# *Herschel* (1908) wreck inspection and Albany area fieldwork 25-29 November 2019

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**Report—Department of Maritime Archaeology, Western Australian Museum No. 332**

GOVERNMENT OF WESTERN AUSTRALIA

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**Background**
Between Monday 25 and Friday 29 November 2019, Department of Maritime Archaeology staff and volunteers visited Albany to follow up a report by Mr Marc Payne of an iron shipwreck discovered at Inner Island, near Cape Vancouver 25 km east of Albany.

**Aims**
The aims of the fieldwork were to:

1. Inspect recently reported shipwreck at Inner Island to record and confirm if they were remains of scuttled coal hulk *Herschel* (1857-1908);
2. Inspect recently reported submerged materials exposed near Migo Island, Torbay;
3. Conduct monitoring inspections of known wreck sites in King George Sound and Oyster Harbour to confirm positions, record conservation data and update site imagery and information;
4. Photograph unregistered maritime materials at WA Museum of the Great Southern.

**Personnel**
**WA Museum**
Ross Anderson (OIC)
Deb Shefi

**Volunteers**
Marc Payne (*Herschel* site discoverer/ reporter)
Patrick Morrison (Maritime Archaeology Association of WA)
Shannon Reid (Maritime Archaeology Association of WA)

***Herschel* (1957-1908) wreck inspection**
On Tuesday 26 November the team headed to Inner Island to relocate the shipwreck site reported by Marc Payne. The weather was sunny with variable winds less than 10 knots, with a decreasing 2.3m swell. The weather changed at midday with increasing south-southeast winds of 15 knots. Three dives were conducted between 9.40am and 1.30pm. The site was relocated at the end of the first dive, with two dives subsequently undertaken to take tape measurements, record underwater photography, video and conservation data. Cameras used were a Sony NEX-6 in housing with Nikonos 36mm lens and GoPro Hero 4's.

**Access directions:** Launch in King George Sound, and follow the mainland coast east to reach Inner Island, 13.6 nautical miles distant. Approach the site from the northern end of Inner Island, the wreck site lies directly off the more protected eastern side of Inner Island, facing the channel between Inner Island and the mainland. The bow section lies on the sand bottom directly off a conspicuous quartz vein in the granite rock of Inner Island, with the rest of the site lying to the south.

**GPS Position (stern):** 35° 00.188' S, 118° 09.816' E


*Figure 1 Location of Herschel at Inner Island, Cape Vancouver (Google Earth)*


*Figure 2 Detail of location of Herschel on east side of Inner Island (Google Earth)*

*Figure 3 View of southeast side of Inner Island looking northwest (Ross Anderson/ WA Museum)*

*Figure 4 Distinctive vein in rock marks the location of Herschel site*

**Site Description:** The site lies between 15 and 22.6 m depth, with most of the amidships part of the wreck grounded on the rocky boulder slope in 15-16m depth. The heavily constructed bow and stern triangle structures have broken away and fallen to the sandy seabed in 22m depth. All of the lighter hull plating has collapsed or eroded leaving a large contiguous section of the floors located on the rocky slope in 16.6m depth. No machinery was visible, confirming it is the remains of a sailing vessel. No anchors or other artefacts were visible. At least one section of mast was observed.

The bow triangle at the northern end of the site is lying upside down, facing north, in 21.7m depth. It has collapsed onto its starboard side with the forefoot mostly intact, supported by its cemented bulkhead. The rest of the upper hull plating has corroded and collapsed flat onto the seabed. The stem post exhibits the clipper bow shape, and has the opening of the port hawse pipe visible.

The stern triangle structure is intact, canted onto its port side and facing south, in 22.6m depth. The counter stern is clearly visible, along with remains of framing for a lower and main deck, with broken frames continuing up from the main deck to support what would have been the poop deck. The rudder is not attached to the sternpost.

As the hull is no longer contiguous it was not possible to obtain a length measurement of the wreck to compare with the *Herschel*'s registered dimensions. A tape measurement taken from the bow on the seabed to the westernmost section of wreckage at the 15m contour was 45.2m, while siding and moulding measurements of the keel were 20 x 10 cm.

