

MARITIME HERITAGE ASSOCIATION JOURNAL

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*A quarterly publication of the
Maritime Heritage Association, Inc.*

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The Floating Forest

See page 4



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

All of the Association's incoming journals, newsletters, etc. are now archived with Ross Shardlow who may be contacted on 9361 0170, and are available to members on loan. Please note that to access the videos, journals, library books, etc. it is necessary to phone ahead.

(If you have an unwanted collection of magazines of a maritime nature, then perhaps its time to let others enjoy reading it. Contact the Association; we may be interested in archiving the collection.)

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**** Important Notice ****

**It is now time to think about your renewal of membership
You will receive a renewal notice in the near future**

Maritime Heritage Association Inc.

Fees will be as below

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



Did You Know?

The Arctic bowhead whale was considered the most valuable of all whales. Although sperm whale oil was the more valuable per barrel (plus the even more valuable spermaceti), bowheads yielded much larger quantities of oil together with the longest baleen (whalebone). The maximum recorded weight of a bowhead is 122 tons., but they average about 110 tons. One with blubber two feet thick was known to have produced 375 barrels of oil. 26 barrels came from the tongue alone. The baleen was 17 feet in length, and the 620 slabs of it weighed 3,000 pounds.



MARITIME HERITAGE ASSOCIATION INC.

PRESIDENT'S ANNUAL REPORT, 2014.

A SIGNIFICANT CHANGE to the direction and focus of the MHA has been achieved in the past twelve months.

And thanks to the meticulous record keeping of Ross Shardlow I can note that it was on this day, 30th March, twenty-four years previous, the Maritime Heritage Association was launched.

Previously I've been able to report that most of what the Association has achieved has been achieved while I've been overseas, but in the last year the committee has frequently had to cope with my meddling and disruption. I commend their patience and persistence.

A year ago we were still much concerned with finding a permanent home for the 32ft naval cutter ALBATROSS.

ALBATROSS is now displayed at Carnarvon, along with the lifeboat from the German raider KORMORAN. This is an arrangement that honours the intention that ALBATROSS be a war memorial commemorating the terrible battle of KORMORAN and HMAS SYDNEY II. That intention underlies the funding we received from the Finding Sydney Foundation. It is certainly a good outcome and an outcome for which the committee should be congratulated.

As I said last year, once we had divested ourselves of that major physical asset, the intention of the committee was that we should accept that we have moved away from the hands-on advancement of Maritime Heritage, which was probably best exemplified by Wooden Boat Works, and that we should play to our current strengths in promoting and publishing Maritime Heritage through research and publication. This is now the major focus of the Association.

In our collaboration with Hesperian Press, Rod Dickson's latest work *Captain John Thomas Esq: from tragedy he triumphed* has been published this year. Another three or four volumes of Rod's *Maritime Matters* are scheduled for publication in the coming year.

The MHA Journal continues to be a publication that delivers to this organisation prestige and well-justified pride. Many thanks to Julie Taylor and Par Excellence who print and bind the *Journal*, and to our indefatigable editor Peter Worsley. Peter unfailingly produces an attractive, meticulously proofed and interesting

Journal; many of the articles are written by Peter himself and published anonymously.

Last year I announced our intention to publish new editions of the *Journal* on line as well as continuing to produce hard copies for members. Since then we have resolved to put all back numbers of the journal on line as searchable .pdf. There is now an archive of very nearly 100 editions, most of them in the twenty-page A4 format. Julie Taylor and Bob Johnson have worked long and hard, an amazing sustained effort, to prepare back numbers for up loading to the web-site. More than half the archive is already on line and more back numbers are added almost every day. This constitutes a really significant research resource and will increasingly enhance the renown of the Association as Google and other search engines access the content and make it known to researchers around the world.

Bob has done this in addition to executing his duties as treasurer, web-master and logistics expert.

A sad loss to the committee is the resignation of Leigh Smith who is battling very serious health problems. We thank Leigh for his many years of service on the committee, particularly his excellent work as secretary.

We are most grateful to Marcia van Zeller for stepping in as acting secretary and standing for election to that important office today. Marcia's literary experience and expertise are important to our new focus on publication.

Various MHA assets which were formerly stored at the Shardlow's premises are now stored at the premises of the Australasian Maritime Institute in Henderson, thanks to the generosity of Bernie Unwin.

MHA committee meetings have been hosted by Bob and Linda Johnson at their metropolitan premises and in recent months by Murray and Shelley Kornweibel of Otway Street. Many thanks.

Our thanks to Barry and Doris Hicks for hosting the end of year gathering at their splendid museum, and to Brian and Irene Lemon who, as always, assisted the Hicks with the arrangements.

Thanks to Bob and Linda for hosting this AGM at their Moore River estate.

Nick Burningham



The Floating Forest

The astounding cover photo by Rebekah Rhoden is of the steamer *Ayrfield*, abandoned at Homebush, Sydney, in 1969.

The steamer *Ayrfield* (Official No. 131496) was built in Scotland in 1911 as the *Corri-mal* for the Sydney shipping company G.S. Yuill & Co. Pty Ltd, and registered at Sydney (No. 1/1912). It had a tonnage of 1,140 and a length of 70.1 metres. In 1926 it was sold to White Steamship Co. Ltd then to Hammond & Co. in July 1927, and to James Patrick & Co. Ltd four months later. In November 1942, during World War II, it was requisitioned by the Australian Government and used to carry supplies to US bases in the Pacific. It was subsequently purchased by the Government in December 1944. In December 1947 it was transferred to the Aus-

tralian Shipping Board, and then laid up during 1949. At some time in 1950 it was sold to Bitumen & Oil Refineries (Australia) Ltd, but remained laid up until sold to R.W. Miller and Co., probably about 1954. That company had it extensively refitted at Mort's Dock in Sydney for use as a collier on the Sydney–Newcastle “60-milers” route. One of the alterations carried out was to convert the four holds to two. It was at this time that it was renamed *Ayrfield*. In 1969 it was sold for demolition and taken to Homebush Bay. However, the ship wrecking yard closed down and the rusty hull is now home to lush vegetation, including full-grown mangrove trees.



*More photos of the
Ayrfield
by
Rebekah Roden*





The Ditty Bag

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

(The inspiration could take the form of contributions to this page!)



The *Terra Nova*, the ship used by Captain Robert Falcon Scott for his ill-fated expedition to Antarctica was afterwards bought back by its original owners. It was used during World War II to supply US bases in Greenland, and sank on 13 September 1942. The wreck has recently been located off the coast of Greenland.

On 14 June 1789 Lieutenant William Bligh and crew arrived in Kupang, Timor, after sailing 3,618 miles in a ship's launch following the mutiny on board the *Bounty*.

In June 1805 when Francis Beaufort (later Rear Admiral Sir Francis Beaufort) took over command of his first ship, HMS *Woolwich*, he requested a chronometer. He was issued with chronometer No. 217 which had been made in 1804 and had just completed its testing. Chronometer No. 217 was only withdrawn from service in 1930.

