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EXCAVATION OF THE CRYERS ROAD SITE (R11/1519)EAST TAMAKI, AUCKLAND

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The Cryers Road site (R11/1519) was located in East Tamaki, Auckland, in the vicinity of the now destroyed Green Mount pa. The total area of the site was 33.23 hectares, encompassing two separate blocks of land. Archaeological excavation was limited to the southern block, which was bordered by Cryers Road and Neales Road (Fig. 1). The excavation, undertaken in August and September 1987, was in response to commercial development of the site by Kaipara Excavators Ltd.

A preliminary survey of R11/1519 had previously been undertaken by Veart (1985) and was followed with a more intensive survey by Albert (1987). Albert recorded 397 archaeological features with most (80%) occurring within the southern block. A range of features was present. These included earth and stone mounds, earth and stone wall remnants, stone edged terraces, stone alignments, shell deposits, and modified depressions (Albert 1987:59 ff). Ascertaining the nature of the horticultural function of the stone mounds and earth and stone walls of East Tamaki has been the object of an intensive study by Douglas (in prep.). The research strategy adopted in the investigation of R11/1519 was designed to complement Douglas's work by focusing on the nature of prehistoric habitation. With this aim in mind, four research objectives were formulated. These consisted of:

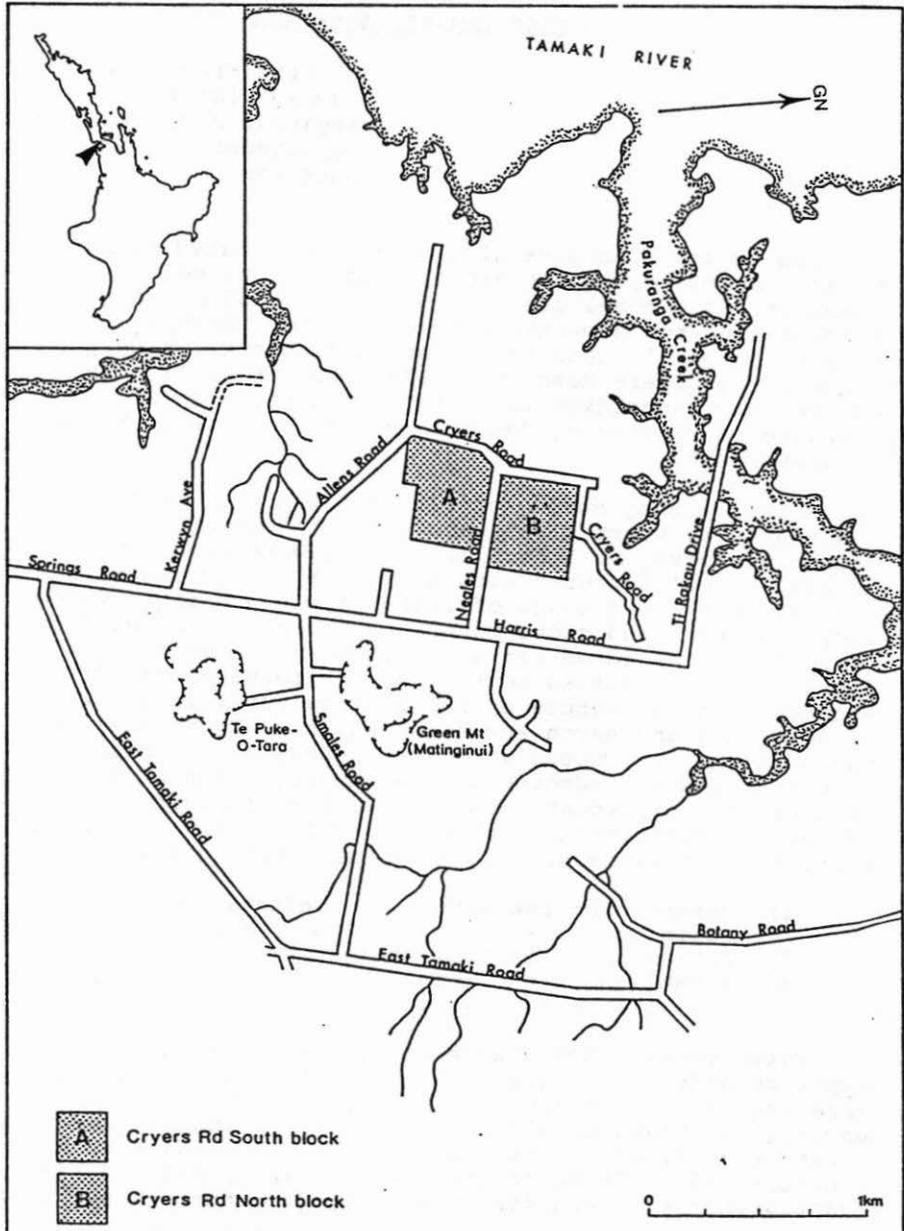
- (1) Determining the nature of habitation;
- (2) Defining patterns in the location of activity areas;
- (3) Determining temporal change in prehistoric activity;
- (4) Establishing the resources exploited by the past inhabitants of the site.

