

01 A single Admiralty pattern anchor is located on the reef top close to the mound of iron bar stock. It is of British manufacture and its dimensions indicate it would have been used as *Jenny Lind*'s stream anchor. Image Renee Malliaros/Silentworld Foundation.



No fewer than eight vessels are reported to have wrecked at Kenn Reefs between 1828 and 1884

# The wreck of the *Jenny Lind*

## THE KENN REEFS ARCHAEOLOGICAL SURVEY

Maritime archaeologists affiliated with the Australian National Maritime Museum and Silentworld Foundation recently led an expedition to the Australian Coral Sea Territory to conduct an archaeological survey of historic shipwrecks lost at Kenn Reefs during the 19th century. **James Hunter and Renee Malliaros** report on their findings.

THE KENN REEFS EXPEDITION continues a collaboration between the museum and the Silentworld Foundation that began in 2009. No fewer than eight vessels are reported to have wrecked at Kenn Reefs between 1828 and 1884. Most grounded relatively close to one another on the largest of the southernmost reefs in the chain, as it was located within an oft-travelled shipping route, but poorly charted until the mid-19th century.

Kenn Reefs are located outside the extreme eastern edge of the Great Barrier Reef, and comprise a large coral seamount reef system created by part of a submerged geological feature called the Kenn Plateau. The complex covers some 40 square kilometres and comprises four main reefs that together have the appearance of a backwards capital 'L'. The sea breaks over all of the reefs in the complex at high water, and the tops of all save one are exposed at half-tide. Four sand cays are present at Kenn Reefs, three of which are at least partially exposed at high tide. All known historic shipwrecks at Kenn Reefs occurred near Observatory Cay, which is the second largest of the group and also features the second-highest point (approximately two metres) above sea level in the entire reef complex.

Nearly all recorded vessel losses at Kenn Reefs occurred in the 1850s, as that decade witnessed increased migration to Australia and burgeoning trade between Australia's major port cities (Sydney and Melbourne) and destinations in the Indonesian archipelago, India and Great Britain. Many northbound ships followed the 'Outer Route', a course that took them away from navigational hazards associated with the Great Barrier Reef, but also put them in the potential path of a number of smaller, remote reefs scattered throughout the southern Coral Sea. One of these vessels, the British barque *Jenny Lind*, was travelling from Melbourne to Singapore when it came to grief on Kenn Reefs in the early morning hours of 21 September 1850. *Jenny Lind*'s loss was the second recorded instance of shipwreck at Kenn Reefs following their discovery by British mariner Alexander Kenn in April 1824.

Few specific details are known about *Jenny Lind*, save what is available in *Lloyd's Register of Shipping* and a handful of other archival sources, including accounts of the vessel's loss and its aftermath. Built in Quebec, Canada, in 1847, *Jenny Lind*'s hull included components manufactured from oak, pine and hackmatack (*Larix laricina*), a species of larch native to Canada that was

used by Canadian shipbuilders to fashion knees in wooden ships. It was single-decked, had an overall length of 118 feet (40 metres), a 26-foot (8-metre) beam, 20-foot (6-metre) depth of hold, and carrying capacity of 484 tons. The vessel's figurehead was a likeness of its namesake, the Swedish opera singer Johanna Maria ('Jenny') Lind. Popularly known as the 'Swedish Nightingale', Lind was one of the most highly regarded singers of the 19th century. She worked in close association with German composer Felix Mendelssohn and American showman P T Barnum, and toured extensively in Europe and the United States from the 1830s to the 1850s.

*Jenny Lind* was purchased by shipping concern Brent & Co and re-registered at the English port of Plymouth on 26 February 1848, then began operating between Liverpool and New York under the command of Stephen Cleverly. In February 1850, the vessel departed on its first – and only – voyage to Australia with a new master, Joseph Taylor, at the helm. It carried 114 passengers and a cargo of merchant goods, and arrived at Port Adelaide in mid-June. A little over a month later, *Jenny Lind* sailed for Melbourne with 50 passengers and a consignment of merchandise, arriving there on 2 August.