The first steel sailing ship built in America was the 4-masted barque *Dirigo*. Built by Arthur Sewell & Co., it was launched on 3 February 1894 at Bath, Maine. However, the designer was J.F. Waddington of Liverpool (UK) and all the steel plates and frames were shipped to the USA from their manufacturer, David Colville & Sons, Motherwell, Scotland.

Donkey frigate: Those of 28 guns, frigate-built; that is, having guns protected by an upper deck, with guns on the quarter-deck and forecastle; ships, in contradistinction to corvettes and sloops.

The first occasion when P&O lost a passenger at sea was on 16 March 1912 when the 4-masted barque *Pisagua* loaded with nitrate collided with the P&O liner *Oceana* off Beachy Head in the English Channel. The *Oceana* sank and seven passengers and several crew drowned.

In the eight months from the end of August 1778

to April 1779, 120 British merchant ships were fitted out as privateers. They carried between them 2,000 guns and were manned by 8,754 men.

The great Australian seaman Alan Villiers claimed that he was always seasick whenever he was on vessels less than 60 feet on the waterline.

In the same vein, Sir Ernest Shackleton stated to Frank Worsley prior to leaving Elephant Island to sail 800 nautical miles through stormy southern seas in a 23-foot boat: "Do you know I know nothing about boat sailing".

The composite clipper ship *City of Adelaide* once made a run of only 65 days from London to Adelaide.

30 June 1878: The barque *Lady Elizabeth* (658 tons, Captain Scott) struck a reef off the south coast of Rottnest Island and became a complete wreck.

In the days of muzzle loading cannons, to spike a gun was to drive a nail or spike into the vent or touch-hole, so making the gun inoperable. This was also described as cloying a gun.

Lime or Lemon juice: A valuable anti-scorbutic, included by act of parliament in the scale of provisions for seamen. It has lately been so much adulterated that scurvy has increased threefold in a few years. Admiral W.H. Smyth, 1867.

The current record for a solo sailing circumnavigation is 57 days and six hours, by Francis Joyon in the trimaran *IDEC*. This yacht also holds the record for a 24-hour run of 666 miles.

A trypot for boiling down the blubber on board a whaling ship held 250 US gallons or 208 imperial gallons. Each ship normally had two pots.



Letter of Marque and Reprisal

What gave privateers legal indemnity compared to pirates?

The answer was a Letter of Marque and Reprisal issued by a sovereign or government. Article by Peter Worsley.

The word Marque comes from the Old English *mearc*, from Germanic *mark* – boundary or boundary marker; from Proto-Indo-European *merǵ* – boundary or border. King Henry III of England first issued what later became known as privateering commissions in 1243. These early licences were granted to specific individuals to seize the king's enemies at sea in return for splitting the proceeds between the privateers and the crown.

In the days of fighting sail, a Letter of Marque and Reprisal was a government license authorizing a person (known as a *privateer*) to attack and capture enemy vessels and bring them before admiralty courts for condemnation and sale. Cruising for prizes with a Letter of Marque was considered an honorable calling combining patriotism and profit, in contrast to unlicensed piracy, which was universally reviled. In addition to the term *lettre de marque*, the French sometimes used the term *lettre de course* for their letters of marque, giving rise to the term *corsair* as a synonym for *privateer*. Letter of Marque was sometimes used to describe the vessel used: a Letter of Marque generally refers to a lumbering square-rigged cargo carrier that might pick up a prize if the opportunity arose. A privateer was usually a fast and weatherly fore-and-aft-rigged vessel, heavily armed and heavily crewed, intended exclusively for fighting.

The first use of the term letters of marque and reprisal was in an English statute of 1354 in which King Edward III referred to 'a license granted by a sovereign to a subject, authorizing him to make reprisals on the subject of a hostile state for injuries alleged to have been done to him by the enemy's army.'

The letter of marque and reprisal first arose in 1295, 50 years after wartime privateer licenses were first issued. According to Grotius, letters of marque and reprisal were akin to a "private war", a concept alien to modern sensibilities but related to an age when the ocean was lawless and all mer-

chant vessels sailed armed for self-defense. A reprisal involved seeking the sovereign's permission to exact private retribution against some foreign prince or subject. The earliest instance of a licensed reprisal recorded in England was in the year 1295 under the reign of Edward I. The notion of reprisal, and behind it that just war involved avenging a wrong, clung to the letter of marque until 1620 in England, in that to apply for one a ship owner had to submit to the Admiralty Court an estimate of actual losses.

During the Middle Ages, armed private vessels enjoying their sovereign's tacit consent, if not always an explicit formal commission, regularly raided shipping of other nations, as in the case of Francis Drake's attacks on Spanish shipping, of which Elizabeth I (despite protestations of innocence) took a share. Grotius's 1604 seminal work on international law, *De Iure Praedae* (Of The Law of Prize and Booty), was an advocate's brief defending Dutch raids on Spanish and Portuguese shipping

Licensing privateers during wartime became widespread in Europe by the 16th century, when most countries began to enact laws regulating the granting of letters of marque and reprisal.

Although privateering commissions and letters of marque were originally distinct legal concepts, such distinctions became purely technical by the eighteenth century. The United States Constitution, for instance, states that "The Congress shall have Power To ... grant Letters of marque and reprisal ...", without separately addressing privateer commissions.

During the Napoleonic Wars and the War of 1812, it was common to distinguish verbally between privateers (also known as private ships of war) on the one hand, and armed merchantmen, which were referred to as "letters of marque", on the other, though both received the same commission. The *Sir John Sherbrooke* (Halifax) was a privateer; the *Sir John Sherbrooke* (Saint John) was an



armed merchantman. The East India Company arranged for letters of marque for its East Indiamen such as the *Lord Nelson*, not so that they could carry cannons to fend off warships, privateers, and pirates on their voyages to India and China—that they could do without permission—but so that, should they have the opportunity to take a prize, they could do so without being guilty of piracy. Similarly, the *Earl of Mornington*, an East India Company packet ship of only six guns, too carried a letter of marque.

In July 1793, the East Indiamen *Royal Charlotte*, *Triton*, and *Warley* participated in the capture of Pondicherry by maintaining a blockade of the port. Afterwards, as they were on their way to China, the same three East Indiamen participated in an action in the Straits of Malacca. They came upon a French frigate, with some six or seven of her prizes, replenishing her water casks ashore.

The three British vessels immediately gave chase. The frigate fled towards the Sunda Strait. The Indiamen were able to catch up with a number of the prizes, and, after a few cannon shots, were able to retake them. Had they not carried letters of marque, such behavior might well have qualified as piracy. Similarly, on 21 November 1800 the East Indiaman *Phoenix* (800 tons, Captain William Moffat) captured the French privateer *Général Malartic*, an action made legal by a letter of marque.

A letter of marque and reprisal would involve permission to cross an international border to effect a reprisal (take some action against an attack or injury) authorized by an issuing jurisdiction to conduct reprisal operations outside its borders.