Five features which were considered representative of the types recorded were chosen for intensive investigation. These were recorded by Albert (1987:154 ff) as three walled enclosures (Features A27, A49 and A56), a stone faced terrace (Feature A41), and a stone alignment with remnant stone facing (Feature A63). Three of the features (A41, A56 and A63) had associated shell deposits visible eroding through the turf.

Three raised lava plateaus, on which a number of features

LOCATION OF CRYERS ROAD SITE R11/1519

FIG.1



had been recorded, were also chosen for investigation. Large areas on these plateaus were excavated using a machine backhoe. This strategy was undertaken to complement the intensive excavation of specific features.

AREAS INVESTIGATED

The investigated areas are illustrated in Fig. 2. Excavation of Features A27 and A49 revealed that these were natural formations formed by cooling lava flow. Cultural evidence was present in the remaining areas. Features A56 and A63 proved to be shell dumps situated on lava outcrops. Investigation of the Western Plateau revealed an extensive shell deposit overlying a small pit-like feature with two associated postholes. On the Eastern Plateau a smaller shell deposit was uncovered. The shell deposits present in these areas probably represented refuse from cooking activity. In some cases the shell may have been stockpiled to serve as fill or as a garden soil additive.

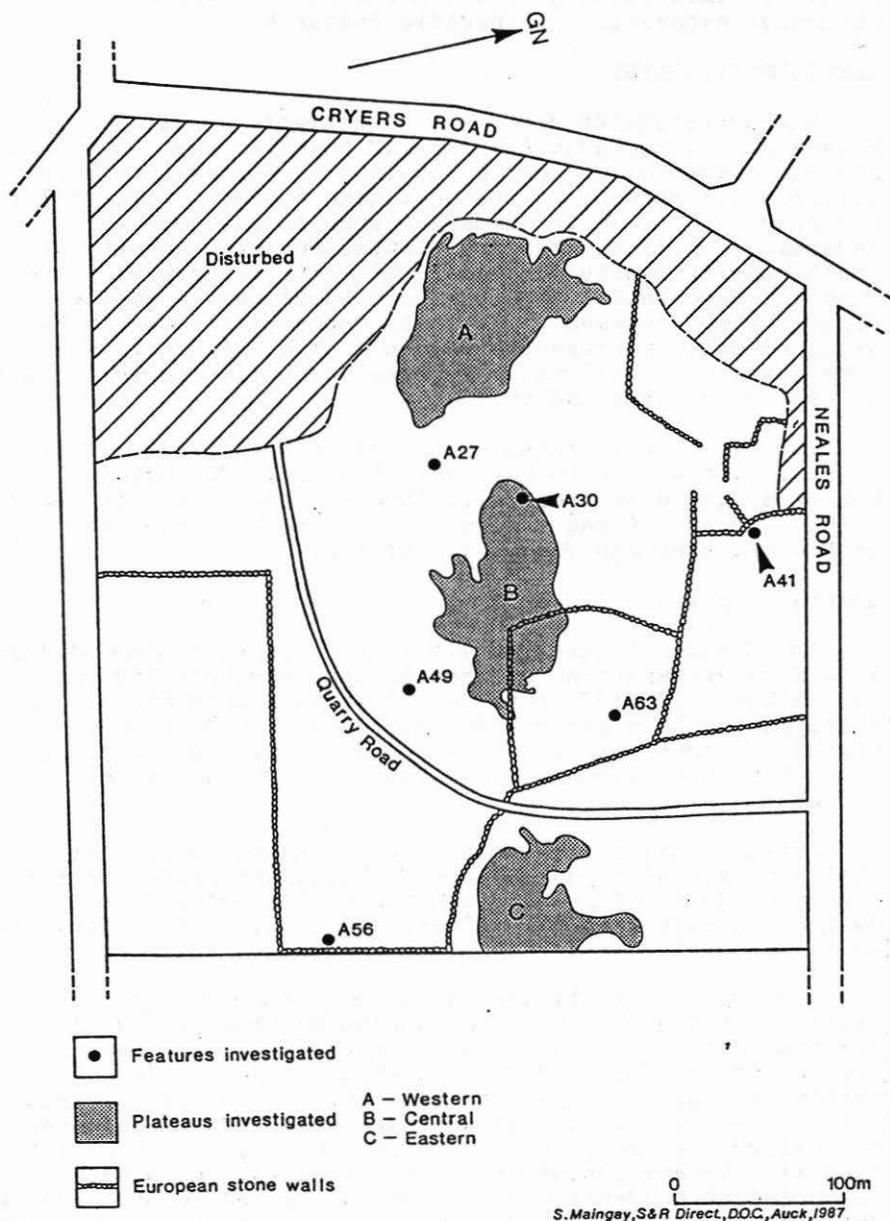
Two of the most revealing areas however proved to be the Central Plateau and Feature A41 (Fig. 2). The material uncovered in these areas will form the basis of this report. A full account of the excavation of site R11/1519 can be found in Fredericksen and Visser (in press).