*Figure 5 Broken section of Herschel's hull, keel and floors in 16m depth (Marc Payne/ WA Museum)*

*Figure 6 Diver on broken up hull plating of Herschel (Shannon Reid/ WA Museum)*

*Figure 7 Diver with upturned forefoot of Herschel bow in 21m depth (Patrick Morrison/ WA Museum)*

*Figure 8 Diver inside stern section of Herschel. Note lower and upper deck beams, and curved counter stern framing (Patrick Morrison/ WA Museum)*

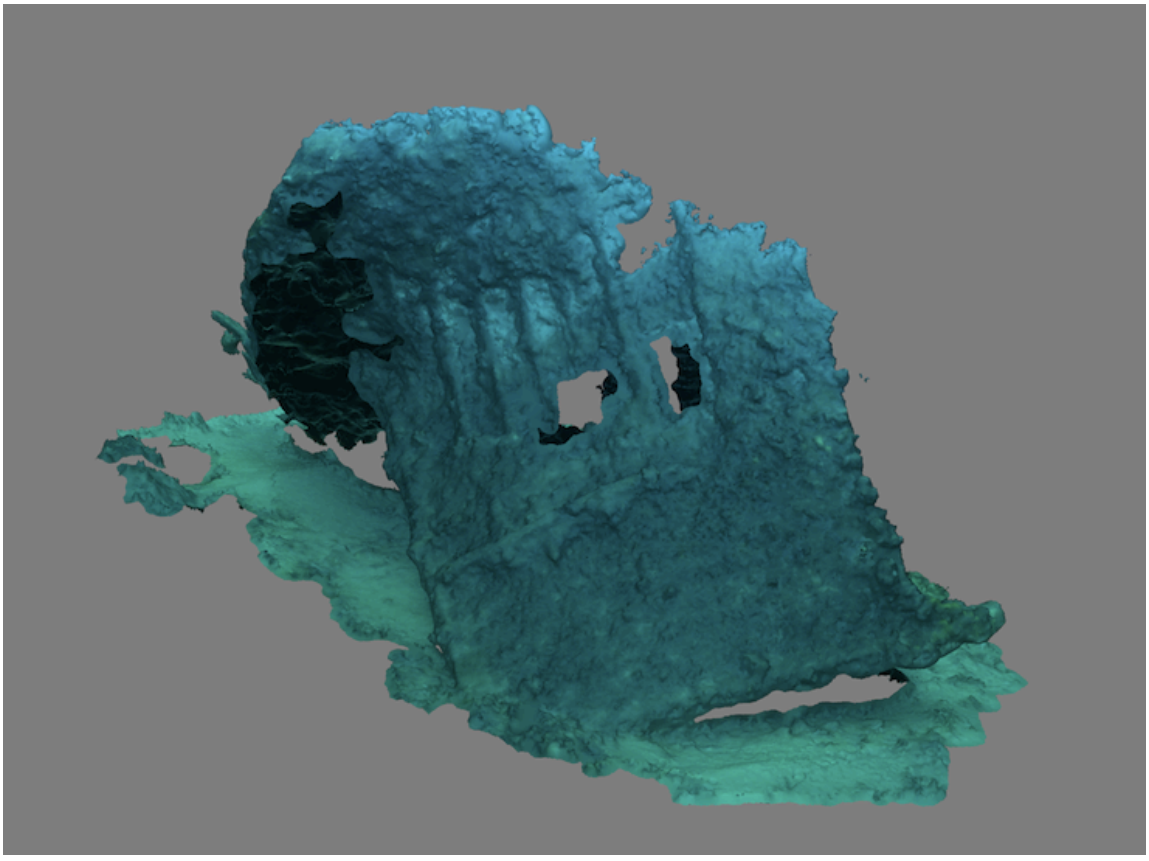

*Figure 9 3D model of Herschel stern structure. Note counter stern and missing rudder*

