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NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER



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ARCHAEOLOGICAL SURVEY OF NIUE ISLAND

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At the invitation of the Government of Niue I spent a period of two months during the summer of 1974-75 making a survey of archaeological sites on Niue Island in the South Pacific. Most expenses, including all travel and accommodation, were paid by the Government, and I was given vehicles and a staff of five Niueans on the island. As well, the South Pacific Social Sciences Association, helped by a personal grant from Professor Roger Green, sent over two Cook Island students from the University of the South Pacific to gain experience in field surveying.

Niue comprises a raised ancient atoll reef encircling a central depression which represents a former lagoon. Its highest point (on the raised reef) is about 67 metres above sea level. Except for the rise from the present coast to the top of the old reef there are no hills, nor are there any surface streams. The terrain is rocky, soil is sparse and the only natural rock is various grades of coral limestone.

Apart from rock outcrops and comparatively small areas under cultivation, Niue is covered with forest and dense regrowth fern and scrub. This makes the discovery of archaeological sites difficult, and the presence of numerous wasp nests in the scrub adds an element of danger to the operation. Considerable use was made of local informants and guides to locate sites, although in general there was very little interest in them; natural features connected with traditional or mythical stories were better known.

The majority of sites examined were burial caves. Throughout the coral limestone are caverns and tunnels formed largely by dissolution of the limestone, usually based on crevices in the original reef or subsequent movement cracks. In many cases part of the roof of an underground cavern had fallen in, allowing easy access. Typically these are bell-shaped, with the sides sloping outward and sometimes extending into further chambers. As a rule bones were found under the sloping sides not far from the opening. Only rarely were really dark parts of caves used for human burial, although I think dark passages were explored in search of fresh water. There was no apparent attempt to hide human remains from view.

Sixty odd burial caves, containing bones of almost 400 people, were examined and, while this must be only a portion of those occurring on Niue, there is no reason to believe that it is not a reasonably representative portion. The best informants as to cave locations are often found to be hunters of large land crabs (*unga* - which provide very good eating); some however were known as family caves, and in rare cases there was some oral history associated with a cave. Typically this would relate how the bodies of a party of Tongans were thrown into the cave after having been beaten in an attack but, except in one such cave where we found no human remains at all, the bodies had clearly been carefully placed in position. Some caves had generally accepted names, but more often they were named after the locality in which they occurred.

Most of the human remains were badly disturbed, the worst offenders being the land crabs which scatter and gnaw at the bones. Many skulls had been opened from the base in a manner similar to the way the crabs open coconuts - their main food. The crabs caused further disturbance to the burials by burrowing in the soil beneath and around them. Some evidence of rat gnawing was also seen. Humans have also caused a lot of disturbance; many bones had been picked up (often in idle curiosity, sometimes in bravado) and put back in different places, and many, too, had been taken away as souvenirs or sent to museums and medical schools. As well, bones have been broken and scattered while hunting for crabs and during other uses of caves such as for basket and mat manufacture (in hot dry weather the pandanus leaves from which these are made remain more pliable in cool caves). Dogs and pigs have also been responsible for scattering bones and in quite a number of instances the animals died in the caves, being unable to get out. Doubtless many of these, particularly the pigs, fell in accidentally but several caves had obviously been used to deliberately dispose of dogs (possibly on the imposition of a bitch tax a few years ago - dogs are kept as pets only and not used for food). The owner of one fairly open cave now used as a pig-pen told me he had carefully picked up all the human bones and put them on ledges around the sides, but they had now, all except one leg bone, fallen down and been eaten by his pigs.

The condition of the bones varied greatly and, because of the state of preservation and the degree of disturbance, less than 5% were still in their approximately original positions. Over 50% however were still sufficiently in position to give some idea of a variety of methods of burial.

The simplest cave burial method was to place the body of the dead person on the flat floor of a cave beneath an overhang, usually against or near the wall. In most of those cases in which I was able to determine the position of the body, both in this and other methods of

cave burial, the legs were folded with knees brought up to the chest and heels brought back near the buttocks. The body was placed on its left side with no particular orientation, although there appears to have been a tendency for it to face the cave wall - this I would suggest is because it would be easier to place the trussed body in position against the cave wall when handled from the back, especially where there was limited head room due to the slope of the wall.

Sometimes a row of stones was placed around the body in a rough oval or rectangle, and in other cases one or more large stones were placed on top of it. A more sophisticated burial practice was to build a low platform of stones inside the cave, generally against or close to the wall. Typically such a platform would be less than a metre square for one person and twice as large for more than one. Although some of the larger platforms held the bones of several people, I was in no case able to determine if they had been placed there at the same time. In fact some of the disturbance of bones could be accounted for by the placing of another body on top of them. The height of these platforms varied considerably. Simple ones were built up 20 or 30 centimetres from the cave floor, but others were up to 60 centimetres high and usually contained human bones amongst the stones. This suggests that these platforms had been rebuilt after previous usage but it would be necessary to dismantle one to tell for sure. In two caves it appeared that bodies had been given Christian-type earth burial and had low platforms built over the top, but these were not tested by excavation.

There was evidence of secondary burials in several caves. Here the bones had been placed in the caves after the decomposition of the flesh. In many cases it was apparent that this had been done during the last decade. When human bones are found amongst rocks during the clearing of a bush area for cultivation they are commonly placed in a convenient burial cave; sometimes they have been charred by the burning of the bush. Others have been found during the clearing and levelling of land for development. Some of these secondary burials have been placed in wooden boxes or wrapped in cloth before being placed in the caves.