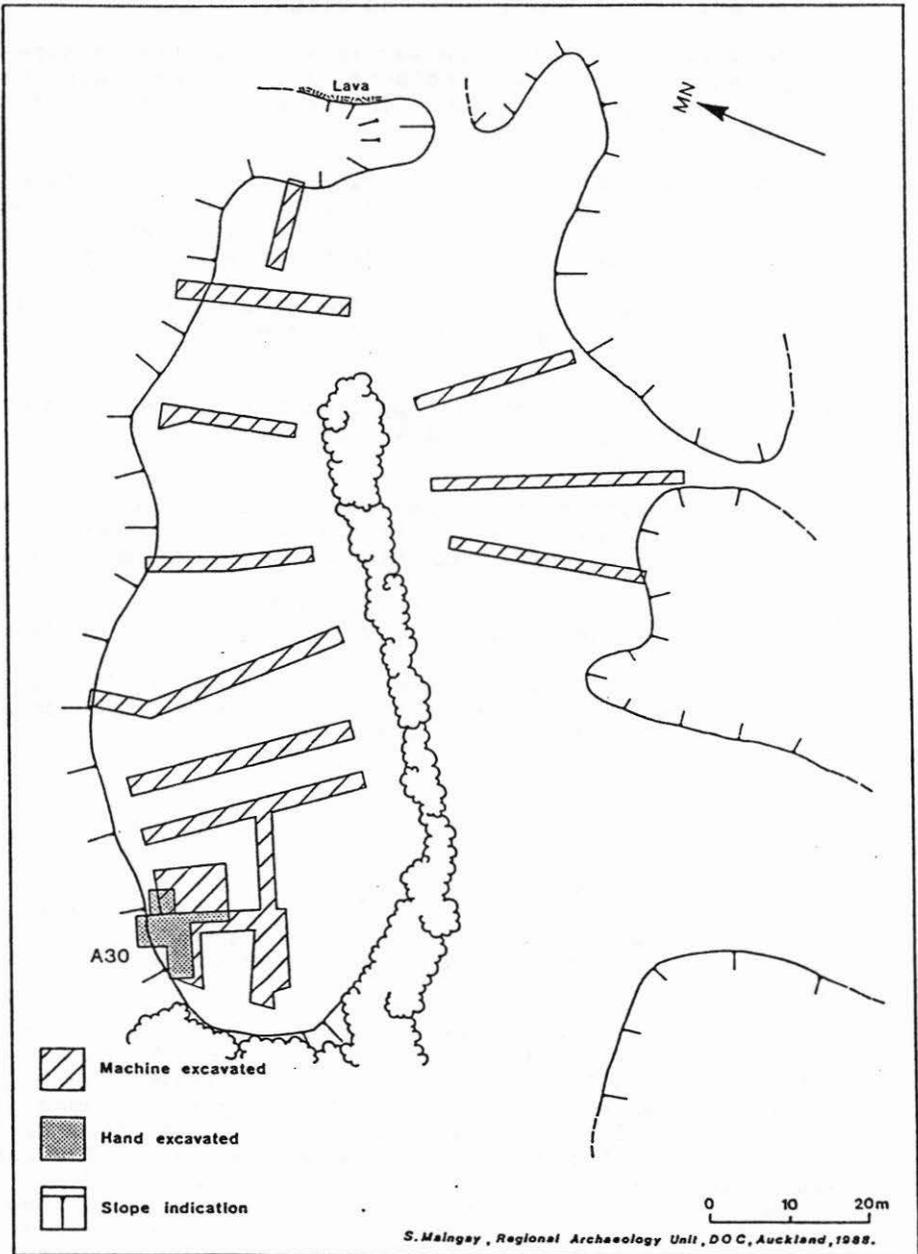
Central Plateau

The Central Plateau consisted of a level region of raised lava flow encompassing an area of approximately 6500 m² (Fig. 2). Albert (1987:33) recorded 13 stone mounds and 10 other features on the plateau. The latter were made up of five earth and stone wall remnants, three shell deposits, one shell deposit with possible stone alignment, and one walled enclosure.

After clearing the vegetation it became evident that the shell deposit with possible stone alignment presented the most likely evidence of prehistoric habitation. This had been designated Feature A30 by Albert (1987:156). Investigations in the Central Plateau therefore focused on this feature.

