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ARCHAEOLOGICAL INVESTIGATIONS ON LAKEBA,  
LAU GROUP, FIJI

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Abstract

This paper describes the background to and results of preliminary archaeological work on Lakeba, an island in the Central Lau Group, Fiji. Details of site types from which pottery collections were made, a brief description of the oral traditions, and an account of the test excavations are given. The artefacts found are listed, and mention is made of an early site on a neighbouring and presently uninhabited island.

INTRODUCTION

A programme to study the Culture History of the Lau Islands in Fiji was initiated by Dr John M. R. Young, a historian at the University of Adelaide, in 1974 (Young 1975).

The initial research was focused on the historical records and the traditional oral history of the whole Lau Islands, and was undertaken by Young and Mr A. C. Reid, a research assistant in history. In 1975 Dr G. A. Rogers joined the Young project as a research assistant, and concentrated his initial efforts in the Northern Lau Group, combining the recording of archaeological sites with oral traditions. From Reid's research into the oral and traditional history of the island of Lakeba, about halfway down the north-south chain of 100 islands which comprise the Lau group, it was evident that this island not only constituted a central place in the traditional history of the group, but was also an island where intensive archaeological investigation of the traditional sites would provide further insights.

The following is a brief account of the preliminary archaeological work achieved on Lakeba between November 1975 and March 1976.

#### INVESTIGATIONS ON LAKEBA

Lakeba, the largest of the Lau Islands, is centrally located within that group. It is also situated almost midway between the main Fijian islands and those of the Tongan group. The island, roughly oval in shape, is 5,463 ha (54.63km<sup>2</sup>) in area; inland, volcanic hills reach up to 200 metres above sea level, while on the coast, outcrops of limestone up to 100 metres high occur. Around the coast are valley floors up to 700 metres wide, and alluvial flats run back towards the centre of the island along the main rivers. Geologically, the island appears to have been tilted to the east, so that raised coral limestone bluffs predominate on the west side, and drowned flats choked with mangroves border the east coast. Here, the fringing reef reaches its furthest point, some nine kilometres from land.

The island's vegetation is varied. On the limestone outcrops a typical rain forest occurs. Inland, only the hill on which Kedekede is situated, and some of the valley heads, are in bush. The rest is in either bracken or a tall reed, with the occasional pandanus or casuarina; this area being planted in Carribean pines. Except where villages occur at river-mouths, the coastal flats are taken up with coconut plantations and gardens. These gardens and plantations extend inland along the bottoms and lower flanks of the valleys.

The last census figures (1966) show Lakeba to hold slightly over 2,000 people. An all-weather road circles the island, which has Forestry, Agricultural and Public Works Departments. An airstrip permits at least three flights a week from Nausori Airport, Suva.

#### Site Survey

The site survey was accomplished in one month by Best and Rogers, using guides or local information on the coast, and by walking every ridge inland. It is considered likely that an extremely high percentage of the inland sites have been recorded: however, a thorough coverage of the coast would probably take years, as many sites only come to light when they are disturbed by gardening or other activity. Still, all known sites were located in this area, and as much of the country searched as was feasible, such as stream banks, cleared plantations, and gardens.

