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Further Evidence of Early Maori Occupation on the flanks of Egmont Volcano

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Evidence of pre-European Maori occupation on the flanks of Egmont Volcano was first discovered in 1929, when a Maori oven or 'umu' was uncovered during road construction just below Stratford Mountain House (see Fig. 1). The significance of this umu buried beneath undisturbed upper layers of volcanic material was discussed by Oliver (1931).

The layers of volcanic material overlying the oven were later named by Druce (1966) as the **Burrell Ash, Burrell Lapilli** and **Tahurangi Ash.** The layers underlying the umu were similarly named by Druce (1966) as eruptives of the **Newall Formation** (see Table 1).

Further evidence of early Maori activity on Egmont Volcano was reported by Topping (1974) following the discovery of another umu on the upper eastern flanks at 1074 m (see Fig. 1). This umu closely underlies an **unnamed ash** beneath the **Newall Ash** of the **Newall Formation** (Druce 1966), (see Table 1). In this account, we report upon another section revealing the latest evidence of early Maori occupation on the flanks of Egmont Volcano.

Site Description

Widening of the south-facing roadside near Stratford Mountain House has recently exposed a sub-horizontal occupation site (c. 3.5 m long) consisting of an umu. a charcoal layer spread on either side and a nearby pit (see Plate 1). This section, exposed just above road level and beneath c. 0.4 m of undisturbed fine ash and lapilli beds, occurs on the opposite side of the road from the umu described first by Oliver (1931) and later by Druce (1966).

The umu measures 0.8 m in diameter, and consists of a cluster of rounded to sub-rounded andesitic cobbles and coarse pebbles ranging in size from 0.165 m to 0.025 m diameter. Many rock clasts exhibit heat fractures. No similar rock clasts are exposed in the vicinity of the umu (this study) except at the umu previously described (Oliver 1931, Druce 1966). At the road edge c. 3 m to the west of the occupation site, common rock clasts similar to those that comprise the umu, protrude from a raised area of unstratified 'ashy' debris that has

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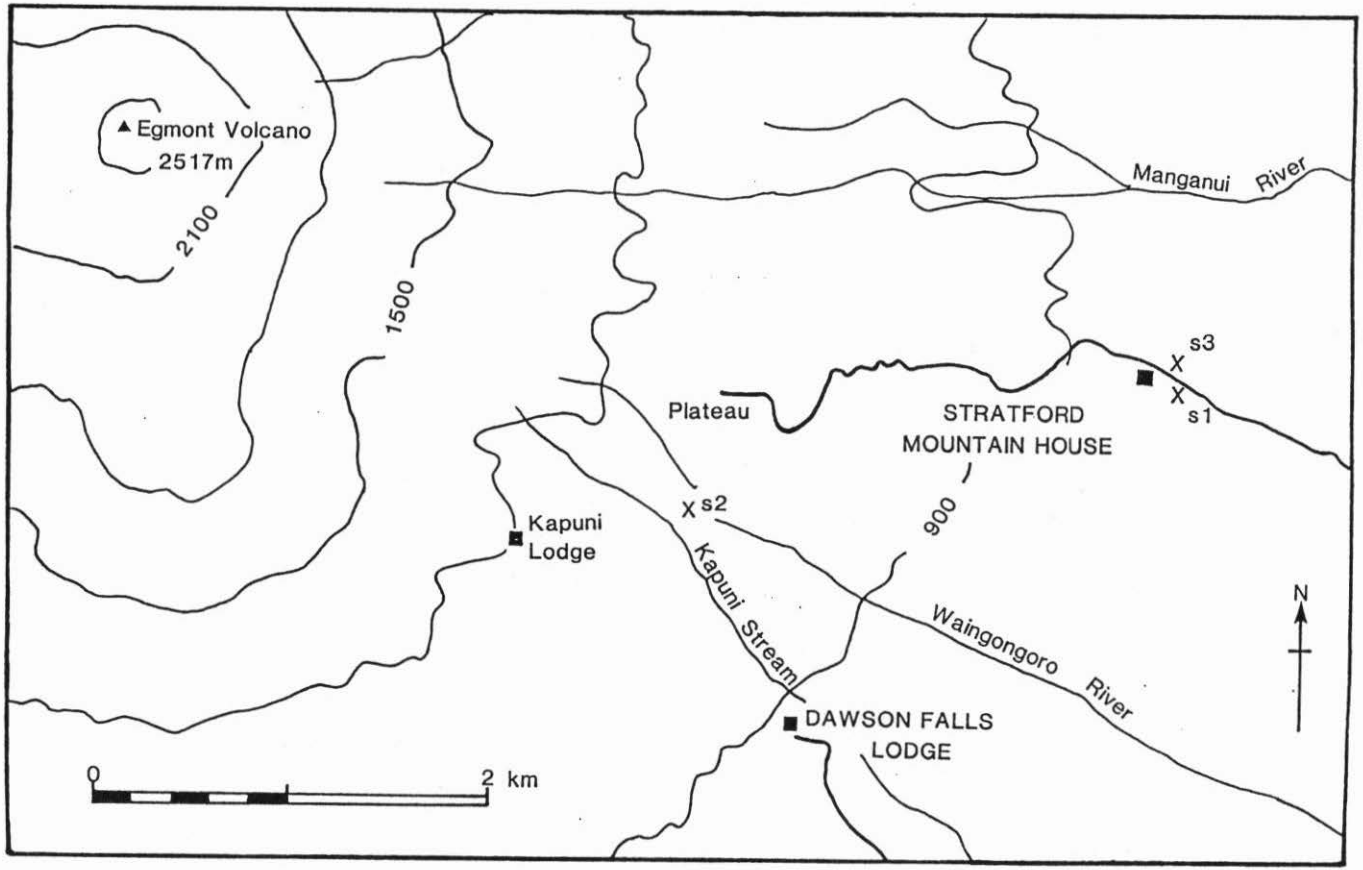