The excavation strategy involved hand excavation of Feature A30 and the use of a machine backhoe to dig 11 trenches along the top of the plateau (Fig. 3). Machine excavation was designed to open up as large an area as possible. The trenches were excavated in two spits, involving firstly removal of soil to approximately 100 mm below the topsoil and secondly removal to 200 mm below the top of the subsoil. Excavation of the first level was intended to reveal any artefact concentrations. Removal of the second level was designed to uncover features which are often clearly visible





only in the yellow/brown volcanic subsoil which is characteristic of South Auckland sites.

Nothing of significance was revealed in the machine excavated trenches. No artefacts were recovered nor was cultural modification evident in the subsoil or the soil profile of the trenches.

The hand excavation of Feature A30 involved opening up an area of 42 m² (Fig. 3). This was done to enable horizontal definition of a shell deposit, visible on the surface as patches of fragmented shell eroding through the topsoil.

The stratigraphy present in the hand excavated area proved to be relatively simple. This consisted of five layers (Fig. 4):

- Layer 1 - Turf and topsoil; approximately 100 mm in depth. The topsoil was dark brown in colour and friable in texture.
- Layer 2 - A deposit of crushed shell mixed with flecks of charcoal and some fire-reddened scoria stones in a dark greasy soil matrix; up to 120 mm in depth.
- Layer 2a A mixed layer of compacted dark brown soil, burnt soil and subsoil; between 10 and 80 mm in depth.
- Layer 3 - A dark brown palaeosol; approximately 100 mm in depth. In some areas the soil was compacted and in other areas it was friable.
- Layer 4 - Yellow/brown subsoil.

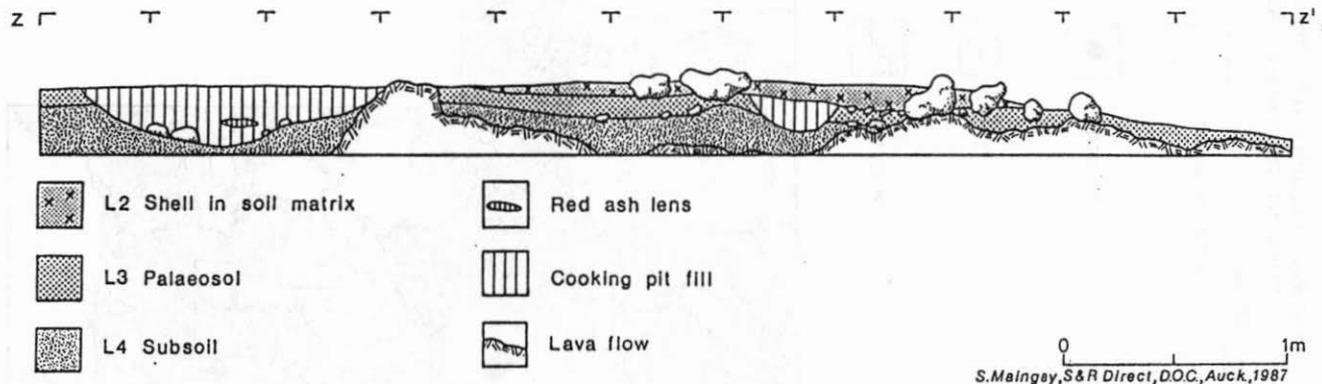
In places Layer 1 was absent with the shell (predominantly *Chione stutchburyi*) of Layer 2 evident as a surface scatter. Layer 2a was present in the vicinity of a large cooking pit (Feature 3 in Fig. 5) in the form of a compacted lens within the Layer 2 shell deposit. The Layer 3 palaeosol was only distinguishable from modern topsoil where it was sealed by Layer 2.

Removal of Layers 1 and 2 revealed the presence of seven features (Fig. 5). These had been cut into the palaeosol and subsoil (Layers 3 and 4). Four of these (Features 1, 3, 6 and 7) were definite cooking pits, containing large numbers of scoria stones 20-210 mm in size. Fill consisted of dark greasy soil with charcoal and fragmented shell. The three remaining features (Features 2, 4 and 5) contained fill but no stones. There were however numerous burnt scoria stones present on the edge of Feature 5 and associated with an area in the centre of the excavation, where the Layer 2 shell

R11/1519 CROSS-SECTION OF HAND EXCAVATED AREA OF FEATURE A30 ON THE CENTRAL PLATEAU (see FIG.5)

FIG.4

239.



