed, engine fitted in 1934, used in Second World War to take gun shields to Rottneet. Sunk in 1945, 15 m from shore in Rocky Bay.
5. Rocky Bay: Unidentified (possibly City of Perth) wreck of 70 ft (21.33 m) discovered in 1979, with rudder intact.
6. A.L.C. 40: Steel 18.6 m barge used by Water Transport Unit of Australia Army Depot. Came adrift in 1942-43. Sun in 10 m of water just upstream of jetty.
7. Point Roe Box Barges: Located by aerial search in 1980, not yet surveyed.
8. Shell Barge: Located by Public Works diver in 1950s, upstream of Point Roe, not located since.
9. Blackwall Reach Barge: Owned by Goldfields Metals Company, 60 ton steel barge sunk in 1967 in 12 m of water.
10. Mosman Bay Barge: Identity unknown, wooden vessel in 70*feet (21.33 m) deep hole at Mosman Bay.

11. Melville Water Unidentified: Wreck noted on Admiralty Chart of 1896. Not yet located in 8-20 ft (2.43 - 6.09 m) water.
12. Heathcote Unidentified: At foot of cliffs at Heathcote Hospital. Wreck 17.3 m length, possibly a cement barge.
13. Swan Portland Dredge: 50 m upstream of the Goodwood Parade Boat ramp. Measures 19 m x 7.2 m, used to dredge shell from the river.
14. Daisy: Barge used to transport N.S.W. clay for John Mills Pottery until 1920 when local clay used, sunk through neglect opposite Maylands shipyards.
15. Trixen: Ex lugger built in Broome 1904, partly submerged near Tranby House, until refloated by MAAWA in 1981.
16. Ashfield pontoons: 3 built around 1942 and used to tie up to ships moored in Gage Road, during the Second World War.
17. Lady Ord: Built in 1878. 47ft (14.32 m), 8.3 ton gross. One of the first steam launches on the river. Abandoned in 1905 at Coffee Point.
18. Helena: Built in 1897. Composite paddle wheel steamship 65ft (19.81 m) of 32 tons gross, moved in sections from the river in 1922. Few tangled remains left.
19. Harvey: Rusted away same location, similar construction to Helena.
20. Mayflower: Built in 1908. 49 ft (14.93 m) length, used in ferry runs Mends Street and Queen Street 1938-1949, moored in Bullcreek.
21. Bullcreek Unidentified: Double ended timber vessel 20 m length, could have been used as timber barge.
22. Python: 1907. Built of timber 105 ft (32 m) in length stuck in mud in later 1940s where it remains.

Colin Scrimshaw


COMMISSARIAT BUILDING FREMANTLE

When I joined MAAWA, our monthly meetings were held at the Girl Guide Hall in Glyde Street, East Fremantle. Great place, but a bit draughty on cold winter nights. At that time, the Museum staff was all crowded into sheds at the back of the Finnerty Street Museum.

During 1981 the Museum staff started to move into the restored Commissariat Building in Cliff Street, as work progressed and more space was found, we were invited to hold our meetings, initially in the old office section until full restoration was completed when we moved upstairs for our first meeting in March 1981.

The history of this delightful old building goes back to 1851 when Governor Fitzgerald wrote to the Colonial Office in Britain:

"Looking at the increased amount of Commissariat stores required, and the supply expected from England, with the impossibility of renting for any sum whatever any building for store-rooms, save the small one now possessed by the Commissariat, I am left with no alternative but the immediate construction of a Commissariat store....."

The building was designed by James Manning, Clerk of Works. The plans envisaged a very large building with three parts. The first wing, the "A" Store which is now the main entrance of the Maritime Museum, was to be extended by two more sections to form a  shaped building. The second section, the "E" Store was built in 1860-61, but the third wing was never started, and the land on which it was proposed is now occupied by the railway line. Together with the main store, small offices on Cliff Street were completed in 1851. A horse-drawn waggon, which ran on a tramway linked the Commissariat with the Prison. On it, goods were taken up the hill to the Prison, and it is possible that the stone used in the Commissariat was quarried near the Prison and brought to the site on this tramway.

A Splendid Store:

The buildings were constructed mainly by convict labour, but as sufficient skilled tradesmen were not to be found among either the convict or the local population, it was necessary to invite "mechanics" from South Australia. The problem created by the shortage of tradesmen can be seen clearly in the report of Lieutenant Wray, the Royal Engineer in charge of public works. In August 1852 he wrote:

"In January a building eighty feet by fifty from out to out, in two floors; height from groundfloor to under side of the beams, twenty six feet; was already up to the level of the upper floor, and the carpenters were fixing the floor joists.

This building was since been completed, with the exception of laying the groundfloor and fixing the stairs and doors (temporary doors have been hung).

The building was filled with stores, by the Commissariat Department, before the roof was on; third store-room being obtainable only at an exorbitant rate.

This circumstance, and the small number of carpenters, compared with the necessarily large number of works in hand, has prevented the completion of the lower floor, which, however, answers for tools and flour, as it is.

In their official reports to the British Government the Governor and the Comptroller-General of Convicts wrote in glowing terms of the "splendid store" and of the commodious and convenient offices. But the Assistant Commissary General - William Mends, who worked at the Commissariat - felt differently. In June 1852 he gave vent to his frustrations in a letter to the Colonial Secretary:

"A splendid store - a building altogether incomplete, no proper doors or fastenings, without the means of communicating with the upper floor other than by a ladder, not a single fitting for the reception of what it is intended to contain, and I regret to say that it has not proved itself to be watertight, the articles within it having on several occasions been required to be moved about - the consequence of which is that the Stores are still on the Sand, where though possibly secure from plunder, their preservation is jeopardized.

Commodious offices - Neither the Chest* room, Vault, nor the room next to it, or is the room above the Chest room, intended for an Office Keeper, complete, and these I beg leave to say are most of importance: in addition to the fore-going an urgent necessity exists for a water closet for the Building.

*The "Chest" was the specie or coin shipped to the Colony and held at the Commissariat until it was "surveyed" or counted by government officials.

The Colonial Secretary in a placatory reply wrote to Mends, saying:

"His Excellency desires to assure you that he is perfectly aware of the difficult and responsible position in which you are placed owing to the insecurity of the New Building. You need not be reminded of the large amount of work on the hands of the Comptroller General or the very limited means he has at his disposal to enable him to effect it."

But it was not until January 1853 that Lt. Wray could report:

"The staircase in the Commissariat store has been made and fixed, and a line of shelving for stowage of small stores framed and fixed on the north side of the building".

The New Store - 1856

Between 1854 and 1857 the annual number of convicts transported to Western Australia declined markedly. It is probable that this decrease and the shortage of money for public works, are the reasons why the second and third stages of the Commissariat stores were immediately built. Temporarily it had been necessary to lease storage space. In July 1856 Manning reported on the construction of what was to be called the "New" Store.

"A store, twenty feet wide, ninety-seven feet long in clear, and ten feet high, has been erected. The carpenter's work of this building was contracted for and performed by civil labour".

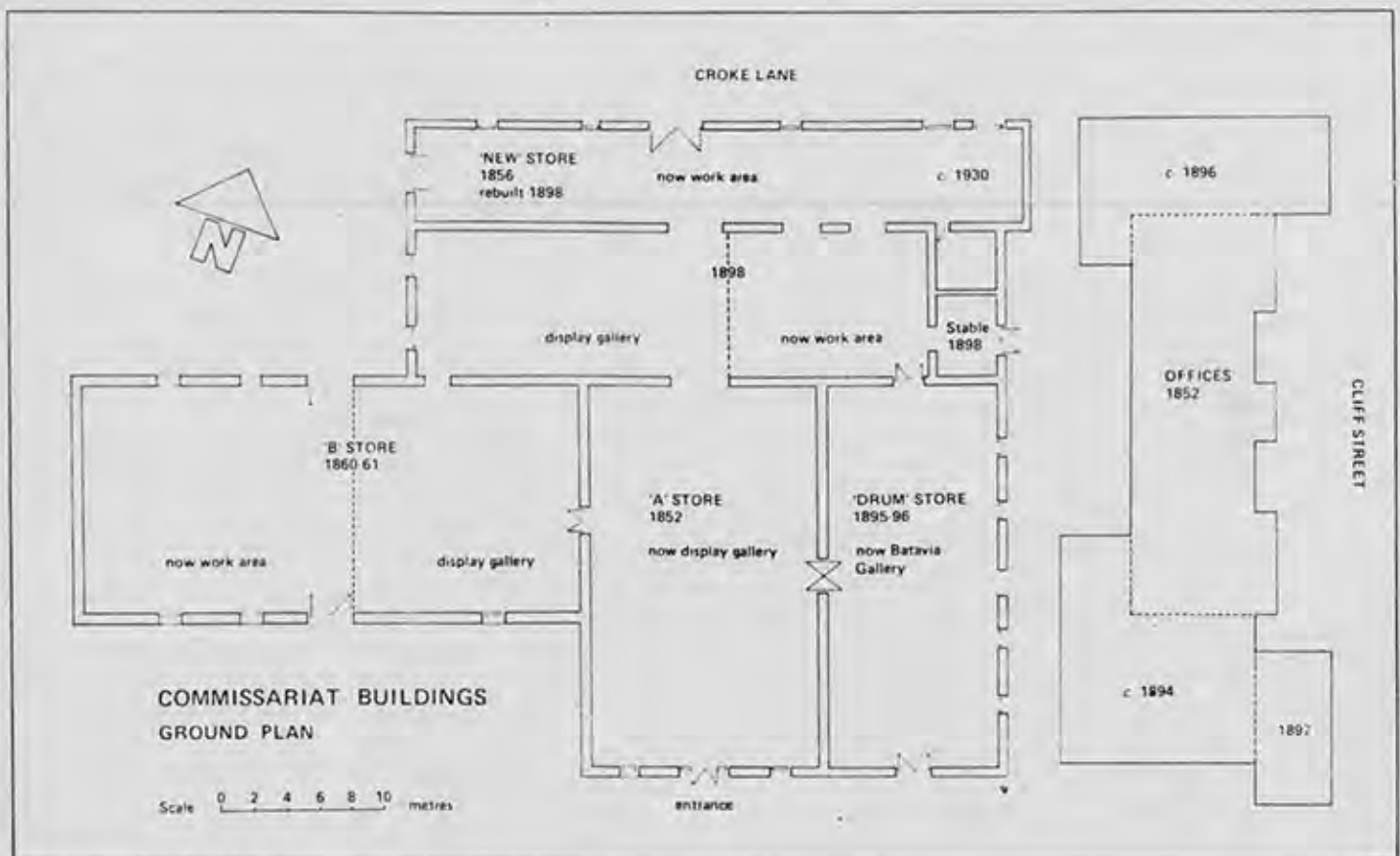
The "B" Store - 1860-1

In 1858 the numbers of convicts coming to Western Australia again increased. In March 1860 the second wing of the original commissariat was reported as having been carried up to two-thirds of the first storey. The commencement of this large store may have reflected some optimism about the economic state of the colony and the continued presence of the convicts. But in 1861 and 1862 the future of the convict system was in doubt. Progress on the Commissariat was slow. Shortage of skilled labour was once again a problem; there was, for example, great difficulty in finding a suitable contractor to do the floors. In March 1861 the Comptroller-General reported that work on the store was "the only work of any importance which it has been possible to execute". It was not until January 1862 that the store was complete.

One interesting fact about the "B" Store is that it had a railway track running through it. This was originally built as a tram road which ran from the South Jetty through the Commissariat to the North or River Jetty. A turntable, which was situated under the present Customs building linked a branch line which ran to the old Customs building in Marine Terrace. After 1873, when construction of the Shipping or "Long" Jetty was commenced, other branches to the tram road were built. The tram road was replaced by a proper railway line probably about the time the railway line from Perth to Fremantle was completed in 1883.

After transportation ended (1868) the Convict Establishment's use of the Commissariat decreased. By 1878 the Imperial Government had handed the Commissariat buildings over to the Colonial Government. In 1879 the buildings were converted into a Customs House and Bonded Warehouses and put under the control of the Customs Department. In addition, between 1879 and 1890 the front offices of the Commissariat were used as the Post and Telegraph Office, and at least some of the additions to the front building relate to that function.

Ian Warne



Present day plan of Commissariat Building.

Introduction

A major problem encountered by Maritime Archaeologists when they first contemplate working a wreck site covered by sand, is to what extent of the ship's structure remains covered by sand. It could be very costly and embarrassing to mount an expedition, taking equipment and people to a wreck site only to find that the objects sitting on top of the seabed are all that remain of the vessel with nothing buried under the sand.

On most wrecks, it is not until after airlifts are used that the full extent of the site is realised. A way of finding out whether you have a large scale project on your hands or not is therefore needed.

The Maritime Archaeology Association of Western Australia have often faced this situation when taking on a new project. When I started planning work on the wreck site of the Contest (1874) [a wooden framed ship of 433 tons gross, 120' x 28.1' x 12.8' (36.57 m x 8.56 m x 3.86 m) with a square stern and female figurehead, built by Wilmot, Nova Scotia 1860] this problem of site extent confronted me. The wreck lies in 1.5 - 2 m of water with only 20 cm of three frame ends and 40 cm of stem post visible above the sand.

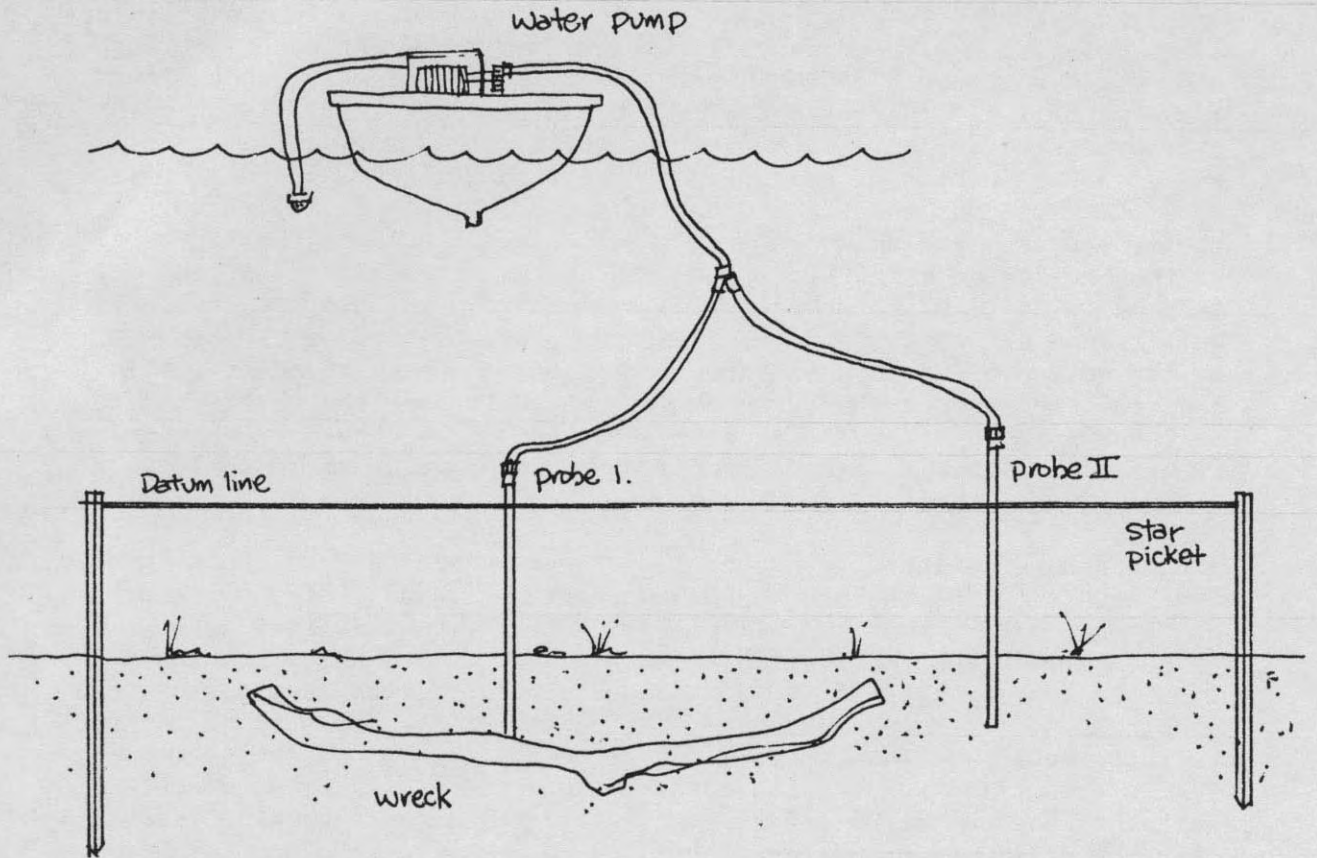
We needed to know just how much of the hull remained and if the sides had fallen outwards or gone altogether, so that the site's archaeological value could be evaluated. Historical research had shown that the wreck had been sitting 30-100 m offshore since grounding in 1874 and locals had used timber from the wreck to build houses. This indicated that the site had been well and truly picked over for any artefacts of value but did not indicate the amount of timber left on the site.