# LAKEBA

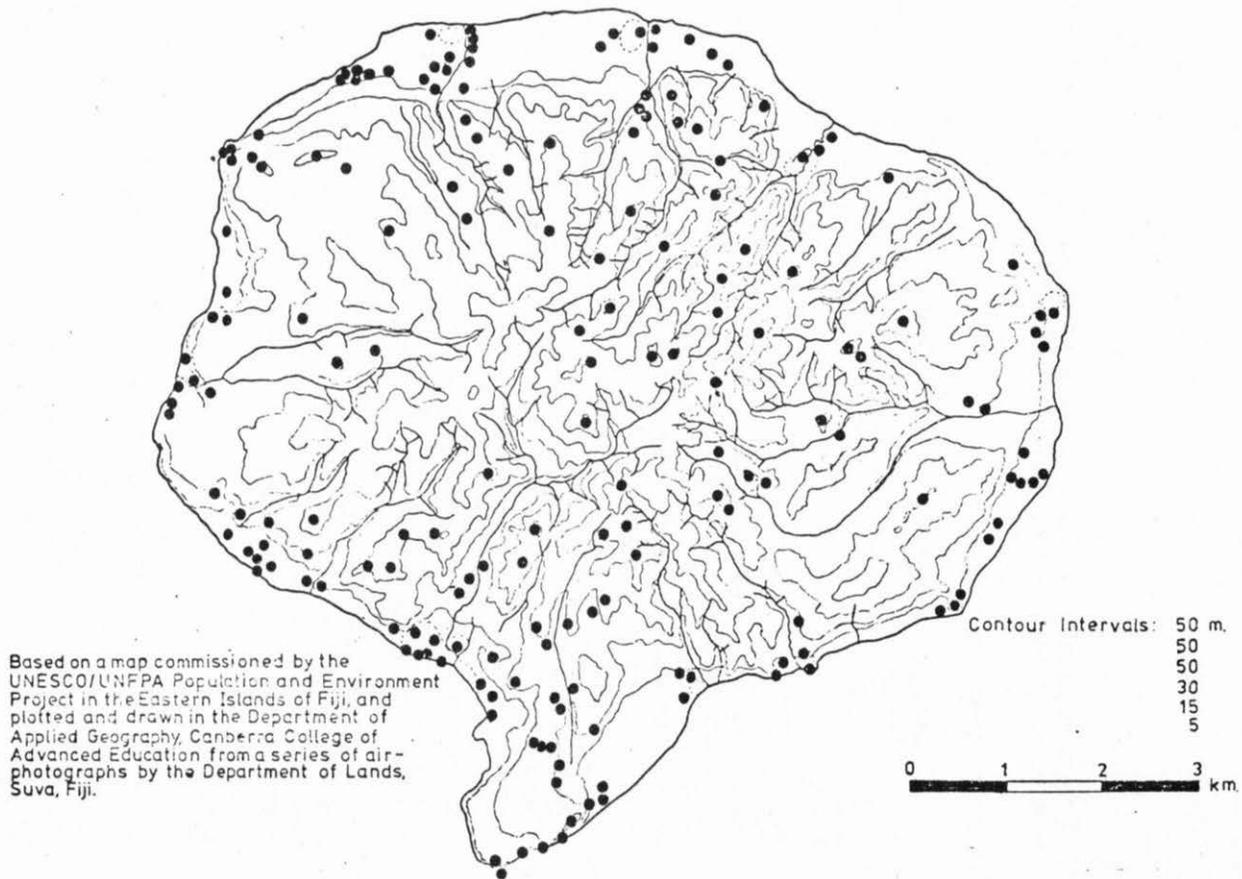


FIG 1. Site Distribution.

Oral traditions concerning the ownership of known sites and the sequence in which they were occupied were collected by Rogers, and a major part of the project will be to compare these with the archaeological record.

One hundred and eighty-eight sites were located (Fig. 1), and surface collections made of sherds, flakes, shells, etc. Initially, 17 types of sites have been recognised, based on topographical and cultural criteria. These are as follows:

1. Inland hill-top sites with both man-made and natural defences, of such large size that a communal purpose must be assigned to them.
2. Similar but with much smaller sites.
3. Inland hill-top sites with no natural or apparent man-made defences.
4. Similar sites but of very small area and very few remains.
5. Inland saddle sites, usually consisting of a small group of sherds or the occasional flake.
6. Inland valley-bottom sites.
7. Spur-end sites, directly above coastal flats.
8. Coastal limestone ridge forts, with extensive stonework both for defence and habitation purposes.
9. Coastal limestone peaks, with no defences and no habitation area.
10. Coastal limestone peaks, with earthworks.
11. Small isolated rounded hills rising some 10 metres above the coastal flats.
12. Coastal flatland sites, surrounded by circular or sub-circular ditch or watercourse or combination. No internal bank and no access bridges.
13. Similar sites but with internal bank and/or bridge.
14. Apparently undefended flatland sites, usually exposed by crabs or cultivation.