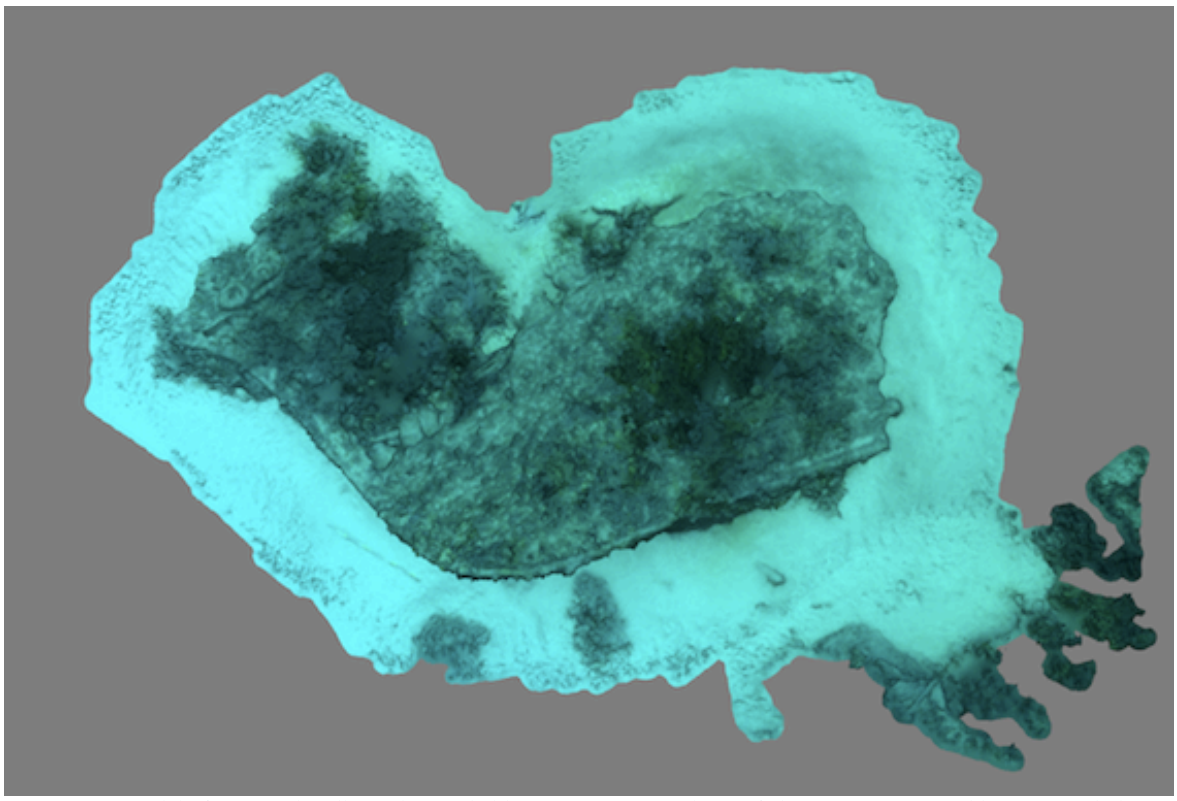

*Figure 10 3D model of upturned, collapsed Herschel bow section. Note shape of clipper stem post and hawse pipe hole at top left. Scale just visible to left of stem post is 2m. (Patrick Morrison/ WA Museum)*

