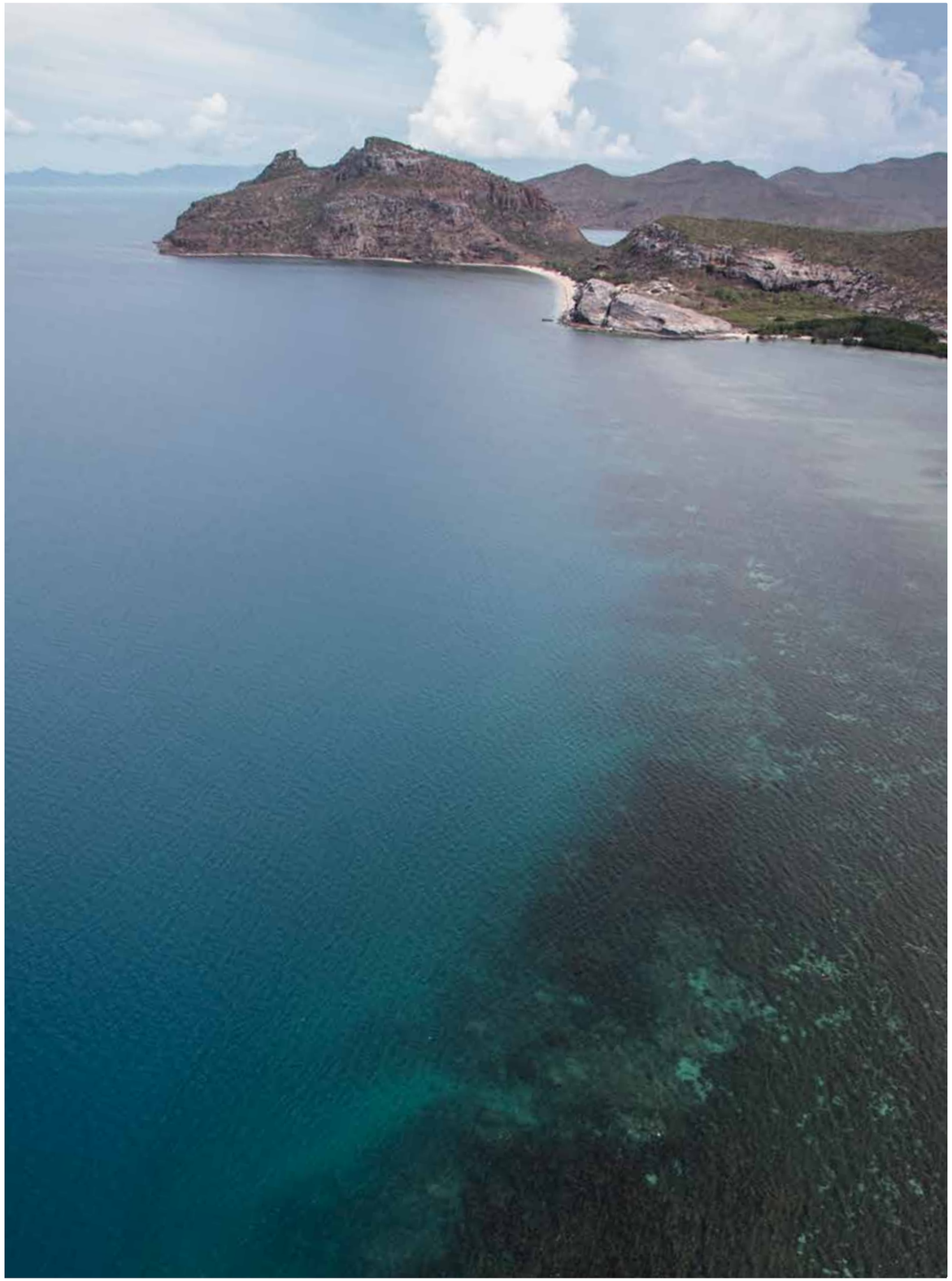


01

One essential safety check was the ‘croc watch’ – scouting the bay for any sign of crocodile activity

Return to the reef

THE FAR NORTH QUEENSLAND WRECK PROJECT 2013

Australia’s vast and treacherous Great Barrier Reef is strewn with the wrecks of many ships, whose remains are being sought and recorded in a collaboration between the Australian National Maritime Museum, the Silentworld Foundation and the Great Barrier Reef Marine Park Authority. The museum’s maritime archaeology manager **Kieran Hosty** writes of the team’s latest expedition.