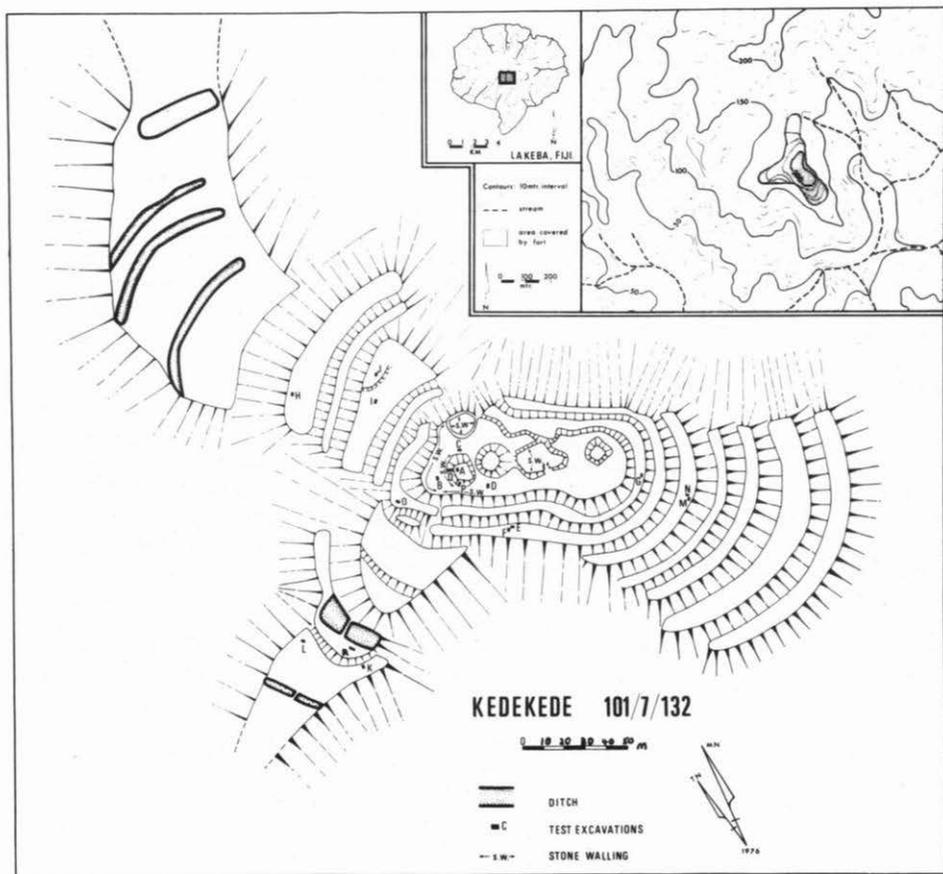
15. Coastal rock shelters.
16. Caves: (a) Habitation, both defended and undefended  
(b) Burial only.
17. Specialised sites: (a) Dart-throwing pitch  
(b) Graves  
(c) Clay sources  
(d) Limestone block quarry  
(e) Tracks

#### Test Excavations

The oral traditions of the island extend back an estimated 400 or more years, and encompass approximately half of the inland sites, one of the two coastal limestone forts, and many of the ditched sites on the coastal flats. Four waves of migrants are recorded as having arrived on the island during that time, the last just prior to European intervention in the area (Reid, in press). Four of the six test excavations were sited so that the pottery of the first three migrations might be recovered. The fifth site, which was tested more fully, was that of Kedeke. The main object of the excavations here was internal, so that the history of the site itself could be discovered. The sixth excavation, in a large coastal rock shelter, was undertaken in the expectation of recovering a comprehensive stratigraphic sample of the pottery sequence for the island. In this way it was hoped to provide a key to the chronological ordering of all the recorded sites through their surface collections, especially of those prior to the period covered by traditions.