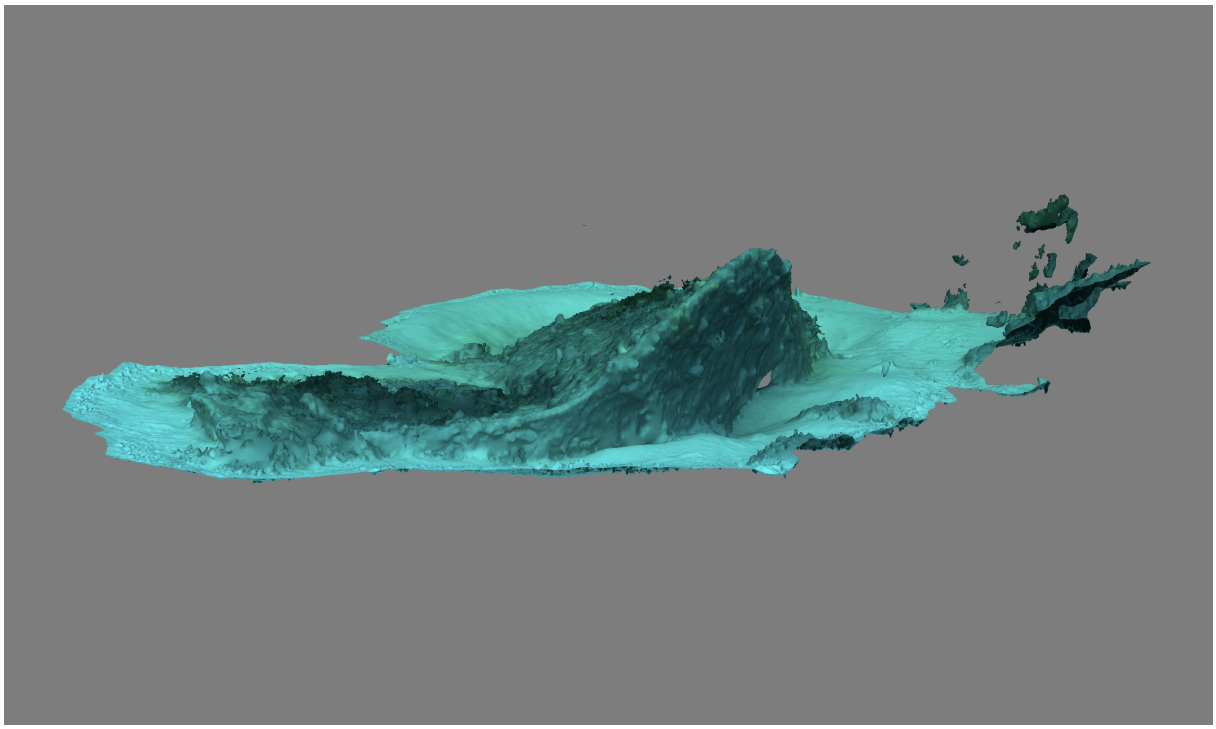

*Figure 11 Profile view of collapsed Herschel bow section (Patrick Morrison/ WA Museum)*

## ***Herschel*** **historical précis**

The following information is taken from Worsley and Green 2018 (p.187):

> The *Herschel* was originally built as the *Edith Byrne* by Thomas Brassey's Canada Works in Birkenhead, Merseyside. It had two decks, two bulkheads and was cemented. Registered at Liverpool on 9 June 1857, the ship was sold to Robert Miles Sloman & Co. in March 1865 for £8,250, renamed *Herschel* and

registered in Hamburg. It was used during 1871–80 to carry immigrants to Queensland. On 1 June 1891 it was sold to Halvigsen of Arundel, Norway, and then in February 1893 to the Adelaide Steamship Company Limited for the sum of £1,200. It was converted to a coal hulk for use at Albany. The cost of conversion was £400, and a further £180 was spent on having the hulk towed to Albany.

The *Herschel* is recorded as loading wool and tallow from Port Chalmers, New Zealand in December 1887. In Albany cemetery there is a grave of Walter Islett who was 'Killed on the hulk *Herschel* 26 Oct 1898 age 31 years" (McKenna Collection 810).

Official Adelaide Steamship Company records provide information that *Herschel* was 'broken up' at Albany in 1908 (J. Loan, A.S.S.Co. to M.McCarthy 25/5/1979, MA File Albany Coal Hulks 193/79). However, the Albany Harbour Master's Book records that on 2 July 1908 the "tug *Bruce* towed condemned hulk *Herschel* outside Princess Royal Harbour, Albany; and wrecked her on Inner Island near Mt Gardner (K.G.Sd.)" (MA File 193/79; McKenna Collection 810).