After discussions with the Museum and MAAWA members, the idea emerged that probes should be put down through the sand to find the hull. Airlifting small holes was suggested and tried on the peripheries of the site but due to lack of suction, because of the shallow depth at which we were working in, the holes tended to be fairly large and time consuming and needed to be filled in afterwards. Forcing probes down through the sand in a similar fashion as ski rescue units used when searching through snow was suggested, but rejected because of the damage it may cause if it struck any fragile material. At this stage we were beginning to use this site as a testing ground for theories and ideas that could be used on other work sites so that the application of any device had to be considered in cases where artefacts were expected to be found.

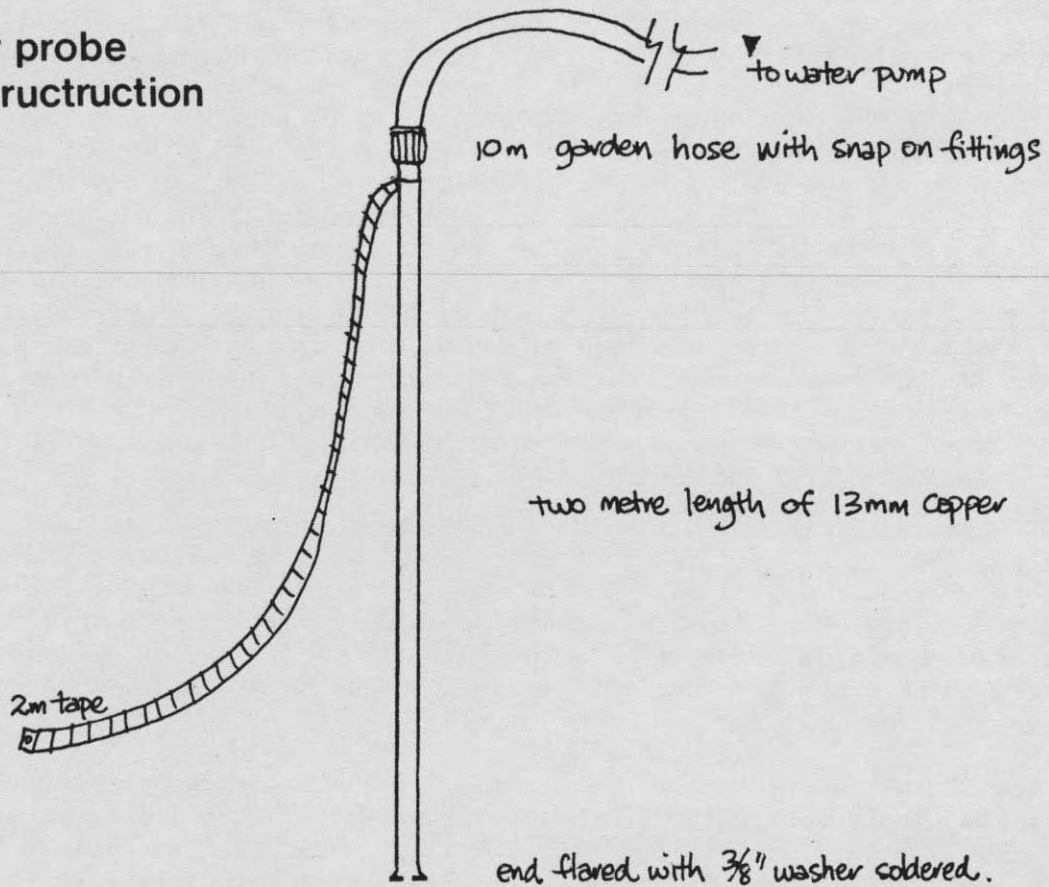
The Water Drill

The idea then came of using a water drill on the site. The name does not quite fit the instrument in that it does not drill into the sand like a normal metal or wood drill bit, but the water pressure coming out of it moves the sand aside allowing the end to sink. The apparatus is both simple in construction and application. The MAAWA procured an old water pump from the Museum, some reinforced garden hose and 4 m of 13 mm copper water pipe. The water pipe was cut into 2 m sections to make two water drills. One end of each water pipe was flared out slightly so that the hole it would dig would be slightly larger than the diameter of the pipe. In this flared end a small washer with a 3/8" diameter hole in the centre was soldered in. This washer was put in to increase the water pressure

method A



water probe construction



at the end of the pipe. This was the probe end of the drill and would touch anything found first. The water pump was mounted in a boat and anchored over the site with the inlet over the side. A 10 m section of 13 mm reinforced garden hose was connected to the water pump's outlet and ran to a Y shaped garden hose clip-on fitting, 2 x 10 m hoses then ran from this fitting to the inlet end of the water drill that had the appropriate garden hose fitting attached. On the original water drill we had a 2 m section of measuring tape attached to the side of the pipe with pop rivets at the top and bottom ends of the tape, but as work progressed the sand eroded away the bottom rivet holding the tape. We then worked on with this bottom end of the tape free and pulled it down tight to take the depth measurements and this worked extremely well. When the water pump was operating, water rushed out the end of the copper pipe and when this end was pushed into the sand, little physical pressure by the operator was needed to push the probe into the sand. The pipe would hit an obstruction and with a little experience it was soon possible to tell if the obstruction was a small shell or a solid piece of wood.

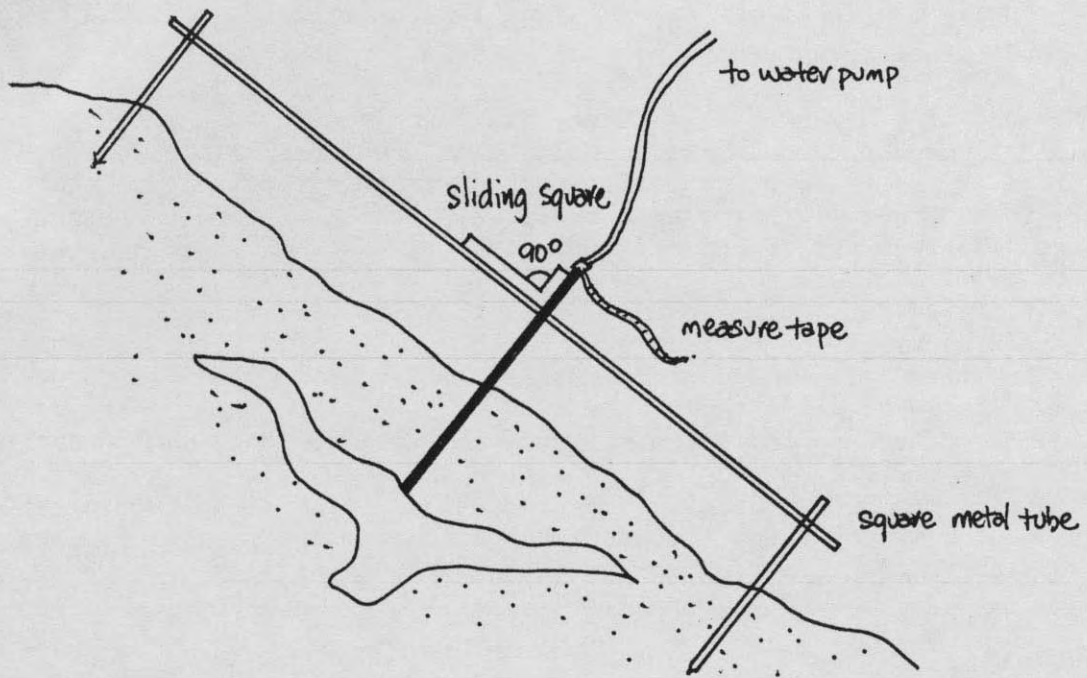
The method we intended to use on the project was to have pickets running down both sides of the wreck and 3 m apart. A theodolite was set up on the beach 30 m away and all pickets were set so that they were all at the same height and level with each other. Lines were then run across the site from pickets on the port side over to pickets on the starboard side. These lines were placed so that they ran from the top of one picket over to the top of the opposite picket making this line level according to the theodolite readings that the pickets had been set to. These lines were then used as datum lines for the water drill's depth measurements when the drill was used along the lines.

The site we were working was in very shallow water with a boat launching ramp 20 m away and a ski area marking buoy sitting on the stern of the wreck. These things led to the site being a high boat traffic area and caused not only safety problems for divers, but a problem of building any structures under water that boats may hit. Also our Association was only working the area on weekends and could leave nothing on the site. Time spent setting up for work was limited. We knew that to get an accurate depth reading the probe had to go down vertically. A solution to this was to mount two builders line levels on two adjoining sides of the water pipe on 90° brackets. This way one level would measure the side to side sway and the other level the backward and forward movement of the pipe and when both bubbles were in their central positions, the pipe was vertical. This was the method we used on the site because it needed no base structure apart from the datum lines to move across and take measurements from. Another way to do this would be to replace the datum ropes running across the wreck with a length of square metal tubing.

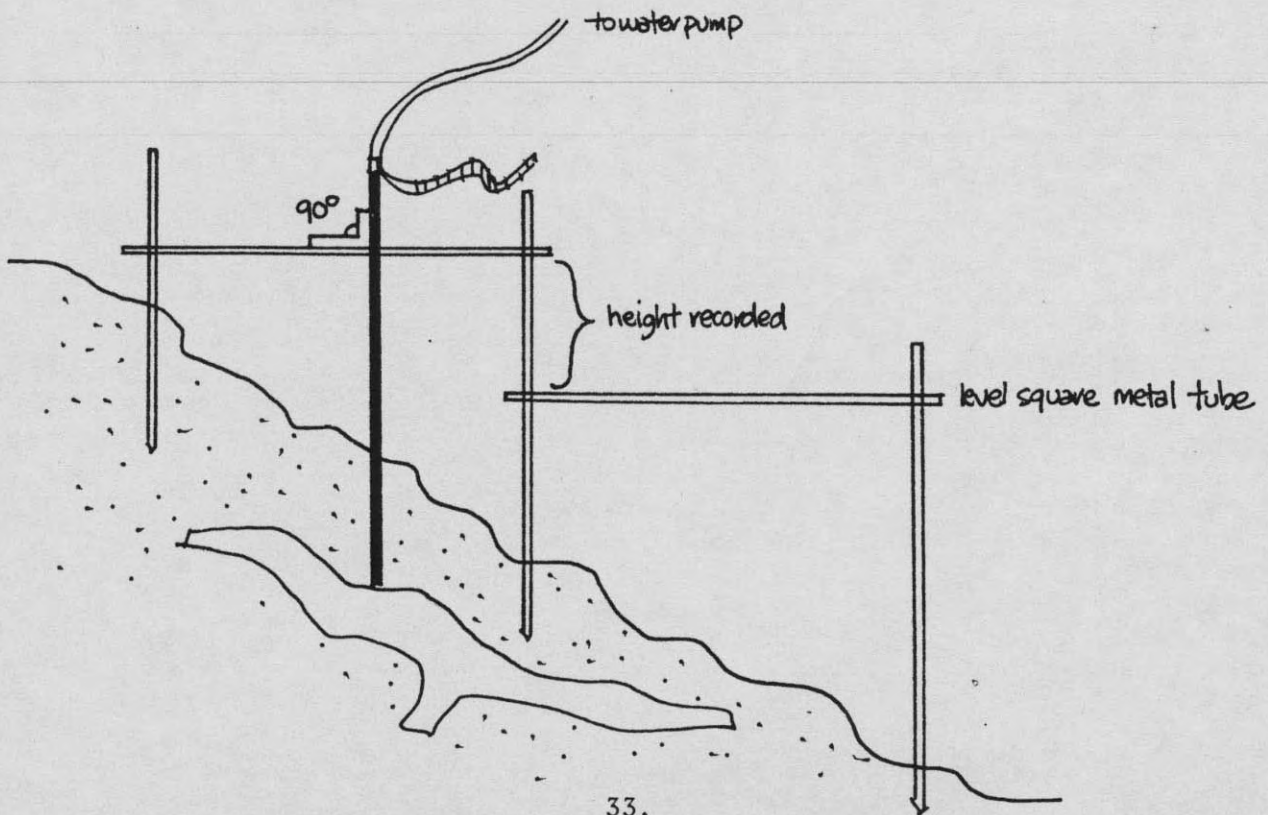
An 'L' shaped frame could then be made up to slide along the square tube and the water drill can be attached or lined up with the vertical arm of the 'L' shaped frame to ensure that the drill goes down at 90° to the square tubing. This method can also be used if you wished to probe and survey into a drop off at 90° to the angle of the slope, or even if you wanted to keep the line horizontal and go down the slope in steps (see diagram).

On the Contest we took readings every 0.5 m and the graph produced shows a very flat looking structure. At first we were rather disappointed with the result because it did not show a V shaped hull pattern that we had hoped for. But, looking at it we saw that it gave us a border line to the site and an approximate size of the ship's remains. When airlifts were used on

method B



method C



the site and a trench dug across the wreck, we discovered that the reason the graph showed a flat mass below the sand, was that the hull had been packed with sandalwood that had been laid and leveled in what I believe to be preparation for loading timber. The graph had in fact shown exactly what lay below the sand.

An application for this apparatus could be a site such as the Pandora wreck where we don't know exactly what lies beneath the sand but an expedition has to be mounted at a great cost due to the isolation of the site.

An accessory that may help in a survey where you do not know whether the probe has touched rock or timber, would be to mount a small hollow punch on the end of the probe and when it touches something solid, give the pipe a tap with a hammer and bring up a small sample of it inside the punch. This at least will tell you if you are surveying the wreck site or the reef.

The water drill can also be used on sites that are covered by only inches of water, such as wrecks on mud flats or beaches, where airlifts are unable to be used. The water drill would save hours of back breaking work on the end of shovels. The water drill can not be used on land sites because the water expelled from the pipe in making it's way through the sand, runs away from the pipe into the surrounding dry sand, the soil around the pipe then sets hard trapping the pipe. On sites covered by as little as an inch of water, the sand below is moist and the water expelled from the pipe as it goes down only loosens the sand, making the probes withdraw easily.

Drew Bathgate

The wreck site at Drummond Rock was first reported by Rick Hammond and Laurie Payne in 1967. The first Museum examination of the site as made in 1969, by a Museum team, subsequent to the death of Laurie Payne. Further examinations were made in the following year by Scott Sledge, in 1974, Mike McCarthy, in 1980, and MAAWA in 1979.

There has been considerable confusion over both the nature and location of the site since its discovery; firstly because it was believed for many years that the original finder (Payne) had cannon, muskets and a pistol from the site; and secondly, the reported position 200-300 m south of Snag Island. This was often confused because the names Snag Island and Drummond Rock are frequently used interchangeably.

More recent information (on File WA Museum) has led Museum staff to believe that the wreck site at Drummond Rock is modern (post 1900) and that Payne may have known of a second site somewhere on the outer reefs, south of Leeman which could be termed 'historical'. It is possible that Payne raised material from this site and after his death it was assumed to have come from the Drummond Rock site. This theory is supported by a later report by noted Skin Diver Barry Paxman of large copper bolts found on an outer reef near Leeman, which could not be relocated at a later date

The expedition was undertaken with two main aims in mind. Firstly, to finally settle the arguments as to the nature, dating and location of wreck site material close inshore near Leeman, in particular the Drummond Rock site. Material raised from the site during previous expeditions indicated that the wreckage was from a vessel of the early 20th Century and it was hoped that further material would enable a more accurate dating or perhaps identification of the vessel.

The second aim was to provide valuable field experience for the students of the Maritime Archaeology Graduate Diploma Course prior to their involvement in the 1982 Museum expedition to the Rapid wreck site at Ningaloo. For this reason, a number of the tools and techniques used for search, survey, excavation and recording a wreck site were utilized to give the students the widest possible range of experience in the short time available.

The Site

The wreck site lies in 3 m of water, 10 m south-west of Drummond Rock, near Leeman. Drummond Rock is a small limestone islet lying about 100 m from the main shoreline. It is completely surrounded by a table-top limestone reef usually covered by less than 0.5 m of water.

The wreck site lies in a gully 15 m long by 6 m wide with submerged reef on all sides except for two narrow gaps on the west and north-west sides. The reef has numerous overhangs, caves and tunnels around the site. The sea-bottom in the gully consists of seagrass and weed growing in sand overlying a solid limestone base. The site was an excellent one to work as it was very sheltered and clearly delineated by the surrounding reef.

The visible wreckage on the site consists of a long rock obelisk (or plinth) which lies parallel and close to the reef on the eastern side of the gully. An area of jumbled iron work lies to the west of the gully and scattered ballast stones and blocks of rock lie all through the gully. The majority

of the material lies in an area 5 x 5 m towards the northern end of the gully. It was decided to concentrate on this area during the expedition.

The Excavation

Although there was evidence of material through the gully it was decided that, due to the limited time available, the air-lifting and clearing of the site would be restricted to the immediate area of the obelisk and the iron concretions. In order to facilitate the use of the air-lift (100 mm PVC pipe hookah powered) the area was first weeded by a team of divers wearing gloves, to remove the seagrass and kelp.

On completion of the weeding, a rough working site plan was made. Prior to any disturbance of the sand and material on the site, a stainless steel wire was laid to the west of the working area to act as a baseline (32° magnetic). The baseline was 12 m long and was used as the basis for all measurements and photography made on the site.

