



NEW ZEALAND
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NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER



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ARCHAEOLOGY IN PITCAIRN

L. R. Cowell

The 1964 archaeological expedition to Pitcairn was organised as part of the current research programme of the Bernice P. Bishop Museum and financed mainly by The National Science Foundation of the U.S.A.

Three previous archaeological expeditions, each homeward bound from Easter Island have made brief visits to Pitcairn: The Routledge expedition in 1915, a Franco-Belgian one in 1935 and the Thor Heyerdahl Norwegian-American expedition in 1956.

The first two expeditions examined supposed marae or ahu sites and the petroglyphs of Pitcairn, while the third confined its attention mainly to a cave quarry.

In view of the limited nature of previous investigations and the fact that the locations of hardly any of the known artefacts from Pitcairn had been recorded the work of the 1964 expedition was to survey the distribution of surface remains and then excavate a limited number of sites. It was hoped to relate the findings to those made previously and also view the evidence from each site in relation to the settlement data as a whole.

Topographically, Pitcairn is a volcanic island of classic form, lacking its northern rim. On the north side there is a basin where the present day settlement of Adamstown is situated. Generally the island terrain is steep: of the whole surface area 34% steeply slopes, 27% is cliff, and only 8% is flat.

The island today is very fertile and must have been in the past according to such early observers as Carteret in 1767, who did not land but he records that the island was covered in trees and had a small stream. It is also recorded that the mutineers on their arrival in 1790 found a number of food plants including 300 bread-fruit trees. R. M. Carter the geologist attached to the 1964 expedition carried out a survey of water resources and he reports that seeps and small springs are common but there are few reliable sources of water.

The result of the survey of surface evidence by the 1964 expedition is shown on the map. This surface evidence has been affected by erosion, gardening and most of all by fossicking. The Pitcairners have known for a long time that stone artefacts can be sold, but we do have the consolation that large numbers of these artefacts have ended up in New Zealand museums. The surface evidence consists primarily of basalt artefacts, pitchstone and fragments of red tuff. Occasionally there are boulders brought up from the beach for manufacturing or construction purposes and more rarely still charcoal and whelk shells (which in isolation might be of post-Bounty origin). In view of the large number of finished artefacts found in the past it is hardly surprising that so much waste material was found by the 1964 expedition. It is interesting to note that concentrations of surface material were found at or near several possible landing places.

Quarry or Source Sites

The major source of basalt on the island is at Tautama; that of pitchstone at The Rope and the red tuff is mainly from Jinser Walley cave.

The Tautama basalt is more finely grained than most of the other rocks on the island, it has very few phenocrysts and fractures sub-conchoidally, all properties which make it ideal for the manufacture of artefacts.

The Tautama quarry site was surveyed and test excavations made. As banyans are so often associated with cultural remains on Pitcairn an area near the ones on the Tautama site was cleared. This took the shape of a cruciform extending 90 metres N.E./S.W. and 125 metres N.W./S.E. Within this area stone working was particularly marked and soundings were made into the bush to discover the full extent of the working area. Within the cleared zone the surface evidence was carefully recorded and localised. From test excavations it was found that the piles of flakes were up to a metre in depth but not banded in any recognisable layers. The great variety of shapes and sizes suggests that the roughouts were made directly from boulders, and carefully shaped cores and from large flakes obtained from either. The expedition found no ground or polished tools on the Tautama site.

The pitchstone of Pitcairn is of poor quality having an irregular fracture and it appears to come from the cliffs overlooking the beach at The Rope (the same location as the petroglyphs).

The source of the tuff used for grinding and polishing the basalt artefacts is almost certainly the Jinser Walley cave on a steep cliff face some 200 metres above sea level. The cave is man-made, the tuff being mined out like a seam of coal. In the tuff debris were found basalt tools in a variety of shapes ranging from crude picks to adze forms, all with their ends evidently worn down from quarrying use.

Manufacturing and Habitation Sites

Apart from locating these raw material source sites the expedition excavated three major sites and many small ones. The major excavations were at Bill's Ground 250 metres south of Adamstown, Big Tree to Malai and Above Cabin.