Figure 1. Location Map - Eastern and south-eastern slopes of Egmont Volcano. S1 and S2 are the sites of the ovens described by Oliver (1931) and Topping (1974), respectively. S3 is the site described in this study.

covered a small area of forest floor. This debris appears to result from roadside dumping during road construction.

The occurrence of rock clasts within debris resulting from road realignment suggests that in addition to the ovens already uncovered, other ovens have been destroyed. Rock clasts of the type found in the ovens are plentiful in an unnamed creek bed about 90 m north of the site. Presumably clasts were carried from the creek bed to the occupation site.

The umu occurs in a shallow (0.28 m max. depth) concave shaped depression that has been excavated within the weathered fine ash layers below. Dispersed between oven rock clasts are abundant wood charcoal fragments (<0.015 m diameter) and minor fine ash. Charcoal fragments identified as *Dacrydium cupressium* and *Pseudopanax* are also dispersed within fine ash, in a variably thick (0.01 to 0.10 m) layer spread for a distance of 1.0 to 1.5 m either side of the umu.

At a second site 0.8 m east of the oven wood charcoal fragments are commonly dispersed within fine ash in a 0.20 m wide and 0.23 m deep pit. Like the umu, the pit has also been excavated into underlying ash layers.

Tephrostratigraphy

The occupation site immediately underlies two continuous and prominent tephra beds that are closely spaced (see Plate 2). The upper tephra bed - **Burrell Lapilli** (Druce 1966), is widely distributed to the east of the present summit of Egmont Volcano and consists of loose, white pumiceous blocks and lapilli, with minor dense grey lithic andesitic fragments. In the vicinity of the umu, **Burrell Lapilli** averages 0.30 m thick with its upper contact nearly always being topsoil developed on the present ground surface.

The lower tephra bed - **Burrell Ash** (Druce 1966) consists of firm, massive to shower bedded greyish-brown coarse and fine ash averaging 0.06 m thickness. Its lower contact directly mantles the umu so that cobbles protrude up into the ash. Within **Burrell Ash** many leaf impressions are preserved - particularly noticeable are kamahi (*Weinmannia racemosa*) and Hall's totara (*Podocarpus cunninghamii*) leaves. Near the east side of the umu, a bed of many dense grey lithic lapilli, the **Waiweranui Lapilli**, occurs <0.07 m beneath the **Burrell Ash** and is truncated by the umu excavation on one side and the pit excavation on the other.

