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Inland Gardening at Lower Kaimai, Bay of Plenty

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Introduction

Pre- and post- harvest archaeological assessments of a 1.7 ha pine woodlot at Lower Kaimai, near Tauranga, demonstrate the value of close monitoring of forestry operations in areas where archaeological sites have been recorded. In this case, the exposure of sites not previously visible on the ground surface enhanced the interpretation of a pre-Colonial pattern of land use entailing exploitation of small topographical niches in isolated and relatively inaccessible terrain.

The Marshall woodlot occupies a narrow ridge between two tributaries of the Wairoa River, 20 km from the Bay of Plenty coast and 3 km from the river's tidal limit. Travel by canoe from the coast to within a short distance of the site is therefore feasible. The ridge lies 2 km inland of U14/38 (McFadgen & Sheppard 1984), on the lower fringes of the Mamaku Plateau, in a landscape characterised by steep gorges cut through deep ignimbrite, tephra and pumice deposits. The ridge under consideration is some 600 m long, 5-30 m wide along its crest and falls 20-40 m to the Mairoa and Otawhiti streams, fringed in places by sheer cliffs. The opportunities for habitation on the ridge appear limited.

Prior to preparation for harvesting of the pine crop in 2017, only two archaeological sites had been recorded on or immediately adjacent to the ridge, both of them pā. One (U14/52), at the upper (southern) end controls access to the remainder of the ridge, but is lightly-fortified and shows no sign of having been inhabited intensively. The second pā (U14/54), immediately across the Otawhiti Stream, below the ridge, is hidden, with massive defensive earthworks and provides more indication of having been occupied, including extensive deep shell middens. Further sites are recorded on higher ground to the east, but an adjoining ridge to the west, which might be expected to have been occupied, has not been surveyed for archaeological features (Figure 1).

On the ridge between the two pā are six recently-recorded sites, located either prior to pine harvesting or after harvest, when they were revealed by machine disturbance of the ground surface (Figure 2). All are small, comprising terraces, two scatters of shell midden, an oven, and areas of dark friable soils interpreted as the result of gardening. It is these that provide a context for the two pā.