**Notes on identification:**
The location of the site accords with the Albany Harbour Master's report that the *Herschel* was scuttled at Inner Island. The remains are of a large sailing vessel of around 50m length. Evidence of a lower deck, main deck and poop deck is consistent with the *Herschel*'s layout as recorded in Lloyd's Register. The lack of anchors, machinery, and artefacts is consistent with the remains of a stripped and scuttled coal hulk. The presence of a mast section is typical of coal hulks which kept their lower masts for use as derricks for the loading and unloading of coal. No other coal hulks or other large iron/ steel sailing vessels are recorded to have been wrecked at Inner Island.

**Site environment**
Inner Island is a steep-sided, drowned granite monolith. The submerged island slope consists of angular granite boulders, dropping to the sandy seabed. The island is fully exposed to southwest and southeast swells. The eastern side of Inner Island, *Herschel* site and channel between Mt Gairdner are protected from the brunt of southwest swell, although the swell wraps completely around both sides of the island. Overall the location is categorised as a high energy site.

**Site formation**
It appears *Herschel* would have been towed to this location in suitable towing conditions of a calm sea and a light northerly wind, which would have blown it onto the eastern side of Inner Island, where it initially sank and came to rest in 15-16m depth on a ledge on the rocky slope of Inner Island. At some point later, following exposure to natural forces the main hull plating corroded and collapsed, leaving the unsupported bow and stern triangles to break away and collapse to the seabed in 21-22m depth.

**Management considerations**
There are no loose artefacts on the site. The depth of the site is ideally suited for recreational diving with good visibility, marine life and elements of ship structure to explore.

**Albany area site inspections**
**King George Sound and Oyster Harbour**
On Wednesday 27 November, with weather conditions being cloudy and a 15 knot south to south-easterly wind, the opportunity was taken to relocate and monitor known wreck sites in Oyster Harbour including the *Lady Lyttleton*, *Camel* and *Ada*. On Thursday 28 November, with similar weather conditions, the opportunity was taken to relocate and monitor sites in King George Sound including *Sarah Burnyeat* and *Fairy*.

***Cheynes II* and King Point lighthouse**
Boat-based photographs of the abandoned *Cheynes II* whale chaser in Princess Royal Harbour, and King Point lighthouse building were taken to record their current condition. *Cheynes II* is increasingly dilapidated and corroded with extensive hull plating corrosion, and suffering the loss of wooden deck and bridge superstructures. Major hull plating collapse is likely to occur within the next five to ten years.

*Figure 12 King Point lighthouse building (Ross Anderson/ WA Museum)*

*Figure 13The abandoned Cheynes II whale chaser showing corrosion on port side (Ross Anderson/ WA Museum)*

*Figure 14 Detail of Cheynes II showing corrosion on port side (Ross Anderson/ WA Museum)*

***Lady Lyttleton* (1857)**

The wreck of the colonial whaler *Lady Lyttleton* on the eastern side of the channel leading into Oyster Harbour was relocated. The main feature visible is a single trypot lying half buried on its side in 5.7m depth, along with some visible timbers just protruding from the sand. 3D photogrammetry was undertaken in the area of the trypot and timbers, and conservation data recorded.

*Figure 15 Diver with half buried trypot from Lady Lyttleton. Note squared upper edge to allow placement of two trypots together (Patrick Morrison/ WA Museum)*


*Figure 16 3D orthophoto of Lady Lyttleton site showing trypot and areas of exposed timber at lower left. Scale bar is 2m. (Patrick Morrison/ WA Museum)*

### *Camel*

The *Camel* was relocated 10m north of its GPS position, which has been updated to place it in the centre of the wreck. The site is mostly exposed to the keelson level

with some floors buried. The wreck sits amongst seagrass though it is in a pocket of sand. This lack of seagrass in the near vicinity may be due to biotoxic effects of the extensive copper alloy sheathing used in *Camel*'s construction, used to line its hold for use as a water lighter. Remnants of loose copper sheathing were observed, with iron knees, wooden floors and frames, and keel with iron bolts. 3D photogrammetry and conservation data recording was undertaken. The site appears to be in a stable condition, though active corrosion was noted on one iron knee.