The procedure for issuing letters of marque and the issuing authority varied by time and circum-



A Letter of Marque dated 22 December 1814, issued by President James Madison for the schooner *Lucy* (Captain John Lawton) to “subdue, seize and take any armed or unarmed British vessel, public or private”.



stance. In colonial America, for instance, colonial governors issued them in the name of the king. During the American Revolution, first the state legislatures, then both the states and the Continental Congress, then, after ratification of the Constitution, Congress authorized and the President signed letters of marque. A ship owner would send in an application stating the name, description, tonnage, and force (armaments) of the vessel, the name and residence of the owner, and the intended number of crew, and tendered a bond promising strict observance of the country's laws and treaties and of international laws and customs. The commission was granted to the vessel, not to its captain, often for a limited time or specified area, and stated the enemy upon whom attacks were permitted. For instance, during the Second Barbary War President James Madison authorized the Salem, Mass., brig *Grand Turk* to cruise against "Algerine vessels, public or private, goods and effects, of or belonging to the Dey of Algiers". (Interestingly, this particular commission was never put to use, as it was issued the same day the treaty was signed ending the U.S. involvement in the war—July 3, 1815.)

A letter of marque and reprisal in effect converted a private merchant vessel into a naval auxiliary. A commissioned privateer enjoyed the protection of the laws of war. If captured, the crew was entitled to honorable treatment as prisoners of war, while without the license they were deemed mere pirates "at war with all the world," criminals who were properly hanged.

The letter of marque by its terms required privateers to bring captured vessels and their cargoes before admiralty courts of their own or allied countries for condemnation. Applying the rules and customs of prize law, the courts decided whether the letter of marque was valid and current, and whether the captured vessel or its cargo in fact belonged to the enemy (not always easy, when flying false flags was common practice),

and if so the prize and its cargo were "condemned", to be sold at auction with the proceeds divided among the privateer's owner and crew. A prize court's formal condemnation was required to transfer title; otherwise the vessel's previous owners might well reclaim her on her next voyage, and seek damages for the confiscated cargo.

Privateers were also required by the terms of their letters of marque to obey the laws of war, honor treaty obligations (avoid attacking neutrals), and in particular to treat captives as courteously and kindly as they safely could. If they failed to live up to their obligations, the Admiralty Courts could and did revoke the letter of marque, refuse to award prize money, forfeit bonds, even award tort (personal injury) damages against the privateer's officers and crew.

At the end of the Crimean War seven European nations signed the Paris Declaration of 1856 renouncing privateering, and 45 more eventually joined them. This effectively abolished privateering worldwide. However many nations continued to issue Letters of Marque, including Bolivia, which in 1879 issued letters of marque to any vessel willing to fight for that country against Chile. Bolivia at that time had no navy. The US was not a signatory to the Paris Declaration, and Article 1 of the United States' Constitution lists issuing letters of marque and reprisal as one of the enumerated powers of Congress, together with the power to tax and to declare war. After the 11 September 2001 attacks on the US the matter of issuing letters of marque and reprisal was put forward in a proposed *Marque and Reprisal Act of 2001* but never enacted into law.

References:

Cotton, E., 1949, *East Indiamen: The East India Company's Maritime Service*. The Batchworth Press, London.

Wikipedia.

Food for Thought

For speed across the ice give me Amundsen, for scientific research there is Scott, but in times of trouble pray God for Shackleton.

Apsley George Cherry-Garrard
Survivor of Scott's Terra Nova Expedition 1910–13



An Arctic Yachting Trip

The Yachting World magazine of 22 November 1899 published this article under the above heading. The sub-heading was 'The return of Mr Andrew Barclay Walker'.

About the middle of March the steam barque *Esquimaux*, the largest vessel of the Dundee whaling fleet, which had been purchased by Mr Andrew Barclay Walker, of *Ailsa* fame, and fitted out as a yacht for cruising in the Arctic Regions, left Dundee for St John's, Newfoundland, where her owner, accompanied by a party of gentlemen, joined her, and sailed for Davis Strait. Before she left Dundee on her long trip the *Esquimaux* underwent a great change in the alteration from whaling vessel to yacht. In the matter of rig alterations were given effect to enhance the ship's appearance, and in several respects adding to its efficiency. The internal arrangements were also completely re-modelled. On the main deck, aft of the bridge, a saloon and sleeping quarters for the pleasure party voyaging in the ship were constructed. These constitute a commodious deck-house, the top of which is on a level with the bridge, and which furnished a fairly extensive promenade, and room for a lounge in bright weather. The saloon had accommodation for a party of ten sitting down to table. It is nicely done up, the walls, a pure enamelled white with mahogany fittings, being hung with yachting photographs. Part of the forward wall is laid with tiles of an artistic design, and in a recess is placed an ornamental stove, which, with its gleaming brasswork and warm-coloured earthenware, imparts an air of brightness to the interior. Adjacent to the saloon, and entering from each side of it, were the sleeping quarters. Each cabin had accommodation for three passengers, and here, as throughout the vessel, compactness and serviceableness of the fittings, left nothing to be desired. The berths are of polished mahogany, while the panelling of the walls is lined with cretonne of an extraordinarily artistic pattern. Below the saloon and entering from the deck-house by a hatchway is what formerly constituted the captain's cabin. This has been enlarged and re-modelled, and entering into it are the sleeping quarters of the captain and officers. The crew of the *Esquimaux* numbered 51 hands all told, the men being the pick of Dundee whaling seamen, and some score being Shetlanders, experienced in Arctic navigation.

Before this trip, Mr Andrew Barclay Walker made a slight acquaintance with the Arctic, notably when he went to Spitzbergen and Franz Joseph's Land in the s.y. *Normania*. Captain Henry McKay, who commanded the *Esquimaux*, is a well-known Dundee whaling captain, which carried with her tents, collapsible boats and other camping-out gear, and a complete armament for a sporting trip. To while away the monotony of a protracted voyage, quite a number of means of diversion were provided, such as a library of over 400 volumes, a gramophone, and a polyphone, the last an instrument of novel construction, which plays music by mechanical means. Mr Walker was accompanied by Dr Mackenzie, his private physician, by a scientist, and by two or three personal friends.

The cruise, from a sporting point of view, was a most successful one, the bag of the party including 50 walrus, a couple of whales and a large number of reindeer. A quantity of gold quartz was also discovered and brought home.

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Editor's note:

Walker, the son of wealthy Liverpool brewer Sir Andrew Barclay (created baronet in 1886) subsequently wrote a 96-page book about the voyage which was published in Liverpool in 1900. In it he states that the crew numbered 53 (he gives names, rank and age for each) including a stowaway, John Ewan age 18 years. The book has a map and twenty eight poor quality photographs.

The *Esquimaux* (465 tons) was built of oak in 1865. Originally ship-rigged, the rig was altered to that of a barque in 1883. With a length of 157 ft, a breadth of 30 ft and a depth of 19 ft the vessel was fitted with a 70 hp compound steam engine which gave it a speed of 8½ knots. Bunker capacity was 110 tons, but when it departed St Johns there was 556 tons of coal on board. The daily consumption was 7½ tons. It was provisioned for two years, and had tanks holding 40 tons of fresh-water. With the coal and stores on board it had a draught of just over 17 ft. The *Esquimaux* carried eight boats and a collapsible dinghy.