The two tape trilateration method was used to establish the positions of major features on the site. These positions were then plotted and drawn to scale on the final site plan, detail being filled in from the photography of the site. Some of the large artefacts of the site were measured and these dimensions used in the site plan.

A sketch plan of the surrounding reefs was made by snorkling over the site without measurement. This included the reef surrounding Drummond Rock. The position of Drummond Rock was established on the coast near Leeman using a theodolite and standard surveying techniques.

Photographic Recording

After weeding and the initial air-lifting had been completed, the whole gully was photographed to produce a site mosaic. This was done using a free flying technique. The base-line was used as the starting point for the photography and a square grid frame was laid next to the south end of the base-line on the west side (grid frame taped yellow and black). The frame was then tipped end over end up the base-line to give a series of photographs. At the end of the base-line the grid was tipped inwards and then end over end back down the site. The frames were tagged (white perspex labelled tags) at the beginning and end of each run to allow later laying-up of the mosaic.

Tilt and scale were rectified during the printing of the mosaic using a tilting board and a 100 m square drawn on paper as a scale (Scale 1:10).

Stereophotographs of the areas of the site exposed after air-lifting were taken to allow more detailed measurement and plotting on the wreck site plan. These stereophotographs were taken with a single camera and 2 or 3 shots taken 1 m apart.

Survey work and the use of a towboard

As it was suspected that a second site was in the region of Leeman, several attempts were made to locate that site using divers towed behind the boat on towboards. Unfortunately, the weather prevented us from searching the outer reefs (8-9 km offshore). On most days, the wind was too strong even to search the inner reefs (1-2 km offshore). One search was made around a reef approximately 1.5 km offshore due west of Leeman using twin towboards behind the boat.

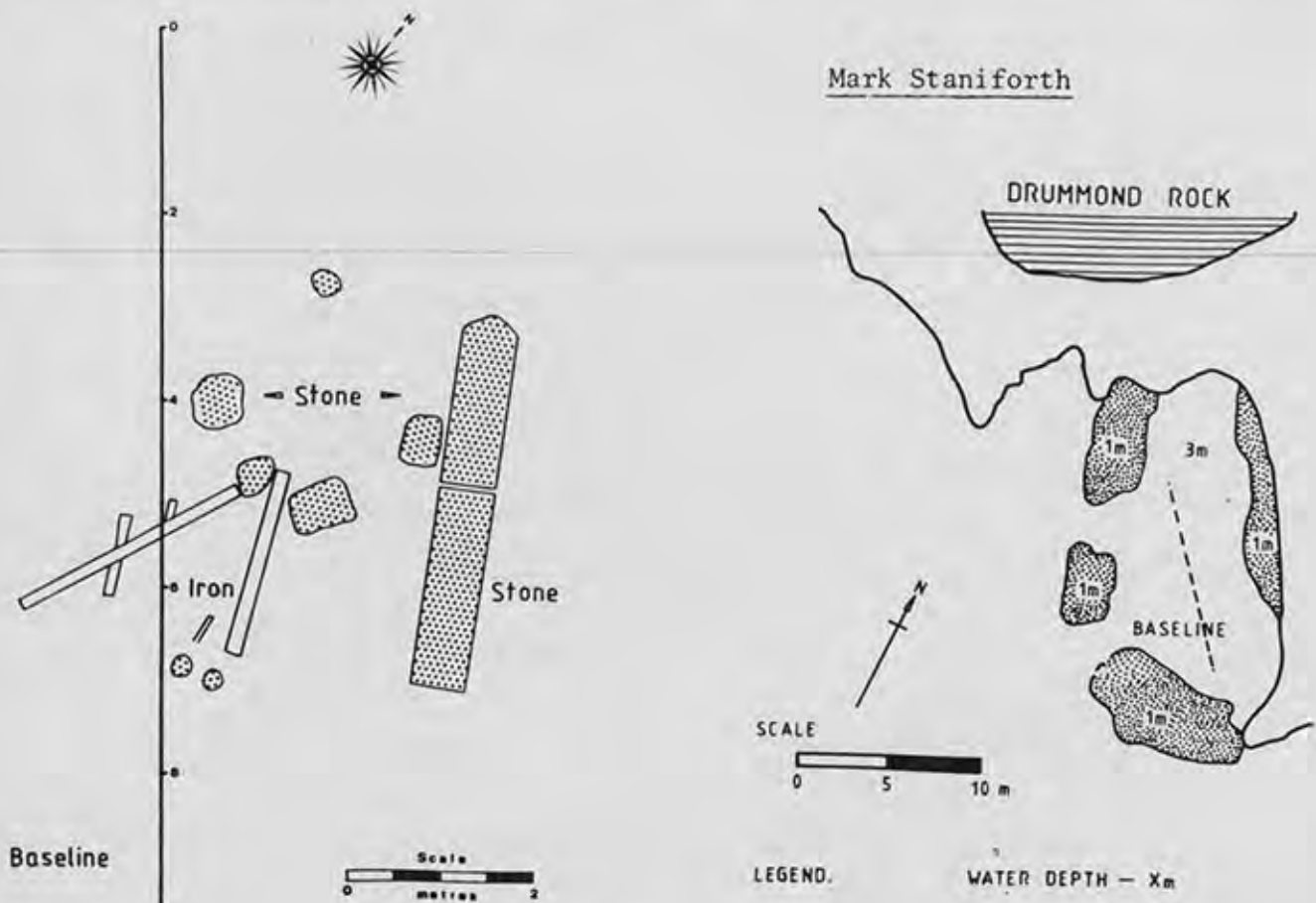
With the divers in 7 m of water and 5 m apart, with a visibility of 15 m, it was possible to effectively cover an area of approximately 30 m wide with a 60% overlap. A number of problems inherent in towline searches became immediately apparent, not the least of which was the occasional 3 m swell appearing, when the majority of the waves were only 1 m high. The danger of such waves putting the boat, the divers, or both over the reef was quickly appreciated. The problem of the towboard shape (which should be large and flat to allow the divers to dive down rather than have to fight to get down), also became apparent.

The length of the towline caused problems as well. It must be long enough to allow the diver to be far enough behind the boat to avoid the bubbles caused by the propellers, and yet not be too long to be hauled in when a diver drops off to have a closer look at something (as the boat must be turned around to pick him up again).

The area to the south of Snag Island was thoroughly searched on two occasions using the towline method. In 2-4 m of calm water this proved an easy task and also revealed the tricks which an unusually shaped piece of reef can play on the unwary. Several times pieces of reef which projected upwards from the sand and weed were mistaken for parts of a wrecked vessel. It may be that pieces of reef similar to these are the basis for reports of a shipwreck 200-300 m South of Snag Island (some of the reef we examined resembled the ribs, planking and sternpost of a vessel).

Conclusion

Through an examination of the site and the artefacts which have been excavated, the conclusion has been reached that this site is not that reported by Payne, as the material is too modern. This means that the second site may still be located in the future.



'BATAVIA' EXPEDITION - BEACON ISLAND

Sunday, 6 December:

Nine members departed Geraldton wharf, 6.30 am aboard MV Southern Lady. Calm seas arrived 11.30 am at the Museum's Beacon Island base, unpacked gear and enjoyed lunch.

After lunch, two boats went out to main Batavia site. Conditions were excellent with low swell. All had a good look at Henrietta's anchor and around the site one cannon noted, devoid of all concretion. Wally Rowlands found brass object, possibly piece of candlestick.

Monday:

The weather was overcast with rough seas and the group proceeded to the inside of Morning Reef. Heavy drift running across the reef and a datum line was set for a search pattern to locate pottery shards washed over reef from Batavia site. A good quantity of pieces were recovered, because of heavy rip it was decided to string out single lines. Put out two divers using snorkel only on each line to do a pendulum search, with the result a very positive coverage was made of the area.

Tuesday:

Weather mild with medium seas. Continued search on inside reef, current not so strong. Found metal object believed to be part of helm from Batavia. Noted position on map and returned same to water.

Wednesday:

Lay day from work. Went exploring nearby Long Island and catching fish for provisions. Evening meal of whole baked Coral Trout.

Thursday:

Back to the inside reef to collect more shards. We have systematically searched three grid squares of 50 m, in the fourth only finding small quantities of material. We decided to abandon grid searching in favour of free swimming.

Quite a large quantity of shards are located close to reef not covered in grid squares.

One of Batavia's anchors lay on top of shallow reef close to main site and we decided to battle the current to find it. After a long battle and the occasional lost grip, we crawled up the reef and located the anchor.

The return trip was exhilarating, skimming over the reef carried by the current like a roller-coaster ride.

Friday:

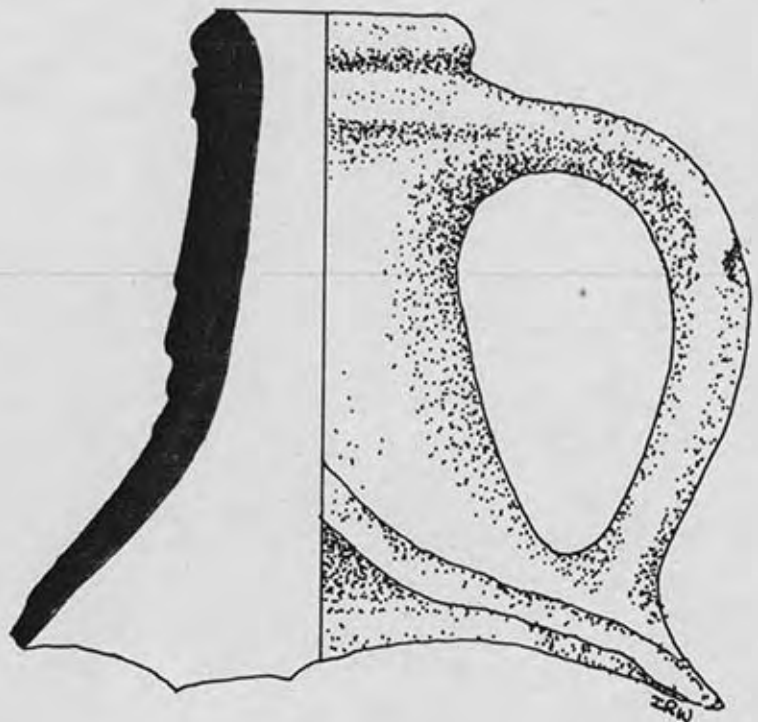
Weather very windy and considered not worthwhile collecting shards. Some social diving for fish to take home and photography.

Datum line and floats were recovered from site.

Saturday:

The weather very rough with an early start and unpleasant trip home. One member slept on top of bags of Batavia ballast bricks in the stern continually washed with spray. The rest just felt green watching the huge following swell which seemed taller than the mast of Southern Lady.

Lindsay Hill



cm



BAT 20499

maawa

Any technical drawing such as architectural drawing, engineering drawing, naval architecture etc. has its own particular problems and certain conventions have been developed to give clear instructions and facts to anyone who is working in a particular discipline, either in the design or construction stage. In these drawings the problem is to take an idea and design something which is both aesthetically pleasing and efficient or functional. The results may be a masterpiece, a disaster or anywhere in-between. On the other hand, with cartography, archaeological drawing or, to a certain extent, with civil engineering, the problem is to take something which already exists and show the shape, size and texture with precision. This is ably discussed and illustrated by Lea Kirkman in the Bulletin of the Australian Institute for Maritime Archaeology, Vol.5:16-20, 1981.

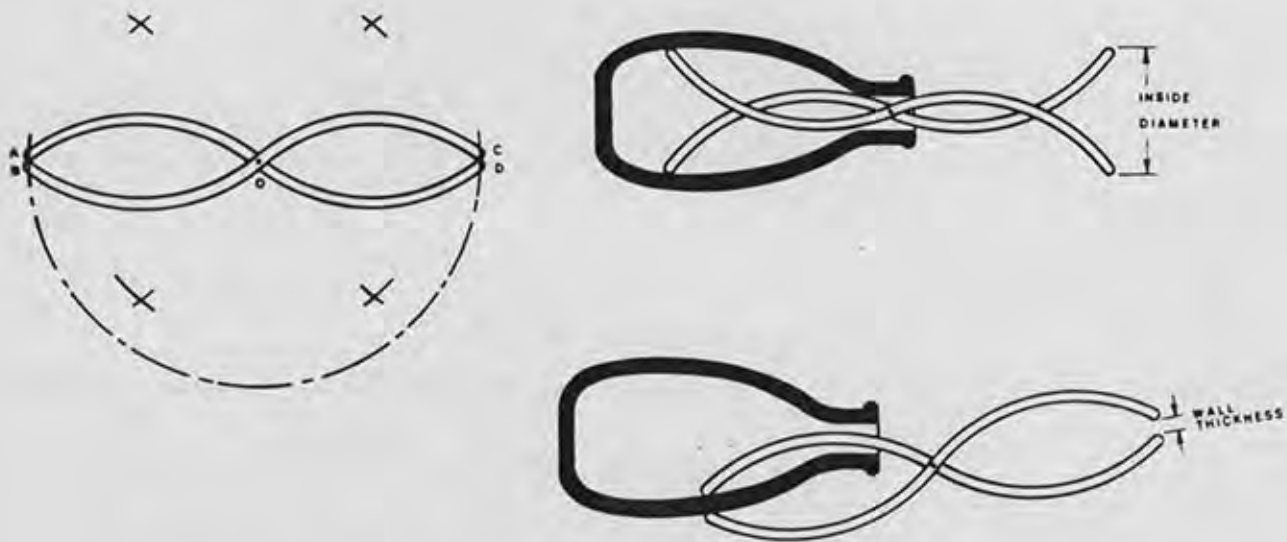


Figure 1. Double calipers

In the drawing of artefacts, one is always being confronted with the problem of measuring some inaccessible part, and this has led to the development of two instruments which can be of help in some cases. The first of these is a form of double caliper (Fig. 1) where one end, say A B, can be fitted to a side wall or to the internal diameter of a vessel and the size can be measured from the other end, C D, while the caliper is still in position (Fig. 1). The basic principle here is that the centre of the circle at every end, A B C & D must be equidistant from the centre of the pivot, O, in which case the measurement between D & C will always be the same as that between A & B.

While the prototype has been made with legs shaped as in Fig. 1., it is obvious that the legs could be any shape to suite a particular job, and even four differently shaped legs could be used on the one instrument, provided the relationship between the ends and the pivot conform to the basic principle.

The second device will produce an accurate profile directly from an object such as a bottle or jar, and so is only suitable for objects which can be drawn full size. It consists of a vertical edge EF (Fig. 2) which is supported on a tripod base at G H J. A pencil lead L passes through a cylinder K which is positioned so that the point of the lead rests directly below EF when the instrument stands on a plane surface. A force of a few grams is then applied to the lead by a light spring M.

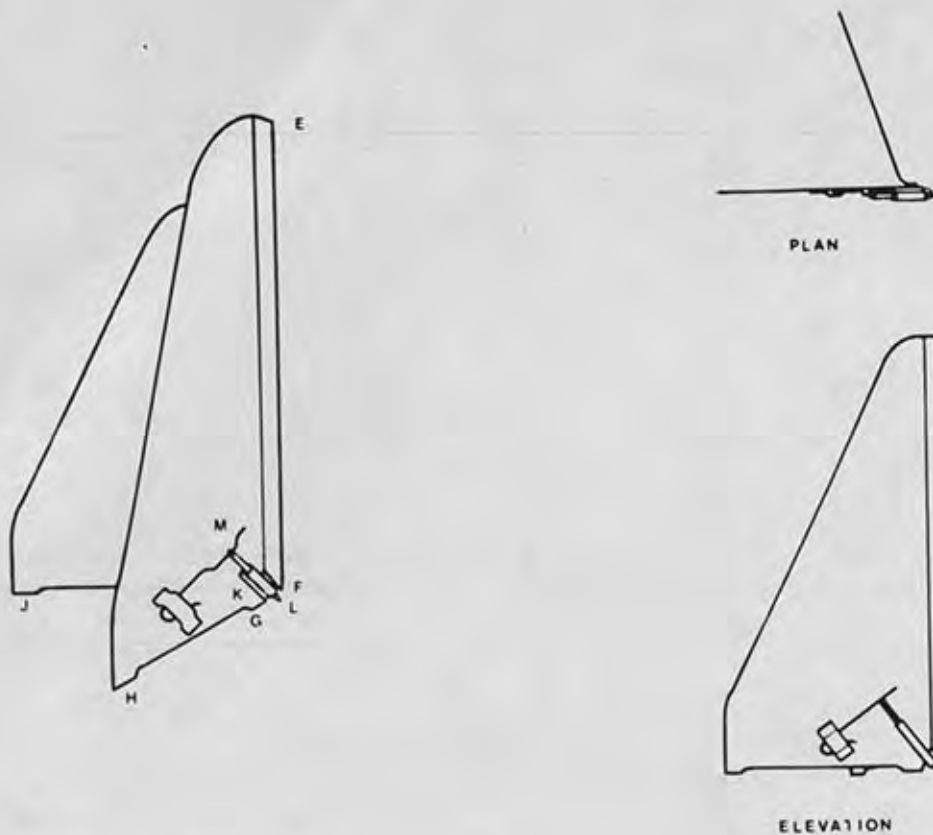


Figure 2. Profile machine

To use this instrument the artefact is set up on a piece of paper on any plain surface held in place with its axis in a horizontal position. This can be done with plasticine or the like. If the instrument is then placed with the vertical edge touching the artefact and the spring moved to apply pressure to the lead, an accurate profile can be produced by moving the device carefully around the artefact.