**Updated GPS Position**: 34° 59.707' S, 117° 57.427' E

*Figure 17 Exposed timber floors on Camel site (Shannon Reid/ WA Museum)*

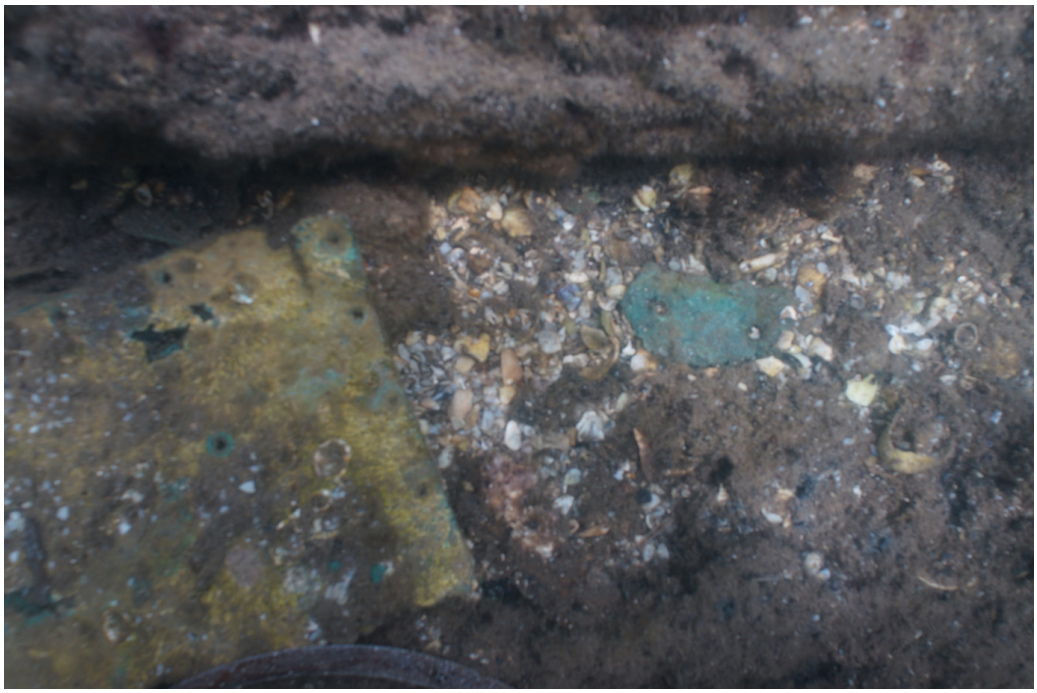

*Figure 18 Copper alloy sheathing visible on Camel site (Shannon Reid/ WA Museum)*

*Figure 19 Iron knees showing patches of active corrosion on Camel site (Shannon Reid/ WA Museum)*

***Ada***

The *Ada* was unable to be relocated in the vicinity of the existing GPS position due to extensive weed cover in this part of Oyster Harbour. It is not clear if the GPS position is incorrect, or the wreck is obscured by weed and siltation. Relocation using historical photographic transits will be required.

***Fairy***

The Fairy was not able to be relocated in the vicinity of the existing GPS position and it appears the current GPS position is incorrect. Snorkel surveys in the area marked on an historic chart were unsuccessful, though this area is entirely covered in silt and dense seagrass. Relocation using historical photographic transits will be required.

***Sarah Burnyeat***

The site was inspected with GPS position confirmed to be correct. 3D photogrammetry was undertaken, although being shallow and sunny the caustic light from surface reflections meant the photogrammetry exercise was unsuccessful. The site appears to be in a stable condition.