QUIZ

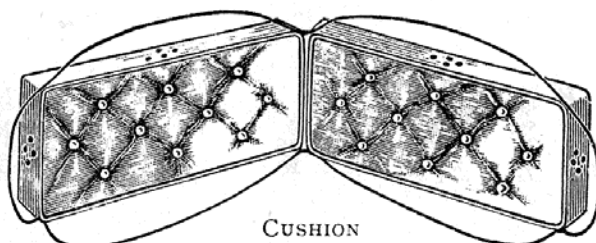
Answers to March

1. Unlike most captured slavers which were burnt, the *Don Francisco* was sold. Renamed the *James Matthews* it departed London for Fremantle on 28 March 1841. On 23 July while at anchor in Cockburn Sound it was wrecked near Woodman Point in a violent storm.
2. A beetle is the heavy mallet used by shipwrights to drive reeming irons so as to open the seam between planks in order that they can be caulked.
3. A harpoon was used by the harpooner to secure the whale. A lance was then employed by the person in charge of the whaleboat, usually one of the mates, to kill the whale by piercing its heart and/or lungs.

Quiz

1. What is the main difference between a *Megaptera novaeangliae* and a *Physeter macrocephalus*?
2. From what famous poem do the following lines come, and who was the poet?
*No stir in the air, no stir in the sea,
 The ship was as still as she could be;
 Her sails from heaven received no motion,
 Her keel was steady in the ocean.*
3. The port of Fremantle is named after Captain Charles Fremantle. What ship did Captain Fremantle command in 1829?

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CUSHION

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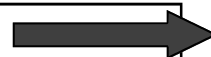
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19th Century Shipping Routes



Ben Schmidt, assistant professor at Northeastern University, Boston, USA, used publicly available data, including hundreds of original ship's logs collected by Matthew Fontaine Maury during the 1800s, to digitally map the tracks of thousands of 19th century voyages. The map opposite is the result. There is no land marked, just the tracks of the ships. The map highlights both the major ports and the winds that dictated to a certain extent the routes sailing ships were compelled to take.

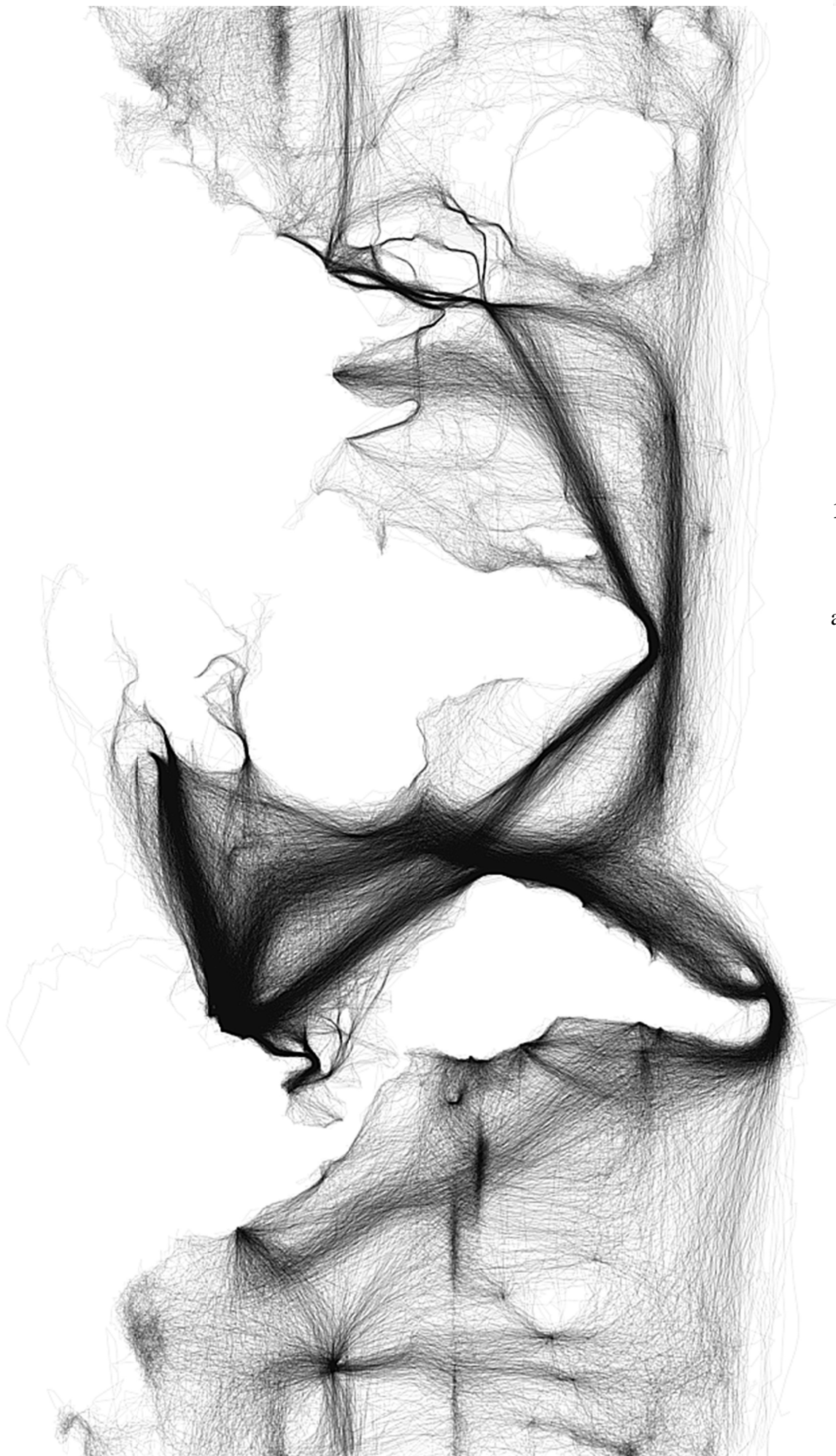
Further interesting maps are available at:

[http://io9.com/a-map-of-19th-century-shipping-routes-and-nothing-else-1495012998?](http://io9.com/a-map-of-19th-century-shipping-routes-and-nothing-else-1495012998?utm_campaign=socialflow_io9_facebook&utm_source=io9_facebook&utm_medium=socialflow)

[utm_campaign=socialflow_io9_facebook&utm_source=io9_facebook&utm_medium=socialflow](http://io9.com/a-map-of-19th-century-shipping-routes-and-nothing-else-1495012998?utm_campaign=socialflow_io9_facebook&utm_source=io9_facebook&utm_medium=socialflow)



See
**19th Century
Shipping
Routes**
(opposite) for
an explanation





Early Navigation Using Crystals

An oblong crystal found in the wreck of a 16th century English warship is a sunstone, a near-mythical navigational aid said to have been used by Viking mariners. The stone is made of Icelandic spar, a transparent, naturally-occurring calcite crystal that polarises light and can be used to get a bearing on the sun. It was found in the remains of a ship that had been dispatched to France in 1592 by Queen Elizabeth I as a precaution against a second Spanish Armada, but foundered off the island of Alderney in the English Channel.

British and French scientists have long argued that the find is a sunstone - a device that fractures the light into two distinct rays, enabling seafarers to locate the sun even when it is behind clouds or has dipped below the horizon. Scientists tested a similar crystal and found they could determine the direction of the sun by finding the point where the rays converge. It was possible to follow the track of the setting sun in poor light with an accuracy of one degree, and in a second experiment they were able to locate the sun for 40 minutes after sunset.

