

Additional Evidence for pre-1788 Visits by Pacific Islanders to Norfolk Island, South-West Pacific

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ABSTRACT. One of F.D. McCarthy's earliest professional papers was a report of stone tools on Norfolk Island which he interpreted as evidence for pre-British visits by Pacific Islanders, probably from Polynesia. Since McCarthy's paper (1934), additional artefactual, biological and historical evidences have supported his original conclusions. The present paper describes further finds and concludes that the evidence is firmly in favour of Pacific Islanders visiting and using the Kingston area of Norfolk Island about 700 years ago and, probably, again at a later date. These visits originated in the East Polynesian area, possibly the Society or Cook Islands and New Zealand, though a landing from Melanesia cannot be ruled out. Why there was no population on Norfolk at the time of its discovery by Cook in 1774 remains unanswered, but the answer probably lies in a range of factors. Further progress on understanding the island's prehistory requires the location and excavation of *in situ* deposits.

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Norfolk Island was one of the few Pacific islands that was uninhabited at the time it was first visited by Europeans. Yet circumstantial evidence for earlier visits to and possibly occupation of the island by Pacific Islanders was reported from the first days of the British penal colony established there in 1788 (*cf.* Thorpe, 1929). In one of his first publications F.D. McCarthy (1934) described the discovery of flaked stone tools in the Emily Bay area of the island (Fig.1). Reviewing these finds in the light of archaeological and historical evidence, he concluded that these tools most likely indicated that Pacific Islanders, probably from East Polynesia, visited and perhaps settled the island some time before Cook's visit in 1774.

A review of historical evidence and finds reported

from the late 18th century onwards, combined with the results of a brief field survey in 1976, supported McCarthy's interpretation, suggesting that the island was visited at least once, possibly twice, by people from East Polynesia prior to 1774 (Specht, 1984). Stone tools of forms paralleled in Australia and Melanesia were discounted as evidence for landings from those areas, and their arrival on the island after 1788 was tentatively accepted. Subsequent work by biologists in the Kingston area (Rich *et al.*, 1983) revealed evidence at about 700-800 years ago for a major burning episode that might have been caused by human activity, and the appearance of the Polynesian rat (*Rattus exulans*), which is widely regarded as a commensal of humans in the Pacific (e.g., Williams, 1973; Roberts, 1991). The radiocarbon dates

for these events were consistent with the interpretation of the archaeological surface finds (Meredith *et al.*, 1985).

In this paper I report new evidence for landings on Norfolk prior to colonisation by the British in 1788. These include a painting in the Natural History Museum, London, which may be the oldest visual record of evidence for a pre-British Polynesian visit to the island,

together with a range of stone adze blades found more recently. In addition, there are records of two shell artefacts found in the Kingston area which suggest contacts with Melanesia rather than a Polynesian point of origin. The circumstances of their discovery raises the possibility that they may have reached Norfolk before 1788. The paper concludes, however, that most of the evidence supports East Polynesian visits to and use of

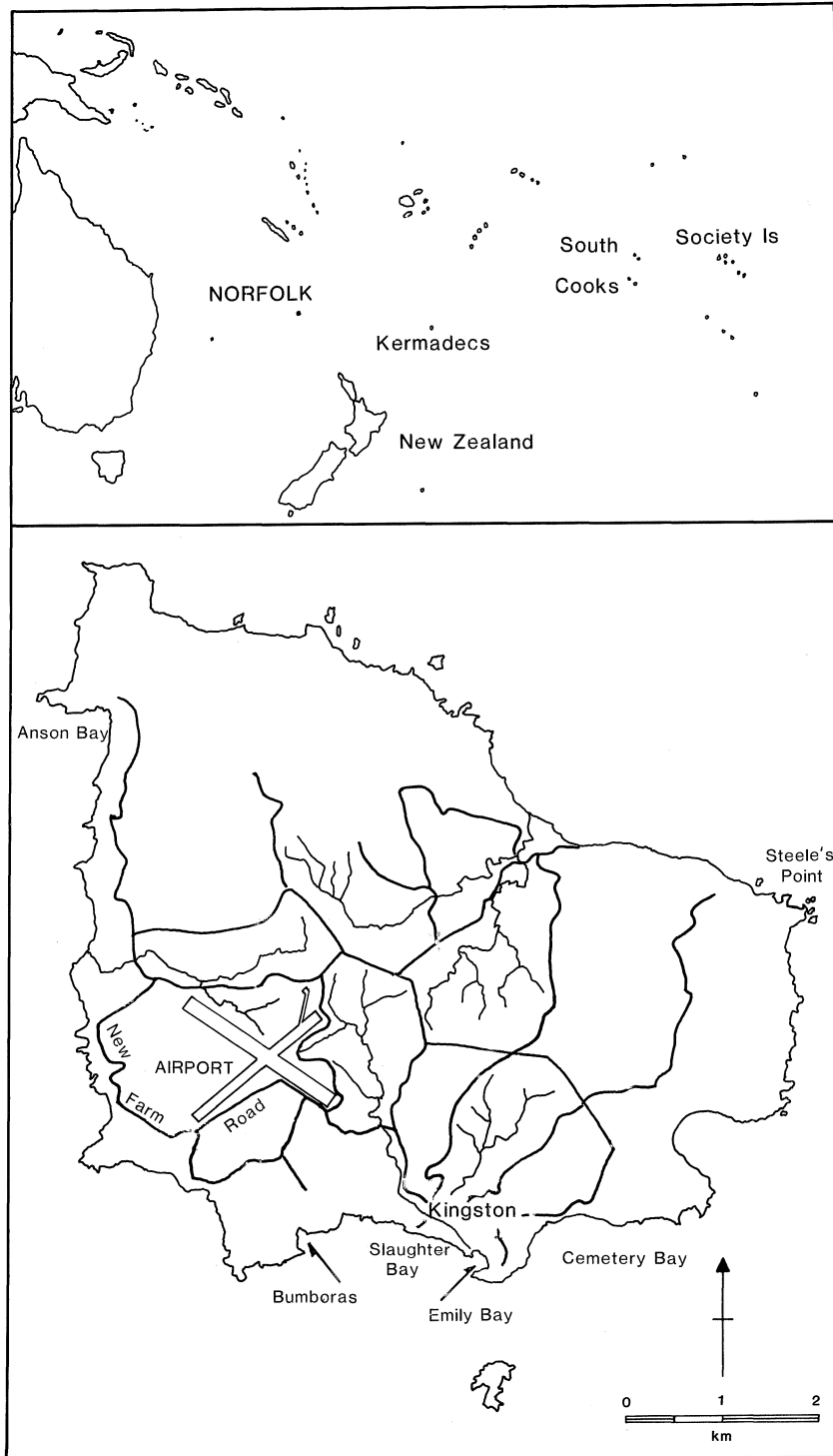


Fig.1. Map of Norfolk Island showing localities mentioned in the text.

