NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER

MARUKA EXCAVATIONS, KAWERAU, 1981: AN INTERIM REPORT

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The Kawerau investigation (authorised under N.Z.H.P.T. Authority No. 1980/46) is a project in contract archaeology, undertaken by the Department of Anthropology, University of Auckland, for the Historic Places Trust. The State Housing Corporation is planning to develop the Long, Marshall and Ballantrae Valleys for residential subdivision (see Phillips, this issue, Fig.2).

The initial excavation programme in January 1981 was designed to investigate archaeological sites in the Ballantrae Valley. The sites were terraces, located on ridges and hillsides, within an area of artificially flattened low hills 80 - 100 m above sea level. Some terraces contain pit depressions. The results of excavations within the Ballantrae Valley are to be used to make recommendations for the future investigation of the Long and Marshall Valleys. The broad aims of the investigation were:

1. To define and examine the distribution of site types.
2. To determine the purpose or function of the sites.
3. To find out their age.

The excavation

The site identified as GH579 was chosen for intensive excavations (Fig.1). The site contained a number of terrace types (transverse, lateral and sloping), and one ridge terrace (GH579-4) contained a rectangular pit depression. Other terraces investigated were C576-10 -a valley terrace, and I580-1, a ridge-top terrace (see Fig.1, and Phillips, this issue, Fig.1).

Ten long trenches were excavated. They were located at the head of the valley (number 1 and 2), across the lower valley floor (3 to 8, and 10), and between GH579-4 terraces (number 9). These trenches were located to investigate relatively flat areas where it was hoped garden soils could be identified. Trench 9 was placed to investigate a small knoll located to the north of terrace GH579-4. This knoll was identified during the survey as a non-site.

During excavations Mr Albert Te Rire (paramount chief and elder) and Mr John Fox of the Tuwharetoa Urupa and Historical Trustees visited

the site to view our investigations and gave their approval to our work. Mr Te Rire and Trustees have suggested that Maruka would be an appropriate name for the excavations. The name is that of a grandson of Tuwharetoa, the eponymous ancestor of the Ngati Tuwharetoa tribe. Oral tradition records that the kumara pits under investigation belonged to Maruka.

Four weeks of excavation (11 January to 6 February 1981) opened approximately 1073 m^2 (Table 1). Twelve archaeologists spent a total of 264 person-days working on the project (Plate 1). During this time the excavation was covered by local newspapers and was filmed as part of an N.Z.B.C. documentary.

Stratigraphy and features

The sites are located on an area of yellow-brown pumice soils derived from volcanic tephra deposits (see Healy et al, 1964; Pullar and Birrell, 1973; Pullar et al, 1978). Six tephra deposits were recognised during the excavations by Alan Pullar and Neil Kennedy (Soil Bureau, Rotorua). The tephra originated from vents in the Okataina volcanic centre (including Mount Tarawera) and includes (in ascending order to surface): the rhyolitic Waiohau Ash (11250 ± 200 B.P.); Rotoma Ash (7330 ± 235 B.P.); Mamaku Ash (7050 ± 77 B.P.); Whakatane Ash (5180 ± 80 B.P.); Kaharoa Ash (665 ± 58 B.P.) and basaltic ash and lapilli of the Tarawera Formation (A.D. 1886). (Note that all tephra radiocarbon dates, except the age estimate for Kaharoa Ash, are from Pullar and Birrell, 1973. The Kaharoa date is from Lawlor, 1980).

All evidence of prehistoric activity within the investigated sites was represented by features cut into the Kaharoa Ash. Occupation of the sites therefore occurred after this eruption event.

Stratigraphy was relatively simple (Fig.2). The prehistoric inhabitants of the sites had constructed the hillside terraces by digging out the tephra deposits and placing them upon the down-slope. A level platform was thus created. Pit features were located at the back of the terraces and were cut into the consolidated Rotoma Ash. This same pattern of construction was observed on ridge sites (GH579-4); tephra layers overlying Mamaku Ash had been pushed to the sides, thereby exposing the concrete-like Rotoma Ash to provide solid pit walls.