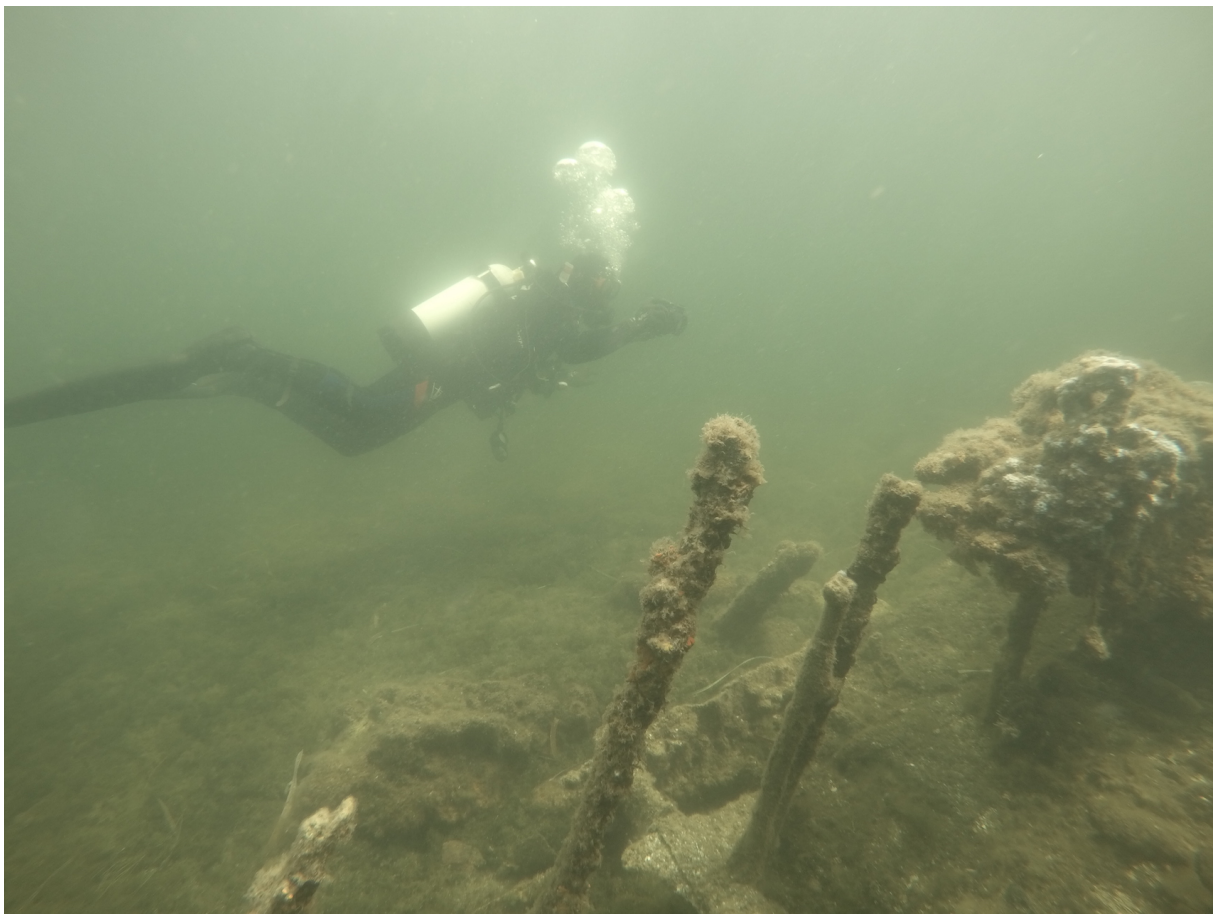

*Figure 20 Diver with keel bolts at stern section of Sarah Burnyeat (Shannon Reid/ WA Museum)*

**Migo Island whaling station, Torbay**

Torbay is recorded to have been used for colonial whaling between 1844 and 1847, and subsequently between 1861 and 1864. Whaling infrastructure such as tryworks, accommodation and boatsheds were most likely established on the mainland beaches protected by Migo Island, with Migo Island used as a lookout. The location was also used for shipbuilding, with an 1837 plan marked up with the words “A vessel of 150 tons on the stocks here”, “sandy beach” and “good water” (Gibbs 1995: 414-416).