Age

The occupation site occurs in a similar stratigraphic position to the umu described by Oliver (1931). Radiocarbon

Table 1. Recent eruptives from Egmont Volcano (Druce 1966) showing the stratigraphic position of ovens described by Oliver (1931), Topping (1974), and this study.

Age Other Authors	Druce (1966)	Formation	Member, or bed
	1755	Tahurangi	Tahurangi Ash
	1655	Burrell	Puniho Lapilli 2 Puniho Lapilli 1 Burrell Lapilli Burrell Ash
400±60 (1) 360±60 (1)		--------	**cobbles with charcoal** **(Oliver 1931, this study)**
	1604	Newall	Waiweranui Ash Waiweranui Lapilli
456±55 (2) 404±44 (3) 447±40 (3)		--------	Newall Lapilli Newall Ash
470±55 (4)		--------	unnamed ash bed (buried topsoil) **cobbles with charcoal** **(Topping 1974)** unnamed ash bed
			unnamed ash bed (buried soil 8) unnamed lapilli (member p4)

NZ C14 Dating No. and Author

(1) NZ63B and NZ64B (Ferguson and Rafter 1957)
(2) NZ720B (Grant-Taylor and Rafter 1971)
(3) NZ941 and NZ1141 (Neall 1972)
(4) NZ1561B (Topping 1974)

measurements of charcoal from the umu described earlier, were reported by Fergusson and Rafter (1957). Ages of 400±60 years B.P. for a "large piece of wood in centre of oven" and 360±60 years B.P. for "small pieces of charred wood from various parts of the oven" were obtained. These authors point out that the age of the samples show the age of the material used for firewood and this could be older than the oven.

A minimum age of c.1655 A.D. was established for the umu following tree ring dating of the Burrell eruptives by Druce (1966). Similarly a maximum age of c.1604 A.D. was accepted for the age of the umu following further dendrochronological dating of the Newall eruptions by Druce (1966). This maximum age was later amended to between c.1500 - 1550 A.D. following revision of the age of the Newall Formation by Neall (1972).

The early Maori occupation site of this study has a probable age range of c.1655 A.D. and c.1500 A.D. since it occurs between **Burrell Ash** and the uppermost member of Newall Formation (**Waiweranui Lapilli**).

Archaeological Interpretation

The presence of two umu in close proximity, a small associated pit, surface indication and the distinct possibility that further evidence was destroyed during road construction, suggests that the east Egmont site should be described as substantial rather than a casual 'camp'. In the absence of any systematic excavation, other than cleaning the exposed section, or additional cultural or artefactual material, assessment of site function must remain somewhat speculative.

The areal extent of cultural activity is larger than that previously excavated by Topping (1974) and being at a much lower altitude (c.850 m) suggests activities related to the exploitation of the surrounding forest reserve. Most narratives of Maori relationships with the mountain highlight the restrictive sacred and spiritual reverence with which it is regarded and suggest that day to day activities were consequently limited (Rawson 1981, Scanlan 1961, Temple 1985). There is general agreement, however, that the collection of ochre from natural deposits (eg at N119/23), the interrment of the dead, the hunting of birds, and the use of remote strongholds in times of political need (eg Maru Pa N118/3, Maxwell 1933) were regularly undertaken.

Several authors make reference to a fortified village called Karaka-Tonga, believed to have been situated on the Waiwhakaiho River, North Egmont, at an altitude of c.600 m. Oliver (1931) refers to one obscure account of this village which suggests it was buried during a volcanic eruption. Other traditional Maori accounts of either destructive effects are conspicuously absent. Yet the stratigraphic relationships of the umu so far examined on Egmont Volcano, demonstrate that occupation on its flanks recommenced within a relatively short time after the Newall eruptions. It should be most unlikely that the Maori occupants did not see, or possibly experience, the effects of eruptive activity at Egmont Volcano. It can be suggested, therefore, the inhabitants of these sites either did not feel unduly threatened by the consequences of a renewal in

Plate 1. South facing roadside near Stratford Mountain House revealing a 3.5 m long sub-horizontal occupation site consisting of an umu, a charcoal layer spread on either side and a nearby pit (indicated by arrow).