IN APRIL 2013 a maritime archaeology team from the Australian National Maritime Museum and the Silentworld Foundation conducted ten days of remote-area fieldwork on the outer edge of the Great Barrier Reef some 1,040 nautical miles (1,930 km) north of Brisbane (as reported in *Signals* 103).

The team was able to relocate and survey the wreck site of the Indian-built troop ship *Fergusson*, wrecked on Ferguson Reef* in 1841, but had less success locating the wrecks of two other ships – the Indian-built opium trader *Morning Star*, which was wrecked south of Quoin Island in 1814, and the Javanese-built merchant ship *Frederick*, wrecked in 1818 on Stanley Island, east of Princess Charlotte Bay on Cape York Peninsula.

The *Frederick* was an armed, 210-ton, two-masted brig, registered in Calcutta, India, and jointly owned by its master, John Thomas Williams, and the Indian merchants and general traders Palmer and Co of Calcutta. John Palmer was related by marriage to Robert Campbell of the merchants Campbell and Clark, who were based in Calcutta and later Sydney. They owned *Sydney Cove*, which was wrecked on Preservation Island, Van Diemen’s Land (Tasmania), in 1797.

In March 1818 the *Frederick* loaded 61 live cattle in Hobart and departed in company with the *Duke of Wellington*, bound for Mauritius. After several unsuccessful attempts to sail westward across the Great Australian Bight against the prevailing wind, in late June the captains of the two ships decided to sail instead via the inner route through the Great Barrier Reef and Torres Strait.

After a protracted voyage in September, the two vessels anchored overnight off Cape Flinders on Stanley Island. While getting under way the next morning, the *Frederick* went broadside onto a reef, became fast and canted over onto its side. The crew fired the vessel’s guns as distress signals, and these were heard by the *Duke of Wellington*, which had already left the anchorage. The *Duke of Wellington* sent two of its boats to assist, but the *Frederick* was subsequently abandoned, with 21 passengers and crew taking to a longboat and Captain Williams and five sailors to a smaller jolly boat. Both boats then headed for the *Duke of Wellington*, several nautical miles away to the north. Unfortunately the heavily laden longboat could not make its way against the strong current, failed to rendezvous with the *Duke of Wellington*, and was given up for lost (*Sydney Gazette*, 15 May 1819).

The next year, in 1819, the respected Australian navigator and explorer Phillip Parker King rediscovered the remains of the *Frederick* off Cape Flinders, the easternmost point of Stanley Island in the Flinders Group. Allan Cunningham, the expedition’s botanist, recorded the discovery in his journal:

On the evening of the 13th [July 1819], whilst standing round the outer island of a group off the coast named by Jeffreys, Flinders Group, our progress was stopped by the sudden appearance of the wreck of a large ship, which had been hove upon the rocks in a small bay by the force of the surf. We anchored to the westward of a projecting point of the Wreck Bay, named Cape Flinders in the ‘Kangaroo’s’ chart and upon landing found it was the hull of a large ship called the ‘Frederick’, the identical vessel that had been commanded by Captain Williams, who left Port Jackson early in the year [1818] on his voyage to India, for a cargo, by way of Torres Strait. (Quoted in I Lee, *Early Explorers in Australia from the Log-Books and Journals*, Methuen & Co Ltd, London, 1925)

*Ferguson Reef was named after the ship *Fergusson*, but managed to lose an ‘s’ somewhere along the way.

01 Page 8: The two small white dots in the centre foreground mark the area being searched for the wreck of the *Frederick*, lost in Wreck Bay on Stanley Island in 1818. All photographs Xanthe Rivett, Silentworld Foundation

02 Jacqui Mullen, a volunteer diver with the Silentworld Foundation, uses a metal detector as she searches for any signs of a shipwreck among the coral reef at Wreck Bay.

03 Lead ingots and iron kentledge, heavily disguised by marine growth and coral, lie scattered on the seabed where the *Charles Eaton* was wrecked on Great Detached Reef in 1834.

02

Each team of divers was armed with a metal detector and a billy-stick – a long metal bar used to deter any over-inquisitive marine life

Using the journal account as a reference, the maritime archaeology team had conducted a brief magnetometer survey of Cape Flinders and Wreck Bay in April 2013, but the results were inconclusive and poor weather at the time prevented further investigation.