the Kingston area about 750 years ago. Comparisons with finds reported from Raoul island in the Kermadecs reveal some points of similarity, which in turn raise questions about the manner in which the two islands were visited. Irwin's (1992) work on Pacific navigation and colonisation opens new avenues for discussing prehistoric exploration of the Pacific. Islands like Norfolk undoubtedly featured in this, and the overall weight of the archaeological evidence from Norfolk supports his arguments. Thus, while Norfolk holds geographically a marginal position, its actual significance in understanding issues about the settlement of the Pacific may be more central.

Additional notes are listed in the Appendix.

The 'Watling' Painting

What may be the oldest surviving visual record of a prehistoric Polynesian find from Norfolk Island is shown on painting 79 (formerly no. 88) in the 'Watling' collection of the Zoology Library, Natural History Museum, London. This is a water colour of a stone adze blade. The undated and unsigned painting carries the inscription 'A Norfolk Island Hand adges' (sic). The painting is 275 mm long and 145 mm wide (Fig.2).

This painting, which has been inspected in photographic form only, depicts a stone adze blade similar to Duff Type 1 forms from early East Polynesian contexts (Duff, 1959:128). This is consistent with the discovery of a Type 1A preform in the Slaughter Bay area at Kingston (Specht, 1984:fig.13A).

Thomas Watling was an artist who was sentenced in 1789 to 14 years deportation from Britain for forging bank notes. He arrived in the colony of New South Wales in October 1792 (Gladstone, 1938:89), one year after the first reports of finds of stone tools on Norfolk Island (Specht, 1984:12). In Sydney Watling worked for Surgeon-General John White until White returned to England in 1794. Watling painted scenes of Aborigines, views and natural history specimens from the Sydney area. He was pardoned in 1797 and left the colony in 1801.

The 'Watling' collection contains 123 paintings actually

signed by Watling, and a further 389 unsigned works. The history of the collection is complex and confused. Dutton (1974) suggests that White took the collection to England in 1794, seven years before Watling left the colony. Although the collection is loosely named after Watling, there is no evidence to suggest that White's collection contained works only by Watling. Indeed, according to Dutton, some are clearly by other artists, and some dated items must have been executed before Watling was even sentenced to deportation. The Natural History Museum received the collection from a James Lee of Kensington in 1902 (Gladstone, 1938:109-110), by which time items may have been added to or removed from the collection. This obviously leaves the ascription of painting 79 to Watling open to question; likewise, its precise age cannot be determined.

Other Finds Reported from Norfolk Island

Since the publication of my 1984 monograph, other finds have been reported from Norfolk Island. Some are known only from photos and sketches sent to me by various people (items 1 to 6), and their descriptions and illustrations are, therefore, less than complete; others I have actually inspected (items 7 to 12).

Items Not Inspected

(1) A stone blade registered as 1903.10-20.1 in the Ethnography Department, Museum of Mankind, London, is attributed to Norfolk Island. This item is known only from the register entry, a copy of which was supplied by Dr M. O'Hanlon who reported that the item could not be relocated at the time of our correspondence. The register entry describes it as 'long adze blade of black basaltic stone', followed by the attribution 'Paiiti Maori from Urenui Norfolk Island'. The word 'Paiiti' may be a misspelling for 'patiti', a Maori term for 'hatchet' (Williams, 1892:130). 'Urenui' probably refers to the Urenui area of the Taranaki district of New Zealand, since no place of this name is known on Norfolk itself. The register entry, the source of which is not indicated, may be simply a comparative statement between item

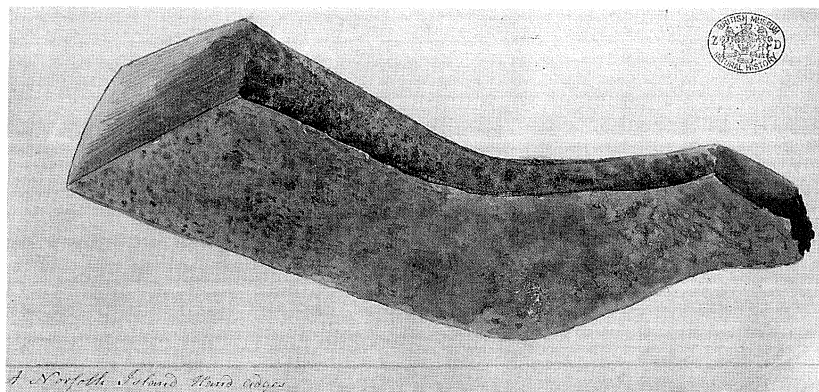


Fig.2. Painting 79 in the 'Watling Collection', Zoology Library, Natural History Museum, London.

1903.10-20.1 and New Zealand examples of similar stone adze blades.¹

(2) A possible example of a Duff Type 4A adze blade (Duff, 1959:137,fig.6; cf. Leach, 1990:fig.4) has been reported by Mrs M.J.(Honey) McCoy from the Bumboras area of Norfolk, near Creswell Bay just west of Kingston. This item was found in 1987, and is known only from a water colour painting of the tool by Mrs McCoy which was sent to me by Mrs M. Hoare of Norfolk Island (Fig.3). The tool is about 300 mm long, 30 mm wide at the cutting edge, up to 40 mm thick and weighs about 2 kg (on the water colour, the dimensions are given in mm; I assume this is incorrect). According to Mrs Hoare (*in litt.* 27 May 1987), the blade was found protruding from the ground, not far above the beach at Bumboras, just east of Kingston.²

(3, 4) Two stone adze blades held by Albert Buffet's family were reported in 1984 by R.J. Varman, then working on Norfolk as an historical archaeologist (*in litt.* 16 July 1984). They appear from photographs and drawings supplied by Varman to be ground basalt tools (Figs 4,5). One resembles a Duff Type 2B form (Duff, 1959:133,fig.3); the other has a narrow cutting edge and probably a round cross-section similar to Duff Type 6A (Duff, 1959:141,fig.8).