The sections through the valley terraces (Plate 2) showed that a mixed Kaharoa Ash (pumice and sand) overlies an undisturbed buried soil and Kaharoa tephra layer. Stratigraphy indicated that this mixed ash had been gathered from the valley slopes surrounding the terraces; there was no Kaharoa Ash in the spaces between the terraces. The terraces were interpreted as gardens.

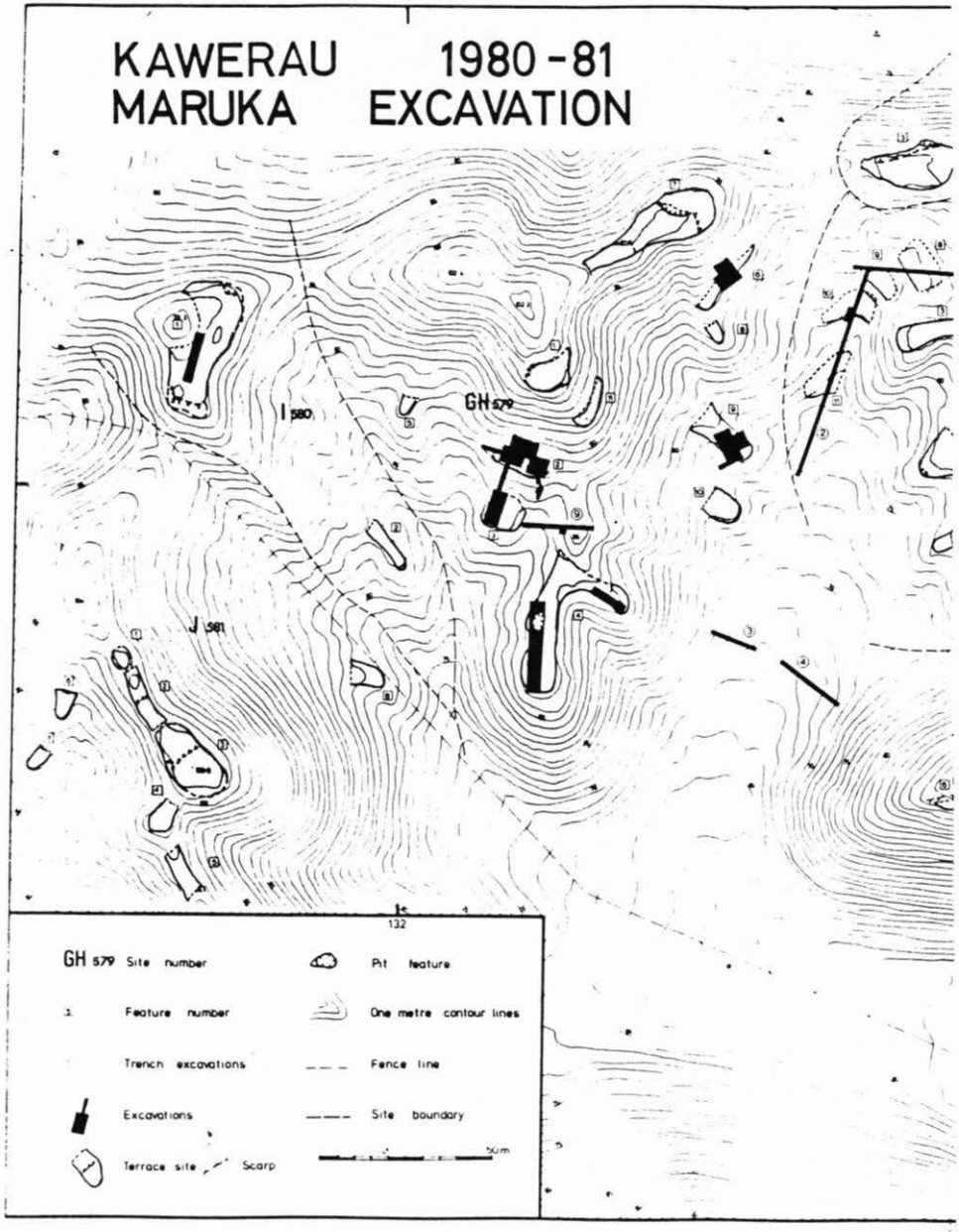

FIGURE 1. Maruka excavation plan.


