Introduction
While many other atolls of the Cook Islands have been the focus of archaeological research (Bellwood 1978; Buck 1932a-b; Trotter 1974; Walter 1996), nothing substantial is known about the archaeology of Suwarrow Atoll in the Northern Cook Islands apart from Bellwood's (1974: 198) mention of a 1929 discovery of a tanged basalt adze found on Anchorage Islet.

Suwarrow Atoll (13°25' S, 163°08' W) has a continuous reef with a single passage in the northeast. The islets on Suwarrow are small (combined landmass approximately 1.7 sq km) and do not have a large groundwater lens. A number of Europeans stranded there during the 19th century had trouble surviving, unable to obtain water, unless provided by a still (Sterndale 1867 [Anon 1935]; Chave 1872 [Chave 1873; Langdon 1969]).

After World War II Suwarrow achieved fame as the home of the New Zealand hermit, Tom Neale, who stayed there on his own from 1952 to 1954 and again from 1960 to 1963. His experiences were documented in his book *An Island to Oneself* (Neale 1966). Today, the atoll is a nature park and still uninhabited bar a caretaker family; the atoll is only visited by Cook Islands government patrol boats and passing yachts.

The atoll has been severely affected by cyclones in the past (Allen 1922: 500; Carter 1984: 68). Such heavy typhoon impact would reduce site survival and thus recognition and hence hamper any modern survey. Extensive subsurface testing might yet reveal *in situ* deposits.
Historic background

All European contact found the atoll uninhabited. Suwarrow was discovered for European eyes on 27 September 1814 (Orthodox calendar date: 10 October) by the Russian Mikhail Lazarev in the vessel *Suvarov* (Anon. 1816). He found the island uninhabited, but found 'tropical fruit,' coconuts and seafowl (Anon. 1816) as well as rats (Sterndale 1877a). Likewise, when the whaler *Gem* was wrecked in 1849, no evidence of human settlement was found (Anon. 1849). In the intervening period two whalers are on record as having sighted Suwarrow in 1835, but did not land (Price 1837; Parker 1838).

After 1849 a steady stream of visitors, both shipwrecked and intentional, arrived on the atoll (Table 1). None of these report the presence of human settlement. From that time onwards several pearling operations were mounted, leading to Suwarrow’s pearl oyster stocks being one of the most depleted in the Cook Islands (Sims 1992).

In 1867 Handley Bathurst Sterndale established a pearl shelling enterprise on Suwarrow. Immediately after being placed ashore with some provisions and a small crew, but without a seaworthy boat, he had been abandoned on the island by his business partners who expected him not to return. Rescued by the notorious William Henry “Bully” Hayes, Sterndale aimed at returning to Suwarrow and establishing a pearling and trading business there.

In 1871 and 1872 Sterndale wrote a newspaper serial for the *Australian Town and Country Journal*, a Sydney weekly paper (Spennemann & Downing 1999; 2001) and in 1873 and 1874 wrote an article series on Pacific matters for the Auckland *Daily Southern Cross* as well as for the *New Zealand Herald*. Yet Suwarrow continued to pre-occupy his mind.

This is not the place to retell Sterndale’s obsession with Suwarrow. Suffice to say that in 1874 Sterndale successfully persuaded the Auckland trading firm Henderson & Macfarlane to set up a trading station on the atoll with himself in charge (as an equal partner as he later claimed). Sterndale cleared part of the most suited islet, Anchorage Island, and established a trading station. He put together the frames of a pre-fabricated residence, and erected a little concrete, earth—and—timber fort overlooking the anchorage. In this fort he mounted three cannons. A brick water tank was erected to catch the precious rainwater. In the centre of the island he established a garden and a plantation.
During this land clearing Sterndale encountered several remains, which are the focus of the paper. Business disagreements led to Sterndale's recall in 1876. When he refused to leave, a ship was sent to forcibly—and successfully—effect his removal, with subsequent legal action. In 1877 Sterndale sailed for San Francisco, where he died Christmas Day 1878 (Spennemann and Downing 1999; 2000; 2001). Henderson & MacFarlane continued to run the station on Suwarrow (Figure 1).