The findspots of these two tools are not known. According to Varman (*in litt.* 2 Aug. 1984), they have been in Albert Buffet's family for several generations.

(5) A possible artefact is reported by Gil and Mavis Hitch (*in litt.* 16 July 1986), who kindly provided colour prints of it (Fig.6). This is a heavily weathered piece

of basalt found 'off New Farm Road' in May 1986. From a drawing supplied by Varman, it is 405 mm long, 150 mm at the widest point and up to 80 mm thick. It resembles E.36959 held by the Australian Museum and found in 1934 in the garden of T.E. Adams house, near the present Seventh Day Adventist church (McCarthy, 1934:267,pl.1). While E.36959 has some evidence of faceting indicative of human workmanship, the available photograph of the Hitch specimen does not allow an assessment of its origin.

(6) R.J. Varman (*in litt.* 28 Apr. 1985) reported that Mr Leo McCoy of Norfolk Island holds a flaked and ground stone adze blade found by a man called Toadhie near Lots 9 and 10 at Steele's Point (Fig.7). From the drawing and photos supplied by Varman, the form appears similar to a Duff Type 2B (Duff, 1959:133), and is about 115 mm long, 70 mm wide and 30 mm thick.

Items Inspected

(7, 8) Over some years Bob Tofts, a Norfolk Island resident, has found in the sea at Kingston several definite and some possible tools made from volcanic rock. In letters and conversations between Specht, Tofts and L.Q. Brown, the precise origin of these finds has been variously referred to as Slaughter Bay, Cemetery Bay and, on the basis of the find spot marked on a photocopy of Bradley's chart of the area in 1788 supplied by Brown, Emily Bay (L.Q. Brown, *in litt.* 27 May, 12 & 16 July 1991). Although there appears to be some confusion

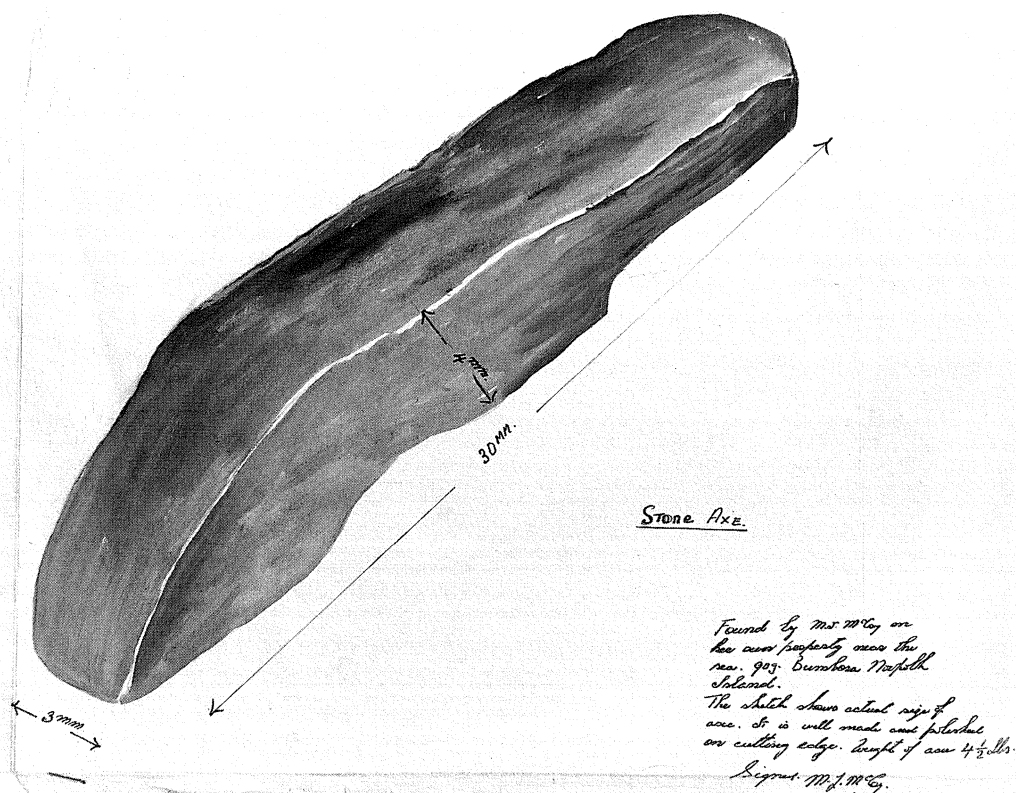


Fig.3. Water colour by Honey McCoy of stone tool found at Bumboras, Norfolk Island.

about the precise findspots of these items, they can be safely attributed to the Kingston area.

Of 14 items sent to Specht for inspection, most have been weathered in the sea and some are heavily rolled pieces without evidence for working. Other heavily-weathered pieces may be unfinished adze preform

fragments, and there are two struck flakes that carry possible retouch along one margin. Only two items are definite artefacts. One (Fig.8), labelled no. 6 in the Tofts' collection and weighing 35.6 grams is a fragment of a fully-ground chisel-like implement with a round to plano-convex cross-section recalling Duff Type 6A (Duff,

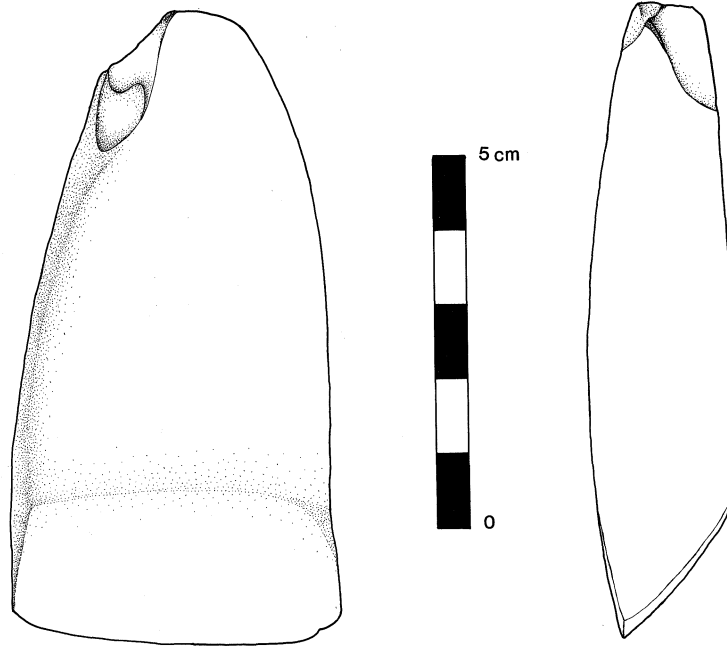


Fig.4. Stone tool from Norfolk Island held by Alfred Buffet, find spot unknown.