F 578
C 576
AB 575
DE 577
GN
098
096
134
136

Site No. (N77/)	Site Type	Max. Size sq. m.	Approx. Excavated Area sq. m.	Uncovered
C576-10	valley terrace	84	12	garden soil
GH579-2	hillside terrace (house site?)	96	112	2 pits
GH579-3	hillside terrace	110	40	pit
GH579-4	ridge terrace	324	100	
	with pit depression	94	22	2 pits
GH579-6	hillside terrace (Plate 2)	87	45	pit
GH579-9	hillside terrace	157	63	temporary ?field shelter
I580-1	ridge-top terrace	699	35	pit
Trench No.				
1	valley terraces (Plate 3)	-	77	garden soil and pit
2	valley terraces	-	93	garden soil
3	valley floor	-	21	?garden soil
4	valley floor	-	32	?garden soil
5	valley floor	-	15	?garden soil
6	valley floor	-	27	drains ?garden soil
7	valley floor	-	90	drains ?garden soil
8	valley floor	-	113	drains ?garden soil
9	non-site ?	-	34	hangi ?garden soil
10	valley floor	-	132	drains ?garden soil

TABLE 1. Areas investigated.

The stratigraphic pattern was similar in each of the five valley floor trenches (Plate 3): three tephra layers, Whakatane, Kaharoa and Tarawera (from bottom to top), were covered with topsoil. The surface of the Kaharoa Ash was found to be mixed and covered by a series of banded layers of pumice and sand alluvium. These layers were separated by bands of charcoal impregnated sand. This sequence of bands was interpreted as representing periods of stability and instability within the valley;

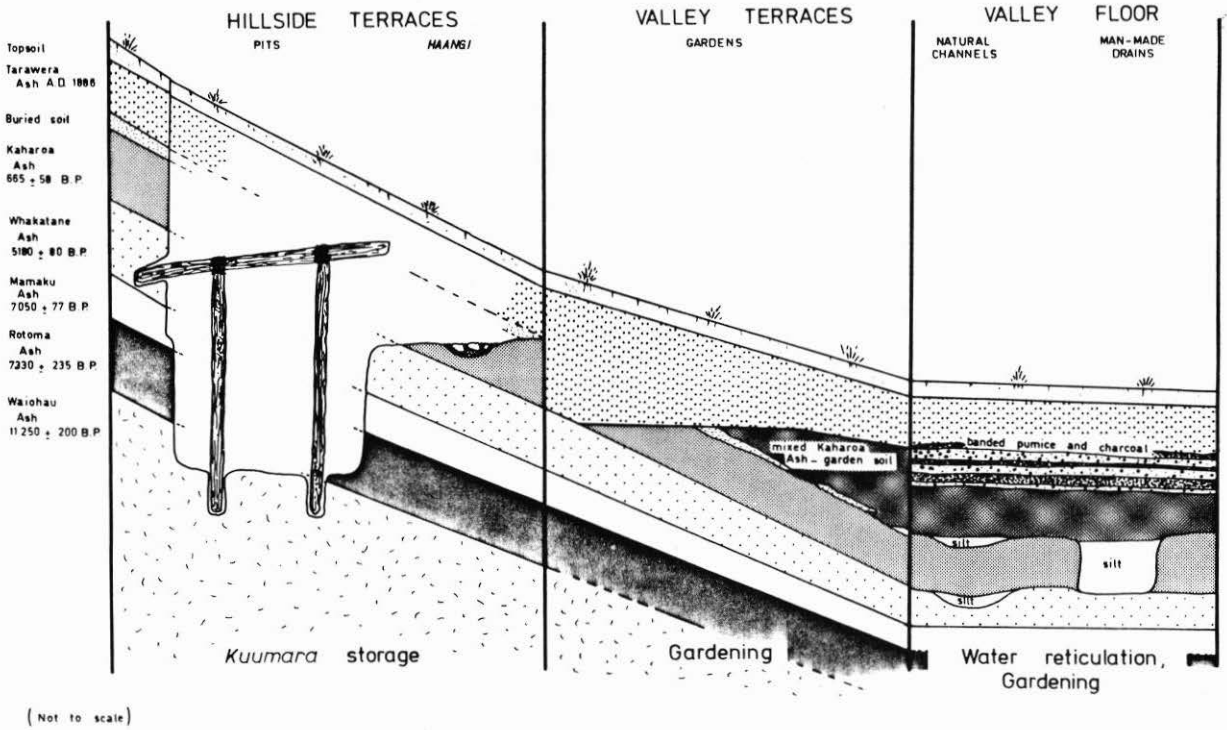

FIGURE 2. Schematic representation of Maruka excavation stratigraphy.

charcoal bands indicate a 'burning off' of vegetation (?bracken fern), and the sand and pumice bands indicate subsequent erosion and alluvial inwash.