The secondary burials provide some indirect evidence of another prehistoric burial custom - bodies being left virtually on the surface instead of being placed in caves. These probably had some cover or protection as it is likely that the bones would have otherwise decomposed; Niueans told me of finding bones in crevices or beneath overhanging rocks when they were clearing bush, and I saw one such burial still in place. Another burial custom that I was told about was

the placing of bodies on natural or artificial stone mounds, and although I was shown several such mounds no bones were visible on the surface.

Most burial caves contained the remains of some mollusc shells of edible species scattered on the floor. As these had not demonstrably been placed with the bodies they are not necessarily burial provisions or offerings, but could be due to the use of the cave for habitation or shelter.

Burial artifacts were not common, but a number of white cowries were seen, and several pendants and a small basalt adze were found. All the cowries were broken, but some at least had had a hole drilled behind the outer lip, presumably for suspension or for threading to form some type of personal ornamentation.

Pendants were of three types. Circular ends of large cone shells, up to seven centimetres in diameter, had been drilled through the centre, and wear marks showed that they had been suspended by a cord passing through the hole. Also made from large cone shells were "tooth-shaped" pendants, eight or nine centimetres long, having a suspension hole at one end. The third type of pendant found in the burial caves is known only from a single specimen. It is a small tooth-shaped pendant or necklace unit about 35 millimetres in length. It appears to be made of whale ivory, has a groove around the top and is bilaterally drilled.

Large archaeological structures on Niue were of three main types - low stone platforms, raised stone mounds and earth-walled enclosures. As well, some stone lines, dry stone walls, earth ovens, and earthen mounds were recorded.

Only rarely was any large surface structure found alone. More often there were others of the same or different types close by. The apparently isolated cases may in fact have been due to the density of the surrounding bush obscuring others near by. I was told, too, of mounds having been levelled in preparation of ground for cultivation and others dismantled to use the stones from which they were made for house construction after hurricane damage about 1960.

Low stone platforms were mostly approximately rectangular in shape, and were made of the local coral limestone commonly with larger stones around the edge and "paved" with small stones on the top surface. Similar platforms have been used in historical times as bases for dwellings, and it seems likely that the prehistoric ones were constructed for the same purpose.

Higher stone mounds, often with more rounded sides and profile, are less likely to have been used for dwellings but may have had some ceremonial purpose. As an example, one commonly called Falepipi was roughly oval in plan, nearly 30 metres long, 24 metres wide and almost three metres high. Its sides appeared to have been almost vertical for the first 50 or 60 centimetres and then curved inwards to produce a roughly level area on top of some 22 by 16 metres in size. Its shape however had been altered by stones falling out from the sides and the removal of stones from one end. There was a number of other platforms in the area; one was similar but a little smaller and more rectangular in shape, others were mostly much lower - being close to a present-day village many had quantities of stones removed from them.

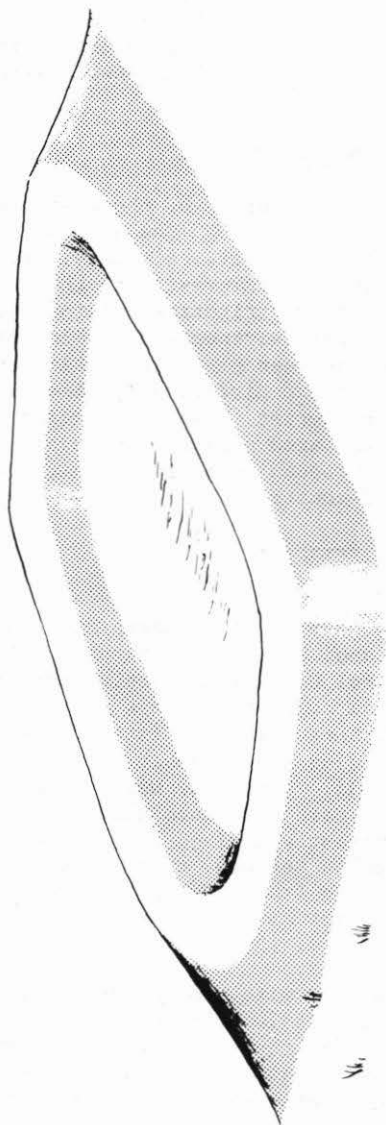
A rather spectacular high stone platform stood amongst tall but open bush at Alalima. Of sharply quadrangular shape, it was only 12 by 7½ metres in size, but almost three metres high, with perpendicular sides of coral limestone; some of the side slabs were the full height of the platform. On top it had a layer of small coral stones, and the whole structure was surrounded by a low platform forming a path, up to a metre wide and about half a metre high, around it. This structure was not in a good state of repair; its greatest immediate danger coming from the occasional sightseers clambering over it.

In recent years the earth-walled enclosures have attracted considerable attention, particularly amongst European visitors to Niue, and there has been much speculation as to their purpose. They were referred to as "boats" and explanations ranged from their representing a fleet of New Zealand Maori canoes to flying-saucer landing pads. They were made of rounded earthen walls about a metre high and two or three metres wide at the base, forming the shape of a circle, oval or a rectangle, ranging in size from 10 to 60 metres long. The earth for the walls had been scooped up both from shallow pits outside the enclosure and from inside it, and placed over a rock foundation. The inside slope of the wall was much steeper than that on the outside of the enclosure and, in fact, was probably originally almost vertical.

Excavation will be necessary to determine the purpose of these walled enclosures but it seems likely that the smaller ones at least are the walls of houses which had an inverted V roof supported by a central ridge pole.

Many of the platforms, mounds and walled enclosures, particularly those less than 30 metres long, have their long axis oriented between 10 and 13 degrees north.

A preliminary report on the survey and recommendations on site protection have been made to the Government of Niue, and a full report is now in preparation.



Earth-walled enclosure, Niue. Length 22 metres.