The excavation units were normally 2 x 1m trenches, situated where the deepest occupational deposit had already been shown to exist by small test-holes. Three sites had one such trench, and one site had three. On Kedeke, excavated and mapped by M. Rowland, a series of 17 test excavations was completed (see Map 1). In the rock-shelter, two smaller units, .75m<sup>2</sup> (later enlarged to 1.25m<sup>2</sup>), and 1m<sup>2</sup> were used, because of the finely divided stratigraphy at the site and because of the expected depth of the deposit.

Excavations at all sites were conducted following stratigraphy wherever possible, otherwise five or 10cm spits were used, following the line of the previous stratigraphy. All material was removed by trowel and sieved through, or sorted on a 6mm mesh.



Map 1

All material was kept save for shells, which were sampled, and intrusive stone material, fragments of which were taken for petrological study. In the rock shelter, however, all faunal and intrusive stone material was kept.

Datable material retrieved from features consisted of charcoal, sherds plus their soil matrix, shell and oven stones.

### Artefacts

These consist of pottery, adzes, flakes and shell implements. No systematic analysis has yet been carried out on the above. However, an assessment of the probable pottery sequence was made in the field to ensure reasonable sampling over the entire sequence. At the time of writing, the material is still in transit and discussion is therefore based on the framework developed in the field. Terminology in general is based on previous work by Gifford (1951) and Frost (1974).

### Pottery

Sites allocated by informants to the late oral tradition period are characterised by a relatively high percentage of shell impressed and incised sherds. Sites allotted to the earlier period of oral traditions contain mainly plain ware, with some elongated-spot relief, probably paddle-applied. In the rock shelter, containing 3.95m of almost wholly cultural deposit, the basic sequence is clear-cut. At the top, plain ware occurs, underlain by elongated spot relief. This in turn is underlain by paddle-impressed cross relief. Under this, a coarse-textured ware occurs, mostly plain but with some vertical-line relief. A red-slipped ware is next, and at the base a coarse-textured plain ware is present.

Rim and vessel forms also show some gross overall changes. The later pottery is characterised by straight rims, while the earlier ware contains a high proportion of expanded rims.

Late vessel forms appear to be characterised by swollen-lip bowls (*dari*), cooking pots (*kuro*), water vessels (*saqa*), and finger bowls (*vuluvulu*). The *dari* appears to drop out in the period covered by the oral traditions, while at some early stage the range of vessels is more varied, with large-handled water jars, carinated cooking pots, and ovoid and other forms.

### Adzes

Some 15 adzes were obtained, either during excavation or while making surface collections, or were purchased. Two were quadrangular

or slightly trapezoidal in cross-section, and of fine-grained black basalt. One was circular in cross-section, also of black basalt. The remainder were of coarser volcanic material, with a sub-rectangular cross-section, save for one *Tridacna* shell adze. In general, the assemblage is unlike that of the main Fijian islands in that the true elliptical section adze is absent, which is inconsistent with Thompson's observations (1938), and may be a product of the small sample.

#### Flakes

A quantity of flaked material occurred in most sites. In large part, the flakes are of a highly-coloured 'chert', or more probably sinter. Cores of this material were also found. The function of this material is unclear; there is no information on a flake industry in Fiji. Although the natural assumption would be to ascribe 'knife' or drill function, the small size of some of the prepared flakes may indicate use as composite tools or weapon tips.

#### Shell artefacts

Six types of shell artefacts were found. Apart from the above-mentioned *Tridacna* adze, the remainder were excavated at the rock shelter. These consisted of:

- (a) Three beads of 5mm diameter, ground and perforated from both sides.
- (b) A *Conus* shell ?pendant, with ground ends and hatching.
- (c) Portion of an arm band.
- (d) End of a ?scraper.
- (e) End of a gouge.

