

**ARCHAEOLOGICAL DAMAGE MITIGATION,
SITES P04/640 AND P04/641,
HATTON PROPERTY, TAUPO BAY**



**REPORT TO
THE NEW ZEALAND HISTORIC PLACES TRUST
AND
CHRIS HATTON**

JADEN HARRIS AND MATTHEW CAMPBELL



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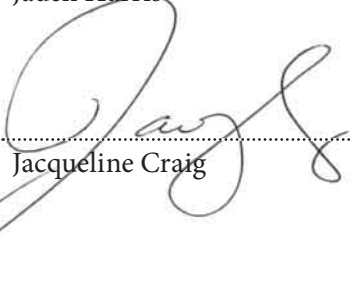
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Date: 13 February 2012

Reference: 2011/94

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ARCHAEOLOGICAL DAMAGE MITIGATION, SITES P04/640 AND P04/641, HATTON PROPERTY, TAUPO BAY

JADEN HARRIS AND MATTHEW CAMPBELL

A block of mature pine trees on the Hatton property at Taupo Bay has recently been harvested, resulting in some incidental damage to recorded archaeological features on the property. A pre-harvest archaeological assessment of the property was carried out by archaeologist Matthew Campbell in 2003, and two new archaeological sites (P04/640 and P04/641) were identified and recorded. Prior to this no archaeological sites were recorded on the property. The apparent lack of recorded sites in the area was a result of the area never having been formally archaeologically surveyed, rather than indicating the absence of archaeological sites. For example three distinctly terraced pa sites along the coast to the north, visible from the Hatton property, were first recorded by Campbell in 2003.

1. Location map showing the extent of the visible features (marked in blue) of sites P04/640 and P04/641 and other recorded sites in the general area marked in red.



Following the recommendations of the archaeological assessment an authority was applied for from the New Zealand Historic Places Trust to modify or damage sites P04/640 (pits and terraces) and P04/641 (stone mounds). Authority 2011/83 was granted subject to the preparation and acceptance of an Archaeological Sites Management Plan, including the establishment of buffer zones around the sites, controlled felling and removal of trees, establishment of areas where future planting should be avoided, and mapping of the sites. Carrying out such a plan would usually involve pre- and post-harvest inspections. However, this plan was not prepared and harvest proceeded without archaeological input. As a result, there was concern that damage may have occurred to the sites due to a lack of archaeological supervision and failure to follow correct procedures.

An onsite meeting was held on 20 September 2011 between Bill Edwards of the New Zealand Historic Places Trust, Murray Moses of Taupo Bay Marae, Dan Gaddum of Woodbank and Matthew Campbell. Damage appeared to be minor but tracking had come very close to the pa at P04/640 and several of the stone mounds at P04/641 were obscured by slash.

Method

The following steps were proposed in mitigation of the site damage that had occurred during harvest operations:

Pa P04/640

- provide an accurately surveyed map showing the visible surface features, tracks new and old, extent of site and a 5 m buffer;
- wilding pines be pulled within every three years;
- native plants be allowed to regenerate.

Stone mounds P04/641

- provide an accurately surveyed map showing visible features, tracks new and old and extent of site;
- a brief description of condition and a photo of each mound;
- remove pines within at least 2 m of each mound when thinning commences in around 5 years.

Results

The property was visited by Jaden Harris and Ben Thorne on 16 and 17 January 2012. Visible features were mapped with a Leica robotic total station using the Mt Eden datum. For site P04/641 several points were taken to define each mound, along with a central point. The edges of forestry and other tracks cutting through, or close to, the sites were also recorded. Digital photographs were taken of each mound and a brief note made of their condition. For pa P04/640 individual features were mapped as well as taking a series of points across the top of the hill to produce a topographic map of the whole site. Photographs were taken across the site to provide a record of its condition. Approximately one full day was spent in mapping and recording each site.