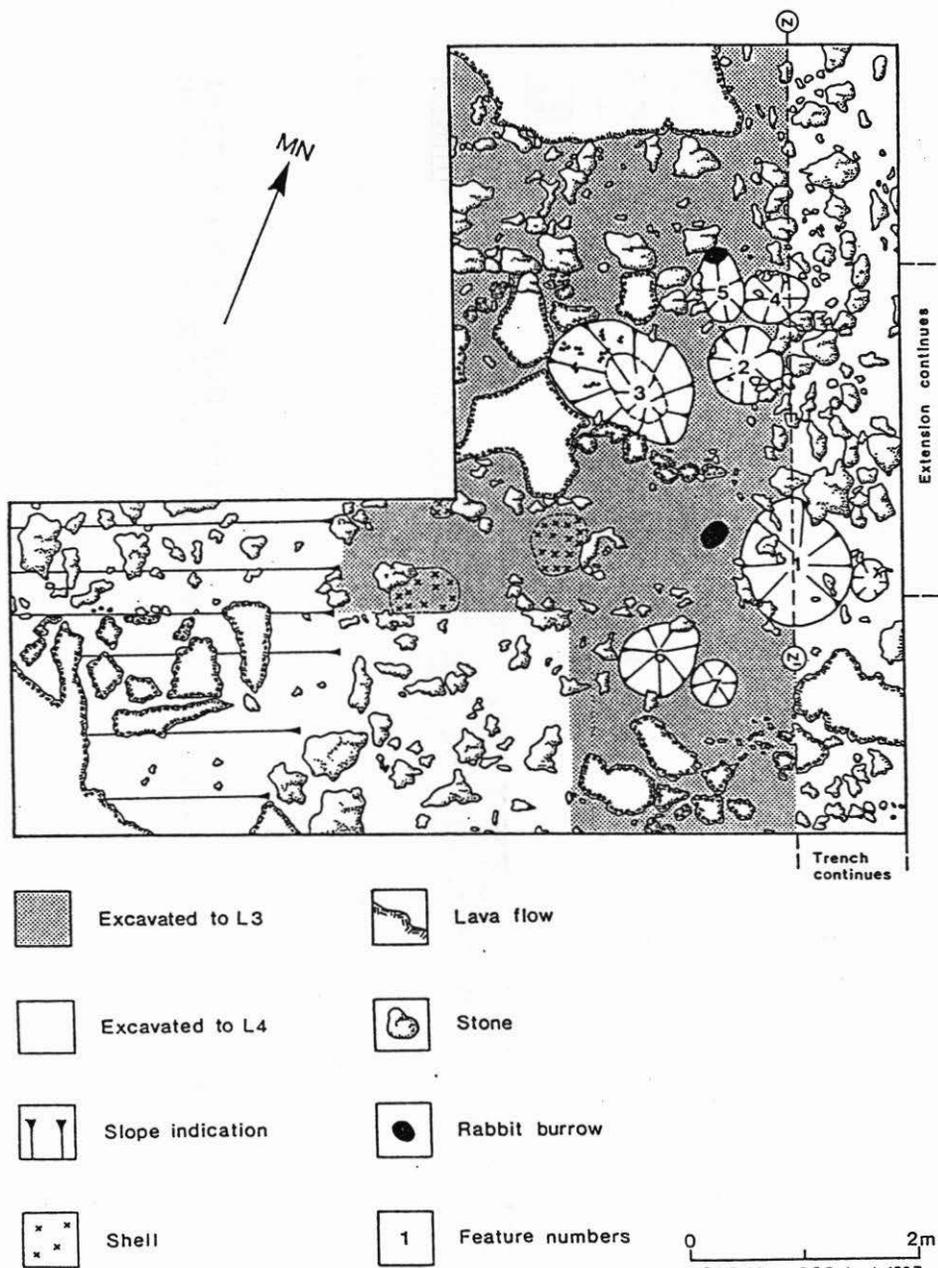


Fig. 5. R11/1519 features revealed in hand excavated area of Feature A30 on the Central Plateau.

deposit did not overlies Feature 3. It was likely that these stones had been raked out from Features 2, 4, and 5, which were probably also cooking pits.

A shattered water-worn greywacke cobble was the only non-local stone recovered from the Central Plateau. No artefacts were present in this area.

Feature A41

Feature A41 was an artificial terrace constructed at the base of a lava flow (Fig. 2). Large basaltic rocks formed a facing along the eastern edge of the terrace. Shell material was observed to be eroding from between these rocks. A lava flow scarp 1.50 m in height formed the rear of the terrace.

Albert (1987:163) hypothesised that Feature A41 may have had either an agricultural function or served as the site for a habitation structure. Given the possible association of Feature A41 with past habitation, a decision was made to excavate the entire terrace.