#### Aiwa Island

The uninhabited island of Aiwa, 17 kilometres to the south-east of Lakeba was twice visited. Oral traditions record the banishment of the third group of migrants to Lakeba, the Levukans, to Aiwa for a brief but undetermined length of time in probably the early 19th century. Because of the traditional importance of these people as potters, it was

decided to attempt to collect a sample of their pottery from what was hoped to be a short time period, thereby possibly aiding interpretation of pre- and post-Aiwa pottery on Lakeba itself.

Their habitation site, a large limestone cave containing the only drinking water on the island, was located with the aid of an informant, and sherds were collected from the mouth and inside the cave. Two half-pots were also collected from a salt-water crevice at the back of the cave, some 15 metres underground.

A second visit was made specifically to recover more such material as an aid to vessel construction. One whole, and two slightly damaged pots were found, and two tea-chests of large fragments collected. Vessel shapes and rim sections of this assemblage from the waterhole resemble those from Level 1, Sigatoka (Birks, 1973). Their only decoration is paddle-impressed? vertical lines on the rare piece.

The above report is of necessity a brief outline only. The field material will be worked up in conjunction with that collected by C. Smart (1964) from Kabara, one of the larger islands to the south of Lakeba. This collection, formerly at Australian National University, is now at the University of Auckland.

Since writing the above, six charcoal samples have been processed and the dates received. These are listed below, with a brief description of their provenance. Coding of dates is as specified by the New Zealand Radiocarbon dating laboratory.

Sample 2(b)/4	=	NZ4039A	.....	80 ± 70
	=	NZ4039B	.....	80 ± 70
	=	NZ4039C	.....	110 ± 100

This sample came from a charcoal and ash lens 18cms below ground level in a large rock shelter. The stratified deposits in this shelter are 4 metres in depth, and span possibly three-quarters of the island's occupation.

Sample 2(b)/8	=	NZ4040A	.....	1940 ± 90
	=	NZ4040B	.....	2000 ± 100
	=	NZ4040C	.....	1930 ± 110

From a charcoal and ash lens in the same rock shelter, 2.2 metres below ground level. This sample was from the youngest occupation layer in white coral sand; above this the deposits were continuous midden.

Sample 2(b)/15 = NZ4041A ..... 2220 ± 100  
= NZ4041B ..... 2280 ± 100  
= NZ4041C ..... 2300 ± 170

From a charcoal and ash lens in the rock shelter, 3.1 metres below ground level. This sample was from the oldest distinct occupation layer in the white coral sand; beneath this were found only a scatter of sherds, mostly water-rolled, and a few midden shells and charcoal flecks.

Sample 132/1 = NZ4042A ..... 670 ± 70  
= NZ4042B ..... 690 ± 70  
= NZ4042C ..... 680 ± 50

This sample came from a test square excavated down through a house mound on the top platform of Kedekeke. The sample was charcoal from a lens of shell and charcoal, associated with a conch shell and prone burial, 2.5 metres below ground level, and in the fill of an oval pit over 2 metres in diameter and 1.1 metres in depth, cut into natural. Above this was a low house mound with three or possibly four occupation floors, and above this a further 1.5 metres of fill brought the mound up to its present height of c. 2 metres.

Sample 132/3 = NZ4043A ..... 110 ± 60  
= NZ4043B ..... 110 ± 60  
= NZ4043C ..... 140 ± 100

The sample was charcoal, from an oven 50cm below ground level near the edge of the top platform on Kedekeke. The oven was resting on natural, overlying material was fill, and gardening activities had destroyed any occupation layer on the surface.

Sample 46/2 = NZ4044A ..... 990 ± 90  
= NZ4044B ..... 1020 ± 90  
= NZ4044C ..... 970 ± 90

This sample was from the coastal limestone fort of Vagadra, and was charcoal from a thin lens of charcoal and fire-damaged limestone fragments 25cms below ground level. At this level a number of stone lined postholes occurred, one beneath the charcoal and limestone lens containing a complete *Tridacna* adze and the butt of a quadrangular basalt adze. These were dug into areas of natural soil between limestone rock outcrops. No discernible stratigraphy occurred above this layer, save for small scattered concentrations of branching coral and sand in the top 10cms of root zone.