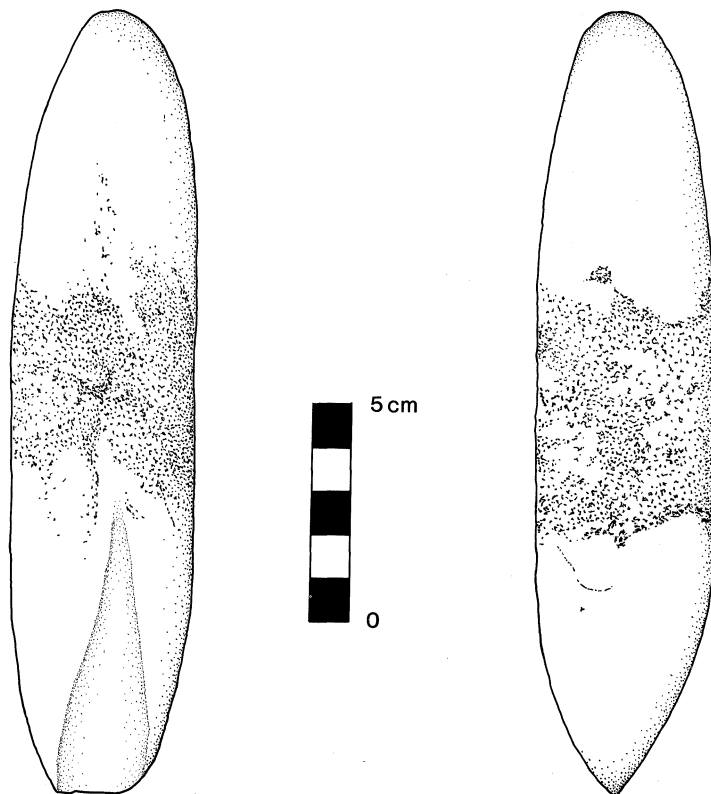


Fig.5. Stone tool from Norfolk Island held by Alfred Buffet, find spot unknown.

1959:141,fig.8). Its extant length is 55 mm, with a maximum width and thickness of 20 mm. The other (Fig.9), no. 4 in the Tofts' collection, is a flaked adze preform that has been broken and repaired. It weighs 108 grams, and is 120 mm long, 27 mm wide and 21 mm thick. It is similar to Duff Type 3G (Duff, 1959:137,fig.5). It also recalls E.36960 from Emily Bay in the Australian Museum collection (McCarthy, 1934:pl.2,no.1; Specht, 1984:fig.8B).

(9) Varman (1990:14) describes the recovery of 'part of a Polynesian stone adze...found in the middle of the primary fossiliferous' deposit in the sand dunes of Cemetery Bay (this is probably Unit C4 of Meredith *et al.*, 1985). My inspection of the stone item leaves open the question of both its human workmanship and its possible Polynesian origin. Not illustrated.

(10) A ground shell adze blade is said to have been found by Ted Clampett on or about 8 December 1984 at the sand quarry at Cemetery Bay. R.J. Varman (*in litt.* 28 Apr. 1985) states that it was found in sand at about 1.25-1.5 m below the ground surface. The tool is probably made from *Tridacna gigas* shell, a mollusc that does not occur in Norfolk Island waters (Moir, 1986). It is ground all over and has a flat, plano-convex cross-section (Fig.10).

(11) A bone point about 6 cm long, possibly of bird

bone, was found by historical archaeologist Christine Eslick (*in litt.* 2 Apr. 1981; *cf.* Specht, 1984:46, where the find is mentioned). This point was found during excavations for an electricity cable service trench across the compound of the 'new military barracks' on Quality Row, between the north wall of the compound to the north wall of the soldiers' barracks. This trench was about 15 cm wide and up to 50 cm deep. The point was found about 23 cm below the surface in a lens of sand filling a shallow depression along with fragments of coral, 'sandstone' (?calcarene), shell fragments and pieces of a metal drum. The sand lens may have been brought up from the beach to fill the depression, presumably during the time of the penal colony. Not illustrated.

(12) A fragment of a shell armband was found by Bob Tofts while diving close to the shore in Slaughter Bay (R.J. Varman, *in litt.* 16 Sept. 1983. This was sent to Specht in Sydney for inspection (*cf.* Specht, 1984:46). The fragment is part of an armband possibly made from *Trochus* sp. (*T. niloticus*?), a mollusc that does not occur in Norfolk waters. Other shell artefacts are said to have been exposed in the Emily Bay area during high seas in 1936 when what is now known as Burial 608 was exposed (Specht, 1984:32). Not illustrated.

Discussion: Origins and Ages

With the exception of the two shell items and the bone point, the items listed above are consistent with previously reported finds. The stone items from Slaughter and Cemetery Bay areas are or appear to be made from grey basalt; are both flaked and ground; include struck flakes; and, where comparisons can be made with other parts of the Pacific, most have parallels in East Polynesia. The tool reported from the Steele's Point area is consistent with some of the forms reported in the 1984 review, although the kind of rock is not known.

The stone adze blades reported from Norfolk fall into three groups: those from the Kingston area, including Cemetery, Emily and Slaughter Bays and Bumboras; those from localities outside the Kingston area; and those of unknown provenance. Those from the Kingston area cover Duff Types 1A, 2A, 2B, 3, ?3A, 3G, 4A and possibly 6A. They stand out in terms of their range of forms and, perhaps equally significant, the fact that all are of basalt and some are preforms. Those found beyond the Kingston area, on the other hand, include only Duff Type 2B, together with those assigned on stylistic grounds either to Melanesia or Australia. They cover a wider range of rock types and all may be regarded as finished implements.

For the finds of Polynesian style, a dual origin from New Zealand and from the Cook/Society islands' area can be considered (*cf.* Specht, 1984).