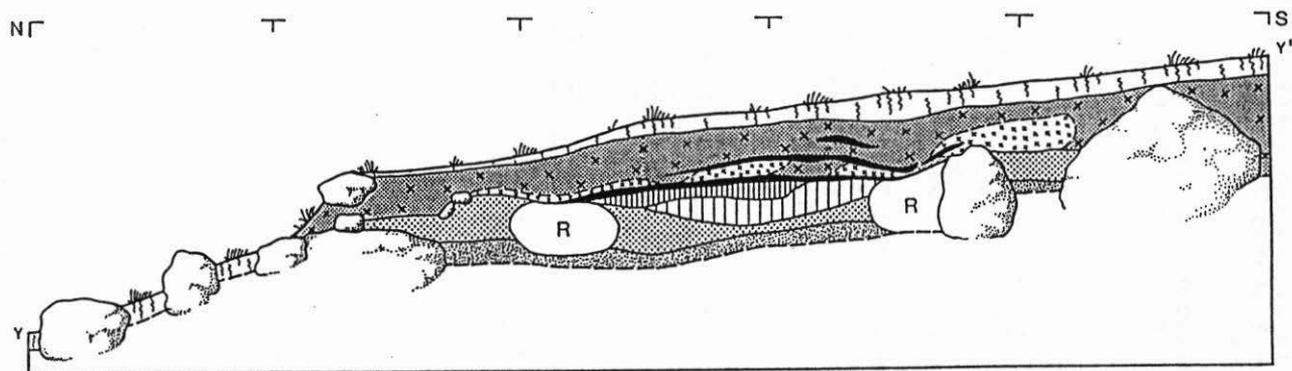
The excavation involved firstly defining the sequence of activities on the terrace. A 5 x 1 m trench (Trench 1) was excavated from the base of the lava flow to 1 m beyond the stone facing of the terrace. A complex stratigraphy was revealed (Fig. 6). Basically this consisted of four layers:

- Layer 1 - Turf and topsoil. The topsoil was typically dark brown in colour and friable in texture, attaining a depth of approximately 50-100 mm. Miscellaneous European ceramics, glass and iron artefacts were associated with this layer.
- Layer 2 - A complex shell layer; depth varied between 150 and 320 mm. There was no clear sequence of shell deposition but rather it appeared that shell had been repeatedly deposited in alternate areas. Numerous charcoal, ash and dark soil lenses were found throughout this layer. Snapper bone and heat fractured scoria and greywacke stones were also recovered.
- Layer 3 - A palaeosol. The soil was dark brown in colour and friable in texture. It varied between 100 and 150 mm in depth. Charcoal flecks were found throughout this layer.
- Layer 4 - Yellow/brown subsoil. This layer was undisturbed and formed the base of the excavation.

The second stage of the excavation involved areally

R11/1519 CROSS-SECTION OF FEATURE A41 (see FIG.7)

FIG.6



L1 Turf and topsoil



Red ash



Rabbit burrow



L2 Shell and black soil



Dark brown soil



Clean shell



L3 Palaeosol



Black lens



L4 Subsoil



S.Maingay, S&R Direct, DOC, Auck, 1987

excavating Feature A41. Ninety-one square metres were excavated (Fig. 7). This included all the terraced area, as well as 17.5 m² below the terrace and 11.5 m² above the terrace. The upper and lower areas were excavated in order to determine whether the shell present there was related to that on the terrace.

Excavation was conducted in unit levels through the shell layer. The lack of a clear overall stratigraphy necessitated this method. Essentially each of the five 50 mm unit levels displayed the same characteristics. Shell size or shell species representation did not change significantly between unit levels (Fredericksen and Visser in press: Section 5.1), nor did the amounts of fish bone or lithic material. However, it was clear that the shell had not been deposited in a single episode. Distinct areas of ash, charcoal, fish bone, clean shell, and fire cracked greywacke stones were found. These areas intercut one another, indicating different episodes of deposition. It appeared that the interval between each depositional episode was not great as soil had not had time to accumulate between each deposit.

Within the palaeosol a number of features were evident (Fig. 7). Fifteen of these were firescoops and cooking pits. Firescoops were characteristically shallow and frequently contained a compact fill matrix of fragmented shell, dark soil, charcoal and ash. Cooking pits were larger and contained numerous small burnt scoria stones.

Six postholes or stakeholes were also found. The distribution of these features was such that it was unlikely these represented evidence for a substantial structure. However, these features may have been evidence for an impermanent structure such as temporary shelter or drying rack.

The retaining wall at the front of the terrace had been constructed on a base of *in situ* basalt boulders. The level area of the terrace had been extended by up to 750 mm by the deposition of shell behind the boulders.

Shell had been deposited over firescoops on the area below the terrace to form a deposit which was slightly higher than the surrounding land. Unlike that on the terrace, the shell was not retained by boulders. Shell present on top of the lava flow scarp above the terrace was restricted in area and had probably been disturbed by European farming activity. This shell was retained by several basalt boulders.