Sunstones, according to a theory first aired 45 years ago, helped the great Norse mariners to navigate their way to Iceland and even perhaps as far as North America during the Viking heyday of 900–1200 AD. This was long before the magnetic compass was introduced into Europe in the 13th century. But there are only sketchy references in ancient Norse literature to a "solarsteinn," which means the idea has remained frustratingly without solid proof.

In a study published in the British journal *Proceedings of the Royal Society*, investigators carried out a chemical analysis on a tiny sample using a device called a spectrometer, which confirmed that the stone was calcite.

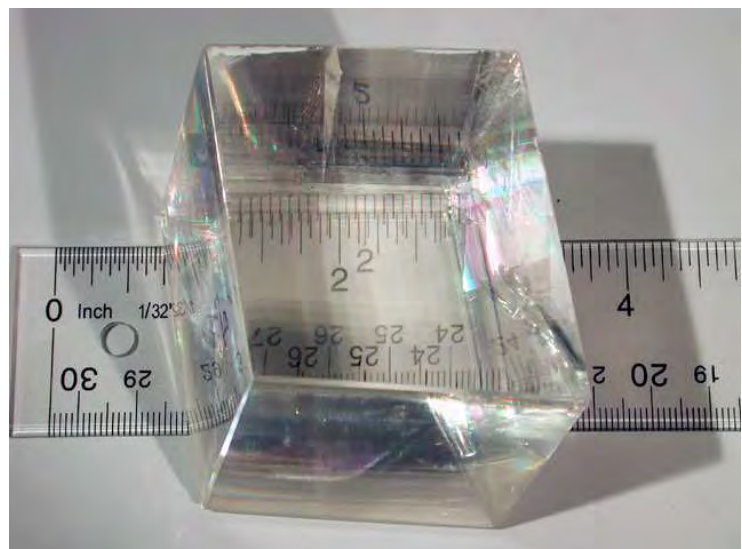
The original stone found is about the size of a packet of cigarettes whose edges have been trimmed at an angle. It is milky white in appearance, and not transparent, but new experiments show that this surface discolouration is caused by centuries of immersion in sea water and abrasion by sand.

The crystal was found in the wreckage alongside a pair of navigation dividers. Tests that placed a magnetic compass next to one of the iron cannons excavated from the ship found the needle swung wildly by as much as 100 degrees. Put together, these findings suggest the sunstone may have been kept as a backup to a magnetic compass.

"Although easy to use, the magnetic compass was not always reliable in the 16th century, as most of the magnetic phenomena were not understood," the scientists reported. "As the magnetic compass on a ship can be perturbed for various reasons, the optical compass giving an absolute reference may be used when the sun is hidden."

The reason why no intact sunstone has been found at a Viking burial site could be because the crystals shattered when warriors were cremated.

*A polished calcite crystal.
Note the double image*





Western Australia

W.A.'s Birth Certificate (?) was featured in the March 2014 journal. Might this Act of 14 May 1829 set out below also be considered a possibility?

An Act to provide until the Thirty-first Day of December One thousand eight hundred and thirty-four, for the Government of His Majesty's Settlements in Western Australia, on the Western Coast of New Holland, 10 Geo. IV. c.22. (14th May 1829)

Whereas divers of His Majesty's Subjects have, by the Licence and Consent of His Majesty, effected a Settlement upon certain wild and unoccupied Lands on the Western Coast of New Holland and the Islands adjacent, which Settlements have received and are known by the name of Western Australia: And whereas it is necessary to make some temporary Provision for the Civil Government of the said Settlement, until the said Undertaking shall be further matured, and the Number of Colonists in the said Settlements increased; Be it therefore enacted by the King's most Excellent Majesty, by and with the Advice and Consent of the Lords Spiritual and Temporal, and the Commons, in this present Parliament assembled, and by the authority of the same, That it shall and may be lawful for His Majesty, His Heirs and Successors, by an Order or Orders to be by Him or them made, with the Advice of His or their Privy Council, to make, ordain, and (subject to such Conditions and Restrictions as to Him or them shall seem meet) to authorize and empower any Three or more Persons resident and being within the said Settlements to make, ordain, and establish all such Laws, Institutions, and Ordinances, and to constitute such Courts and Officers, as may be necessary for the Peace, Order and good Government of His Majesty's Subjects and others within the said Settlements; provided that all such Orders in Council, and all Laws and Ordinances so as to be made as aforesaid, shall be laid before both Houses of Parliament as soon as conveniently may be after the making and Enactment thereof respectively: Provided also, that no Part of the Colonies of New South Wales and Van Diemen's Land, as at present established, shall be comprised within the said New Colony or Settlements of Western Australia.

II. And be it further enacted, That this Act shall continue in force until the Thirty-first day of December One thousand and thirty-four, and thence forward until the End of the then next ensuing Session of Parliament, and no longer.

*An early (c. 1845)
painting of Albany
by D.E. Cooper*





LINES of INQUIRY

Messrs Lawrence – Boatbuilders and Shipwrights: Part I

In the March 2014 Journal we established the date of c.1904 for the photograph of Perth from Kings Park (below). Ross Shardlow now takes a closer look at some of the maritime activities in the photograph starting with the venerable company of boatbuilders and shipwrights – Messrs Lawrence.



THE CITY OF PERTH, FROM KING'S PARK.

WHILE THE AMERICAN WHALER *Florida* was at King George Sound in February 1844, two men jumped ship – boatsteerer John Smith and apprentice ship-carpenter and pulling hand William Lawrence.

Born in 1822 at Bunkers Hill, Massachusetts, USA, 21-year old William made his way from Albany to Perth where the Caporn family befriended him. Samuel and Ann Caporn ran the Watermans Retreat (better known as the Cape Horn Inn) at Point Walter where they catered for the passing boatmen and river trade between Perth and Fremantle. With Samuel Caporn and four of his sons developing their own passage-boat service, William found ready work as a boatbuilder and pulling hand – he also found a wife, marrying the Caporn's daughter Elizabeth (Bessie) in Fremantle, 6 November 1847. William and Bessie settled down in a cottage on the corner of what is now Mercantile Lane and St Georges Terrace, Perth, where they raised a family of six children while William plied his trade as a licensed river boatman.

On Saturday 17 May 1856, William Lawrence, James Caporn and a man by the name of 'Cranky Joe' were in Fremantle to pick up Mr Richard Wells to take him to Perth by passage-boat; the men decided to have a few drinks before setting off. When Wells woke up under a bush by the side of the road the following evening he discovered he had been robbed of thirty-six sovereigns and suspecting his drinking partners from the night before, reported the theft to the police. Lawrence, Caporn and Cranky

Joe were apprehended the following day and charged with stealing. At the Quarter Sessions 3 July 1856, William was found guilty and sentenced to eight years penal servitude; James Caporn received six years and Cranky Joe three. How William's wife Bessie and their six children sustained themselves over that time is not recorded.