For anyone contemplating making one of these, a few points may be of some help:

1. the vertical edge can be tested with a set square when the instrument is standing on a flat surface and must be vertical when checked from two positions at 90° to one another;
2. the vertical edge can be adjusted by filing one or more of the feet on the base, i.e. G H J;
3. the length of the vertical edge only needs to equal the radius of any circular object which needs to be drawn;
4. pressure could be applied to the lead by placing a small cylinder, with a hole in one end, over the top of the lead;
5. the cylinder K, to hold the lead, can be made with the hole reduced in diameter at the bottom end to prevent the lead from passing completely through;
6. the lead can be sharpened in a fold of glass paper by spinning it between the thumb and finger.

Ron Stevens

Reserved, a loner, kept to himself yet helpful to others, dedicated to his love of local shipwrecks the quiet achiever.

These are some of the many words that describe the memory of one of my fellow foundation members of MAAWA..... Mike Pollard, who died in June 1981, at the age of 49, following a heart ailment.

For several years he was the Club Librarian and that seemed to suit his nature, but there was a quiet force beneath that shy exterior. As wreck research officer for the Underwater Explorers Club he had organised records and surveys for local wrecks before the WA Museum Maritime Archaeology Division was formed in 1971.

Fremantle wrecks were his home ground, not necessarily by choice but because of Mike's expertise in blood transfusion techniques, the Red Cross rarely let him venture further than a phone call away. The days of pocket paging systems were not with us then.

I first met Mike at the Battye Library in the winter of 1971, looking for information on shipwrecks. We both used to go there in our lunchtimes researching old newspapers and he invited me to help him work on his "pet project", trying to establish the identity of several shipwrecks in Jervoise Bay. With other members of the UEC we laid out grid patterns, measured timbers and recorded artefacts with the all-too-familiar result, interest fell by the wayside, leaving Mike and one or two of us to continue. Hence the determination to finish what one starts. And I might add, it took many years and the help of a very conscientious Mr Mike McCarthy of the WA Museum to unravel the mystery of those wrecks.

Mike Pollard's interest in archaeology began in the UK after he found some pieces of Roman pottery on the banks of the River Thames and he furthered his activity when he migrated to Australia.

As an indication of the high regard that his "activity" was held, the Federal Government made a posthumous award in recognition of 'his outstanding contribution to the discovery and preservation of shipwrecks' by presenting his widow with a medallion struck from silver recovered from the wreck of the Batavia which sank in 1629.

When family life and annual leave permitted, Mike would take the opportunity and participate on expeditions, and one story is worth relating here. While based on Gun Island in the Abrolhos, during the survey of the wreck Zeewijk it was found that the island was being overrun with a plague of mice. All the members cunningly devised various traps to catch the little rodents. But alas, none of them seemed to work very well. They were modified to ensnare the victims, but each morning the traps were empty, until it was realised that during the night it was Mike who was setting them free.

I think the expression, "he wouldn't hurt a mouse" was written for him.

Some years ago I remember diving with Mike and having the thrill of finding a rusty wire, no doubt the very rigging that held the mast of the James Matthews, but it turned out to be a part of the wartime boom defence net from Woodman Point to Garden Island. How close we were. No less than 200 metres to

the east and several years later, Mike was conducting another search with fellow members of the UEC when Jon Carpenter found the vital clue a grey roofing slate part of the cargo of the one-time slave trader which sank in 1841.

Once again Mike's determination to find that wreck persisted, and I believe the James Matthews will long be remembered as a monument to his memory.

Mike also has the distinction of finding the historic wrecks James (1880) and Diana (1878) and until forced to stop diving, continually searched for the Twinkling Star. His detailed notes on wrecks of Cockburn Sound are now housed in the WA Museum and moves are underway to publish those under Mike's name.

Denis Robinson

Mike Pollard working on the James Matthews excavation.



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Chapter four 1982

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|----|-------------------------|----------------|
| 1. | Marmion Beach Wreck | Ian Warne |
| 2. | <u>Lady Elizabeth</u> | Lyndsay Hill |
| 3. | <u>Ulidia</u> | Chris Buhagiar |
| 4. | Adelaide Conference | Ian Warne |
| 5. | <u>Cheyne III</u> | Ron Stevens |
| 6. | <u>Rapid Expedition</u> | Rania Robinson |
| 7. | More Ningaloo Wrecks | Peter Worsley |
| 8. | <u>Day Dawn</u> | Ian Warne |

MARMION BEACH WRECK

Along the beach south of Marmion Angling Club over the years, wreckage had been noted in the form of large timbers wedged under the limestone cliffs and pieces of iron knees in the small beaches and shallow rock pools.

The first question posed! Was this wreckage flotsam from a main wreck lying out to sea? This area is reasonably protected from the worst of winter storms by a line of reef some 3 miles westward. Further study of wood with iron framework ship construction should answer this question along with some idea of the size of the ship.

During February 1982, ten members of MAAWA measured the visible iron along the shoreline and carried out a snorkel and tow-line search of water approximately 200 metres out and along the reefline. No larger items of interest were located.

The next question is! what was the name of the ship and was it an old 'hulk' being towed out to sea and disposed at the end of its useful life. In old Ports and Harbours papers it was reported on 22 April 1904: "Hulk Conference is yesterday towed 20 miles north of Fremantle, several holes being punched in her hull and she being allowed to drift onto a reef". That was a clue as the Conference had 3 masts, barque rig, scroll head, iron framework, 165' x 26', 422 tons gross. Only problem an all iron hull - I didn't notice at first, this hulk is possibly the wreck recently discovered at Burns Beach.

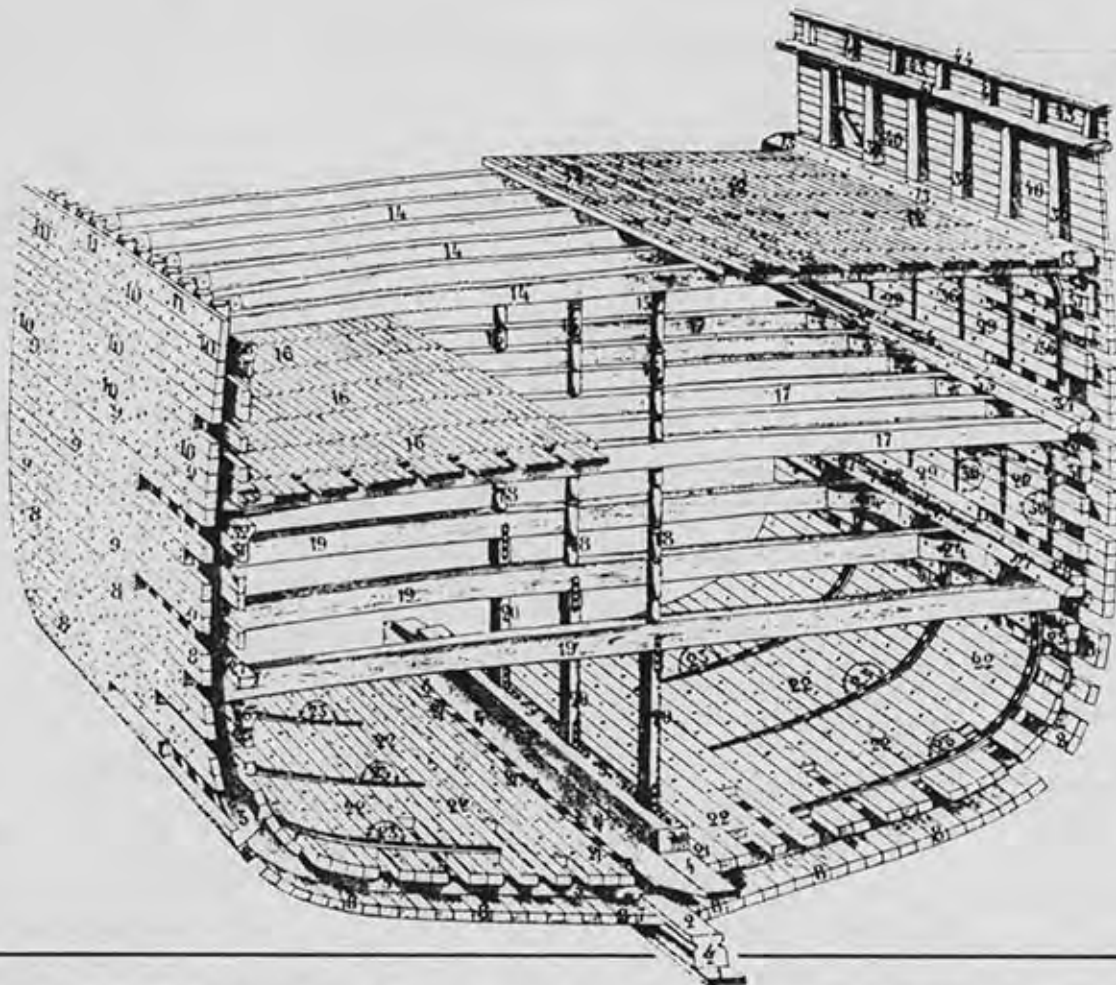
Other coal hulks reported being towed up the coast were Knowsley, 3 masts, 2 decks, size 168' x 29', 644 tons gross, again not our wreck as all iron hull and more probably ended up in the ships' graveyard west of Rottnest. One further ship brought to our attention by Denis Robinson and reported missing in the general area is the Lalla built in 1874 by J. O'Brien in Nova Scotia size 184' x 37', 1070 tons gross, one deck, wooden hull. The ship was altered in Fremantle to make her a lighter to be towed and re-registered as per B.O.T. at Fremantle dated 15/2/1906, now 180.25' x 37.1' x 12.83' (16.83' moulded), one deck, no masts, no rig round stern, carvel built. Straight head, wood hull. The tow line broke and a search was mounted by the tug Alacrity and HMAS Brisbane for a few days without success.

What other clues did we have? I spoke to 'Old Timers' on the beach and was informed that the wreckage must have come from the Beach Whaling Station started by Captain Marmion around 1850 and run for a couple of years. In the Battye Library I did find that Captain Marmion chartered 3 small ships to carry the whale oil. However, they were only small schooners and ketches of 40 feet and appeared to complete their charters intact.

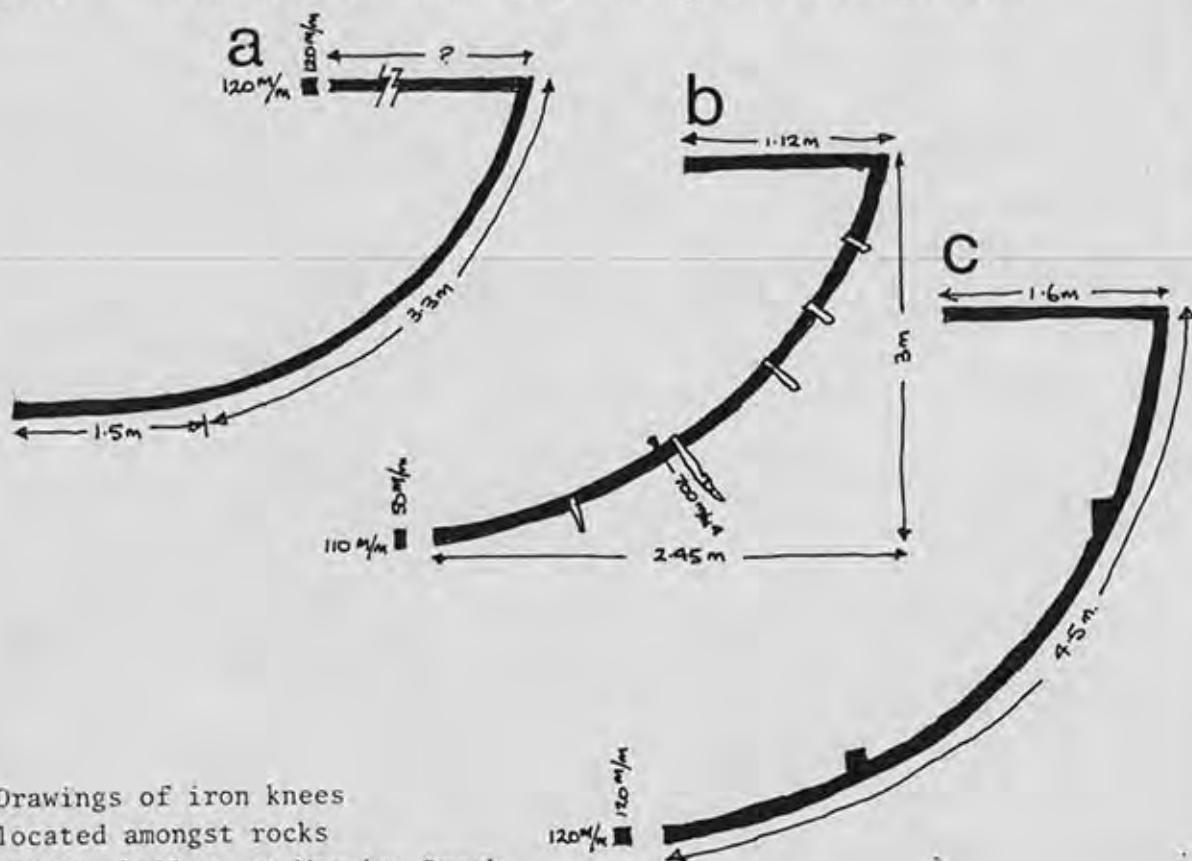
Conclusion:

1. More research required to match approximate size of ship to iron frames already found which may help with research on other vessels missing in the general area.
2. More swim searches required to the north and possibly west as reports of possible wreckage have been made to the WA Museum in these areas. Nor-west storms are usually the most severe on our coast and the possibility of keelson and more wreckage to be found in this direction is a possibility.

Ian Warne



Above: Illustration of wooden ship showing iron knees in situ.



Drawings of iron knees located amongst rocks and in shallows at Marmion Beach.

'LADY ELIZABETH' PHOTOMOSAIC (or saga thereof)

Lady Elizabeth composite three masted barque.
Copper fastened and sheathed in felt and yellow metal.
Length: 160' beam: 30.5' depth: 18.1': poop 49'.
673 tons gross, 658 tons net.
Built in Sunderland UK, in 1865 by Thomson Ltd.
Wrecked Sunday 30 June 1878 at approximately 2040 hours in Bickley Bay,
Rottneest Island.

Looking through the MAAWA history books, I discovered that this project appears to be the longest running uncompleted and certainly, the most frustrating. The first attempt was made in November 1974, when weed was cleared and an unsuccessful attempt made to produce a mosaic. The history of the Lady Elizabeth was researched and measurements were taken. However, a period of time elapsed and with renewed enthusiasm a further attempt was made in January 1978. Camera lenses had improved and the site was photographed, using a one metre grid for each frame, but the immense problem of sorting and working with over 200 negs proved too formidable for a complete mosaic to be completed. An excellent part mosaic was completed and displayed at the First Southern Hemisphere Conference on Maritime Archaeology, held in Perth, 1974. The last attempt was made in February 1982, with 7 members plus one student and one visitor aboard the Henrietta (WA Museum workboat). With near perfect weather, an early start was made Saturday to clear weed and set up grid lines 3 m apart the length of wreck using star pickets and nylon ropes. This time using overlap coverage around the grid frame.

Henrietta anchored overnight at Parker Point, to allow an early start on Sunday. After final cleaning of weed, Lyndsay Hill, Lyn Hall and Syd Harrison were left on site, the balance went sightseeing.

A double 1 m square frame which had two hooks, one on each side of the top of the grid, this allowed the grid to remain suspended horizontally above the site at all times. This system worked well coupled with an ingenious system to record a number in the frame of each photo run. Stainless steel plate with grooves allowed black plastic strips to be moved into Roman numerals.

The mosaic was completed with a manageable number of negs. However, in the darkroom a distortion problem was encountered due to the variance of height from the bottom of the wreckage to the uneven ocean bottom and correction was unsuccessfully attempted using enlarging techniques.

(It is now suggested multiple relief plan photomosaics and possibly side elevation photos be attempted to finally solve this saga).

Ian Warne

'ULIDIA'

One of many wrecks on the Western Australian coast, knowledge of which - generally does not extend much beyond a location, through Museum documented inspection coordinates and visual transits of the site.

We are currently attempting the location and correlation of surveying details relating either directly or indirectly to the ship, and - as far as her eventual passage to Australia is concerned - to her crew.

To as good a degree as practicable, I hope the final outcome will be a compilation of whatever information has survived the ninety odd years since her loss - no mean task, when it is considered that Ulidia - a relatively new ship at the time of her being wrecked - has not yet established a name and identity and as a result was very soon forgotten.

When complete, the result of this research will be presented as either pure transcript from copies of original documents or will be 'woven' into the general connective narrative (all duly referenced).

Hopefully, the material will one day complement and complete a survey of the wreck site itself - a project for MAAWA sometime in the future.