Bill's Ground (site No. 640036) was discovered by the occurrence of basalt flakes and whelk shells on the surface of a garden plot. A small area was opened to an average depth of a metre. The excavation revealed a number of depressions, postholes and possible pits and two undercut pits about a metre in diameter. The fill of one of these pits contained a pearl shell fish-hook similar in form to an early Mangarevan type. The number of pits and depressions found in the small area excavated and the presence of pig, fish and bird bones in sealed contexts indicate this site would benefit from an extensive area excavation which the 1964 expedition was unable to undertake.

At Big Tree to Malai (site 640052) a preliminary survey found surface concentrations of basalt flakes, pieces of red tuff and beach boulders in a relatively clear space in a banana grove 150 metres above sea level. The place name added to the interest of the area; Big Tree obviously referring to the large banyan tree on the site and to Malai to a spur overlooking the site. Despite some large waterworn stones scattered down this slope no evidence was discovered to prove this spur to be a marae site. An area of 70 sq. metres was excavated to natural. Numerous small pits and depressions were found and one undercut pit 1.75 metres in diameter. A metre deep an oven was also excavated. Adzes, roughouts, hammer stones, awls and many primary flakes of basalt, boulders, cores, pitchstone flakes and a number of tuff polishers were recovered.

The character of the artefactual remains and the dearth of faunal remains suggest that this was an industrial site.

Above Cabin (site 640250) was of a similar nature to Big Tree to Malai. Although the banyan was missing the Pitcairners say there was one there. The site is situated in a grove of coconut palms about 60 metres up from Cabin, one of the few beaches on the island. With very much the same artefactual evidence as recovered from Big Tree to Malai it seems reasonable to suggest that this site too was once the scene of industrial activity, and considering the proximity of the beach and the large number of awls and drill points among the artefacts recovered it is likely that this was canoe manufacture.

One of the tasks for the 1964 Expedition was to locate if possible the marae or ahu of Pitcairn.

Beechey, a government official sent to Pitcairn in 1825 describes his visits to prehistoric sites in sufficient detail for his route to be retraced. According to his account he was taken to Ships Landing Point where he saw the remains of a marae with one statue.

The Pitcairners told him it had once been a stone platform with four statues. Beechey's party found nearby two human bones and several adzes.

Owing to poor documentation and the loss of their notes, the Routledge expedition failed to add anything to the archaeological knowledge of Pitcairn.

Lavachery of the Franco-Belgian expedition suggested that the marae sites were at The Edge and at Taro Ground. The 1964 expedition found nothing to substantiate this suggestion. Briefly then, the evidence of marae or ahu on Pitcairn is Beechey's account together with the broken statue now in the Otago Museum.

The 1964 expedition undertook to re-record the petroglyphs on Pitcairn by scale drawing, tracing onto polythene and taking moulds with rubber latex.

The 1964 expedition to Pitcairn was a reconnaissance in force which began to assemble the material from which the prehistory of Pitcairn will eventually be written. What stands out is the suitability of the stone and wood resources of the island for the needs of a neolithic people. It could be argued as Buck did on the basis of his study of Mangarevan tradition, that Pitcairn was visited by groups from that area because of these resources. On the other hand we must remember Sharp's point that the traditional evidence used by Buck was provided in writing by an educated Mangarevan, at a time when Pitcairn was well known to the Mangarevans from visits in European ships. It is hoped that the problem of the original settlement will be resolved by further investigation not only on Pitcairn, but also by study of all the material available in collections around the world.

See Plate V

A SUGGESTED PA TYPOLOGY

A. G. Buist

Introduction

In the recording of signs of occupation of the Maori in New Zealand, the most striking field monument is the pa, or fortified village. Whilst, in any given area, these are by no means the only signs of occupation, they appear to provide a circumscribed set of artifacts representing that phase of Eastern Polynesian Culture in New Zealand which has been defined by Drs. Green and Duff and by Mr J. Golson, as Classic Maori.

The casual recording of these field monuments has been undertaken by different workers since Europeans first landed here, and although the detailed description of a single pa has a certain fascination it is ultimately unsatisfactory. Pas were classified according to their topographic setting in the first classical study by Elsdon Best (1927) and the later study of Golson and Green (1958), but any attempt at statistical analysis of the total pas in one locality fails if topographic classification is used. Extended argument of this appears elsewhere (Buist 1964), this paper being a summary of that presented at the 11th Science Congress.

The crucial terms used have been defined as precisely as possible, in descriptive rather than interpretative words. Other field-workers may define a pa, platform or terrace in a different way, but until such time as standardized definitions are approved by Council it is necessary for each worker to make plain just what any term means.