Two and a half years later the Superintendent at the Convict Establishment reported William's conduct as being 'uninterruptedly very good', and actually appointed him as a prison constable 'at duty within the walls'. After serving four years he was released on ticket-of-leave, but as the regulations forbid ticket-of-leave holders 'to be employed on whaling or other vessels', he was refused permission to return to his old trade as a boatman until he had served his full eight year sentence. Being a 'boatbuilder', however, seems to have escaped the Governor's interpretation of being 'employed on vessels'. Released in 1860, William returned to his alternative trade of boatbuilding on the waterfront of Bazaar Terrace (now Mounts Bay Road).

WATERSIDE

In 1862, William Lawrence formally set up his boatbuilding yard 'Waterside' on Lot 15½ Bazaar Terrace, Perth, just below the Government Boys School and close to the site of Reveley's old mill; indeed, the old mill race ran as a drain right through his property. The yard is distinctive in the 1904 photo as the large stand of dark trees (left of centre)

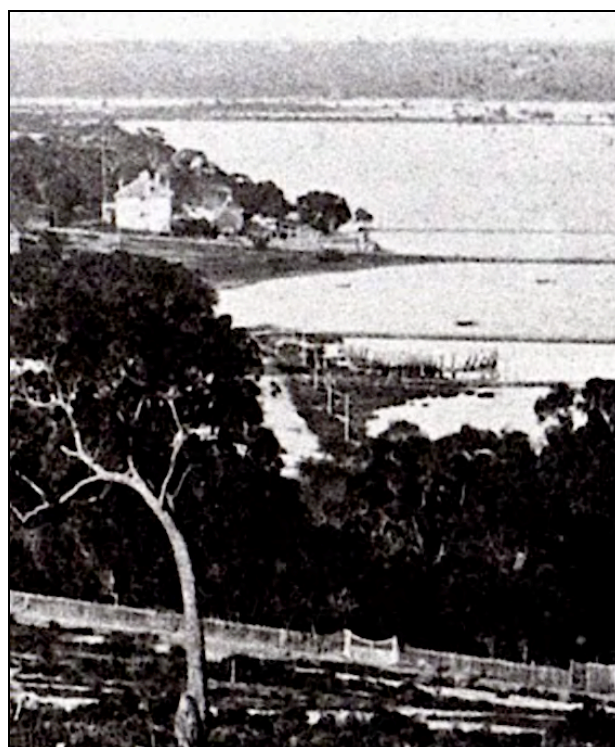


Detail from a photo taken by Alfred Hawes Stone c.1870 showing the same view as the 1904 photo. The stand of dark trees (centre left) indicates the location of Lawrence's yard with the workshops on one side of Bazaar Terrace and the slipway on the other. A close examination of the photo reveals a sizeable vessel on the stocks, which could be the City of Perth. The jetty in the foreground is Mill Street Jetty, behind that the sandalwood landing, and William Street Jetty in the centre. The large building on the other side of the trees adjoining Lawrence's yard is George Randell's establishment. The prominent buildings (distant top right) are the Commissariat and Courthouse.

photo: The Law Society

with a long shed running down the nearside. The slipway was on a small promontory of land directly opposite the yard on the riverside of Bazaar Terrace. Jesse E. Hammond's map of Perth in 1871 marks the workshops as 'boatworkers' and shows a laneway running up to St Georges Terrace close to where William and Bessie's first cottage was situated and where they had three more children after William's release. In an interview with Albert Lawrence (William's grandson) in 1949, Albert claimed all nine children were born in the cottage though a sixth son, Mark, born in 1861, died just two years later. Three of their five boys, William jnr, Samuel and Andrew became shipwrights and worked with their father from an early age; Frank worked as a boatman and marine engineer, while their fifth son Walter worked as a Perth Clerk.

On 2 March 1864, William Lawrence and Fred and Henry Caporn were amongst the volunteers who joined the Glenelg Party to examine the country around Camden Harbour that Sir George Grey had described as auriferous after his expedition to the Kimberley in 1838. The Glenelg venture, under the leadership of Police Inspector Panter, set out in the 105-ton schooner *New Perseverance* taking with them the probation prisoner Henry Wildman who claimed to have found gold in that region in 1856. Returning to Fremantle 9 June 1864, they had not found any gold but did discover rich pastoral lands around the Camden Harbour, Glenelg River and Roebuck Bay districts. They also discovered a reef near the entrance to Camden Harbour by sailing the *New Perseverance* onto it. The enthusiasm for the quest for gold stayed with William for the rest of his life.



Another detail from an Alfred Hawes Stone photo almost certainly taken on the same day as the photo at the top of the page. The white roadway in the centre of the photo is Bazaar Terrace with Lawrence's slipway and a vessel on the stocks jutting out into the river. The prominent white building in the background is the Commissariat.

RANDELL & LAWRENCE

George Randell started his steamboat enterprise in partnership with engineer John S. Maley in 1857 with the stern-wheeler *Pioneer*, adding the paddle steamer *Friends* in May 1859. When Maley moved to Greenough in 1860, Randell set himself up as George Randell & Co, steamboat proprietor,



The 33ton schooner Argo just prior to her launching in December 1867. Peter & Jill Worsley (Capes of Sunset, 2012) point out the vessel is described as having been built by either William Lawrence (Dickson, 1998) or Gabriel Adams (Cairns & Henderson, 1995) and (Cook, 2001), to which we can add 'built in Perth by Mr Watson' (Inquirer & Commercial News, 16 October 1867). It seems likely that Argo was built by Lawrence for Charles H. Watson, who claimed to be the first owner of the vessel and sold her to Messrs Thomson & Taylor for £900 in April 1868 – in contradiction to the Register of British Ships for the Port of Fremantle that claims William Dalgety Moore was the first owner. As for Gabriel Adams being the builder – perhaps there has been some confusion with Gabriel's 25ton schooner Adur built in 1868 'just west of William Street', which would put it very close to the same slipway. Rod Dickson (They Kept This State Afloat, 1998) states the figure on the left in the white coat is William Lawrence. The vessel is certainly on Lawrence's slipway on Bazaar Terrace with the nearby Mill Street Jetty in the background. The stone jetty was completed in 1843 but the wooden piles and landing at the head of the jetty, which can be seen on the left behind the vessel, was not constructed until November 1866. Mt Eliza is in the distant background. photo: Royal Western Australian Historical Society

adding the *Lady Stirling* to the fleet in 1863. Over the years he ended up in charge of eight steamboats and a flotilla of cargo boats. As George Randell was established on the adjoining property next to Lawrence's yard, the partnership of RANDELL & LAWRENCE was agreeably formed around 1870, which gave William snr a steady order to build and service a fleet of steamboats, barges and sailing lighters, including the 87-foot paddle steamer *City of Perth*, launched from Lawrence's yard in September 1871 – the first steamer to carry cargo from Gage Roads direct to Perth, a channel being cut through the bar at Fremantle for that purpose.