Research has required much correspondence - mainly with the United Kingdom (England and Northern Ireland), Eire, Newfoundland and, within Australia, both interstate and local. If finances permitted, Ulidia would provide a good excuse to visit the U.K. to personally attempt the extraction, from a particularly reluctant source, of copies of two or three surviving drawings/plans/details of fittings. Apparently, these are in a most fragile condition.

What of Ulidia herself?

Without wanting to give too much away at this stage, let me say this:

- (a) she was a large (for her time), iron, square-rigged ship, completed in late 1889 for John Porter, William Porter and Sons, of Belfast, Ireland. Registration was British;
- (b) in a short career, she established herself as having a good turn of speed, making a passage from Maryport, England, to Sydney in 88½ days;
- (c) her voyage to Western Australia, from Maryport, spelled the end of the ship. This was early 1893...;
- (d) she has arrived in Bunbury with a cargo of railway iron and due to her size, promptly grounded a short distance off the jetty there.

Off-loaded and refloated, she proceeded to Fremantle to await another cargo. This failed to materialise locally and, on an outward passage - in ballast - to Newcastle, NSW, she again grounded, this time on the Stragglers Rocks, just off Fremantle.

There her remains lie.....

Graphics requirements:

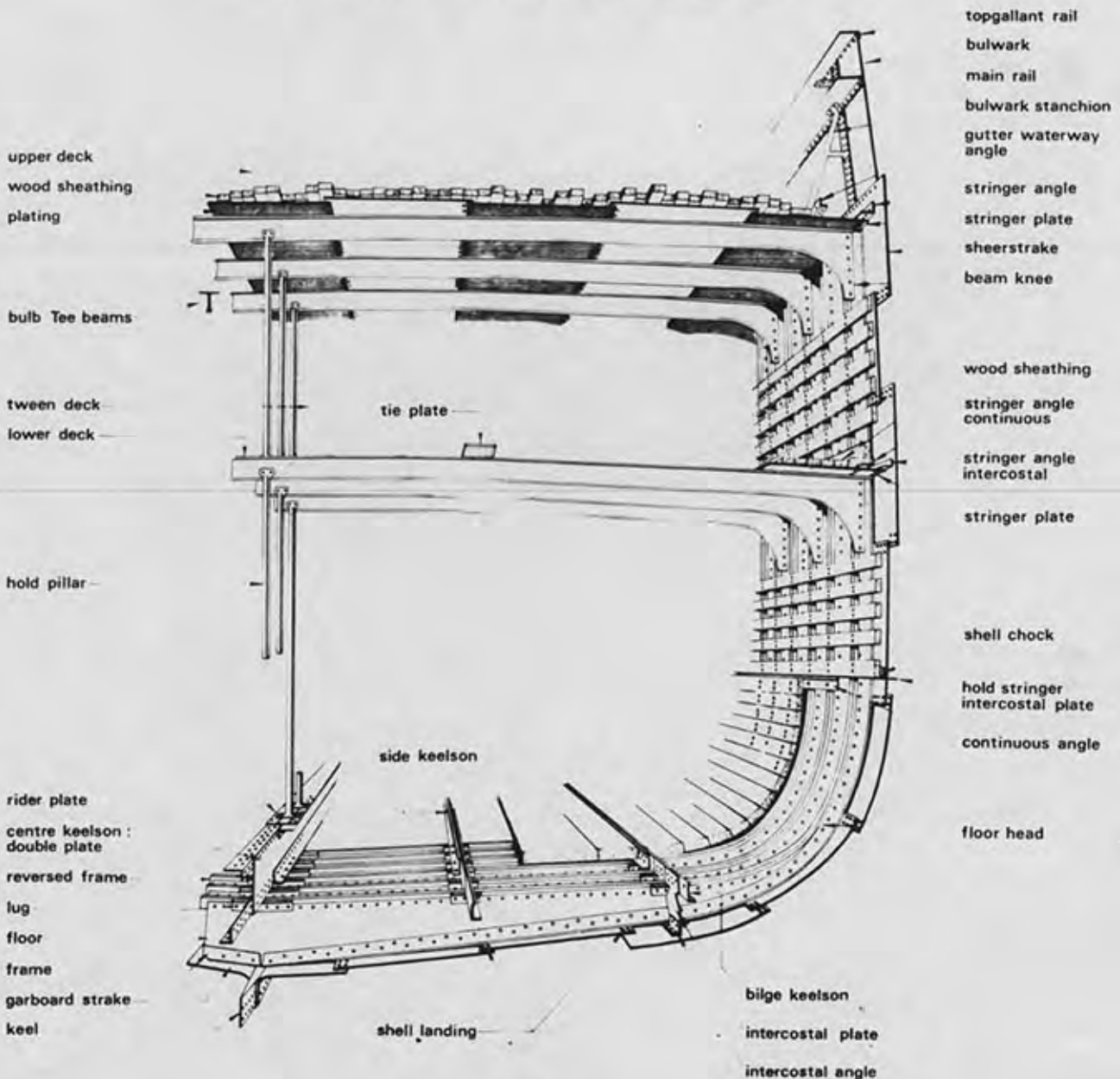
To date, no photographs of the ship herself have been unearthed. However, research has enabled quite accurate reconstruction to be envisaged. Below is a preliminary drawing of a typical mid-ship section of the period which will be re-drawn to Ulidia's particulars/scantlings. Also planned for the near future is an accurate 'impression' of the ship's appearance in service etc.

Appendices:

Beyond Ulidia herself, comes consideration of her owners, builders, individuals involved/other vessels particularly in the saga etc. Details of such are being prepared.

Chris Buhagiar

MIDSHIP STRUCTURE OF AN IRON SAILING SHIP



SOUTHERN HEMISPHERE CONFERENCE

The Conference was held in Adelaide five years after the first and very successful conference in Perth 1977.

Quite a lot of developments to report with new wrecksites, being both discovered and worked on since the first conference. Most States had proclaimed Historic Shipwreck Protection Acts and more Maritime Archaeologists were appointed to State Museums after training in Perth.

A small but enthusiastic group of West Australians travelled in a bus to the Conference with Mike McCarthy as co-driver and gear 'selector'. We were billeted with various diving club and Society for Underwater Historical Research (SUHR) members.

The Conference got underway with a grand cocktail party and opening address by the Hon. David Tonkins, SA Premier and Sir Zelman Cohen, Governor-General of Australia.

On the following day, the Conference commenced with the Hon. Ian Wilson, Minister of Home Affairs and Environment, presenting awards, sterling silver medallions depicting a Batavia coin to Peter Christopher (SA); Ken Atherton (TAS) and posthumously of the late Mike Pollard (WA). The Minister said of Mike "At the time of his death, that he was undoubtedly the West's most active and capable amateur maritime archaeologist. He relished wreck research and searching sites and was responsible for finding a large number of wrecks notably the American built emigrant ship James and the French built ex-slaver James Matthews..

Despite his obvious diving ability and historical knowledge, he was always modest and never sought recognition. He leaves a lasting memory and an indelible example of unselfish dedication and concern for others".

During the Conference a total of forty-seven papers were presented on a wide range of topics including the latest works to be carried out in Australia and in other countries.

Undoubtedly the most captivating paper was presented by Margaret Rule on the Mary Rose project. Margaret spoke on recent works, showed lots of Pat Baker slides and mentioned amusing events when her patron, Prince Charles, visited for his annual dive. The Mary Rose hull was later successfully raised and now awaits conservation and an eventual Display Museum to be built.

Dr David Switzer gave an interesting account of his Defence project, an American built ship, scuttled during the American Revolution in the State of Maine.

Kelly Tarlton, owner of a private Museum in New Zealand and notable discoverer of wrecks, gave a paper on electronic search techniques.

Staff of the WA Museum all gave project and detailed technical reports to a very high standard. State representatives of amateur Archaeological Associations also gave reports on their current activities.

The Conference made certain recommendations including the need for far more access to training and education for amateurs.



Recommendations made by the Conference:

1. Resolves to note with pleasure that all the States have requested the adoption of the Commonwealth Historic Shipwrecks Act 1976 to apply to the waters adjacent to their respective coastlines, an action which accords with the spirit of the resolutions of the 1977 Conference on this matter. This action of the States significantly reduces the danger of damage to, or loss of, our maritime heritage. It is the belief of the Conference that a proliferation of Acts concerning off shore Historic Shipwrecks would ultimately lead to confusion and to a reduction in the overall efficiency and such legislation and that States should take this into account if they contemplate replacing the Commonwealth Act with State legislation with respect to waters within the jurisdiction of a State.
2. Recognises that in line with the recommendation from the first Conference funds have been made available by the Commonwealth Government to the appropriate organisations within the States for implementation of the Historic Shipwrecks Act 1976 and such funding should be upgraded to take into account developing needs, and in addition, State Governments should be encouraged to fund maritime archaeology activities.

3. That the States be encouraged to establish Government authorities where no such authorities presently exist, and that they be encouraged to take steps within their powers to protect wrecks and associated sites.
4. The First Southern Hemisphere Conference recommended that a National Steering Committee be formed to assess the maritime archaeological potential throughout Australia and to investigate the resources for their study.

The Conference endorses the recommendation of the Steering Committee that an Australian Institute for Maritime Archaeology be formed to further this objective.

The Conference reaffirms that a study be initiated to assess the maritime archaeological potential throughout Australia, to define areas of national importance and draw these areas of importance to the attention of the relevant authorities.

5. The Conference notes that a maritime archaeological training course has been established at the Western Australian Institute of Technology as a Graduate Diploma Course. This course will run to two (2) years and then terminate to be restarted again at a later date, possibly in three (3) years' time. The Conference endorses the importance of this course and recommends that relevant authorities be advised of its essential nature and that adequate funds be made available to support its continued operation. Further, the Conference calls for provision to be made for an undergraduate diploma course in maritime archaeology.
6. Maritime archaeological activities throughout Australia, particularly on historic and potentially historic wrecksites, be restricted to historical research, documentation, wreck inspection and survey, and that no extensive excavation be carried out without adequate expertise, storage and conservation facilities except in the special case of salvage archaeology and then only under competent supervision. These same principles should be adopted internationally and we urge the Commonwealth Government to seek international agreements to this effect through the most appropriate international bodies including the United Nations Conference on the Law of the Sea.
7. Maritime Archaeological Associations be formed in those States that do not at present have them. Where these associations already exist, the Conference recommends that as an interim activity, representatives be encouraged and assisted to acquire operational experience at the Western Australian Museum or other appropriate institutions.
8. That, considering the significant role played by maritime factors in the history of this nation, to recommend the establishment of a National Maritime Museum as soon as possible to house safely and display adequately the national collection of material relics of Australia's maritime past, including the collection of artefacts from the old Dutch shipwrecks now possessed by the Commonwealth.

This Conference, recognising the current economic difficulties, further resolves to recommend the immediate adoption of an interim plan to safeguard these relics until such time as they may be properly housed in a National Maritime Museum.

9. This Conference recommends that a further Southern Hemisphere Conference be held in Australia within three (3) years.

STEAM WHALE-CHASER 'CHEYNES III' - Albany, 9-11 April 1982

Objective:

The purpose of the MAAWA visit was to assess the feasibility of the dismantling and removal of the vessel's main and auxiliary engine units for eventual restoration and preservation in the 'Whaleworld' Museum at Frenchman's Bay Whaling Station, Albany - a Jaycees project.

Sources of Information:

The account has been compiled from technical data supplied by Tom Welch and Don Edwards, as well as from personal recollections of various MAAWA members - particularly Ron Stevens and Chris Buhagiar.

Including the above, the team consisted of Denis Robinson, George Green, Paul Hundley, Drew Bathgate, Gary Edwards, Peter McGerr, Matthew McGerr, Tony Buhagiar and Graeme Henderson.

Narrative:

The majority of the team arrived on the Friday of the Easter weekend. Cheynes III was tied up to a jetty not too distant from the main wharf of the harbour.

It was said Cheynes III had not received any maintenance since her withdrawal from service some three years previous. The ship's general condition more suggested little or no attention in ten - there was much external corrosion and scale, with deckplates completely rusted in some areas.

There was much evidence of previous stripping of fittings and equipment, her harpoon gun was long gone as were navigational and steering fixtures and other easily removed items.

The interior of the vessel was cramped and needless to say, quite dirty. Timber bunks were of doll-like proportions, being generally in two tiers. What little was left in the crew's quarters - built-in wooden wardrobes, cupboards, etc., suggested a spartan existence for her complement. In fact, apart from the cavernous engine room, the rest of the ship had obviously been designed with compactness in mind, e.g. deckheads were low, hatches and doorways were small.

On entering the engine room it became clear just what sort of vessel Cheynes III was - a pursuit ship. She was virtually 'all engine'. Interest in the removal of the triple-expansion engine immediately dropped. It seemed an impossible task for we few volunteers on a three day visit.

However, what WAS possible was the suggested removal of much of her auxiliary machinery - small, vertical steam engines, pumps etc., and the actual preparation of the main engine for eventual removal, by the calculation of weights and sizes, the removal of bolts securing the three cylinder castings and the clearing away of asbestos lagging (insulation) from around the engine head.

One oxy set and various home-owned tools and lighting were all that was available for the group. Albany Technical College students had previously erected an A-frame on the deck above the engine room: this, together with block and tackle, constituted the lifting gear.

The Technical College students had earlier also unbolted the engine's cylinder covers, as well as one, small, vertical steam engine. These were now hauled up on deck. This, the Friday of the weekend, witnessed little else carried out on the ship: it was getting late and people really still doubted that anything worthwhile would ultimately be achieved. It was decided to begin work in earnest the following morning.

Saturday started energetically: it wasn't long before an oil pump was uncoupled and then hauled up 'top-side'. The job of any final transferral of all items would be left to John Bell and Ted Hill's ingenuity and resources - John being from the Whaleworld Museum and the originator of the proposed scheme.

Next, a large electric generator was gingerly swung away from its mounting plate and carefully lifted out: followed by the vertical steam engine to which it had originally been coupled. Another auxiliary engine was eventually freed from all securing bolts, couplings and pipes, and followed the other items up on deck.

Paul, of the WA Maritime Museum, had his eye on two air pumps bolted to the port hull frames. These pumps had been used to fill harpooned whales with air, prior to their being towed back to the mother ship or whaling station.

George now made a heated start, with the oxy equipment, on the severing of bolts connecting the engine cylinders to each other. The high, medium and low pressure cylinders had been individually cast during manufacture and then bolted together: this facilitating their ready dismantling for any subsequent engine overhaul during the ship's operating career.

The oxy cutting of these bolts was, without doubt, the worst job of all carried out that weekend. The conditions were extremely awkward and uncomfortable: George had to contend with heat, flame, lack of elbow room (particularly beneath the cylinder heads), asbestos lagging dust and oil/grease, etc. which persisted in re-igniting after each application of the torch.

Speculation was rife as to the most appropriate method of actually getting the main engine out of the ship - ideas ranging from beaching her, cutting the ship in half and then dragging the machinery out with a bulldozer - through to removing the deck and superstructure from above the engineroom and then lifting the engine out with another ship's crane. As things later turned out, this latter method was by far the most practical and was subsequently employed.

Tom was meanwhile busy noting all manner of engine components' weight and dimension calculations, as well as determining the feasibility of removing the steam steering engine and quadrant mounted in the tiller flat directly above the rudder. The quadrant itself was of considerable proportions and weight, being a casting that was coupled by gearing to the steering engine itself. This latter item was largely freed from its bedplate and associated piping; however, again little further could be done without first cutting away the main deck above the flat. The quadrant alone required the use of a crane.

Morale was high, especially once machinery started emerging from the depths of the ship. Work proceeded steadily and all pitched in, doing the best they could with the limited tools and equipment available.

It bears mentioning here that most of the team had imagined that they would be part of a larger group of Albany volunteers. Instead, we had the ship virtually to ourselves - the only locals being curious bystanders asking questions from the confines of the jetty.

Relatively speaking, a good deal was achieved that weekend - two or three days for most of the party. The work done certainly paved the way for the eventual successful extraction of the main engine.

During the team's stay, removal was accomplished of one steam, direct-current generator unit; two oil-firing pumps; two air-compressor pumps and the dismantling of pipe flanges, couplings and various connections on other pumps, engines etc.