Natural channels could be distinguished from man-made drainage features. The natural channels were located underneath and on top of the Kaharoa Ash whereas the constructed drains were cut into the Kaharoa Ash. The drains were exposed in trenches 6 to 8 and 10, and could be traced along the valley floor. They drained out of the valley towards the east (Tarawera River), and were up to 65 m in length with a maximum fall of approximately 2 m. By aligning drain cross-sections in each of the trenches four drains could be distinguished.

The drains have been interpreted as a water reticulation system designed to confine the valley catchment water. Disturbance to stratigraphy around natural channels and drains suggest they were probably both used. The disturbance of ash between the drainage features probably indicates gardening.

Finds are limited to 21 flakes of obsidian (all from site GH579-4), a small pumice ?reel, hangi stones, a pumice abrader, and a few fragments of pumice and stone. An inspection of the obsidian has shown that many used flakes have a residue build-up along worked edges; this residue may define what they were used for.

Conclusions

The Maruka excavations uncovered a number of prehistoric features. These included eight pits located on terraces; four posthole features (? a temporary field shelter); valley terraces (? used as gardens), and; at least four drains located within the valley floor (? a water reticulation system located among gardens). A series of charcoal and pumice bands located over the cultural features in the lower valley floor indicate periodic burning and alluviation. The valley area was most likely used intensively for kumara cultivation and storage.

Maori tradition and archaeological investigations are matching together. Tradition suggests the sites may at least date to the late 16th century.

Acknowledgements

The following people took part in the Maruka excavations: Heather Albert, Chris Chambers, Helen Charters, Jane Conner, Leslie Goodliffe, Simon Holdaway (Otago University), Des Kahotea, Elke Kurschus, Keren

Lilburn, Robert Pollock, Kim Pritchard, Graeme Ramsay (Otago University), Kathryn Rountree, Christina Smith and Brenda Sewell. Individuals not identified with an institution are associated with the Department of Anthropology, University of Auckland. Harry Allen, Roger Green, Geoff Irwin and Caroline Phillips (Department of Anthropology, University of Auckland) and Dave Driver, Tina Jordan and Dave White (Whakatane Historical Society) assisted with excavating and mapping. I am grateful for their time and support. Ken Moore (N.Z.A.A. filekeeper, Kawerau, Bay of Plenty) has provided invaluable assistance throughout the project. Alan Pullar and Neil Kennedy (Soil Bureau, Rotorua) identified the tephra deposits within excavations.

Albert Te Rire (elder and paramount chief) and John Fox of the Tuwharetoa Urupa and Historical Trustees visited the site and gave approval to our work. Discussions with them have greatly assisted our investigations. To all the people concerned with the project I would like to express my thanks.

The project supervisor Harry Allen carried out much of the base organisation for the investigations. I am indebted to Bevan Mudie for helpful criticism of the draft of this report and to Sue Stenner for typing and checking the manuscript.