![Figure 1. The Henderson and MacFarlane trading station on Suwarrow as photographed by Fanny Stevenson in 1889.](image)

**Observations by Handley B. Sterndale**

In 1877, upon return from Suwarrow and while waiting for a settlement of the dispute with Henderson & MacFarlane, Sterndale took up his journalistic career again. He contributed an article series 'A lone land, and they who lived on it' to the *New Zealand Herald*. In the third instalment he provided the following description of the interior or Anchorage Islet;

"Now this islet was covered with tall forest, chiefly, of a sort of banyan trees, overgrown with gigantic creepers and surrounded by a dense and matted underwood, but towards the centre thereof was a circular space of several acres, altogether clear of trees, but encumbered by an impenetrable thicket. On examining this place I found it to be good soil, and likewise being well sheltered, I caused the brushwood to
be cleared entirely from it, intending to plant there taro and bananas. When laid bare the ground presented the appearance of a perfect level, with there and here what seemed like low lines of kerb stones, just appearing above the soil. Several funnel-shaped pits, five or six feet deep, and some large rocks laid like tombstones. It was a weird looking spot being entirely shut in on every side by tall trees, covered to their utmost tops with dark green creepers, so dense as to give to the forest the appearance of an old wall overgrown with ivy. I caused to be removed the heap of stones. And there under a great flat slab we found a musket of a very old fashion. The form of the stock and barrel were still well preserved but too far decayed to bear handling. The only part entire was a part from the breech and the flint, which was a white one and which was very large and much worn.

The appearance of the funnel-shaped pits was such as to cause me to suppose that they had been dug for water, and with the same view I had them cleared out again, when to our great surprise we perceived them to be lime-kilns, in one of which still remained about three feet of burnt lime, but so very old as to have almost returned to the consistence of stone. Our next task was to remove the rows of what appeared to be kerb stones, which resulted in a still more extraordinary discovery forasmuch as they proved to be the tops of sunken walls built of very large stones in lines parallel or at right angles to one another, and intended evidently as the outer face of certain huge platforms some forty feet long by twenty feet wide. These had been constructed by filling the enclosures between the walls with water worn pebbles until within a foot or so of the top of the walls, the pouring over it a concrete of lime and gravel until level with the walls. I imagine these platforms to have been constructed as foundations upon which had been houses of wood or other perishable materials, which might have been destroyed by fire or decayed entirely by lapse of time so as to have left no trace of their existence. The concrete was so solid that I caused it to be broken up in great slabs and used as building stone on other works. Underneath it in one place I found an iron bolt reduced to rust; it had been about 18
inches long, and of the thickness of a man’s arm. Also, not very far from thence were found, in a pit below the surface, several skeletons; in the hands of one was clutched an iron bolt, about nine inches in length by one in diameter. In the same pit was found an iron tomahawk, rudely manufactured from a shackle link of a large chain, human bones and fragments of barbarian implements are to be found all over the islet even to a depth, in some places, of eight feet beneath the surface of the soil” (Sterndale 1877b).

Sterndale speculates that these were the remains of Europeans, who had visited the atoll before the ‘discovery’ by Lazarev in 1814 and who ‘may have exterminated some tribe of aborigines’ due to the scattered human bones encountered by him while digging. Other evidence of prior human occupation were the ‘rotten stumps of ancient cocoanut groves’ which he encountered on the island (Sterndale 1877b). The construction technique, especially the coral concrete, led him to believe that these foundations were not the works of the Cook Islanders, but of ‘civilised people,’ most probably Spanish buccaneers (Sterndale 1877c).

Just as Sterndale implied a Spanish construction, Robert Langdon has argued on the same evidence that the crew of the Pandora cutter which disappeared off Palmerston Island in 1791 must have reached Suwarrow (Langdon 1962: 80; Maude 1968: 113).