With the exception of Type 6A, the finds from the Kingston area replicate the suite of forms found on Raoul in the Kermadec Islands to the north-west of New Zealand (Anderson, 1981:133). Two Raoul forms (1G,

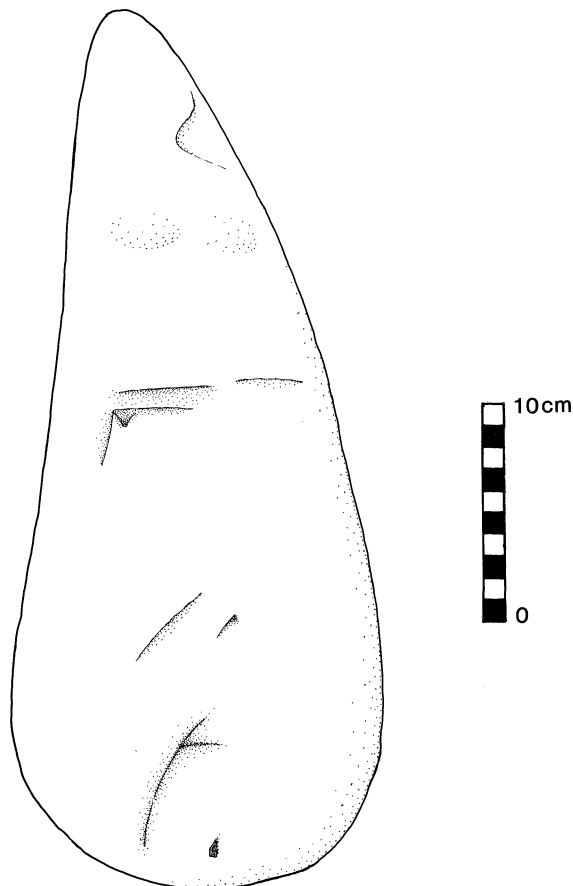


Fig.6. Possible stone tool found on Norfolk Island by G. and M. Hitch.

4C) do not occur in the Norfolk suite. Apart from one 'undoubted' Classic Maori 2B blade almost certainly from New Zealand, Duff (1968:392) felt that all but one of the Raoul finds known to him could be regarded 'as a contemporary assemblage, originating in a specific Polynesian group, which the writer [Duff] would nominate as the Southern Cook Islands', or could have been made

on Raoul in the Southern Cooks tradition. Anderson (1981:136), noting that no single Polynesian group contains all of the Raoul forms, opted for a late first millennium AD origin from a Society Islands' source for some items, and for others an early second millennium AD origin in central Polynesia or New Zealand. More recently, Anderson (1991:784) appears to accept a single

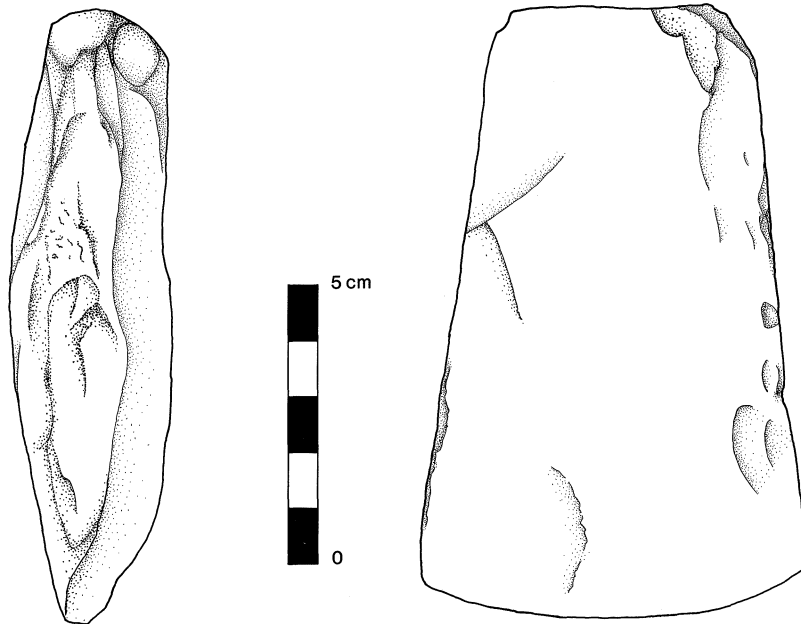


Fig.7. Stone adze blade found by Toadhie at Steele's Point, Norfolk Island.

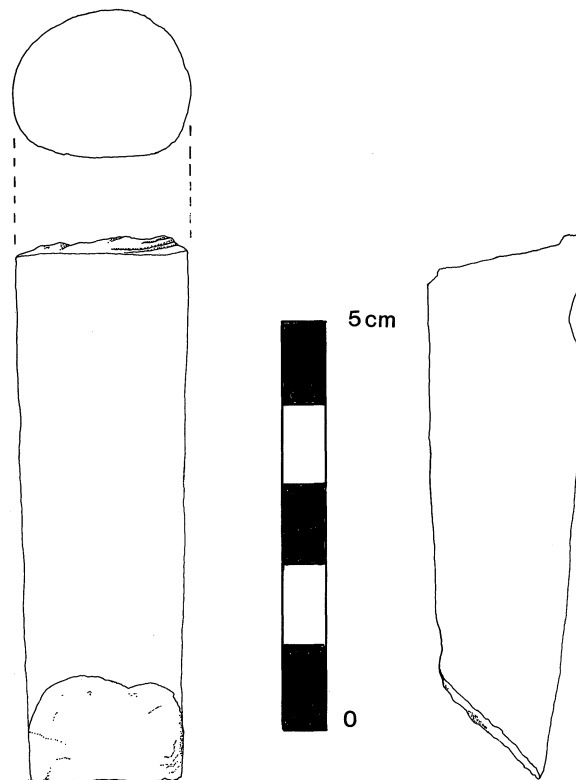


Fig.8. Stone tool no. 6 found by B. Tofts underwater at Kingston/Cemetery Bay, Norfolk Island.

landing between about AD 1300 and 1400 (550-650 BP). Geochemical analyses of obsidian finds on Raoul and in New Zealand support the New Zealand contacts (Anderson & McFadgen, 1990).

Neither the shell adze blade nor armband fragment fit comfortably into an early East Polynesian assemblage. *Tridacna gigas* shell adze blades did not form part of the regular tool kit of East Polynesians (Moir, 1986), though two shell blades of forms quite different to the one from Norfolk are alleged to have been found in New Zealand (Skinner, 1920). They do occur in West Polynesia and among the Polynesian Outliers (Poulsen, 1987:179-181 for a summary; Moir, 1986), but none is similar to the Norfolk example. *Tridacna* shell adzes of forms loosely comparable to the Norfolk Island example occur widely in Melanesia (e.g., Kirch & Yen, 1982), but the Norfolk example seems an unusually massive version. *Trochus* armbands are likewise not found in East Polynesian contexts, although this form of artefact also occurs widely in Melanesia (cf. Poulsen, 1971:43).