Luckily for us, when the team returned to Sydney, Frits Breuseker from Seasee Pty Ltd was contracted to comb through the piles of remote sensing data accumulated throughout the trip to try to identify the location of *Morning Star* and *Frederick*. Frits's work, and the generous assistance of the Silentworld Foundation, enabled another survey team to fly into Lizard Island, 80 nautical miles (148 kilometres) north of Cairns, on 18 November 2013, armed with additional survey information that might allow us to locate these two significant missing shipwrecks.

After an overnight trip, the expedition vessel *Silentworld II* arrived off Wreck Bay at Stanley Island, the last reported position of the *Frederick*, and was greeted by perfect diving conditions – no wind and almost pancake-flat seas.

Using the previously obtained magnetometer information, Frits, Peter Illidge from the Great Barrier Reef Marine Park Authority and John Mullen from Silentworld Foundation rigged up several shot-lines (buoyed lines with heavy weights used to mark a target) and dropped them in three to seven metres of water on the most promising magnetic targets. They then deployed a remotely operated vehicle (ROV) to search the area.

Unfortunately, despite several hours of searching, no obvious shipwreck material was observed from the ROV, so it was time to send in the divers – but not before carrying out an essential safety check, the 'croc watch'. As the divers assembled their equipment, the two dive tenders scouted the bay for any sign of crocodile activity, such as mud slides, crocodile tracks on the beach, or suspicious movements in the mangroves or water.

With an encouraging report from the dive tenders, the first dive team entered the water armed with metal detectors and a billy-stick (a long metal bar used to push away any over-inquisitive marine life). They commenced circular sweeps of the seabed, searching the shallow sand and weed patches, areas of broken coral and larger intact expanses of staghorn and plate coral for any tell-tale signs of a shipwreck. These might include splashes of green from the copper sheathing and ship's fastenings; straight lines or circular shapes caused by the remains of the hull or ship's fittings; or fragments of glass, ceramic or coal.

As the divers worked below, linked to the surface by a safety line and surface marker buoy, the surface crew continued their croc watch, with one dive tender patrolling the bay searching for any suspicious signs while the other followed the divers and looked for any croc activity closer to the survey work.

Over the next eight hours the dive teams rotated through their various tasks, taking turns as dive supervisors, boat operators, lookouts and divers, before all teams returned to the anchorage in the lee of Stanley Island to discuss the day's results and plan for the next day.

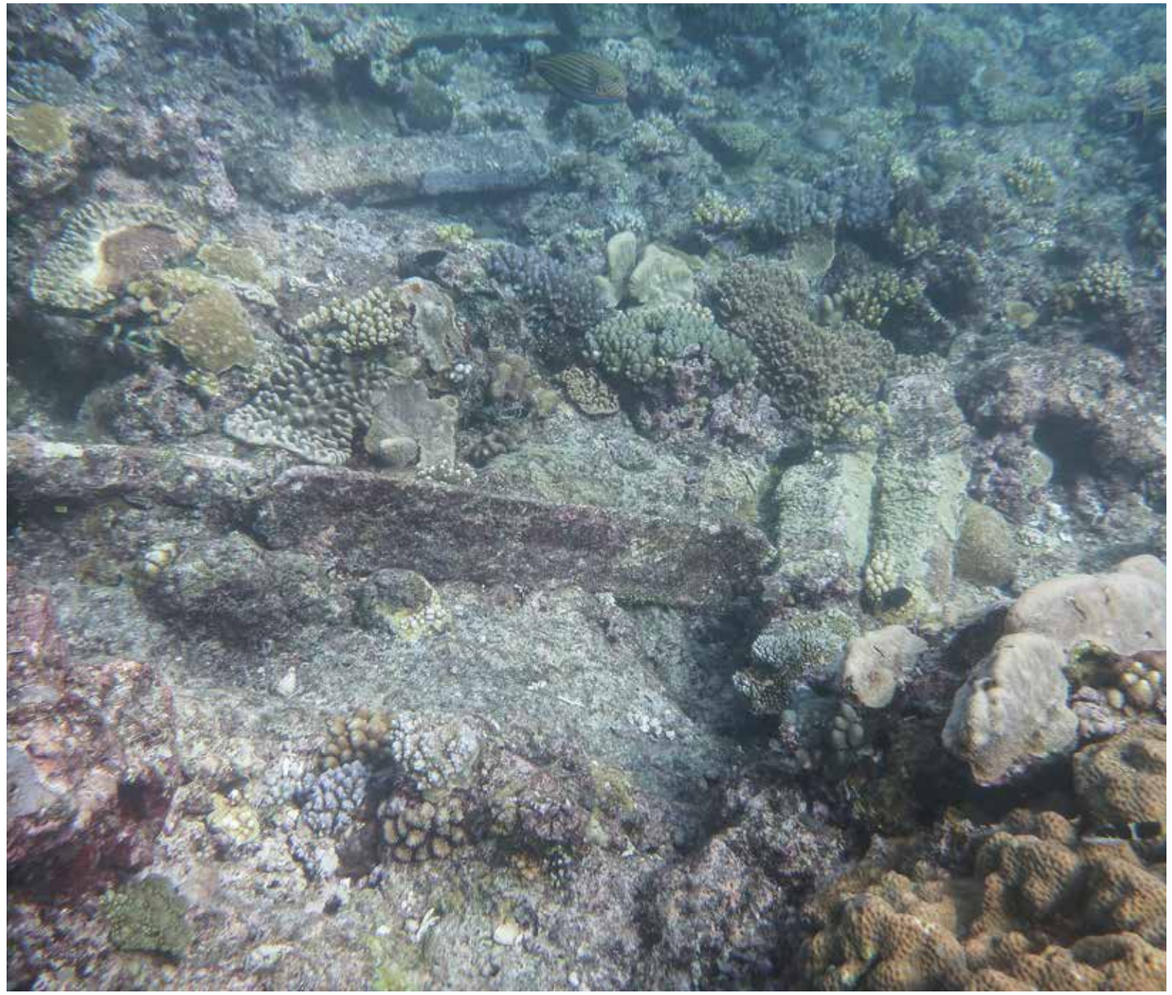
With perfect diving weather forecast for the next eight to ten days, the dive teams quickly settled into a regular routine.