Pa P04/640

Site P04/640 is located on top of a prominent hill separated from the main coastal ridge by a narrow spur. While there is no ditch or any other obvious defensive

structures, the pa's location and the steep sides of the hill suggest that it was chosen at least in part with a defensive function in mind. The site consists principally of a central area on top of the hill, which was probably artificially flattened, and large lateral terraces on the east and west sides (Figure 2). These terraces could have been defended with palisades. At the time of the visit the site was in mainly in long grass, with gorse at the southern end of the hill. The poor ground visibility meant that internal features such as pits could not be photographed or recorded in any detail. At least four pits were recorded on the central platform and two each on the east and west terraces; although more were visible in 2003 when the site was under pines and there was better ground surface visibility (Campbell 2003: Figure 2). However, all but one of the pits not found again were considered to be indistinct when recorded in 2003. One was cut by a more recent pit indicating at least two phases of use of the pa. Photographs of the site and visible features are included in the DVD which accompanies this report.

2. Topographic map of pa P04/640. The pits visible on the ground are outlined in heavy grey, pits visible in 2003 are sketched in with indistinct pits shown in a dashed line. Contour interval = 10 cm, major contours = 1 m.





3. Pa P04/640 looking to the south.

No ground damage was evident from the recent harvest operation, but the site had clearly been bulldozed in the past. It is now virtually an island with bulldozed tracks around the north, east and south. The south side of the hill is the most modified with an old track curving around to the top of the hill. The area of disturbance is covered by gorse and it is not clear if features of the site originally extended down this side of the hill. For the long term preservation of the site the area that has not been sprayed (up to the edge of the tracks and extending 5 m down the side of the hill from the outside edge of the western terrace) is the area where trees should not be planted and wilding pines should be removed.

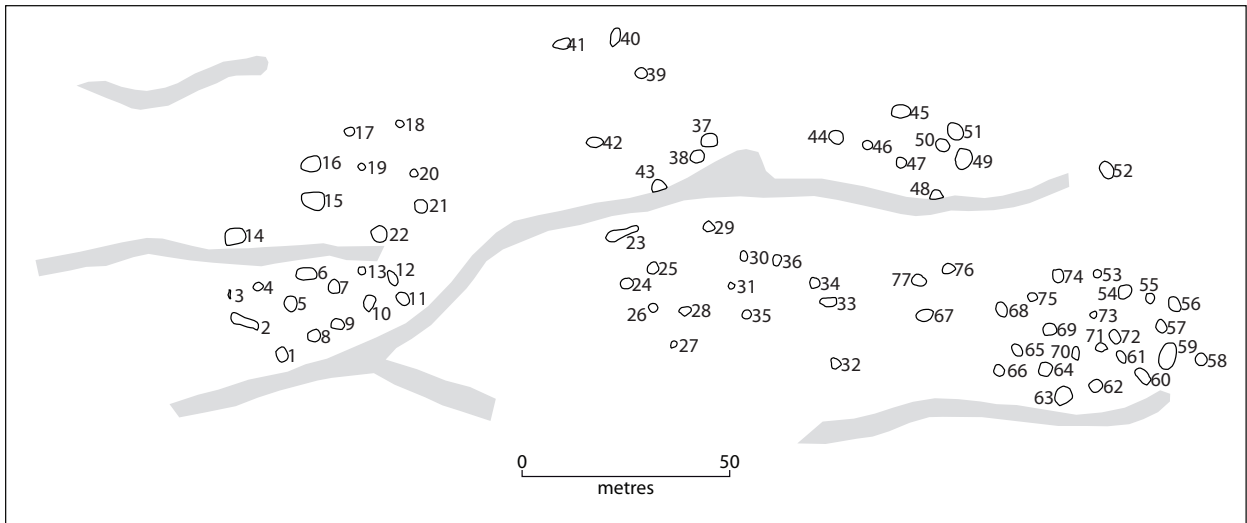
Stone mounds P04/641

The stone mounds, P04/641, form three reasonably distinct groups with a western, central and eastern group on the south slope of a high coastal hill. As can be seen in Figure 4 the western group is the most clearly defined, with another tightly grouped series of mounds on the eastern side and then a large spread of mounds in the centre with some outliers. The condition of the mounds is varied with some, especially those on the steeper parts of the hill, having partly tumbled down-slope naturally and others having been damaged by harvest operations. In total 77 stone mounds were identified, mapped and photographed. A brief note on the condition was made on each mound and is summarised in Table 1. Photographs of each mound are included in the DVD that accompanies this report and the photo catalogue list their condition individually.