## Jenny Lind 'presented a scene of perfect and complete ruin' only an hour after striking the reef

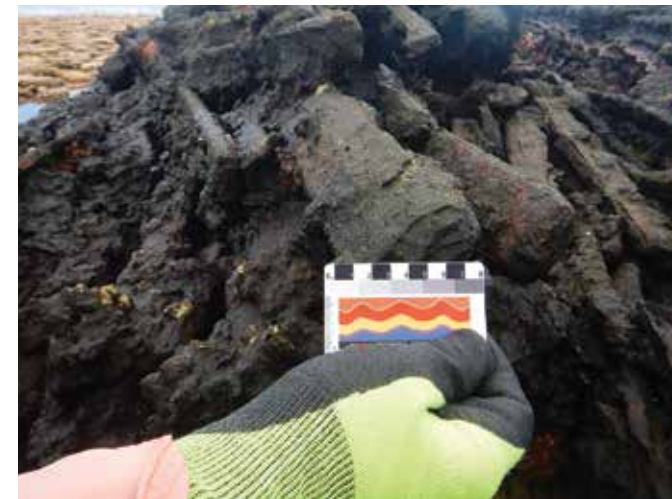
On 27 August 1850, *Jenny Lind* cleared Melbourne, then departed Port Phillip Bay two days later on what would be its final voyage. In addition to a portion of its original cargo, the vessel carried 19 officers and crew and nine passengers, including three young children. The weather was reportedly variable for the first part of the voyage, but by 19 and 20 September the sun was so obscured by cloud that celestial observations could not be taken to fix the vessel's position. Shortly after 4 am on 21 September, lookouts aboard *Jenny Lind* spotted 'something black' in the water ahead and immediately took evasive action, but were unable to prevent the barque striking the reef and going over on its beam ends.<sup>1</sup> Miraculously, no lives were lost.

All crew and passengers were subsequently transported to a 'coral bank, partly covered with sand ... about half a mile away' from the wreck site, where they eked out an existence for the next 37 days.<sup>2</sup> Critical to their survival was a water distillation system made from copper cookware and lead piping salvaged from *Jenny Lind*. Designed and built by passenger Phillip Beal (a physician and former ship's surgeon), it could reportedly convert 25 gallons (114 litres) of seawater into drinkable freshwater per day. The crew, meanwhile, salvaged timber, rigging and sails from the wreck and constructed a 'schooner-rigged boat' capable of carrying 22 people.<sup>3</sup> On 29 October 1850, this vessel and *Jenny Lind*'s only surviving ship's boat (a small cutter) set off from Kenn Reefs for Brisbane, where they safely arrived after a voyage of about three weeks.

The series of events that transformed *Jenny Lind* from a functional watercraft into an archaeological site began the moment the vessel struck Kenn Reefs. Portions of the vessel's hull and superstructure were wrenched away as they ground against the reef and were pounded by surf. All three masts and their sails and rigging were cut away by the crew in an attempt to right the hull and prevent it from breaking up. However, within a very short time *Jenny Lind* began to succumb to the elements, and according to passenger Daniel Rowntree Somerset, it 'presented a scene of perfect and complete ruin' only an hour after striking the reef. The barque continued to break up while its crew and passengers were marooned on Observatory Cay, and in the months and years following their departure was reduced to a scatter of predominantly large, robust iron artefacts lying atop the reef flat.

What remains of *Jenny Lind* is located on the reef top approximately 800 metres south-west of Observatory Cay, which roughly matches the 'half a mile' distance recorded in historical accounts of the vessel's loss. The site was first documented in 1987 by a team of maritime archaeologists from the Queensland Museum. Labelled 'KR4', its most prominent feature is a large mound comprising stone ballast fused with a mass of concreted iron rods and bar stock. The mound measures nine metres in length and forms the basis of the site's identity as *Jenny Lind*, as it correlates well to a description of the wreck provided by Seaman Richard Tope:

- 01 Detail of some of the concreted wrought iron bar stock that makes up the majority of the mound.
  - 02 This iron 'key' located near the top of the anchor shank indicates the anchor would have been fitted with a wooden stock.
  - 03 Concreted remnants of an iron windlass pawl located on the *Jenny Lind* site. Its diameter measures 62 centimetres.
- All images Renee Malliaros/Silentworld Foundation