The two shell items thus open up possibilities of contacts with areas other than East Polynesia, but for neither item can a specific source point be proposed. Some stray finds of stone tools of 'Melanesian' or 'Australian' forms may have reached Norfolk after the establishment of the penal colony in 1788 or the Melanesian Mission School in 1866 (Specht, 1984; cf. McBryde & Watchman, 1993). This explanation might

be applied to the two shell items also, were it not for circumstantial evidence.

The recovery of the shell armband fragment from Emily Bay introduces a new dimension to the discussion. It seems improbable that Emily Bay would have been used for burying, with their shell artefacts, people from the Melanesian Mission School. This is the general area where burials allegedly with shell artefacts were exposed by high seas in 1936 (Specht, 1984). While there is no evidence to relate the armband fragment with any of the burials exposed in 1936, the possibility remains that the fragment was associated with them. Of the remains exposed in 1936, only one set was recovered and this was reburied in the island's cemetery as Burial 608 (Specht, 1984:32). Bulbeck and Groves (1984:62), however, found no conclusive evidence that these are the remains of a Polynesian, although they note the combination of European and Oceanic morphological traits.

At the time the 1984 monograph was published, only a preliminary radio-carbon age result of 'about 250 years ago or more' was available for these remains (Specht, 1984:46; J. Head, personal communication). The final age determinations are as follows:

ANU-7651A (apatite fraction)	460+/-160 years bp
ANU-7651B (collagen fraction)	380+/- 60 years bp

The calibrated value for ANU-7651B, using the 10 year interval of Stuiver and Becker (1986) at one sigma

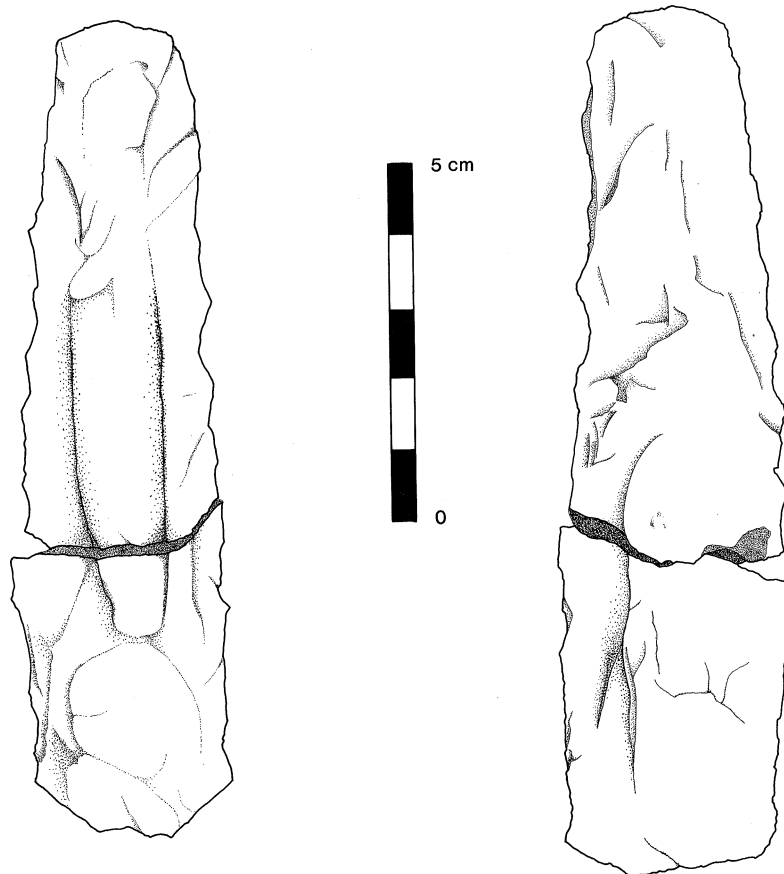


Fig.9. Stone tool no. 4 found by B. Tofts underwater at Kingston/Cemetery Bay, Norfolk Island.

is Cal BP 512 (474) 320. The armband fragment could have an antiquity similar to that of Burial 608, suggesting a possible non-Polynesian contact with Norfolk about 450-500 years ago, about 250 years before Cook visited the island and about 350 years before the establishment of the mission school.

The shell adze blade from the Cemetery Bay sand quarry is the only artefact found on Norfolk for which a sub-surface context has been proposed. This alleged context strengthens the possibility of a non-Polynesian visit to Norfolk prior to establishment of the penal colony in 1788.

Palaeobiological investigations of the sand dunes in the Cemetery Bay area have revealed 'a wind transported dune sand', designated as Unit C4 by Meredith et al. (1985:305; cf. Veevers, 1976; Abell & Falkland, 1991:9). The depth below ground surface of a palaeosol on this old dune varies according to the micro-topography, but at about 1.5 m is similar to that alleged for the shell adze. Unit C4, especially the palaeosol, contains much carbonised wood and many bones, including several extinct bird species and those of *Rattus exulans*. The

latter, which first appears at about 195 cm below ground surface in the lower part of Unit C4, is widely considered to be a commensal of humans, to whom it may owe its pan-Pacific distribution (Rich *et al.*, 1983; Roberts, 1991; Williams, 1973). Elsewhere in the Pacific, the arrival of humans on small islands has often been followed by local extinction of birds (cf. Steadman, 1989; Rollet, 1992), as a result of predation or habitat modification by humans. The common occurrence of *R. exulans* in Unit C4, the abundant evidence for burning, and the extinction of several bird species thus may indicate human presence on the island (Meredith *et al.*, 1985).