References

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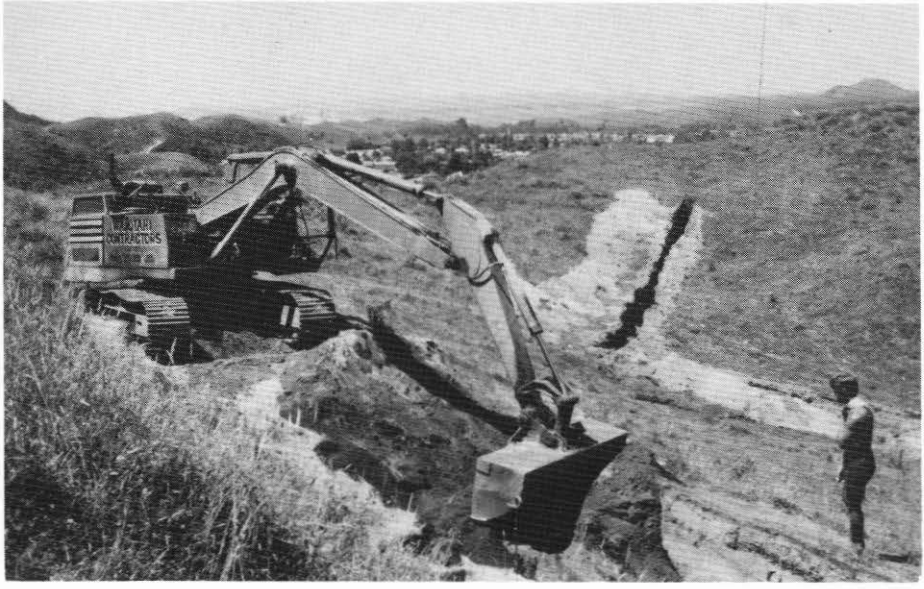
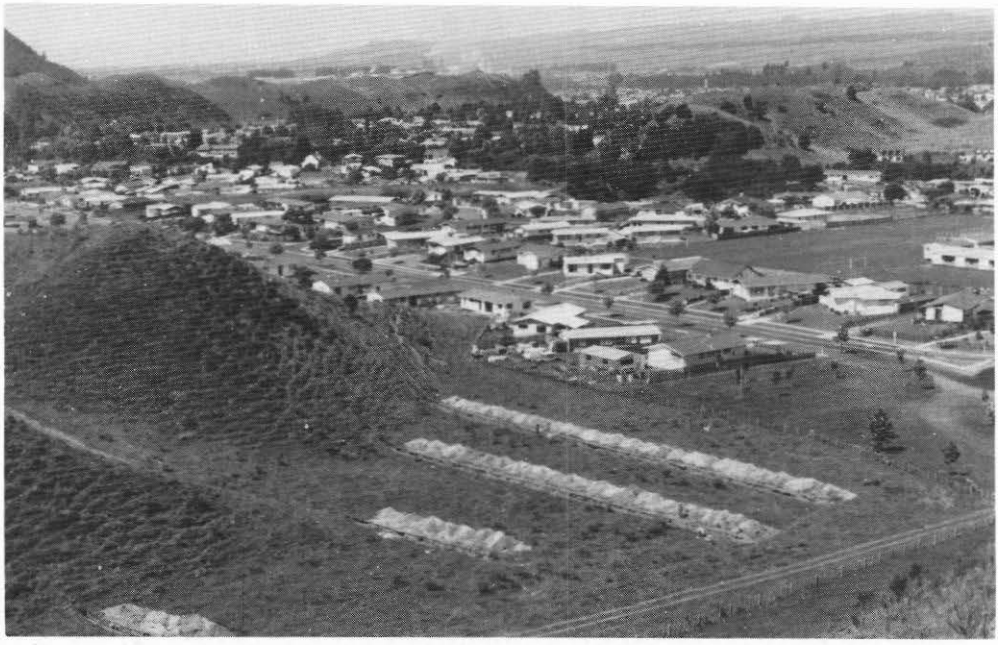
KAWERAU EXCAVATIONS Plate 1. Summer excavation team. Left to right:
Simon Holdaway, Des Kohatea, Harry Allen, Christina Smith, Helen Charters, Heather Albert, Leslie Goodliffe, Ian Lawlor, Robert Pollock, Jane Connor, Kathryn Rountree, Elke Kurschus.



KAWERAU EXCAVATIONS Plate 2. Backlifting GH579-6. Trenches 1 and 2 in background.



KAWERAU EXCAVATIONS Plate 3. Trenches 5-8 in valley floor.

KAWERAU EXCAVATIONS Plate 4. May 1981 (N77/606) team. Left to right,
rear: Rosalind Kay, Peter Adds, Chris Grace, Christina Smith;
middle: Lawrence Foanaota, Wynne Spring-Rice, Joanna Sullivan, Rachel Lilburn;
front: Jeffrey Seth, Ben Nanasca, James Papalii, Judith Gardner, Elke Kurschus.