On 23 November 2019 Sandra McKendrick reported finding exposed timber and whalebone while snorkelling just off Hartmans Beach, the sandy beach opposite Migo Island. On 28 November the site was visited. Site conditions were not ideal with surge and drifting weed alternately exposing and obscuring the remains in about 1.3m depth. A eroded, worked timber about 1.5 in length that appeared to be jarrah, though with no signs of fastenings, was partially buried. a brick and a whale rib of 3m length were relocated, and 3D photogrammetry undertaken. At least one modern brick with holes, and an unidentified modern object wrapped with coloured adhesive tape (possibly from a recreational watercraft) were also observed. A fresh water source emanating from the rocky cliff at the southern end of Hartmans Beach was recorded. Sandra also reported a low stone wall about a third of the way up the south side of Migo Island, which was not able to be inspected on this visit.

Given its location in this protected area at the site of a colonial whaling station, the whalebone is likely to be associated with historical whaling activities. The presence of

timber and whalebone confirms the potential for submerged and buried historical materials in the vicinity.

**GPS positions**
Whale rib: 35°04.221 S, 117° 38.708 E
Fresh water spring: 35°04.228 S, 117° 38.773 E.

*Figure 21 Brick at Hartmans Beach, Migo Island (Ross Anderson/ WA Museum)*

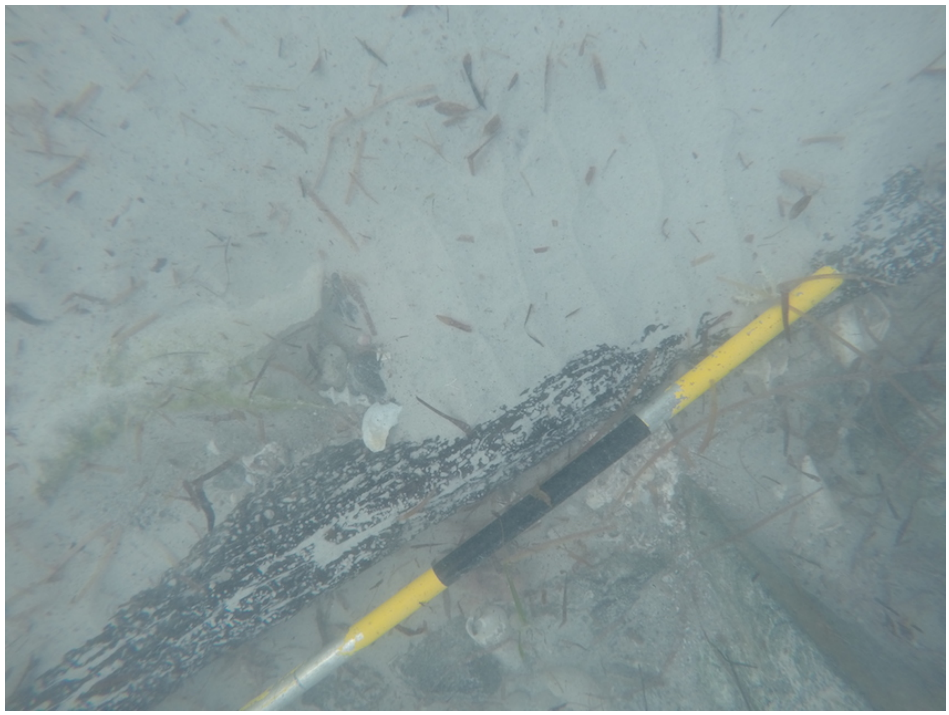

*Figure 22 Exposed worked timber at Hartmans Beach, Migo Island (Ross Anderson/ WA Museum)*

*Figure 23 3D model of exposed 3m long whale rib at Hartmans Beach, Migo Island. Scale is 2m. (Patrick Morrison/ WA Museum)*

**Recommendations for future work**

1. Relocate *Fairy* and *Ada* using historical photo transits
2. Inspect reported Migo Island stone features.

**References**


Albany Coal Hulks file, Department of Maritime Archaeology File No. MA 193/79

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Gibbs., M., 1995, The historical archaeology of shore based whaling in Western Australia 1836-1879: Volume 2 Appendices. PhD Thesis, Department of Archaeology, University of Western Australia.

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