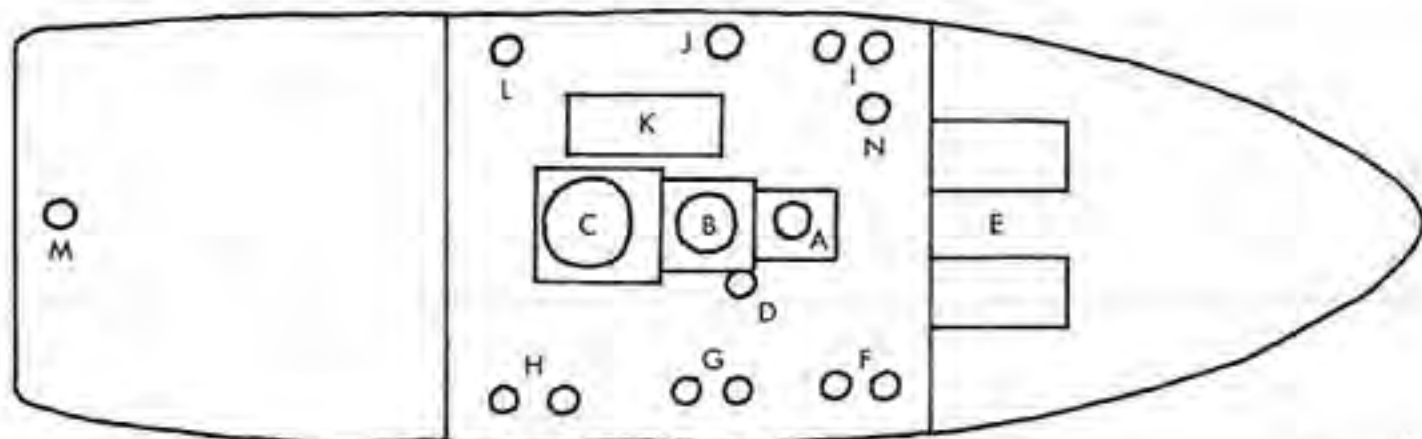
By way of interest, six of the pumps: namely, two fuel-oil pumps, two water-circulating and two air pumps were all designed with the piston rod of the main engine acting as the piston rod of each pump itself. These machines perhaps don't readily lend themselves to display as working examples, but perhaps arranged around the main engine they could prove interesting side attractions.

Engine Removal:

By working on with a small group of Albany volunteers over the five or six weeks following the MAAWA team's visit, it eventually proved possible for John Bell and Ted Hill, together with Mike McCarthy of the WA Maritime Museum, to free the main engine and arrange to have it lifted out and onto the land-backed wharf. The lift was carried out over the weekend of May 22/23, 1982, using the crane of an Indonesian cargo ship - the Bogasari Satu.

It is hoped that at a later date MAAWA members will be able to further assist in any subsequent renovating/reassembling of Cheyne's III's machinery at the Whale World Museum which John Bell is now in the process of preparing for display.

Approximate layout of the Engine Room of Cheyne's III:
(diagram, courtesy of Mr R. Stevens, MAAWA)



- A. HP Cylinder)
- B. MP Cylinder) Main Engine
- C. LP Cylinder)
- D. Reversing Engine
- E. Oil-Fired Boilers
- F. Twin engines driving fuel-oil pumps
- G. Twin water-circulating pumps
- H. Twin steam-driven generators
- I. Twin steam-driven air pumps
- J. Steam engine driving centrifugal water pump, delivering cooling water to the condenser
- K. Condenser
- L. Diesel-driven, auxiliary electric generator
- M. Twin-cylinder steering engine
- N. Steam engine driving forced-draught fan for furnace air,

The Fate of Cheynes III

On June 23 1982, supported by staff of the WA Museum, members of South Coast Divers, Albany arranged for the hull to be disposed of in a manner to benefit divers.

In a three hour operation, the vessel was towed to Michaelmas Island, King George Sound, she was anchored several hundred metres off the island at 11 am and two 20 kg packs of dynamite positioned hopefully, for a quick, accurate sinking.

As the vessel dragged anchor and looked like running ashore, a ten-minute fuse was detonated. Thirty-eight seconds after the explosions, the hull disappeared below the waves. A small amount of debris and oil was all that remained above water.

Members of South Coast Divers immediately dived on the wreck and reported that the ship was lying in 17 metres of water, on a slight angle, with her stern on rocks and bow in sand.

The Diving Club will photograph and record rate of weed growth and species of marine life using the wreck as shelter, findings to be monitored by WA Maritime Museum.

Chris Buhagiar and Ron Stevens

Cheynes III is sent to the bottom off Michaelmas Island, King George Sound, Albany Wednesday June 23, 1982.



THE 'RAPID' EXPERIENCES OF RAINA ROBINSON

Snippets from the Third Season of Excavation of an 'American China trader' in January/February 1982.

Background:

The Rapid, being of 366 tonnes, was built at Boston in 1807, with two decks, three masts, a square stern and in length measured 104 ft.

On the night of January 7, 1811 she came to disaster on a reef near Western Australia's North West Cape. The following day, due to the violence of a storm, Captain Henry Dorr and his crew abandoned the trader as she started to break-up. They set her alight intending for the ship to burn below the water-line, so not to attract other passing vessels to the site before the Captain could return and salvage the \$280,000 Spanish dollars she was carrying.

The wreck site was accidentally discovered by four spear fishermen in October 1978. They raised and passed onto the Museum for identification and conservation, thousands of silver coins, along with copper fastenings, fragments of ceramics and glass.

Graeme Henderson, Curator of the Maritime Archaeology Department of the WA Maritime Museum had previously conducted two seasons of excavation being in 1979 and 1980. With all the artefacts to hand, the Museum could not give positive identification of the wooden shipwreck. So the Museum was to send Graeme to the United States to research old archives which were not available in Western Australia. After much investigation, he returned from America in May 1981 with the mysterious wreck being named Rapid.

The third expedition to the wreck site was to familiarise the Maritime Archaeology Graduate Diploma students with an historic site, (the only trader of this type) and to put into practice all aspects of their archaeological studies. I was fortunate to join the final season of excavation along the MAAWA members, volunteers and Museum staff. Graeme led our expedition to Ningaloo Pastoral Station where a self contained camp was established. We used the main shearing shed as our base, slept in confined sheep pens complete with mice and ants. The cost and amount of equipment to set up an expedition of this magnitude is indescribable.

My first view of the wreck (which lies in 6 metres of water on her port side) was on hookah hose. Gazing at 172 year old anchors, exposed wooden structure, ballast stones and finding a resident wobbegong I familiarised myself with the area I would be working on over the next two weeks.

A diving roster was organised into morning and afternoon shifts. We used a hookah compressor which accommodated up to six divers, two aluminium tenders and the work boat Beagle.

My first task was to assist Paul Hundley (WA Museum) check newly placed star-pickets with a spirit level and tape. Most of them had shifted or not been accurately placed due to the hard limestone substratum, so there went the first of my finger nails. We numbered empty beer cans which were then forced onto the pickets. I ran a steel wire grid line across the bow to join the stakes previously placed in the first season of excavation. Later, the pickets were used as reference points for the recording of profiles of the keel.

Using a 2 m horizontal bar with carpenters' level attached, a plumb-bob line was then suspended to the timbers and a series of profiles taken at regular intervals across the site. A most valuable technique in maritime archaeology.

Graeme had explained on land the advantages of a 3-dimensional grid which we were to use to measure the remains of the shipwreck. On land we set it up to resemble an adjustable steel bed frame. In practice, according to this concept, any point on the wreck's remains can be defined by three measurements. Along the long axis of the frame, across the short axis and down the frame grid. In this way a plan of the area under the grid and a series of profiles across that area can be drawn up from measurements obtained.

An airlift was used to excavate the keelson and starboard side of the hull. I marvelled at the wreck being uncovered before my eyes. I took drawings of the exposed timbers as we progressed. On one occasion I was left with the control of this enormous sucking hose due to the bottom surge causing sea sickness to my partner.

Another successful technique of removing sand from around artefacts is by using a propwash. The propwash is similar to a toilet bowl which is attached to the propeller of the Beagle and the pressure blows the sand away from the surrounding area and the artefacts recorded where uncovered. I acquired a number of lovely shells in this way and a head full of shell grit. Graeme had previously advised the expedition that water was scarce and showers were on special occasions such as birthdays. Mine wasn't due until the end of the year so I was forced to walk around with what appeared to be a hopeless case of dandruff.

I fanned sand off the timbers for Alex Gibson (a course student) to take a photo mosaic, our only problem being the visibility. He used an underwater 35 mm Nikonos attached to a tripod.

I experienced some memorable times due to the location of Ningaloo and the people. I remember walking along the sandy beach, discarding my bikini and stopping short of the water's edge seeing 26 school sharks in one metre of water, swimming over an 11 ft Thresher shark which I had seen in the same location on previous holidays. capturing a 13 lb painted cray, standing in the down pour of rain having the salt washed from our bodies and tickling the small cream coloured moray eels continually being exposed on the wreck and fish nibbling my fingers.

Sometimes diving conditions were not pleasant due to 30 knot winds and a ground swell. The skipper of the Rapid could not have chosen a more inconvenient dive site for maritime archaeologists.

The aims of the expedition were met even down to the survey of land sites and experimentation to protect timbers from the teredo marine worms.

To conclude, I thoroughly enjoyed the expedition and gained a wealth of knowledge on maritime archaeology. I met and made new friends, and it was an emotional farewell when I had to leave to return to down town suburbia.

One word of warning to future volunteers and that is if Graeme Henderson is 'mother' for the day just be very suspect of the dinner.

Raina Robinson



Working the airlifts Rapid excavation.

MORE NINGALOO WRECKS?

In late 1981 Jill and I were preparing for the Western Australian Maritime Museum's 1982 expedition to the site of the wreck of the Rapid, to be undertaken in January/February 1982. The Rapid was an American China trader wrecked about one mile offshore from Point Cloates on the 4 January 1811. As part of our personal preparation, we wrote to the Hydrographer of the Royal Navy requesting assistance in obtaining copies of old charts and surveys of the Point Cloates area. By mid January 1982, when we left to go north, no reply had been received. However when we returned to Geraldton we found photocopies of many old charts waiting for us. These dated back to Phillip King's original survey of 1818-1821. Two charts of particular interest were dated 1877 and 1886. These both show four wrecks near the shore of what is locally known as Four Mile Beach, east of Point Cloates.

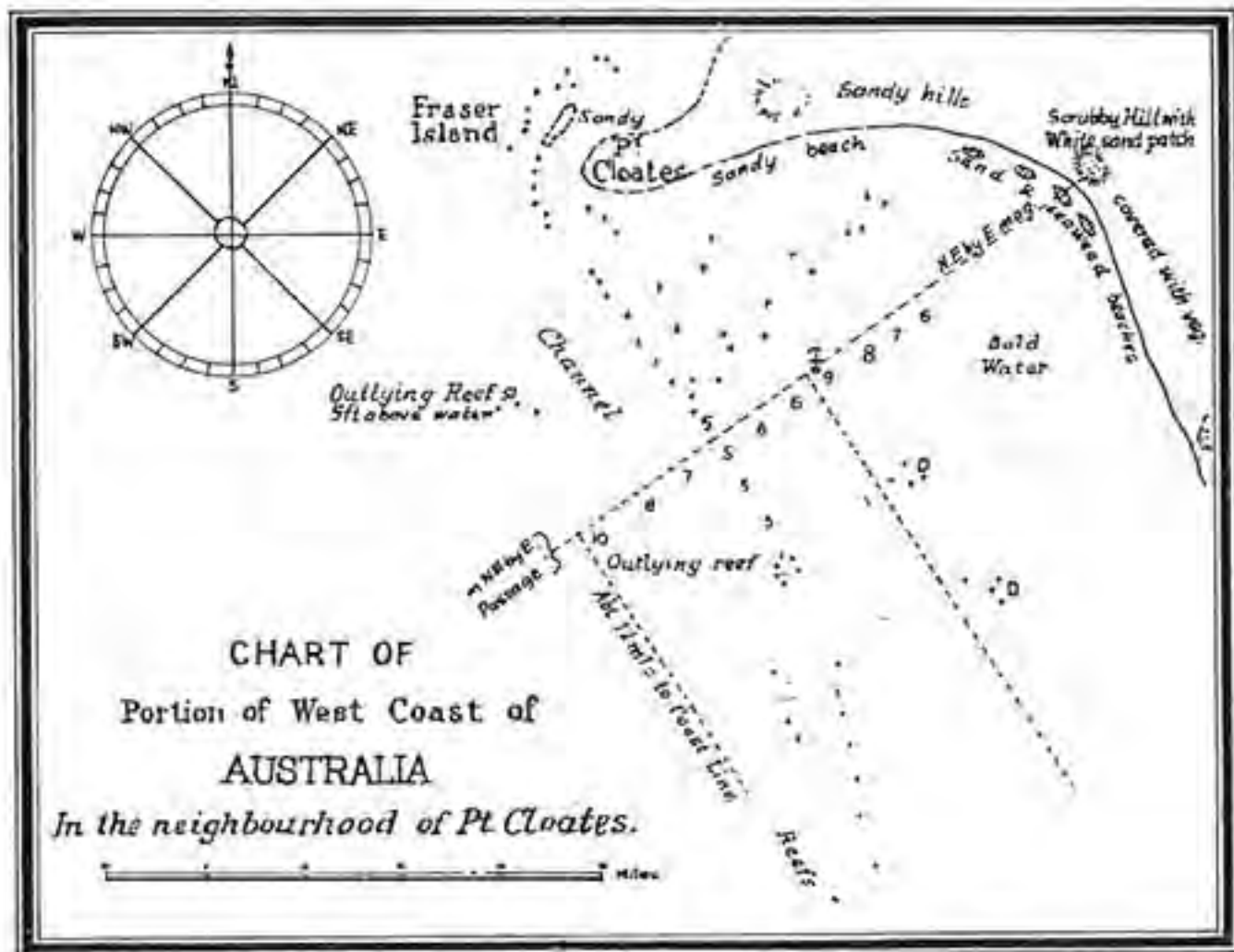
There are a number of known wrecks in the Point Cloates region. The Rapid, Stephano (a Hungarian barque that sunk in 1875 with the ultimate loss of all but two of her crew) and the SS Perth, a 170 ton iron steamer wrecked in 1887 are probably the best known. Also lost were the Zair, an Austrian carrying sugar from Java to Port Adelaide, wrecked November 1902, the Chofuku Maru, a Japanese wheat ship wrecked 18 February 1931 and the Fin, a whale chaser wrecked 15 February 1923 near Fraser Island. The Fin and the Perth still show wreckage above sea level.

There have been many other wrecks in the vicinity, many probably unrecorded; many whose names are forgotten or buried in old records and newspapers. In Graeme Henderson's Report on the First Season of Excavation of an Unidentified Shipwreck at Point Cloates Western Australia, dated August 1979, he states that in May 1876 the Police Sergeant at Roebourne, investigating the wreck of the Stephano at Point Cloates, wrote:

"In addition to the wreck of the Stephano there were lying on the sea shore and on the rocks near there, the wrecks of three or four other vessels all broken up..... One of the wrecks there is of a vessel of about 2000 tons register. It is not known what any of the vessels are, but the Stephano."

This observation corroborates the evidence of the chart dated 1877, just one year later. This is a sketch chart by Captain Pemberton Walcott, the sole purpose of which appears to be to show the position of the four wrecks. On the chart he gives, within the chart title, the latitude and longitude of the wrecks. The official Admiralty Catalogue number of this chart is A8413. It appears that there was probably an explanation to go with the sketch chart by Captain Pemberton Walcott but this has, as yet, not been located.

Captain Pemberton Walcott was an experienced navigator and captain, and therefore had the knowledge to clearly distinguish between minor scattered wreckage from one or two past wrecks and the wrecks of four fairly large vessels. The Inquirer of 11 July 1883 describes him as "a skillful navigator" who "often undertook perilous expeditions up the coast in search of harbours and landing places". It states that "for some years past" he was master of a revenue cutter. The Inquirer of 18 July 1883 names the cutter as the Gertrude, and it was on this vessel that Captain Pemberton Walcott died as a result of dysentery, at 4.30 am on 14 July 1883. He was on his way, on this occasion, with supplies for the relief of the party led by the Hon. J. Forrest, believed to have been stranded at Roebuck Bay. Captain Walcott was buried there.



The 1886 chart also showing the four wrecks is a standard issue Admiralty Chart, No. B1096.

During the Museum expedition several copper bolts and nails were found near the shore where the wrecks are supposed to be. I have heard that wreckage has been seen in the water there by an experienced diver, and also a report that the vessels concerned were reputed to be of about 600 tons. There is therefore a great deal of evidence to indicate that wrecks, other than those already known, lie near the shore in the area of Four Mile Beach. Besides the obvious search to be made here, there should also be a search of records for further information on the wrecks themselves and a search for the explanation that must have accompanied Captain Pemberton Walcott's sketch chart. An interesting exercise with the possibility of some names of ships wrecked in the State and not yet known.

On both charts, the position of 'Fraser Island' in relation to Point Cloates is not correct, being too close to the point.

There is much to be gained from the study of old charts. It also opens a wide field of research possibilities concerned with navigation and mapping and the gradual increase in accuracy in these areas. British Admiralty Charts from about the mid-nineteenth century are noted for being very accurate in most cases.

Peter Worsley

'DAY DAWN'

Built as a whaler in the United States in 1851. The Day Dawn was sold to Australian interests in 1867 and was used as a cargo vessel.

While loading railway sleepers for the South Australian Silverton project at Quindalup WA in 1886, the vessel was wrecked and later sold for salvage.

The Day Dawn's exact year of being burnt and scuttled is unknown, but it happened between 1887 and 1900.

During construction of HMAS Stirling Naval small boat harbour, the wreck was moved to deeper water to preserve her remains by simply dredging to seaward as the harbour was deepened. The iron capstan was raised on 4 January 1977 and at this time was MAAWA's most ambitious project.

Previous expeditions in 1976 had prepared detailed hull dimension and plans (see MAAWA 1974-1978).