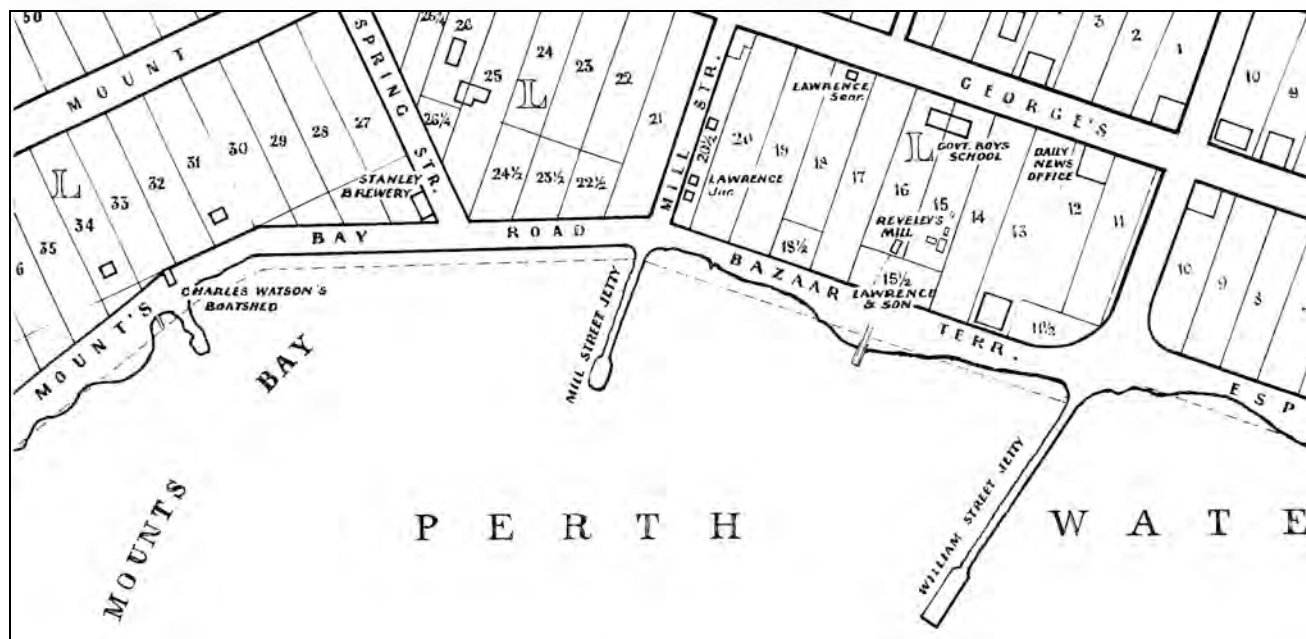
LAWRENCE & SON

Coinciding with the Randell venture and William jnr reaching his age of majority, Messrs Lawrence boatbuilders and shipwrights was formalised as LAWRENCE & SON, 18 April 1870. The business prospered with large orders for the river trade from George Randell, private leisure craft, and a rush to supply luggers for the burgeoning Sharks Bay pearl fishery. From this time William snr also began

securing land by lease or purchase along the corner of Mill Street (also known as Mill Lane) and Bazaar Terrace. Though Bessie and William snr remained at St Georges Terrace until at least 1876, William jnr was already occupying a cottage at No.8 Mill Street



Detail from Stone's photo showing the corner of Mill Street and Bazaar Terrace. When this photo was taken c.1870, William jnr had just moved into the cottage on the left running up Mill Street. Behind the cottage on the far left of the photo is the Government Boys School.



Map of the Perth waterfront in 1870 showing the Lawrence & Son yard near Reveley's Mill, which had not operated since 1834. Note Lawrences' cottage on St Georges Terrace where all eight children were raised.

by 1871. Shortly after, Sam moved in next door at No.6 while William snr and Bessie eventually moved into No.18 half way up the hill. Over time William snr purchased the whole of the corner block of Mill Street and Bazaar Terrace (now the Parmelia Hilton-Quayside on Mill site) and also had extensive property interests in Northbridge and other areas.

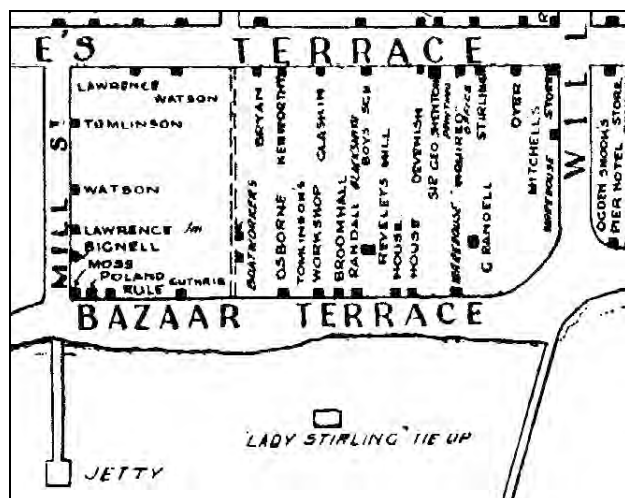
William snr had diverse business interests; besides boatbuilder, shipwright, steamboat proprietor and estate manager, he was in partnership with Richard Watson Hardey of The Peninsula Brick Company, was the first to introduce gas lighting to Perth, became a Director of the Perth Gas Company, financed and participated in several prospecting parties, smelted the first gold recorded in the State and was instrumental in forming the syndicate that discovered the Eastern (Yilgarn) Goldfields. He also had shares in several mining ventures.

THE VICTORIA PUBLIC LIBRARY

In the late 1880s Messrs Lawrence & Son faced the prospect of their shipyard being annexed by the Government. 1887 was Queen Victoria's Golden Jubilee Year, and to celebrate Her Most Gracious Majesty's glorious and beneficent reign, the Jubilee Trust proposed the institution of the 'Victoria Public Library'. The preferred site for the establishment was a parcel of land running down to the river from St Georges Terrace containing the Government Boys School at one end and a certain unsightly shipyard at the other. It also included the reclamation of the river on or about Lawrence's slipway. Lawrence's Shipyard would have to go. At the appointed hour on Jubilee Day, 21 June 1887, His Excellency Governor Broome, with all the pomp and official circumstance that befits the occasion, unveiled a foundation stone



Map of 1897 showing the land that was annexed for the Victoria Public Library, including the reclaimed Government Reserve 1152 that consumed the slipway.



Detail from J. E. Hammond's map of Perth in 1871-72, prepared from memory in 1936 for his book Western Pioneers. Despite a few misplacements, it contains a wealth of information. Note the Lady Stirling 'tie-up'.



William Lawrence Senior: 1822-1898

for the Victoria Public Library spuriously placed in the playground of the Government Boys School for that purpose – but not much happened after that, they never did put the library on that site; it was temporarily housed in the West Australian Bank building over the road.