Four charcoal samples collected by Meredith from 110-125 cm below ground surface in the palaeosol at the top of Unit C4 have been radio-carbon dated (Meredith *et al.*, 1985:306). The results are presented here in calibrated form, using the 10 year interval calibration of Stuiver & Becker (1986) at one sigma:

I-11019	Cal BP 693 (671) 569
I-11303	Cal BP 947 (738) 670
Beta-6821	Cal BP 876 (755,754,742) 694
Beta-6822	Cal BP 757 (720,707,694) 674

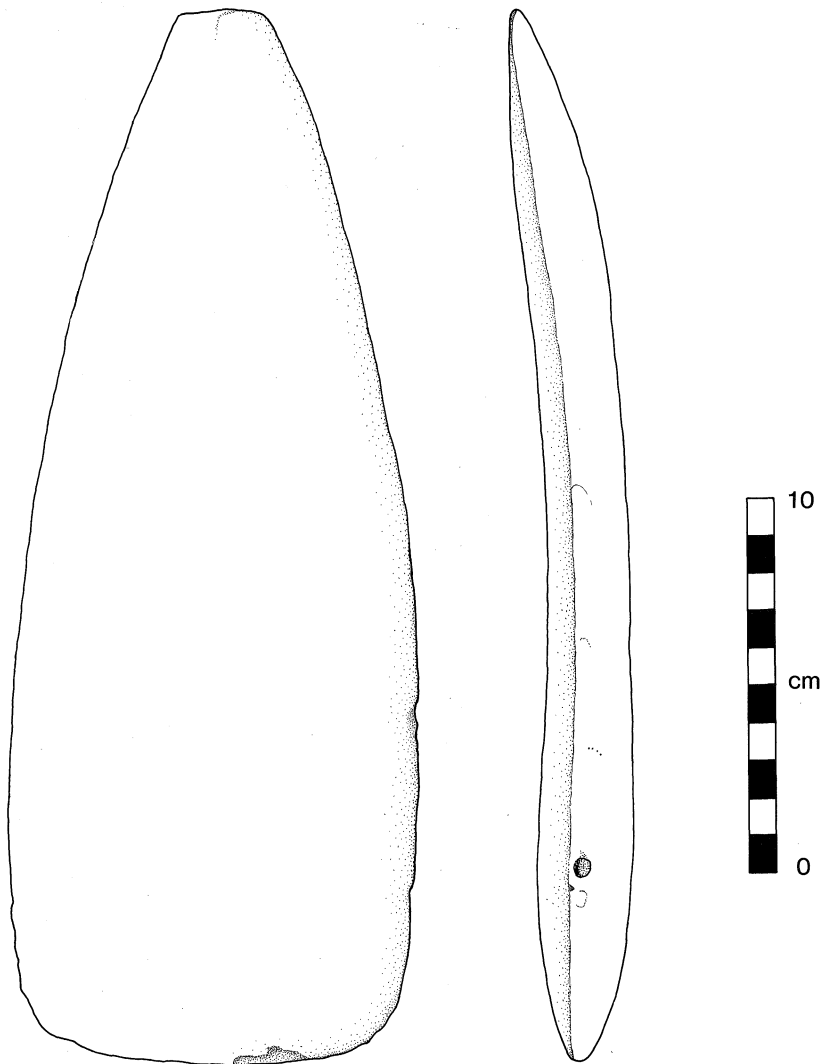


Fig.10. Shell adze blade found at Cemetery Bay, Norfolk Island.

The four dates provide a pooled mean of Cal BP 740 (725) 689. Two samples included small branches (3-4 cm diameter) of a gymnosperm, probably the Norfolk Island Pine, *Araucaria heterophylla* (Meredith *et al.*, 1985:305). The determinations can thus be considered to be close to the actual time of burning, and not to reflect the age of older heartwood. The pooled mean places the major burning episode at about 700 years ago. Since the first occurrence of *R. exulans* was about 70 cm below the level of the dating samples, we can infer that *R. exulans* and, by implication, humans reached Norfolk at some point before then, perhaps about 750 years ago. This is close to the ages of most of the stone tools inferred from comparisons with finds in East Polynesia (e.g., Duff, 1968; Anderson, 1981; Leach, 1990).

The ascription of the shell adze blade to Unit C4, based as it is on hearsay evidence, is insecure. If it is accepted, then the adze blade would also have been deposited at about this time. This would require us to accept, however, that landings on Norfolk were made from both East Polynesia and probably Melanesia within a relatively short time.

Interpretation of the date for Burial 608 opens another question: are these the remains of a person who arrived 250 years after the people evidenced at Cemetery Bay, or do they indicate that the visitors to Cemetery Bay maintained a settlement for several hundred years before extinction overcame them? The new data do not provide an answer, which must be sought through excavations of archaeological deposits.

At this stage no archaeological deposit or site of pre-1788 date has been definitely identified on the island. The density of finds in the Kingston area suggests that there must be, or have been, sites in the area. The recovery of artefacts in the inter-tidal zone and below low tide level at Slaughter and Emily Bays may indicate that archaeological deposits once existed there but have been severely damaged or destroyed by sea action. Historical records of very high tides and storm surges describe how sand has been stripped from the Kingston beaches on several occasions since 1788 (Specht, 1984). Such events probably occurred many times before 1788, progressively damaging or destroying any prehistoric deposits (*cf.* the impact of cyclonic sea surges in Queensland: Bird, 1992). Whether or not any undisturbed deposits exist inland from the beaches remains unknown, because the presence of penal colony buildings and the golf course have so far prevented excavation.

In addition to sea action, sand quarrying presents a major threat to any prehistoric sites on Norfolk. Sources of sand for construction works are extremely limited on the island. The only significant source is in the Kingston area, with only a much smaller volume at Anson Bay. The sand dunes at Slaughter Bay are protected by buildings of the penal colony period, but those at Emily and Cemetery Bays have been quarried for many years. Quarrying has ceased at Emily Bay and the area is now stabilised under vegetation, but has continued to the present at Cemetery Bay.

The extraction of sand from the Cemetery Bay dunes for a water assurance scheme became a major issue on Norfolk Island in 1990 because of the likelihood that it would destroy prehistoric archaeological and biological evidence of heritage significance (Anon, 1990; Varman, 1990). Despite this, quarrying continued because there were insufficient funds to import sand or to develop an alternative medium, and the Norfolk Island Government declined to initiate quarrying at Anson Bay. The latter decision was well-advised, for the area is relatively undisturbed and has yielded an East Polynesian Type 2B adze blade (E70679 in Specht, 1984) which may signify pre-1788 use of the area.

In May 1990, the Norfolk Island Government engaged Paul Packard, then at the Australian National University, to monitor the extraction of the remainder of the sand needed to complete the water assurance scheme. Packard's brief allowed him to suspend the extraction should archaeological evidence be exposed. His report (Packard, 1990) describes the monitoring programme, and his excavation of a small control column (50 by 50 cm) inside the quarry pit, 'as close as could be determined to the area where it was reported [by Varman] that a "handle of a basalt stone tool of Polynesian origin" had been found' (this item, discussed above, is probably not of human workmanship).