**Interpretation**

The construction of the stone platforms, including the description of what appeared to be rocks laid like tombstones, matches the archaeological descriptions of many paepaes and maraes of the Cook Islands (Buck 1932a-b; Trotter 1974; Bellwood 1978; Walter 1996), described in use by Lamont (1867). The structures commented on by Sterndale are most probably house platforms (paepae). What deviates from all archaeological and ethnographical observations, however, is Sterndale’s claim of mortar and lime use in the construction of the pavement.

In the Southern Cooks the use of coral lime cement is said to have been introduced by the Christian missionaries in the 1820s (Trotter 1974: 104). Coral lime cement-covered platforms have been reported from Atiu (Trotter 1974: 113-116), dated there to be of post-contact construction or at least post-contact refurbishment.
The ‘funnel-shaped pits’ encountered by Sterndale were most likely earth-ovens. The absence of volcanic rock suitable for oven stones meant that atoll dwellers had to rely on coral limestone as heat retainers. Coral limestone disintegrates under heat and, if heated high enough, forms lime. Earth ovens on atolls commonly exhibit a thick layer of coral limestone dust and debris, which at their base may become hardened by percolating rainwater (pers. obs).

The fact that the vegetation covering the platforms is described as ‘brushwood’ suggests that some, but not too much time had elapsed since the settlement was given up - otherwise larger trees would have grown.

The ‘tomahawk, rudely manufactured from a shackle link of a large chain’ sounds very much like an iron adze, again suggesting a post-contact age which is corroborated by the find of parts of a musket, and the corroded iron bolt. We do not need to put too much store into the dimensions, particularly the thickness of corroded iron artefacts, as corroding iron expands in volume. The presence of iron artefacts in subsurface sites dates them unequivocally to a post-European contact period.

The presence of European material on the islands is also corroborated by anecdotal evidence: a friend of Sterndale’s, Henry Mair, worked as supercargo on the vessel Ryno sent to forcibly remove Sterndale from Suwarrow in November 1876. Mair, refused permission to leave the ship to see his friend, swam ashore in the middle of the night. Upon reaching the shore he heard a metallic sound which, upon investigation, proved to be Spanish silver coinage dug up by a turtle laying eggs in the sand. Mair reputedly took a few of the rings and coins and covered up the rest of the treasure for retrieval at a later, more convenient time. The coins turned out to be Spanish silver dollars (Mair 1917; Jackson 1935: 61). (Henry Mair never returned to Suwarrow to claim the rest of the treasure. Engaged in the labour trade for Fiji, Mair was killed on Espiritu Santo during a recruitment operation in 1881 (Cowan 1936: 95)).

European contact with the Northern Cooks occurred in 1595 on Pukapuka, 1606 on Rakahanga, 1788 on Tongareva (Penrhyn), 1803 on Nassau, 1816 on Suvarrow, and 1822 on Manihiki.

The presence of scattered human bones, presumably burials disturbed during Sterndale’s gardening and palm planting activities, and the finds of ‘barbarian implements’ on the islet suggests prehistoric occupation. This is strengthened by the fact that Lazarev encountered rats in 1814, which are a good indicator of
prior Polynesian occupation (cf. Spennemann 1997) and the find of the tanged basalt adze (Bellwood 1974: 198).

Reliability of Sterndale as a source
Elsewhere it has been argued that Handley Bathurst Sterndale’s published record needs to be read with a great deal of caution, as he mixes up places and events for maximum effect with the readership (Spennemann & Downing 2000a). For example, he claimed to have been on Pohnpei and Kosrae, which apparently he was not. Yet his treatise on the ruins in the Carolines is—for his time—an excellent scholarly compilation of the published, but dispersed knowledge presented in a broad sweep never attempted before (Spennemann & Downing 1998). A description of an excavation on Tongareva reported elsewhere (Spennemann 2000) was never published during his lifetime and is derived from notebook material and is believed to authentic. There is no reason to assume that Sterndale’s observations on Suwarrow are untrue.