General view on north side.



The Beach at 'Cabin.'

L. R. COWELL.



SU-Lu II Fort. Looking west along inner wall.

S. SCOTT, 1963/64.

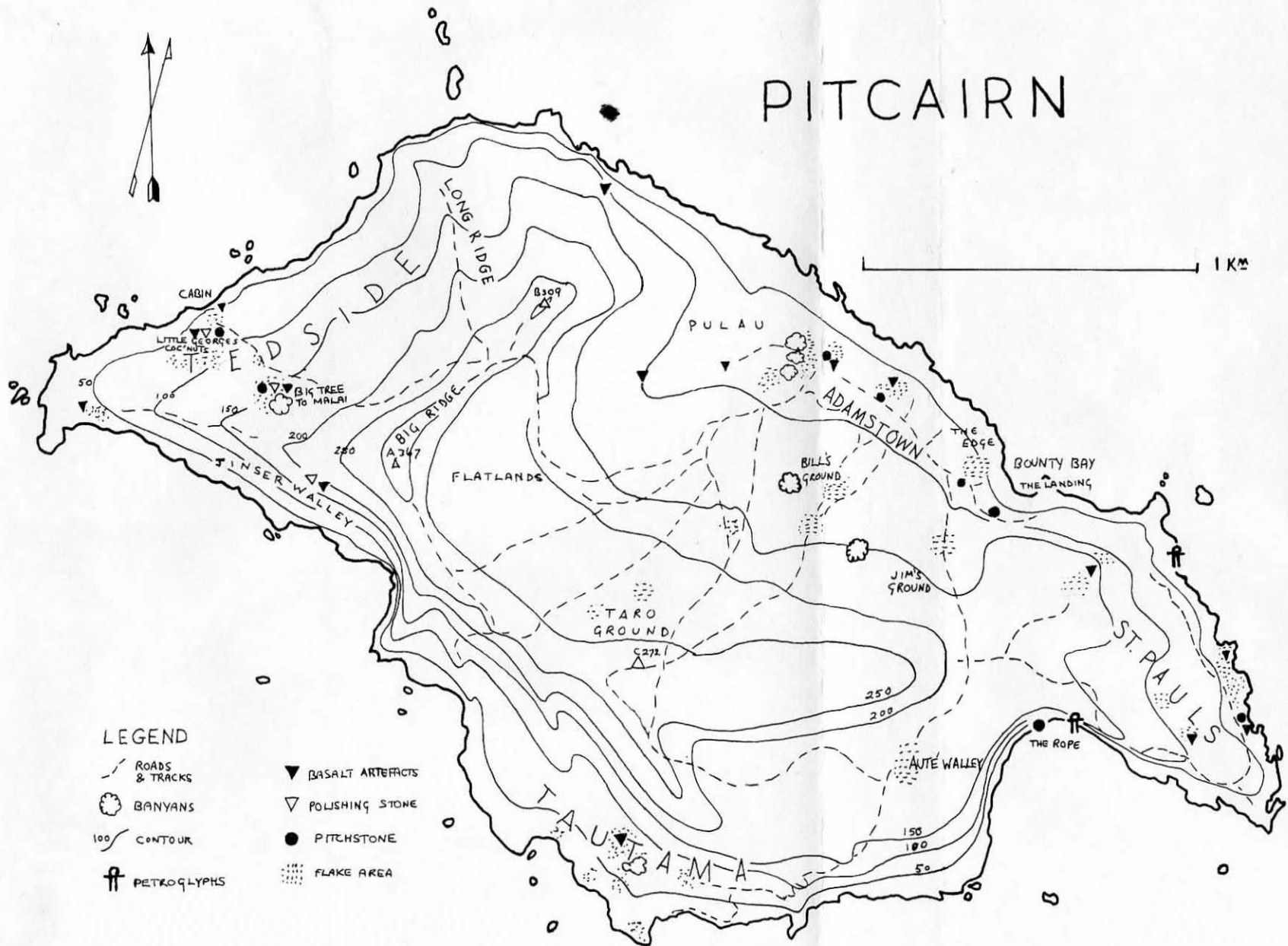


Entrance way through *Pa Tonga* at Mulifanu, Ofo Manu.

R. GREEN, 1963/64.

PLATE VIII : SAMOA

PITCAIRN



Pre-Bounty surface evidence