Packard's report concluded that 'No direct evidence of Polynesian visitation or occupation was found during the monitoring program', either in the control column or the random samples taken as sand was extracted. Both the control column and the sand quarrying penetrated Unit C4 within which archaeological materials could reasonably have been expected to occur; only non-human bones and terrestrial mollusc shells were observed. Although the monitoring program did not identify an archaeological deposit, the likelihood that one exists in this area remains strong. Consequently, the Norfolk Island Government has agreed to discontinue quarrying in the area.

A Broader View

These various lines of evidence leave unanswered the question why there was no permanent population of Pacific Islanders on Norfolk in 1774-1788. As two reviewers of the 1984 monograph pointed out, Islanders successfully colonised other islands which had seemingly no greater advantages of size or resources than Norfolk (Anderson, 1985; Sutton, 1985). In those cases certain demographic and subsistence essentials still had to be met. Polynesian colonisation of South Island New Zealand and the Chathams required major subsistence adjustments, and these were successfully negotiated. But visitors did not succeed in settling the climatically more benign but smaller islands of Norfolk and the Kermadecs (Duff, 1968; Anderson, 1981, 1985).

Irwin (1992) has presented a persuasive argument for the deliberate exploration of the Pacific, rather than its discovery as a result of accidental voyaging. According

to Irwin, 'if the colonisation of the Pacific was undirected, they [Norfolk and the Kermadecs] were within easy range of Lapita or early post-Lapita settlement'; indeed, he argues that Norfolk and other islands 'were not settled earlier because people chose not to sail in their directions' (Irwin, 1992:111, 209).³

Anderson's revision (1991) of the likely settlement date for New Zealand now places it close in time to the likely date of arrival of humans on Norfolk. This conforms well with Irwin's expectation, based on the longer chronology for New Zealand's settlement, 'that the Kermadecs and Norfolk should have been settled at much the same time as New Zealand, or not long after, and that they could show signs of multiple contacts, from New Zealand and from elsewhere in East Polynesia' (Irwin, 1992:111). This raises the possibility that the East Polynesian remains on Norfolk represent a voyage between New Zealand and East Polynesia which drifted off course. The contacts between Raoul and New Zealand, expressed through the stone adze blades and finds of obsidian, may be seen as evidence for two-way voyaging between them (Anderson & McFadgen, 1990). At this stage, there is no evidence to support a similar proposition for Norfolk. Whereas Raoul's existence is 'confidently asserted' as a landfall in Maori tradition (Duff, 1968:386), Norfolk has yet to be similarly identified, perhaps implying lack of success in two-way voyaging between Norfolk and New Zealand.

The Kermadecs Islands lie on the route from the Cook and Society Islands to New Zealand and, consisting of a chain of 13 islands spread over 220 km of ocean, would have presented a relatively easy target for canoes sailing in that direction. Norfolk, on the other hand, is one of three tightly-clustered islands which present a much smaller target to sailors, making the group more difficult to locate. Irwin's argument (1989) about the relative safety and success of sailing up, down or across wind is also relevant here. Norfolk lies in the unfortunate position where a voyage from the Kermadecs or New Zealand, for example, is likely to have been downwind, a strategy which Irwin (1989) regards as less likely to favour a successful return voyage. Thus, the small target size of Norfolk, its position in relation to prevailing winds, and no doubt other factors, lead to the possibility that Norfolk, like the Chathams (Duff, 1968:387), was a 'dead-end terminal of a drift route leading away from New Zealand into an empty ocean'.

The apparent failure of East Polynesians to colonise permanently Norfolk may have resulted from its small size; from the nature of the accessible food resources; from failure to transfer successfully stocks of food plants and animals that are essential to support populations on small oceanic islands; from a demographically unstable founding population; or from a combination of any of these. Irwin places Norfolk along with 20 other small islands on the 'wrong' side of his 'extinction line', falling below the threshold at which they could maintain viable populations as 'stand-alone settlements' (Irwin, 1992:177-180). Polynesian visitors may have recognised the island's inability to support a viable population and merely visited

it infrequently. Norfolk may have witnessed several unsuccessful attempts to colonise it before 1788, but discontinuity of contacts with its origin area, perhaps associated with changes in voyaging frequency or direction, doomed its population to extinction.

Conclusion

The material evidence still strongly points to East Polynesian visitors to Norfolk Island at about 700-750 years ago. Two source areas in East Polynesia are required to accommodate the range of adze blade forms (Duff Types 1A, 2A, 2B, 3A, 3G, 4A and 6A). These source areas could be the Society and/or Cook Islands, and New Zealand. The frequency of visits remains unknown, and any attempt to colonise the island was clearly unsuccessful. The date of Burial 608 could indicate that settlement was successful for several centuries, but did not survive until the British arrived. Evidence for contacts with Melanesia remains equivocal, and depend on the authority of the alleged find spot of the shell adze blade at Cemetery Bay. Irwin's recent work on voyaging, however, reveals that Melanesian contacts should not be discounted.

The new data for Norfolk do little to resolve a basic problem: no definite prehistoric archaeological site or deposit has yet been identified on the island. The density, and consistency, of discoveries in the sand dunes and on the beach flats of the Kingston area support the view that there must be, or has been, a site in this region. Neither Cemetery Bay nor Emily Bay should be written off at this stage for, with the exception of one test pit on Slaughter Beach in 1976 and Packard's control column in 1990, no systematic archaeological studies directed to locating a pre-British Polynesian site have yet been carried out.

Just as the history of the penal colony can be viewed within the wider context of the British colonisation of Australasia, so Norfolk's prehistoric use now can be seen within the wider context of the settlement of the Pacific Islands. But until archaeological excavations are carried out in the Kingston area, it will be impossible to advance much further from the conclusions proposed by McCarthy more than half a century ago, and thus give the island's pre-colonial history as much prominence as that of its darker days.

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from photos and sketches provided by Varman and various residents.

Other than the items held at the Australian Museum, the items mentioned in both this paper and the 1984 monograph remain on the island, many of them in the island's museum.

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APPENDIX

Additional notes

1. The reading of the register entry for 1903.10-20.1 is open to question. The reading *Paiiti* allows an easier explanation of an error for *Patiti* than *pauti*, for which there does not seem to be a similar Maori word.
2. The painting by Mrs McCoy is in the Norfolk Island archive in the Library of the Australian Museum, Sydney, where copies of all unpublished material cited in this paper are also held.
3. In this context it is worth noting that Cook's visit to Norfolk was 'accidental' in the sense that he was sailing from New Caledonia to New Zealand at that time.

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