Several searches of the area were unsuccessful, and so – given the results of the April 2013 magnetometer survey, which indicated a series of large anomalies running from the deeper waters of Wreck Bay towards the northwestern end of the bay (the direction of the prevailing winds) – we decided to re-survey the entire area of Wreck Bay in an attempt to replicate the original results. After only a few hours of 'magging', the new survey confirmed the location and size of the original anomalies and also located several more in an almost direct southest–northwest line in towards the beach.

Over the next couple of days the dive team conducted a series of systematic sweeps across the seafloor, working first south to north along the edge of the coral reef in six to eight metres of water, then from east to west from the deeper waters of the bay towards the shallow reef top. Yet again, we could not locate any magnetic material or other cultural material such as ceramics, glass, copper or coal associated with the wreck of the *Frederick*.

Frustrating as this is, we can only conclude that the *Frederick* is there in Wreck Bay, very close to where we were searching, but has become buried by several metres of sand, silt and coral over the last 190 years. It seems likely that the wreck will only be uncovered by a cyclone as fierce as that in 1899, which devastated the pearling fleet at nearby Princess Charlotte Bay.

With success unlikely, and with continuing good weather and other wrecks and reefs to explore, we decided to close down the search for the *Frederick* for the time being. We then moved our attentions further north and east to one of the greatest ship-traps



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01 Sometimes finding a shipwreck is all too easy – you just have to observe where the seabirds are roosting.

02 Merri Chappell, a volunteer diver from the Silentworld Foundation, examines an early-19th-century cannon – called a carronade – on Great Detached Reef.

03 Rob Chappell, a Silentworld Foundation volunteer, swims over one of several large anchors found on the northern arm of Great Detached Reef. Such anchors can be used both to calculate the size of the wrecked ship and to provide information on its age.

03

on the Great Barrier Reef – the Great Detached Reef. Lying just south of the Raine Island entrance, this 40-kilometre reef system includes several false entrances that have been trapping sailing ships since the inner and outer routes through the Great Barrier Reef were pioneered in the early 19th century.

We arranged to meet up with well-known Queensland diver and documentary film-maker Ben Cropp, who has been researching and finding shipwrecks in far north Queensland for more than 40 years. We joined him for a day searching for the site of the *Swiftsure*, which was wrecked in the vicinity of Night Island in 1829. Before parting company Ben gave us information on the locations of a number of wrecks on Great Detached Reef.

Motoring around the northern arm of Great Detached, we entered the protected anchorage on the southwestern side of the reef, almost directly opposite an iron fluke that was protruding above the gentle surf breaking on the northern side of the arm. According to Ben, the fluke marked the location of a large timber shipwreck whose remains lay scattered on the reef top.