Plate 2. The umu immediately underlying two continuous and prominent tephra beds. The upper tephra bed (indicated by arrow), the Burrell lapilli and the lower bed, the Burrell Ash.

eruptive activity, or else the activities that brought them onto the volcano made a perceived risk worthwhile.

Nichol (1981) has demonstrated that the sanguine gardeners at the Sunde site (N38/24) on Motutapu Island were not deterred by volcanic activity continuing a mere 5 km away. The opportunity to enrich gardens with the freshly fallen ash clearly outweighted any apparent threat (Nichol 1981).

Available archaeological evidence suggests that the Taranaki region was colonised and settled rather later than other parts of New Zealand (Prickett 1983). It seems likely that the 'moahunter' settlements at the mouths of the Kaupokonui (N128/3) and Waingongoro (N129/77, N129/223) Rivers document initial human settlement, which radiocarbon dates suggest occurred in the early fourteenth century. The extensive bone middens associated with these sites bear testimony to intensive hunting of at least 25 species of birds now extinct in the North Island (Prickett 1983). Even allowing for environmental regression with altitude, it is plausible to suggest that the existence of umu on Egmont Volcano may be related to the pursuit of an ever diminishing supply of bush and ground birds two or three centuries after settlement.

During two ventures onto the slopes of Egmont, Dieffenbach had ample opportunity to observe the attitude of his Maori guides towards the Mountain. On the coastal plain and Egmont ring plain both his guides had many well concealed gardens with occasional dwellings and store-houses. Dieffenbach also observed abandoned gardens of several square miles in extent, which had obviously formerly been cultivated. The higher slopes, in contrast, were regarded with much greater reverence and on Dieffenbach's second and successful ascent, his Maori guides were reluctant to venture beyond the forest margin and would go no higher than c.1980 m, "not only on account of their superstitious fears, but because, form the intensity of the cold their uncovered feet had already suffered severely" (Rawson 1981).

Conclusion

Even with the limited road and track construction permissible inside the Egmont National Park, three umu have been found. It is probable that many more lie beneath recent tephra deposits. Although no traditional accounts are known of any eruptive sequence, stratigraphic evidence demonstrates that Maori habitation persisted on the flanks of Egmont Volcano despite periodic eruptive activity. The presence of these sites on the eastern slopes within two centuries of initial settlement of this part of the West Coast requires some explanation. The absence of later comparable sites and a restrictive sacred and spiritual veneration, which made at

least the higher slopes tapu at the time of European contact, suggests a major change in the role of the volcano in the daily lives of the local inhabitants.

It seems reasonable to suggest that the umu result from the activities associated with the pursuit of ever diminishing numbers of ground and bush birds that had become scarce within coastal and ring plain habitats. Once these now extinct birds became scarce on the volcanic slopes as well, the frequency of Maori visitation also diminished.

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Appendix

Site description showing correlation with tephra units established by Druce (1966)

Cutting, Stratford Mountain Road: NZMS1 N119/702616; Alt. 847 m
Profile through centre of oven

0.00 - 0.04 m Very dark brown (10YR 2/2), humic, friable, slightly gravelly, fine sandy loam **(Medial)**; Clear and irregular boundary;

0.04 - 0.34 Moderately sorted, dark reddish brown (5YR 3/3) coated white to pale brown (10YR 8/2 - 6/3) pumiceous blocks and lapilli with subordinate fine to medium lapilli **(Burrell Lapilli)**; Sharp and wavy boundary;

0.34 - 0.36 Massive, friable, dark brown (10YR 3/3) gravelly, slightly sandy, silt loam **(Medial)**; Distinct and wavy boundary;

0.36 - 0.42 Very firm, massive, moderately well sorted, dark grey brown (10YR 4/2) fine to coarse lithic ash **(Burrell Ash)**; Leaf impressions evident; Sharp and wavy boundary;

0.42 - 0.70 Heat fractured rounded - subrounded cobbles and pebbles; Black (10YR 2/1) charcoal and minor disturbed dark brown (10YR 3/3) clay loam (umu); Clear and wavy boundary;

0.70 - 0.87+ Weakly developed, fine to medium blocky structured, firm, yellowish brown (10YR 5/6) slightly sandy, clay loam **(Medial)**.

Road Level.