Condition	Total
Good	29
Fair	36
Poor	12
	77

Table 1. Summary of the condition of the stone mounds.

The most unusual feature of this site is that it is located on the south facing slope of the hill. This slope is not steep, and would receive quite a bit of sun during summer, but generally gardens are not expected on south slopes. The way in which stone mounds were used in gardens is not generally well understood. Investigations have been limited and mostly carried out in the South Auckland volcanic stonefields. Lawlor (1981) excavated a stone mound at Puhinui, showing that it was systematically constructed, with a ring of larger stones containing a core of small scoria and loam soil. The mound was built directly on top of the existing surface. Sewell (1994) has reviewed the historical record of stone mound as well as archaeo-



4. Plan of site P04/641 with bulldozed tracks marked in grey.

logical research into them. It is apparent that there are two main type of mound — those containing soil, generally deliberately and systematically constructed and used in gardening, and those without, consisting of stone heaped up in the course of field clearance. Since most work has occurred in Auckland, regional variation is not well understood though it seems likely that mound construction and use differ in different parts of the country.

Experiments with stone mounds on the volcanic stonefields of South Auckland have shown that the extra heat retained by the stones is enough to “fry” any gourd plants grown on them in summer. This may not be the case if yams were grown, and different substrates, soils and environments may yield different results (Ian Lawlor, personal communication, August 2003). Lawlor suggested that the stone mounds were most probably used as *tapapa* or purpose-built beds for raising kumara shoots prior to transplanting once all danger of frost had passed. The south facing aspect of the mounds at P04/641 may be related to controlling heat and water supply. On the north facing slope on the other side of the gulley the soil was stone free and much deeper, as could be seen in the track cutting. This appears to be a much more favourable site for gardening. The stone mounds at P04/641 are probably either field clearance mounds or *tapapa* of the type described by Lawlor. Their continued preservation will allow for future research into this site type which is not well understood.

5. General view of site P04/641 looking north.





6 (top left). Stone mound 5 in the western group looking to the east (scales 1 m).

7 (top right). Stone mound 49 on the steep slope above the forestry track in the central area (scales 1 m).

8 (bottom left). Stone mound 77 between the eastern and central groups (scale 1 m).

9 (bottom right). Stone mound 52, an outlier on the steep slope near the cliff edge (scales 1 m).

Recommendations

To protect the archaeological features of sites P04/640 and P04/641 and minimise the impact of future forestry operations it is recommended that:

Pa P04/640

- any pine trees within the area defined by the bulldozed tracks on the north, east and south sides and 5 m down the hillside from the outside edge of the western terrace be removed;
- wilding pines be pulled from within this area every three years;
- the controlled regeneration of native bush be allowed, taking care that potentially large trees not be allowed to become established on features.

Stone mounds P04/641

- remove pines within at least 2 m of each mound or where any tree maintenance such as pruning or harvest will potentially impact on the mound, when thinning commences in around 5 years;
- the extent of both sites should be clearly marked on any forestry plans so that the site is not impacted upon by future operations.

References

- Campbell, M. 2003. Archaeological assessment of pine plantation harvest, Hatton Property, Taupo Bay. Unpublished report to Forest Harvest Planning Limited.
- Lawlor, I., 1981. Puhinui (N42/17) excavation. Department of Anthropology, University of Auckland.
- Sewell, B., 1994. Excavations of two stone heaps at site S11/245 in the Tapapakanga Regional Park, South Auckland. Unpublished report to the Department of Conservation, Auckland.