The conservation of the Capstan commenced at George Green's house with immersion in tank of acid, electrolysis and a continuing monitoring of chloride levels. The capstan appears to have stabilised and it is to be placed in a container of deionised water for final leaching of salt before the last process of preserving in hot wax and eventual display at WA Museum.

Covering of the site:

On 29 August 1982, a MAAWA expedition comprising Lindsay Hill (skipper), Don and Gary Edwards, Chris Buhagiar and Ian Warne, were accompanied by Museum staff, Scott Sledge and Pat Baker.

Permission was obtained the week previously from the Navy. We anchored over the site. Visibility was excellent and all others stayed aboard for Pat to take photos before the site stirred up. Divers explored the hull to see if deterioration had taken place since last visited and to gain information on the problems of covering the site with sand as had been recommended.

Our thoughts as follows:

- A. Deterioration had taken place with an estimate of 20% timber damage since last visit. If the site is left uncovered very little will remain in 10 years.
- B. To cover the site a large undertaking is certainly warranted with fill required to cover up the exposed starboard hull timbers (approx. 2.5 m height by 30 m length). The inshore, or port, side is also exposed and height of less than 1 m along, 15 m length.

The inside hull requires fill for approximately 4 m depth by 30 m length. Taking into consideration the extra fill required for levelling at least 215 cu. m. of fill is required. With close proximity to Navy Boat Jetty and ramp, the method of fill will need to be precise.

At a meeting of MAAWA on 21 September 1982, it was resolved that the WA Museum be asked to approach Cockburn Cement Co. requesting that the sand

spoil be dumped on the site under supervision to preserve a valuable historical asset.

During March 1983 the Cockburn Cement Co, under guidance of Scott Sledge, dumped two barge loads of sand containing 400 cu. m of sand. Unfortunately, the operation was not altogether successful. Instead of mounding up along the hull timbers, the sand spread out, which still leaves most of the seaward side of the hull exposed.

Obviously more work is required. A wall constructed from old tyres, sand bags, concrete blocks or more workable method to hold the sand against the hull timbers may be successful and these ideas are being examined.

Ian Warne

Deconcreting Day Dawn capstan prior to immersion in caustic bath. December 1976.



Chapter five 1983

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|----|----------------------------|------------------|
| 1. | <u>Gem</u> | Neville Passmore |
| 2. | MAAWA Newsletter | Ronnie Hansen |
| 3. | North Mole Wreck | Denis Robinson |
| 4. | Beacon Island Expedition | Ian Warne |
| 5. | Penguin Island Seminar III | Ronnie Hansen |
| 6. | Albany Weekend | Ian Warne |
| 7. | MAAWA Projects | Ian Warne |
| 8. | MAAWA Geraldton | David Totty |

THE MYSTERIOUS WRECK OF THE CUTTER 'GEM'

At around 7 am on the morning of Thursday 18th May 1876, just over a century ago, the Gem sailed into sight of the Fremantle Lightkeeper. He reported that she was heading for the port, and was north of Rottnest.

His attention was drawn away for about 5 minutes, while reading the wind gauge. On his return, the Gem was nowhere to be seen. Scanning the sea through a telescope he sighted only the mast and crosstrees above water.

To this day we do not know why the ship sank nor what fate befell the six crew and four passengers.

Some thoughts on the sinking:

The wreck lies in 6 - 7 m of water some 300 m to the south-east of the highest parts of the Kingston Reef. This same reef claimed the Macedon, Denton Holme and Janet. Could the reef have holed the ship causing it to sink so quickly that the ship's boat could not be completely cut free from its connecting rope before it went below the waves. There were signs of an unsuccessful attempt to cut the painter. We know the wind was moving the ship under full sail in this direction.

Other theories have conjectured that the cargo of 500 bags of wheat may have swelled with moisture and strained against the timbers which finally gave way in a sudden fashion causing the boat to sink equally quickly. Both of these theories are consistent with a hasty attempt to free one of the ship's boats.

What of the ten men on board, some of whom were counted by a contemporary reporter to be among the finest swimmers in the port? Why, with the mast above water and the ship's boat floating bow down in the water, didn't they manage to hold on until help arrived some hour or so later? Alternatively, why were the 'swimmers' not able to make Phillip Rock, only a mile due south?

An old coat was found, tied to the mast - suggesting that someone had made the safety at least for a short time.

Maccassar divers were employed to recover any bodies that might be trapped inside the ship. They were unable to enter the main cabin because of the tangle of ropes and rigging. They were frightened by large 'bloated looking sharks'. Perhaps the ten passengers and crew were attacked by sharks. It is also possible that the bodies were trapped inside the cabin for so long that marine organisms destroyed the buoyant viscera and the skeletal material was eventually scattered across the ocean floor.

I am aware of no excavation of the site or adjacent area. It is conceivable that skeletal material may be found in the sand that lies to the east of the wreck.

Was there an official cover-up on the part of George A. Forsyth, the Fremantle Harbour Master with a view to protecting his Rottnest Island people?

Sergeant Campbell's report of the day states that the Harbour Master reported that the vessel was lying on the Kingston Bank, a short distance from the north of Rottnest. The lookout and Pilot Station on Rottnest were unaware of the disaster until Forsyth informed them after travelling to the wreck from Fremantle.

Forsyth's report on the matter to the Colonial Secretary dated the 18th May states that the wreck lay four miles from the nearest point of Rottnest, six miles from Fremantle. His subsequent report of the 26th May 1876 states that the wreck lay five miles from Rottnest or halfway between Rottnest and Fremantle.

"Even if the accident had been seen 'by the Rottnest Pilot or Lighthouse' it would have taken the Rottnest Pilot quite as long to get to the scene of the disaster as it did myself, owing to the direction of the wind" says Forsyth. However, the wind was coming from the north, and the wreck was approximately one mile only from Rottnest.

It is not easy to judge distances over open water even for a man of Forsyth's experience. However, the wreck lies within sight lines of Phillip Rock to the south and the northern edge of the island. Surely he could not see this point being midway between the island and the mainland.

Where to Now?

There is still more research to do following up letters between Forsyth and the Colonial Secretary. A closer examination of the surviving timbers of the wreck to find any clues, and the possibility of excavating the adjacent area of sand.

Neville Passmore



The cutter Gem from a contemporary model in the Port Adelaide Nautical Museum



maawa newsletter

1985 has been a year of achievement for amateur maritime archaeology in Western Australia. We have recently conducted a successful two day training seminar at Penguin Island (see the report in this publication), and our bi-monthly newsletter was launched in July 1985.

The newsletter is designed to provide an important communication link between all MAAWA members; Historian, Diver, Artist, Conservator, Photographer, in fact all who have a love of maritime archaeology. Most of us have work and home commitments which may keep us away from meetings and sometimes projects, expeditions, training or social events. The newsletter therefore can add a new dimension to being a member of MAAWA.

The basic format has remained consistent - A calendar followed by a brief summary of each coming event. A report on previous expeditions and events to keep those who couldn't participate fully informed. Project reports and updates - many of the projects currently in progress have fascinating historical backgrounds and the information accumulated with each expedition only adds to the interest.

Items of general interest are always welcome, for example: a press release from our publicity officer about the tragic loss of the drilling rig Key Biscayne (1985) would have highlighted the never ending treachery of a stormy sea. Undoubtedly similar to that which claimed many early mariners. Extracts from publications of other interested bodies are regularly supplied by our Secretary.

A welcome addition is a report from the professionals at the Fremantle Maritime Museum. The WA Maritime Museum has worked hard to foster amateur maritime archaeology and members of the staff contribute regularly to MAAWA projects.

The quality and quantity of contributions from members and interested parties has been outstanding. The writing and typing are weekend tasks keenly assisted by my partner, Neville Passmore. The costs have proved minimal at this stage. Paper, photocopying and postage total approximately sixty cents per newsletter.

A revised questionnaire was mailed with our December mini-bulletin to all members seeking to identify what our members are most interested in both now and as future training needs. Once completed, this survey will enable the committee to plan 1984 around the needs of all members.

The newsletter has an exciting future and will continue to grow with the further development of amateur maritime archaeology in this State. My thanks to all who have contributed in the past and all whom I know will gladly contribute in the future.

Ronnie Hansen
Editor

NORTH MOLE WRECK

A popular diving site known as "the barge", approximately 100 m north of the North Mole, adjacent to the incinerator has been mistakenly called the Gareenup since the Fremantle Port Authority published a booklet in 1974 called Shipwrecks around Fremantle. Unfortunately, that is the penalty for putting information in print without actually going down to a wreck with a tape measure in my hand.

Now, nine years later I intend to square the books. With a small team of dedicated divers and researchers, we have measured her from stem to stern and hope by our next newsletter we will have her true name. To confuse the issue there are several wrecks in this area and divers should note that the partially intact steel barge that is most visited is not the Gareenup because she was a timber hull.

Many divers have enjoyed swimming through her companion ways, the large hatch or hold with the overhead curved beam, the rudder under the counter stern and inspecting the horizontal boiler on her port stern quarter.

Through a process of elimination two possibilities are emerging. Firstly it appears very similar in design to a vessel referred to in waterfront circles as the Priestman (because of the type of crane mounted on her deck. Secondly, it could be a barge or dredge destined for the deepwater 'sea graveyard' beyond Rottnest and due to 'short cuts' never quite made it.

Looking at the Priestman possibility has revealed other unexpected information. During the construction of the Inner Harbour, a Priestman dredge (we will call her No. 1) was removing spoil and sank in South Bay in 1893. Some of her gear was salvaged and mounted on another platform (name unknown). A Priestman dredge (No.2) was operating in the Inner Harbour as shown in a photograph taken when the HMS Repulse visited Fremantle in February 1924.

In discussion with Arthur Ball of North Fremantle on 21st June 1985, he informed me that the Public Works Dept. owned two barges known as Pontoon A and Pontoon B. Pontoon A sank and remained in the Swan River opposite East St. Ferry Landing as discussed in Colin Scrimshaw's Swan River Wrecks. The Priestman crane which was mounted on her was sold to Stuart Wright. This crane was electrified and is still operating at Mason's Slip.

Pontoon B was later upstream and sunk at Blackwall Reach thereby providing the mystery identification of the 'Blackwall Reach Barge' described in Colin's Swan River Wrecks.

Measurements of the North Mole Wreck taken by Drew Bathgate, Steve Chaffer, Tibi Cosmay (UEC) and myself have ruled out the Black Swan, Premier, No. 5 Barge, Advance, Gareenup, Pontoons A and B, Parmelia, Fremantle and Governor, leaving the possibilities unchecked as Avon, 404 (ex Timaru) and Priestman No.2.

An appeal for information was placed in the Fremantle Gazette and I now have a few more names of 'old timers' to talk to and believe that her true identity is close at hand.

Denis Robinson

Shard Recovery : Inside Reef

1. Preparation

Twelve divers were decided as the ideal number for the expedition and our numbers were achieved after inviting a few non-MAAWA people to join our association, the final number being 13 adults and 4 children.

Having found our team the next problem was suitable transport. The carrier boat Southern Lady was contacted but the skipper had promised to take his children away for the holidays. Colin Powell saved the day by convincing Bill Dransfield, one of the Island crayfishermen, to undertake the charter, at an agreed price of \$850.

The Museum hut on Beacon Island contains 3 bedrooms with 6 beds, a drawing room and outside shed which can accommodate more using air mattresses. A large kitchen/community room is the feature of the hut with gas stove and kero fridge with some pots and plates etc.

Our exotic catering was undertaken on a roster system of 'mum' and 'auntie' basis overseen by Lyn Hall and Marion Moffet. The food planning was done by Lyn, with food purchased with the help of Chris Buhagiar, the vegies and fruit by Eva and Bob, two of our new 'members'.

As some were keen to undertake lots of tank dives, Kevin and Lisa Cargeeg agreed to scour the dive shops to hire a high pressure compressor, a twin tank fill 4.5c.f. per minute was obtained for an all-up price of \$250. Small boats were essential to get in and around shallow reefs and a 14' boat is kept permanently at Beacon with 9.9 hp outboard and spare Seagull. To complement this, I brought my 12' aluminium dinghy and 9.9 hp outboard, this fitted easily on the deck of the crayboat, however, a larger boat would be advantageous especially if using a carrier boat, they will tow a 16' or so. To enable shard 'picking' and 'Beacon Island twist' card games to run in to the small hours of the night, a small generator is required. Colin Powell secured a 300 watt Honda from Perth Museum which is sufficient to run Fluorescent lights wired into the hut.

A radio was brought along and a daily sched maintained with Rosemary Harper at the Maritime Museum, Fremantle, not much traffic except how bad the weather was either in Perth or Beacon, some assistance with shard classification was obtained over the air and it was reassuring to know we had contact in any emergency.

2. Swim Search

The objective was to recover as many shards (fragments) of pottery and any other artefacts as possible from an area inside the shallow reef on which the Batavia foundered.

From previous expeditions an area known to yield ballast bricks and artefacts was gridded into 50 m square using a datum line running from a buoy at the southern edge of lagoon running north some 250 m towards blue hole. The datum point 'A' was tied to a submerged coral where 2 or 3 existing ropes were evident.

The main north and south rope was later pulled up the very shallow reef towards the main Batavia wrecksite, ballast bricks and shards are scattered along this line; an old craypot with line attached was located halfway towards the main wrecksite, our rope was tied to this as means of nulling oneself out against the strong current.

For the shard recovery a line parallel to north, south datum line was secured with star pickets. Swim search using snorkels only, progressed along 50 m lines tied between the two parallel north south lines, using at least two divers on each line, they each temporarily tied the swim search line, swam east or west towards the centre, met and swam back to untie and move line along about 15 m each time. With two teams on lines, a grid was covered in about 2 hours. The shards were cleaned in the afternoons and evenings and kept in seawater in icecream containers. Final counting and recording was done on the last evening of the expedition, a total of 435 shards and artefacts were collected in the two week period.

3. Beacon Island - Land Dig

During bad weather, a few test trenches were dug amongst the bushes at the back of Johnson Hut No.4 where artefacts had been recovered over previous years.

At a depth of 50 cm bone fragments and some iron were found leading to speculation of the food consumed by Batavia survivors whilst on Beacon. Numerous small bird bones, perhaps mutton birds, fish bones, baldchin groper and wrasse, a tooth of a seal and larger animal bones, broken shell fish and opened oyster shell, all found in an area with charcoal and iron nails suggesting a fire site utilising driftwood from the wreck as fuel.

CONCLUSION

Our first dive was treated as a familiarisation day for divers getting used to the area and looking for shards. I later discovered that the discipline of keeping divers in teams holding onto ropes in one direction, requires constant supervision and much daily review both in the evening and before leaving camp as instructions as to swim direction etc. are easily misunderstood.

Despite unfavourable weather for about ten of our fourteen days, we managed to dive on the main wrecksite on our last day where 2 coins and some musket shot were located by John Moffet and John van Donsalai. On the shallow inside reef we located a total of 435 shards and artefacts including 3 complete necks and some excellent medallion mask and handle pieces. Barshot, cannonball and iron deadeyes were also located.

Hundreds of complete ballast bricks remain scattered around the datum line which runs from anchor some 500 m towards 'blue-hole'. Some lay covered in sand holes and must have more shards with them waiting to be turned over in future storms. At least 200 shards were located in the same grid as was the most productive on previous expeditions, highlighting that similar expeditions would still be productive in locating artefacts.

Ian Warne

MAAWA conducted its 3rd annual seminar on the weekend of 21/22 October at Penguin Island. The success of the seminar was assured when MAAWA members and Museum personnel freely gave their time for training sessions and lectures and I would like to express my gratitude on behalf of the association for their enthusiastic support.

Indeed the seminar was a huge success. Some 34 members plus family stayed the weekend and enjoyed the packed program. Mike McCarthy (Fremantle Museum) was unable to attend several planned lectures as baby Ellen arrived on the scene Friday morning. Congratulations Mike and Debbie!!!

Friday PM	Slides and Lecture: "Maritime Arch. in Western Australia"	Mike McCarthy	Museum
Saturday AM	Practical Sessions (in wet suits)		
	- Line Search Techniques	Sam Pillar	MAAWA
	- Preliminary Survey of a wrecksite	Jill Worsley	MAAWA
	- Triangulation & Base Line Setting	Ian Warne	MAAWA
	- Airlift Operation	Drew Bathgate	MAAWA
	- Resuscitation and Diver Safety	John Paskulich	MAAWA
	- Hookah Safety	Mike McCarthy	Museum
Saturday PM	Lectures in the Hall		
	- Brief overview of a Wreck Inspector's role	Mike McCarthy	Museum
	- Reconstruction of Ships Hulls	Paul Hundley	Museum
	- Principles of Recording Artefacts	Fairlie Sawday	Museum
	- Drawing of Artefacts	Rosemary Harper	Museum
	- Analysis of the morning's Prelim survey	Mike McCarthy	Museum
	- The duties of a Project Leader (inc. insight into Battye Library)	Neville Passmore	MAAWA
	- An insight into Underwater Photography	John Butler	Guest Speaker

At this point a vote was taken and the majority decided to forgo an early tea break and proceed with the lectures; leaving the late evening free for a BBQ social.