W & S LAWRENCE

The annexation order, however, was set firmly in place and with William snr desiring to rationalize his various business interests, the partnership of William Lawrence & Son was formally dissolved 2 January 1888, to be carried on in future by brothers William jnr and Samuel Lawrence trading as W & S LAWRENCE, a partnership that had, in fact, been established eight years earlier in the old Waterside yard – and would continue in that yard while they searched for new premises. The last boat to be built at Waterside appears to be the Shark Bay pearling cutter *Hazard*, launched 17 March 1891. The old firm of Messrs Lawrence & Son had disappeared from the business directory by 1895, though an advertisement for the sale of a canoe at Lawrence's workshops, 'Waterside', 26 March 1897, suggests they still had access to the site at that time; indeed, it appears Messrs Lawrence may have received a final notice to clear their old site, for it was in June 1897 that a proposal to build a new Perth Technical School on the old annexed lands was implemented. The Victoria Public Library's 'transferable' foundation stone had already been pulled up from the Government Boys School playground 24 February 1897 and relocated to a site next to the recently completed Geological Museum in James Street where the very capable James Sykes Battye re-established a new Victoria Public Library, albeit in a basement. The Government Boys School was then

closed and transferred to James Street under the headmastership of Mr W. J. Rooney. In June 1898 a temporary timber and iron classroom, complete with electricity, was built for the new Perth Technical School in the old Boys School playground, while the old school itself became a classroom for the new Geological Department. An impressive brick building, still extant today, replaced the temporary tin shed on St Georges Terrace in 1910, followed shortly after by the addition of a new two storey physics and metallurgy block at the back of the site facing onto Bazaar Terrace that finally obliterated all traces of Lawrence's old establishment.

William senior's beloved wife Bessie died at their home at No.18 Mill Street, 17 April 1890, she was 66 years of age. William's response might only be imagined, but on 30 April 1890, 'all his splendid household furniture, at his residence, in Mill-street', was put up for sale by public auction. Retaining his title as 'Gentleman and Steamboat Proprietor', William began withdrawing from his various business interests. He continued living at No.18 until 1895 when his daughter Eunice and her husband Charles Vernon Birch moved in with him. They moved across to South Perth in 1897 taking William with them.

William Lawrence snr died at his daughter's home in South Perth, 16 July 1898, at 76 years of age. Both William and Bessie are buried at the East Perth Pioneer Cemetery. By that time, however, the firm of W & S Lawrence was well established in new premises. We will continue with that story in the next issue.

REFERENCES:

- Dickson, R., *The History of the Whalers on the South Coast of New Holland from 1800-1888*, Hesperian Press, 2007.
 Dickson, R., *They Kept This State Afloat*, Hesperian Press, 1998.
 Greaves, D., *The Golden West and How it was Discovered*, Hesperian Press, 1981.
 Hammond, J.E., *Western Pioneers: The Battle Well Fought*, Hesperian Press, 1980.
 Le Page, J.S.H., *Building a State*, Water Authority, 1986.
 Murray, K.O., *From Oar to Diesel on the Swan*, The West Australian Historical Society, 1949.
 Parsons, R., *Ships Registered at Fremantle before 1900*, Parsons, 1981.
 Richards, C., *There Were Three Ships: The Story of the Camden Harbour Expedition 1864-65*, University of Western Australia Press, 1990.
 Seddon, G & Ravine, D., *A City and Its Setting: Images of Perth, Western Australia*, Fremantle Arts Centre Press, 1986.

NEWSPAPERS (showing dates consulted):

- The Daily News*, 1882-1896, 1935-1938, 1943. Perth.
The Inquirer, 1844, 1852-1853. Perth.
The Inquirer & Commercial News, 1861, 1864, 1866-1876, 1879-1897.
The Perth Gazette and Independent Journal of Politics and News, 1850-1856, 1864.
Perth Gazette and West Australian Journal, 1833, 1839-1844.
The Perth Gazette and West Australian Times, 1866, 1871-1873.
The Sunday Times, 1933, 1936, 1938, 1943. Perth.
The West Australian, 1880-1914, 1935-1943, 1953-1954, 2008. Perth.
The West Australian Times, 1864. Perth.
The Western Mail, 1886-1896, 1907, 1935-1940, 1943. Perth.



Early Australian & New Zealand Shipwrecks?

The following article appeared on the internet on 21 December 2013. Can any of the readers shed more light on these finds? Is the cannon Portuguese?

Timbers from a shipwreck in New Zealand have been dated to some 70 years before Captain Cook and is just the latest in a string of finds showing ancient seafarers explored our great southern lands – but never returned. The timbers, from a wreck found in New Zealand's Kaipara Harbor on the North Island, have been identified as having originated in Southeast Asia as early as 1700. Captain Cook's *Endeavour* encountered New Zealand in 1769. The find comes just weeks after it was revealed a small canon found on a remote Northern Territory beach likely originated in Portugal before being lost by Indonesian seafarers some time about 1760. Cook first sighted Australia on May 6, 1770.

Australian historians believe that Dutch explorer Willem Janszoon was the first European to have reached Australia in 1606, closely followed by fellow Dutch seafarer Dirk Hartog. Legend surrounds what may be an early shipwreck in Armstrong Bay in southwest Victoria. Known as the "Mahogany Ship", speculation identifies it as a Portuguese caravel. Attempts to relocate the wreck have since failed. But no such mystery surrounds the location of the wreck in New Zealand.

The University of Auckland's Dr Jonathan Palmer, who used tree-ring techniques to date the ship's timbers, is calling for a full excavation of the wreck now buried under some 10 meters of sand. Dr Palmer told TVNZ his first reaction at seeing the dating results was "Good God, this could be really important. It really needs excavation. It needs to be an eminent archaeologist". The ship was discovered in 1982 by a local mussel fisherman. The wood he salvaged was later identified as the tropical hardwood *Lagerstroemia*. It has only recently been further analysed.

Palmer cites Captain Cook's log books as reporting Maori traditions of earlier shipwrecks as further evidence such a dig would be worthwhile.

Cook recited an account by local Maori of "earlier encounters with Europeans, with the ships having been wrecked and the survivors killed and eaten". The exact position of the wreck has been pinpointed through use of a magnetometer survey. While buried in sand, the sand bank itself is no longer under water.

The 107cm bronze swivel cannon found at Dundee Beach southwest of Darwin in 2010 was recently determined to have sat on the seabed for some 250 years. Teen Christopher Doukas found the light artillery piece buried in the sand during an unusually low tide in 2010. "The cannon is one of the most significant historical artefacts ever found in Northern Australia," geomorphologist Dr Tim Stone of archaeological group Past Masters told AAP.

Continued over the page



Several 1000-year-old copper coins from Kilwa Sultanate, East Africa, have been found on an island off the coast of the Northern Territory.



“An Indonesian vessel could have been blown off course and on to Australian shores,” he said, “and the gun find could represent one such incident”. Metal analysis tests are being undertaken in Australia and North America to try to determine the source of the bronze used to cast the gun. The cannon isn’t the only indication of such an event. Five 1000-year old coins from the ancient African kingdom of Kilwa were recently identified after being found in the Northern Territory in 1944.

Reference:

[http://www.news.com.au/technology/science/shipwreck-timbers-add-to-mounting-evidence-that-explorers-visited-new-zealand-australia-much-earlier-than-generally-accepted/story-fnjwllaw-1226788010037?](http://www.news.com.au/technology/science/shipwreck-timbers-add-to-mounting-evidence-that-explorers-visited-new-zealand-australia-much-earlier-than-generally-accepted/story-fnjwllaw-1226788010037?utm_source=outbrain&utm_medium=cpc&utm_campaign=technology)
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Christopher Doukas, 13, found a cannon buried in the sand on Dundee Beach while on a family outing.

Maritime Heritage Association Inc.

46 Sandgate Street, South Perth, Western Australia, 6151.