Epilogue
The story of Mair’s find of treasure on Suwarrow soon circulated the Auckland waterfront (cf. New Zealand Herald (Auckland) 13 February 1877, p. 2; ibid. 19 February 1877, p.2). The story of a buried treasure on Suwarrow never died and caused repeated expeditions to be sent out. The 1936 publication of James Cowan’s book ‘Suwarrow Gold’ narrating the events on Suwarrow sparked another treasure hunt which was widely reported in the New Zealand press (Anon 1938a; 1938b; 1938c). Curiously enough, even though—predictably—no treasure was found, that expedition found ‘here and there ruins of ancient houses or forts, made from a mixture of coral and lime although the atoll had been used in the 16th century by wandering Spaniards as a base for their enterprises, the origin of the ruins was still clouded in mystery’ (Anon 1939). Given Sterndale’s obsession with Spanish ruins and finds in Oceania it is only fitting that the remains of his own construction should be misconstrued as such some 60 years after his death!

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Parker. 1838. Log book of the the whaler *Addison* 1834 to 1838. *Pacific Manuscripts Bureau Microfilm* PMB 571.


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Wight. 1853. Log book of the whaler George and Susan 1848–1852. Pacific Manuscripts Bureau Microfilm PMB. 328
Table 1. Vessels known to have visited or sighted Suwarrow Atoll until Sterndale's departure in 1876.

<table>
<thead>
<tr>
<th>Date</th>
<th>Ship</th>
<th>Captain</th>
<th>Type</th>
<th>Landed?</th>
<th>Source</th>
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<tr>
<td>1814, Sep 27</td>
<td>Suvarov</td>
<td>Mikhail Lazarev</td>
<td>Explorer</td>
<td>yes</td>
<td>Helm &amp; Percival 1973</td>
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<tr>
<td>1835, Apr 7</td>
<td>Addison</td>
<td>Parker</td>
<td>Whaler</td>
<td>no</td>
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<tr>
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<td>India</td>
<td>Price</td>
<td>Whaler</td>
<td>no</td>
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<td>1849, Jan 23</td>
<td>Gem</td>
<td>Worth</td>
<td>Whaler</td>
<td>wrecked</td>
<td>Anon.1849</td>
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<tr>
<td>1849/50</td>
<td>Elizabeth</td>
<td>Barker</td>
<td>Whaler</td>
<td>yes</td>
<td>Anon.1850</td>
</tr>
<tr>
<td>1851, Mar 24</td>
<td>Canton Packet</td>
<td>King</td>
<td>Whaler</td>
<td>no</td>
<td>King 1853</td>
</tr>
<tr>
<td>1851, Oct 3</td>
<td>George &amp; Susan</td>
<td>Wight</td>
<td>Whaler</td>
<td>no</td>
<td>PMB 328</td>
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<tr>
<td>1855</td>
<td>Carolina Hart</td>
<td></td>
<td></td>
<td>yes</td>
<td>Sterndale 1877</td>
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<tr>
<td>1855</td>
<td>Dart</td>
<td>Samuel S. Sustenance</td>
<td></td>
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<td>Sterndale 1877</td>
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<tr>
<td>1857, Mar 2</td>
<td>Frances Henrietta</td>
<td>Francis D. Drew</td>
<td>Whaler</td>
<td>attempt</td>
<td>Little 1870</td>
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<td>Pearler</td>
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<td>James Maury</td>
<td>H Grey</td>
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<td>Wetherall</td>
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<td>Anon.1935</td>
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<td>Rona</td>
<td>William Hayes</td>
<td>Trader</td>
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<td>1873</td>
<td>Tahitian vessel</td>
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<td>Ellicot</td>
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<td>Kreimhilda</td>
<td>Sinclair</td>
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<td>J S Black</td>
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<td>Bower</td>
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<td>Metcalfe</td>
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