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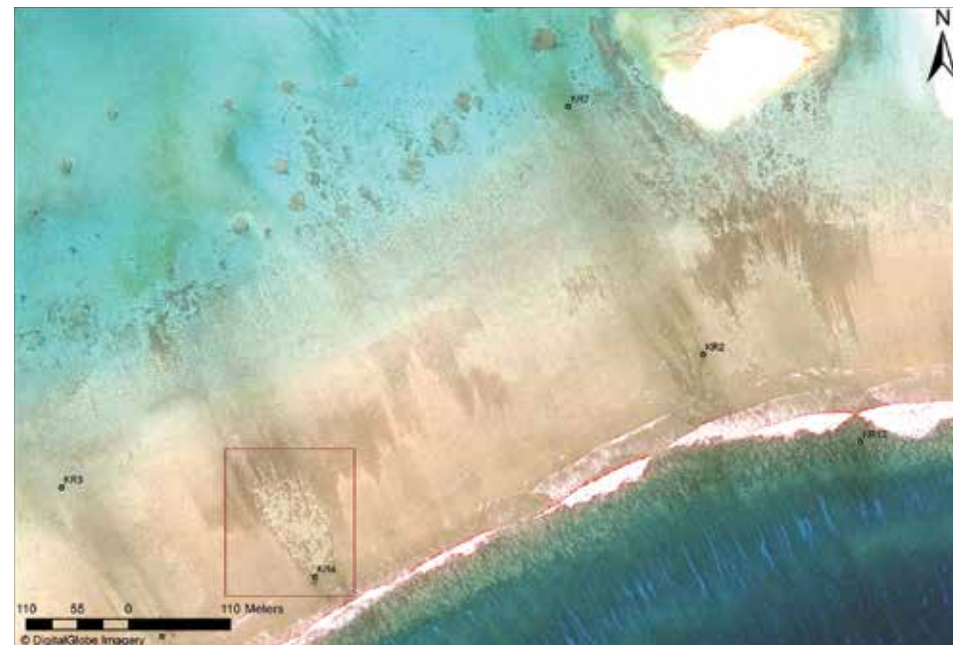
*The one dangerous place was where the waves met; the one which came round the bow of the wreck, and the other the stern. This is near where the rugged edge of the reef began, and although the heavy break was spent a good way outside, where the ballast and about sixty tons of bar iron were lying in a heap, which also helped to lessen the stroke of the sea on the remains of the ship.*<sup>4</sup>

Yet another description of the wreck, provided by Seaman Richard Holten, notes 'nearly all one side' of *Jenny Lind* had washed onto the reef top by 3 October, and was 'made ... fast to a rock' in an apparent effort to hold it in place.<sup>5</sup> This hull section may very well have contained the ballast and bar iron referred to by Tope. If so, its wooden components would have eventually been destroyed by the elements, leaving only the more robust iron and stone within to fuse together into a single corroded mass.

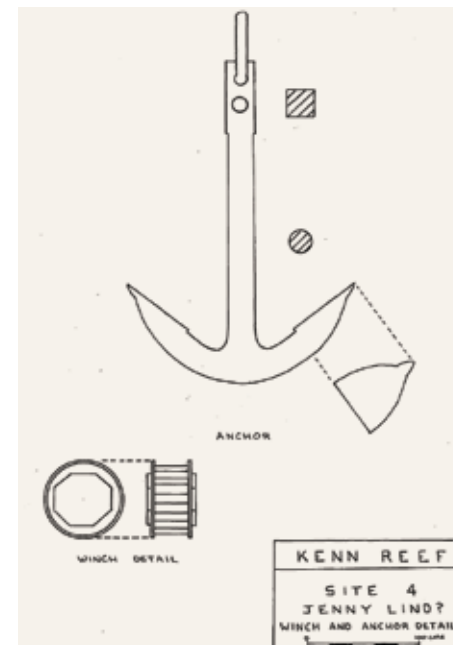
Inspection of the bar stock during the 2017 survey revealed it was manufactured from wrought iron, widely used during the 19th century because it was both tough and malleable. These qualities meant it could be easily worked into a variety of products, including structural elements for ships and buildings. Architectural components manufactured from iron were often loaded aboard ships as cargo, but because of their great weight also functioned as ballast. In the case of *Jenny Lind*, archival sources do not specifically state the vessel was carrying a cargo of iron. Indeed, most accounts state it was only loaded with a 'small quantity of flour and beef',