SUMMARY

Evidence for permanent habitation was not found at either Feature A41 or the Central Plateau. Features indicating the

R11/1519 FEATURES UNCOVERED DURING
EXCAVATION OF FEATURE A41

FIG.7

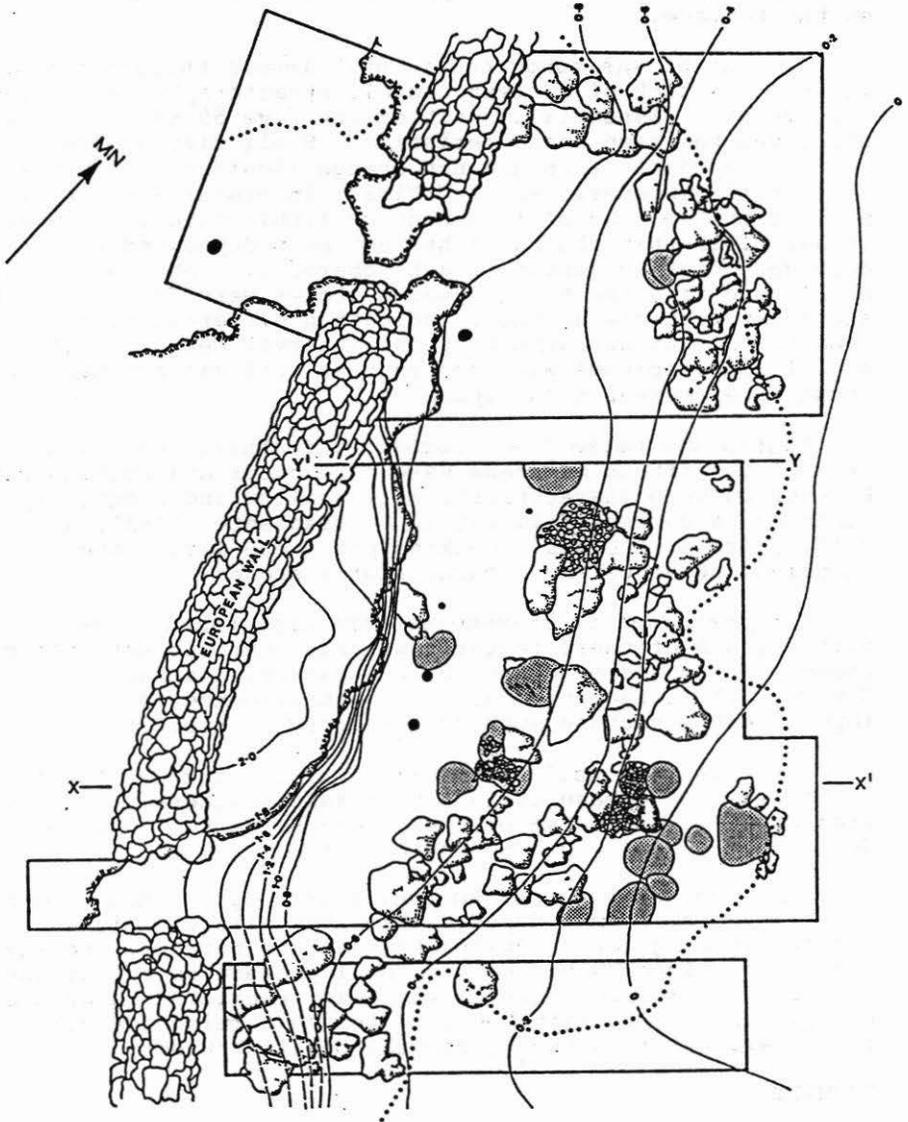
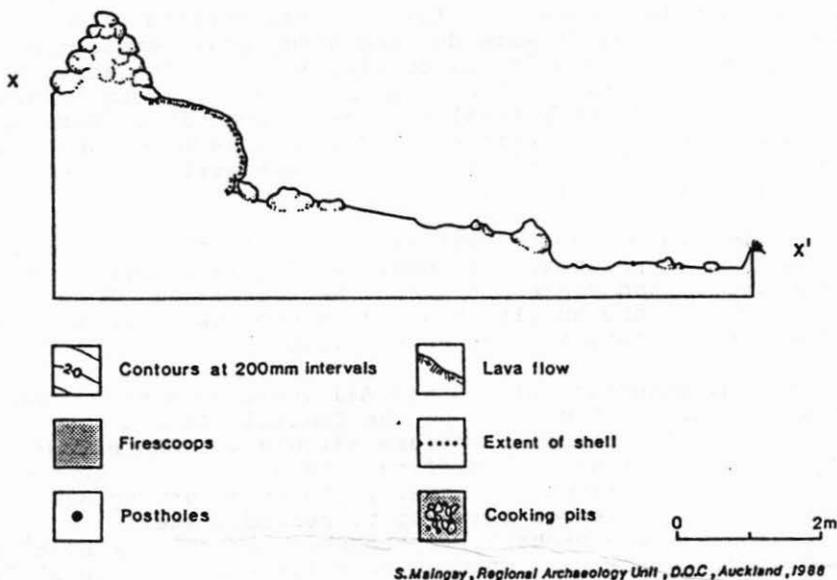