The first dive team motored along the northern arm and eastern 'elbow' of Great Detached Reef, towing the faithful magnetometer, while the second team traversed the reef top at low tide looking for any suspicious shadows or straight lines, or for such things as chain piles, anchors and stone ballast that might break the surface.

Aided by Ben's information, we quickly relocated several sites, including one that consisted of a single iron anchor right out on the edge of the reef in the surf break, along with two large mid-19th-century iron anchors – one lying flat on the seabed, the other picked into the reef top some 120 metres in from the isolated anchor on the reef's edge. The two larger anchors were surrounded by several lengths of stud-link anchor chain running in a northwesterly direction from the edge of the reef across the reef top and towards the centre of the site. Around the anchor chains were large iron concretions (a matrix of iron, sand and corrosion product), a number of copper-alloy fastenings, and copper-alloy sheathing (a metal coating used to protect the lower hull of timber sailing vessels from fouling and marine borers).

About two kilometres south on the eastern elbow of the reef lay another site, on a shallow reef flat some 150 metres back from the exposed reef edge. It consisted of a cluster of five relatively small iron anchors, two small carronades (a type of early-19th-century cannon) and several pieces of iron kentledge (rectangular iron ingots 500–1000 mm long and 150 mm square, used as ballast). On the eastern side of the site we located three small chain piles and additional iron kentledge, and to the north we recorded a large but dispersed stone ballast mound and a small number of iron knees.

At the extreme northern end of the site was another large iron anchor that had been formerly fitted with a wooden stock. Judging by its angle and alignment, this anchor appears to have been deployed during the wrecking event, unlike the site's five other anchors, which are piled up one on top of another and are all facing different directions. The style and number of small iron anchors, the iron kentledge and the presence of iron carronades all indicate that the remains are those of a relatively early timber vessel – possibly the *Eliza*, wrecked in 1815.

Another wreck site surveyed was that of the *Charles Eaton*. This had previously been located by Ben Cropp, who had identified the wreck site from the presence of lead ingots of a type known to have been carried by the *Charles Eaton*. This 313-ton, three-masted wooden barque was under the command of Captain J G Moore when it was wrecked on a speculative voyage to India in 1834. On board were Captain William D'Oyley of the Bengal Artillery, his young family and several other passengers. The vessel struck the eastern edge of the Great Detached Reef and some of the crew deserted in the only serviceable boat, leaving the passengers and remaining crew stranded on the wreck. The survivors built a small raft on which they sailed to the mainland, but unfortunately they encountered a group of Aboriginal people who killed all the survivors except for a young crewman called John Ireland and two-year-old William D'Oyley. They were rescued two years later by Captain Lewis of the schooner *Isabella*, by which time young D'Oyley had become completely assimilated into an Aboriginal family and could no longer speak English.

Like many of the other wreck sites on the Great Detached Reef, that of *Charles Eaton* is a linear site running from the southeastern reef edge across the reef top towards the northwest (the direction of the prevailing wind). The southern end of the site is marked by a distinctive groove in the reef edge which is littered with iron kentledge and large lead ingots. Following the groove across the reef flat, the divers observed more iron and stone ballast, runs of stud-link chain, several iron anchors, a large windlass, iron staple and hanging knees, and at the northern end of the site a small iron stove.

Over the next three days the team continued surveying the reef, recording several isolated anchors and a further six shipwreck sites, but with our run of almost-perfect weather predicted to end, we decided to make the trip back to Cairns. Very pleased with what we had achieved on Great Detached, we are eager to start planning our next expedition to this area, which must have one the highest concentrations of shipwrecks recorded anywhere on the Great Barrier Reef.

The divers searched for tell-tale signs of a shipwreck: splashes of green from copper sheathing, straight lines or circular shapes caused by the hull or ship's fittings, or fragments of glass, ceramic or coal

The Far North Queensland Wreck Project 2013 was a collaborative project between the Australian National Maritime Museum, the Silentworld Foundation and the Great Barrier Reef Marine Park Authority. The project was greatly assisted by Frits Breuseker, Ben Cropp, Peter Illidge, Xanthe Rivett and the volunteer divers from the Silentworld Foundation, including John and Jacqui Mullen and Rob and Merri Chappell, along with Captain Michael Gooding and the crew of the research vessel *Silentworld II*.