- 01 A modern satellite image showing the location of the *Jenny Lind* shipwreck site (highlighted by red rectangle) relative to Observatory Cay. Digital Globe Imagery/Silentworld Foundation
- 02 The mound of iron bar stock and ballast that forms the centrepiece of the *Jenny Lind* shipwreck site. About 1.5 metres high, it consists primarily of iron bar stock and rods lying atop stone ballast. Renee Malliaros/Silentworld Foundation
- 03 A scale drawing of *Jenny Lind*'s anchor and an anchor windlass component located nearby, as documented in 1987. Warren Delaney/Queensland Department of Environment and Heritage Protection



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## Lookouts aboard *Jenny Lind* spotted 'something black' in the water ahead and immediately took evasive action



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which suggests the bar iron may have functioned exclusively as ballast.<sup>6</sup> Alternatively, it may have been an undocumented speculative cargo.

Located around the mound are other artefacts and features, including stud-link anchor chain, several large unidentified concreted iron objects, windlass components, a small number of indeterminate iron structural elements, and an Admiralty pattern anchor. The anchor was relocated and inspected during the 2017 survey, and its position plotted with Global Positioning System (GPS). Its shank is 2.9 metres long and the distance between the 'bills' (the protruding tip of each 'palm' or fluke) is 2.0 metres. A 'key' near the top of the anchor's shank indicates it would have been fitted with a wooden stock, but given that the anchor is lying flat on the reef top and not 'picked in', it may not have been used when the wreck occurred. The anchor is clearly of British design and manufacture, as its protruding bills are a distinct attribute of Admiralty pattern anchors. Given *Jenny Lind*'s origins and subsequent British use, the presence of a British-manufactured Admiralty pattern anchor at the shipwreck site offers additional evidence of its identity as the Canadian-built barque.

During the 1987 survey, the Queensland Museum team noted that most of the archaeological material associated with the

site was located north and northwest of the ballast/bar iron mound, and covered an area of approximately 50 metres by 25 metres. In the wake of the 2017 survey, analysis of Geographic Information System (GIS) data derived from satellite imagery suggests the site is much larger, and may actually measure closer to 157 metres by 60 metres. However, additional fieldwork – including inspection and survey of the expanded site footprint – will be necessary to confirm the theory. Further fieldwork will also provide an opportunity to determine exactly where *Jenny Lind* ended up on the reef, and the manner in which it subsequently broke up.

Future investigations should also include a more comprehensive survey of Observatory Cay, with the goal of finding specific remnants of the *Jenny Lind* survivors' camp. Cultural material associated with the camp would provide a tangible link to this incredible tale of shipwreck, survival and perseverance, and inform how *Jenny Lind*'s crew and passengers faced seemingly insurmountable obstacles and adversity. The ongoing analysis and interpretation of *Jenny Lind* and other historic shipwreck sites at Kenn Reefs offer to bring the stories of our forebears to life, and illuminate the hardships faced by many who transited to and from Australia by sea during its early transformation into today's modern nation.

### Notes

1 'Wreck of the *Jenny Lind*', *Maitland Mercury and Hunter River General Advertiser*, 27 November 1850, p 4.

2 Ibid.

3 Ibid; Diary of Daniel Rowntree Somerset, M 1256, Ian H Nicholson Collection, John Oxley Library, State Library of Queensland.

4 'A Few More Reminiscences by Captain Tope' in Delaney, W (undated), Research Notes: Barque *Jenny Lind*, Maritime Archaeological Section Research Files, Queensland Museum, p 13.

5 R Holten, An Account of the Wreck of the Barque *Jenny Lind* on Kenn's Reef, Sept 21st 1850, M 1256, Ian H Nicholson Collection, John Oxley Library, State Library of Queensland.

6 'Wreck of the *Jenny Lind*', *Maitland Mercury and Hunter River General Advertiser*, 27 November 1850, p 4.

### Further reading

Delaney, W, 1987, *Report on wreck inspection survey: Kenn Reef*, Maritime Archaeological Section, Queensland Museum.