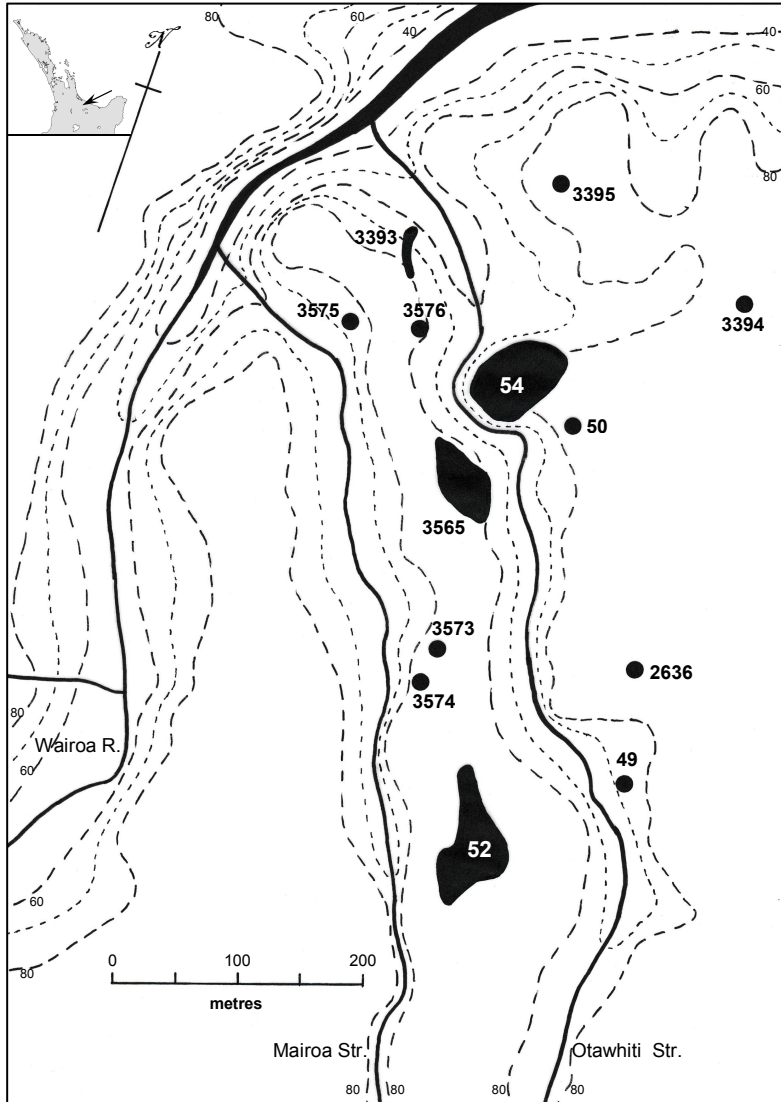


Figure 1. Marshall woodlot ridge and adjoining archaeological sites (U14/-). 40, 60, 80 m contours from LINZ/Archsite, intermediate contours interpolated. Contours above 80 m not shown.



Figure 2. U14/3393, 3565, 3573-3576, looking north along ridge from pā U14/52, after pine harvest.

Distinctive soils occurring on five of the six newly-recorded sites were reasonably consistent, comprising 200-300 mm of very dark brown, well-developed, friable topsoil containing flecks and lumps of the underlying tephra and with occasional inclusions of sand, pumice and sparse charcoal. This topsoil is underlain by a firm yellow-brown tephra widespread in the district. It should be emphasised that there is no direct evidence that these soils represent gardening, but the writer is not aware of them occurring naturally in the area and they do appear to be unusually well-formed. Supporting evidence on one site takes the form of subtle indistinct terracing present, in the writer's experience, in association with confirmed garden soils elsewhere in the Bay of Plenty.

McFadgen & Sheppard (1984:5, 8, 45) refer to the pre-European topsoil in the area as a "fern soil" describing it as "a brownish-black silt loam; slightly hard; moderately developed very fine and fine nut, and fine and medium granular structure", "formed under bracken fern". This is not inconsistent with the topsoils recorded above but the example McFadgen describes is only 100 mm thick, whereas those examined in this case were between 200 and 300 mm thick.

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McFadgen implies that his “fern soil” is relatively recent, postdating Māori utilisation, whereas there seems no obvious reason why the deeper soils described above should not have been produced by cultivation. Even if the sites recorded here as gardens are misidentified, there are still an oven, terraces and midden to testify to at least short-term small-scale activity occurring on the apparently inhospitable ridge between the two pā.

Table 1. Archaeological sites on and near Marshall woodlot, Lower Kaimai (see Figure 1).

Site (U14/-)	Features	Situation
49	Shell midden, ovenstones, ?terraces, ?pits.	Top and slopes of spur above deep stream gully.
50	Transverse terraces.	Steep minor spur above stream gully.
52	Pā – transverse ditches; lateral ditches terraces, scarps.	Marshall woodlot, ridge summit.
54	Pā – complex enclosures, transverse ditches; lateral terraces, scarps; pits, midden.	Spur end above high cliffs between minor streams.
2636	Shell midden.	Ridge slopes.
3393	Terraces, possible pits, shell midden scatter.	Marshall woodlot, spur end, above and below low bluff.
3394	Obsidian flake.	Exposed by pig-rooting.
3395	Shell midden, ?terraces.	Ridgetop overlooking Wairoa River.
3565	Garden soils.	Marshall woodlot, extensive natural terrace below ridge crest.
3573	Garden soils.	Marshall woodlot, short side spur.
3574	Oven.	Marshall woodlot, short, low, hidden spur.
3575	Garden soils.	Marshall woodlot, extensive basin below ridge crest.
3576	Shell midden, garden soils.	Marshall woodlot, short side spur.

Conclusion

Additional sites exposed as a result of pine harvesting operations point to the opportunistic use for gardening and short-term occupation of possible micro-climates on small, hidden and sheltered, spurs, terraces and basins formed by local topography. This in turn provides a reason for access to the ridge being guarded by a pā.

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The following points arise from this exercise:

- Maori occupation inland of Tauranga included the use of small areas in steep, hidden and apparently-inhospitable terrain;
- Archaeological monitoring of the ridge occurred only because archaeological sites had previously been recorded in the vicinity;
- Pre-harvest assessment provided evidence that further sites existed;
- Post-harvest assessment, following disturbance of the ground surface, revealed sites that were not previously visible, thus allowing a more informed basis for interpretation of land use within the restricted area under consideration;
- Identification of particular soils as representing probable gardens extends the range of past activities evident in the landscape;
- While activities such as land development and forestry are often destructive of archaeological sites, they can also reveal evidence that allows past human activity to be placed in a finer-grained context than would otherwise have been possible.

Acknowledgements

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