	- Marine Invertebrates on wrecksites	Roger Lethbridge	Guest Speaker
	- The On-site Conservation Process	Jon Carpenter	Museum
	- Brief overview of Sunday's dive	Ian Warne/Ronnie Hansen	MAAWA

Sunday AM Small Boat dive on the reef off the Northern tip of the Island.

Practical Sessions on the lawn and beach

	- Knots and how to use them	Sam Pillar	MAAWA
	- Small boat handling	Ian Warne/ Ron Coleman/ Drew Bathgate	MAAWA

A BBQ lunch was followed by an impromptu slide session conducted by Drew Bathgate on his recent trip to the Rowley Shoals. Groups left throughout the afternoon via the numerous private craft and regular Island ferries.

Penguin Island is approximately 1 kilometre off the shore at Safety Bay, south of Perth (near the Murray Reef which has claimed many early mariners). Access is either by the official ferry or private craft. The accommodation is fairly basic although adequate - huts, complete with kitchens, housed six persons on average; communal ablutions block and several BBQs complete the facility. The island supplies its own electricity, so it is lights out at 10.00 pm when the generator is shut down.

Socially, the weekend was just as successful. There was a tremendous spirit of cooperation evident throughout the weekend with everyone assisting in some way.

I feel the greatest achievement of the seminar was that it served to wet the appetites of most participants, and it is clear that we need to conduct more in-depth sessions on such themes as:

Photomosaics
Photography
Prelim survey of sites
First Aid

On-site conservation
Marine Biology
Historical Research
Water Dredge & Air Lift

Ronnie Hansen

MAAWA Seminar at Penguin Island.



ALBANY WEEKEND - 'CHEYNES III'

A five hour drive at the end of a busy week is not everyone's idea of a perfect start to a relaxing weekend. However, a dozen members of MAAWA thought so and headed for Albany, Friday December 2nd 1985.

By kind permission of Valerie Milne, Curator of the Albany Residency Museum, we stayed at the Historic Field Station within the grounds of the Museum and beside the reconstructed brig Amity.

Saturday morning, typical Albany weather of strong winds and ominous dark clouds. A trip to the local dive shop to discuss diving prospects on the sunken whale chaser Cheyne III, purposely sunk close to Michaelmas Island in King George Sound, some 7 miles south-east from the Albany harbour.

We were told that Saturday's weather looked far better than of the past week or so and that a dive was possible that afternoon. We assembled on the town jetty at 1:30 pm to hear the final confidence statement by skipper Kim Bell "We'll get there".

The weather was less than good with a few in full gear in the back of the boat considering that their dive time had started then our arrival in the lee of the Island, calm water, beautiful deep blue vista.

Since our last visit, much more marine growth and many more fish, the locals are respecting a ban on spearing to allow some large cod to habitate in addition to a large school of 'Bullseyes' and numerous colourful fish ready to pose near a port hole.

Saturday afternoon, a visit to the old whaling station now the 'Jaycees Whale World Museum' and a chat with John Bell to discuss progress on assembly of the triple expansion steam engine taken from the Cheyne III. Work well under way, with the hole cut in the floor, necessary as the roof was too low and the block and cylinders now bolted down. John hopes to have the engine sand-blasted and painted before Christmas and will be looking for volunteer help early in the New Year.

After a slow start, work at the whaling station now progressing well with the other whale chaser Cheyne IV having been moved up the beach to find a resting place on land and ready for painting. Whaleworld Museum has been given a \$250,000 grant enabling 20 people to be employed in general maintenance for about the next 6 months.

Saturday evening we were invited to join members and families of the South Coast Divers Club to explain MAAWA's activities and show slides. Jan Rodda gave an informative presentation on the recent Thailand expedition.

Whilst enthusiasm appeared to be keen for dives on the many shipwrecks around Albany, Sunday morning saw members basking in the sunshine and I suspect recalling their first glimpse of Cheyne III as we descended down the huge manilla rope the previous day.

Ian Warne

LIST OF MAAWA PROJECTS - A diary of activities

<u>DATE</u>	<u>VESSEL/PROJECT</u>	<u>CONCLUSION/ACTION</u>
Nov. 1974	<u>Rockingham Cannon</u>	Extensive search over six weeks failed to locate cannon lost by ship <u>Rockingham</u> .
	<u>Lady Elizabeth</u>	Wreck measured, survey filed with Museum, photomosaic commenced.
	<u>Hellen (Ellen)</u>	Swimline search north of Woodman Point - unsuccessful.
Jan. 1975	<u>Dato</u>	Wreck located by M. Pollard. Bearings taken.
Feb. 1975	<u>James Matthews</u>	Large scale excavation commenced by Museum with MAAWA assistance.
	<u>Centaur</u>	Wreck located and bearings taken. Recent salvage evident.
Mar. 1975	<u>Zeewijk</u> James Rocks	Ten members participate in expedition. M. Pollard locates the remains of a jetty at James Rocks
April 1975	<u>Batavia</u>	Successful expedition with eight members present.
June 1975	<u>Alex T. Brown</u>	Winter seas uncovered wreckage north of Yanchep, field day to measure and examine timbers.
July 1975	<u>Chalmers</u>	R. McKenna suggested wreck 120' long found in Safety Bay may be <u>Chalmers</u> not <u>Bingaree</u> as thought.
Aug. 1975	<u>Mearles Homestead</u>	Search of Clarence Rocks area locates some bottles, not yet established what material the homestead was made of.
Aug. 1975	<u>Cockburn Sound</u>	Aerial search of shoreline by M. Pollard and M. Staines.
Nov. 1975	<u>Uribes</u>	Wreck located in Thompson Bay, Rottneest by D. Robinson.
Dec. 1975	<u>Sea Nymph</u>	Unsuccessful search of Robbs area using manta boards.
Jan. 1976	<u>James Matthews</u>	Reported half hull now almost exposed.
Feb. 1976	<u>Redemptora</u>	Survey commenced with measuring and trench.
April 1976	<u>Day Dawn</u>	Survey and excavation commenced in Careening Bay. Wreck located by Hollands when dredging for Navy facilities.

May 1976	<u>Twinkling Star</u>	Bob Rann of Como informed D. Robinson, Friars Place was just south of Cliff Head, Garden Island where survivors landed.
June 1976	<u>Day Dawn</u>	Windlass and water tank uncovered on site.
Oct. 1976	Jervoise Bay	Reported 3 wrecks not in danger from new groyne being constructed near ASI Shipyards.
Jan. 1977	<u>Day Dawn</u>	Capstan raised, conservation commenced by MAAWA.
Feb. 1977	Dredge <u>D9</u>	Wreck located in Cockburn Sound by G. Green.
April 1977	Mosman Bay	Magnetometer testoff North Mole. Later located 'Towing Barge' in Mosman Bay with echo sounder.
June 1977	<u>James & Dianna</u>	George Green appointed project leader. Surveys commenced.
	Old Fremantle Jetty	Mike McCarthy commenced survey, old plans located.
July 1977	<u>Gilt Dragon</u>	Land dig undertaken at Lancelin looking for signs of survivors' visit.
	Alcoa Jetty Wreck	M. Pollard reported finding 80' wooden Colonial wreck north of Jetty.
Sept. 1977	First Southern Hemisphere Conference held in Perth.	MAAWA participates in discussions and displays. Papers presented by G. Green and D. Robinson.
Nov. 1977	<u>Europa</u>	Weekend trip to <u>Cervantes</u> with crayfisherman Bill MacClay to survey, investigate this iron hulled ship he found and reported.
	WA Museum	Study tour to Finnerty Street using different techniques to measure, record hull dimensions.
Dec. 1977	Bull Creek Wrecks	Barges surveyed by High School Students and MAAWA members.
Jan. 1978	Albany Wrecks	Trypots raised from whaler <u>Lady Lyttleton</u> on WA Museum expedition. Propwash experiment also conducted.
	<u>Sepia</u>	Preliminary survey commenced.
	<u>Lady Elizabeth</u>	New set of photographs taken for photomosaic.
May 1978	<u>Sepia</u>	Cement barrels raised for display at WA Museum.

<u>DATE</u>	<u>VESSEL/PROJECT</u>	<u>CONCLUSION/ACTION</u>
June 1978	Wackende Buoy	Weekend boat trip to Lancelin using magnetometer. Failed to locate anchors.
Sept. 1978	Jervoise Bay Project	Vast swim search underway to try and locate any unknown wrecks close to shore
Nov. 1978	<u>Contest</u>	Wreck located Rockingham and reported to Museum by members
Dec. 1978	Ningaloo	Members assisted in preliminary survey new 'Treasure' ship
	Coal Hulks	R. McKenna completes list of coal hulks in Fremantle
Jan. 1979	<u>Dolphin</u>	Wreck located at Penguin Island
March 1979	Seminar	First weekend seminar held
May 1979	<u>Xantho</u>	Members and families spend week at Port Gregory and locate wreckage, prepare preliminary report,
	MAAWA Four Year Book	Compiled by Mike McCarthy
June 1979	Mandurah Wreck	Confirmed existence of wreck by aerial photograph
	<u>Lubra</u>	Wreck located at Jurien Bay and reported by members
	<u>Leeman Wreck</u>	Report of a large stone pillar by George Green
July 1979	<u>Day Dawn</u>	Article published in <u>IJNA</u>
August 1979	<u>Henrietta</u>	Refit and maintenance commences
	Marmion Beach Wreck	Iron knees located on beach. Unsuccessful search for main wreckage
	Mosman Bay	Barge inspected and measured
	<u>Priestman Dredge</u>	Preliminary survey commenced
Oct. 1979	Heathcote Point	Search with echo sounder failed to locate wreck in Swan River
Dec. 1979	Esperance	Research on local shipwrecks commenced in Battye Library. Poor response to holiday trip
Feb. 1980	<u>Corrac (Eva)</u>	Wreck located near Fremantle Traffic Bridge by M. Pollard

<u>DATE</u>	<u>VESSEL/PROJECT</u>	<u>CONCLUSION/ACTION</u>
Feb. 1980	<u>Lygnern or Samuel Plimsoll</u>	Anchor to be investigated by MAAWA, Bill Marshall project leader
March 1980	Swan River Wrecks	Colin Scrimshaw found 2 wrecks at Roe Point in Radio 6PM aircraft
April 1980	Ningaloo Wreck (<u>Rapid</u>)	Members participated in expedition
May 1980	<u>Trixen</u>	Historic lugger hull refloated from Swan River at Maylands
June 1980	<u>Eva</u>	Survey of hull in Swan River concluded
	<u>Contest</u>	Preliminary measurement of wreck
July 1980	Rockingham Jetty	B. Marshall reported a mound of ballast stones found 100 m north of jetty
Sept. 1980	Geraldton Seminar	Successful seminar well attended
	Careening Bay	Unsuccessful search for wreckage reported by G. Wood and J. Anderton
Dec. 1980	Indonesian Prahau (<u>Siana Biasa</u>)	Members assist Museum staff to cover hull with sand to assist in preservation
Feb. 1981	North Mole Wrecks	M. Pollard reported seeing iron wreck approx. 90' length, north of North Mole
April 1981	Commissariat Building	MAAWA holds first meeting in this Historic Building
May 1981	<u>City of York</u>	Nine members measure, draw and photograph wreck. Report compiled by M. Staniforth
June 1981	Swan River Wrecks	Informative Book published by Colin Scrimshaw. Available for purchase in Museum and Dive Shops
	<u>Contest</u>	Site pegged for preliminary survey
July 1981	<u>Contest</u>	'Water Drill' survey conducted on wreck
Sept. 1981	Beacon Island	Search for pottery shards on inside reef during week long expedition
Nov. 1981	Penguin Island Seminar	Weekend seminar held for members
Dec. 1981	<u>Leeman Wreck</u>	Expedition by MAAWA members and Geraldton Branch, report by M. Staniforth
Feb. 1982	<u>Lady Elizabeth</u>	Weekend dive to clear weed and attempt new photomosaic

<u>DATE</u>	<u>VESSEL/PROJECT</u>	<u>CONCLUSION/ACTION</u>
Feb. 1982	Marmion Beach Wreck	Swim search of area south of Angling Club, no more wreckage located
March 1982	Southern Hemisphere Conference	Second Conference held in Adelaide. Papers presented by D. Bathgate and Ian Warne
April 1982	<u>Cheyne III</u>	Members assist in removal of triple expansion steam engine
April 1982	<u>Ulidia</u>	Bad weather. A mast located but not main wrecksite
June 1982	<u>Cheyne III</u>	Whale chaser hull sunk near Michaelmas Island, Albany as recreational wreck
Aug. 1982	<u>Day Dawn</u>	Investigation of site. Recommend to cover with sand
Oct. 1982	Rottneest Wreck Trail	Members assist M. McCarthy to clean underwater wreck plaques. To become annual event
Nov. 1982	<u>Dolphin</u>	Preliminary survey with water dredge, unsuccessful. More pressure required
Dec. 1982	Albany	Weekend trip to dive on <u>Cheyne III</u>
Jan. 1983	<u>Sepia</u>	Star pickets put in place for survey commencement
Feb. 1983	<u>Sepia</u>	Project cancelled due to lack of experienced divers available
March 1983	<u>Gem</u>	Historical report prepared by N. Passmore, survey of wreck to be made
July 1983	Newsletter	First regular MAAWA newsletter published by Ronnie Hansen, Editor
	<u>Contest</u>	Project deferred until next winter due to poor response and bad weather
Aug. 1983	<u>Elizabeth</u>	Site investigation begins
Sept. 1983	Beacon Island	Successful two week expedition by 12 members searching for pottery shards on inside reef
	Museum Visit	Informative tour of Conservation Department lead by J. Carpenter
	<u>Elizabeth</u>	Site investigation deferred until next winter and more sand scouring

<u>DATE</u>	<u>VESSEL/PROJECT</u>	<u>CONCLUSION/ACTION</u>
Oct. 1983	Weekend Seminar	Third Seminar held at Penguin Island with guest lectures in Marine Biology and practical demonstrations and work sessions.
Oct. 1983	Rottneest Plaques	Weekend excursion to clean plaques and prepare report
Nov. 1983	Pottery Assembly <u>Batavia</u>	Visit to Museum to view pottery in conservation, assembly planned in six months
	HMAS Leuwin	60 foot "dive" in recompression chamber for members
Dec. 1983	Albany Weekend	Second weekend trip to dive on whale chaser <u>Cheyne III</u> . Steam engine assembly has commenced at Whaleworld Museum

GERALDTON MAAWA

- October 1979 Assisted Scott Sledge, Inspector of Wrecks with Maritime Archaeology Department of the WA Museum in the inspection of the wrecked steamer Xantho (1872) at Port Gregory
- November 1979 Carried out a preliminary survey of the Sunset Beach Wreck, Geraldton, logging finds, measuring site etc. This was followed by a written article for the local newspaper (Geraldton Guardian) to educate people on the importance of leaving artefacts on the wreck site until a proper excavation was made to determine the ship's age, tonnage etc.
- January 1980 A slide show and lecture was given to the Geraldton Historical Society on the wreck of the barque Mayhill (1895)
- April 1980 Four GMAAWA members assisted at the second season of excavation of the Rapid at Ningaloo
- May 1980 A slide show and lecture was given to the Geraldton Historical Society on the second year of excavation of the Rapid
- September 1980 With a lot of effort by Denis Robinson, Drew Bathgate and GMAAWA members, the 1980 MAAWA seminar was held in Geraldton
- October 1980
1. GMAAWA expedition to Port Gregory finds what is believed to be the remains of the sailing ship Favourite (1867)
 2. A representative of GMAAWA was accepted on the Geraldton Branch Committee of the WA Museum, this post lasted until December 1982. The Geraldton Branch of the WA Museum was formed on the 1st December 1980
- November 1980 GMAAWA submitted a proposal for the future use of the Abrolhos Islands to the Mid-West Regional Department Committee, when that committee asked for submissions on the future of the Abrolhos Islands
- March 1981 GMAAWA was invited by Greg Wallace, the Curator of the Geraldton Museum to put on a display for the Museum's topic of the month. 'Spotlight on the 19th century wrecks' was the display, and it was well received
- April 1981 Members assisted Dept of Conservation in the restoration work on the complex cannon from the Dutch East Indiaman Batavia, which was mounted outside the Geraldton Yacht Club
- During 1981 GMAAWA member Jill Worsley was accepted for the Post Graduate Diploma Course on Maritime Archaeology at WAIT

September 1981

GMAAWA organised transportation to the Abrolhos Islands for MAAWA trip to the Batavia wreck site. There they collected pottery shards for the Museum. Two Geraldton members went on the trip.

November 1981

One Geraldton member went to Leeman to join the MA students from WAIT, when they worked on the stone pillar wreck at Leeman.

July 1982

Jill Worsley graduated as a Maritime Archaeologist and returned to Geraldton adding a new dimension to the group.

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ACKNOWLEDGEMENTS

My grateful thanks to Mike McCarthy for reading and urging; Sue Cox for typing; Chris Buhagiar for cover design; Pat Baker and Dave Totty for photos. To the many other contributors of articles, photos and illustrations. Also my thanks and please keep contributing, as MAAWA needs many more publications.

Ian Warne