Fig. 7. (Continued)



former presence of a structure were entirely absent from the Central Plateau. This negative evidence suggests a shelter was not constructed near the cooking area revealed by the excavation in this area. The absence of cooking pits elsewhere in the excavated area would seem to indicate that food processing activity was restricted to a localised area on the edge of the plateau.

On the available evidence, prehistoric activity in the hand excavated areas of the Central Plateau can be tentatively divided into three phases

In the first phase a cooking pit (Feature 3) was dug and locally occurring scoria used as cooking stones. A compacted layer (Layer 2a) was formed during the use of the cooking pit, probably through human trampling around the edges of this feature.

During the second phase of activity three cooking pits (Features 2, 4 and 5) were constructed. After use, the shell refuse from these cooking pits was spread across the northern sector of the excavation and over part of another cooking pit (Feature 3), which had been previously infilled. This cooking pit was covered with stones which had been raked out from two of the other later cooking pits (Features 2 and 4). These two

features were then infilled.

In the final phase of activity three cooking pits (Features 1, 7 and 6) were dug and used, again employing locally available scoria for cooking stones. The absence of shell refuse covering the cooking pits indicates that these features represented a final episode of activity. Earlier infilled cooking pits were covered with a layer of shell which probably represented refuse from food preparation in this last phase of cooking activity.

A shell sample associated with the last phase of activity on the Central Plateau was submitted for radiocarbon dating (Fredericksen and Visser in press: Section 5.5). This indicated that the shellfish may have been gathered and cooked in the 16th century A.D. (1530±45) (Table 1).

The investigation of Feature A41 revealed a more complex situation than that evident on the Central Plateau. The shell deposit on the terrace of Feature A41 did not exhibit discrete layers, thereby making it difficult to discern a sequence of past activity. Instead of layers, the stratigraphy was characterised by lenses built up by periodic shell deposition. These probably represented episodes of brief use, abandonment and reuse. When an area was reused clean whole cockle shells were often deposited over the earlier cooking areas. The terrace shell deposit was therefore probably composed of deliberately deposited shell, *in situ* midden shell, and eroded midden material. Eroded midden material on the terrace originated from the upper area, sometime during the middle phase of the utilisation of the terrace. Shell material on the lower area had eroded down from the terrace itself.

Many firescoops were found in the lower area below the terrace (Fig. 7). These were confined to a small area. A number of the firescoops intercut each other, thereby demonstrating that there were a number of episodes of activity in the lower area. The upper area above the terrace had probably experienced brief utilisation, although disturbance through European activity made it difficult to interpret the remaining evidence in this area.

On the overall evidence of shell accumulation, midden remains, firescoops, and the sheltered location of the terrace, it would seem that the function of Feature A41 was primarily associated with activity involving cooking during brief stopover periods. What is of particular interest is the time span during which this activity occurred. Radiocarbon dates indicate that shell deposition took place over a mean period of 170 years (1590±45 to 1765±45) (Table 1).

Table 1

RADIOCARBON SAMPLES SUBMITTED AND AGE ESTIMATES RECEIVED

Laboratory No.	Collectors Sample No.	Excavation Area	Years B.P. Old Half Life (5568 +/- 40yrs)	Years B.P. New Half Life (5730 +/- 40yrs)	Description
Wk-:1126	111	A41	300 +/- 55	310 +/- 55	Charcoal sample - twigs from various species - from firescoop (Feature 1) at base of shell deposit.
Wk-:1127	7a & b	Central Plateau	420 +/- 45	450 +/- 45	<u>Chione</u> sample - from small lens of whole shell in shell deposit of Northern Extension.
Wk-:1128	9	A63	370 +/- 40	390 +/- 40	<u>Chione</u> sample - from centre of shell deposit.
Wk-:1129	1	Eastern Plateau	340 +/- 40	360 +/- 40	<u>Chione</u> sample - from shell deposit in Square 1.
Wk-:1130	5	Western Plateau	260 +/- 40	280 +/- 40	<u>Chione</u> sample - from shell deposit on northern slope.
Wk-:1131	10	Western Plateau	180 +/- 40	200 +/- 40	<u>Chione</u> sample - fill from posthole at base of pit feature.
Wk-:1132	2	A56	350 +/- 45	370 +/- 45	<u>Chione</u> sample - from centre of shell deposit.
Wk-:1133	124	A41	360 +/- 45	380 +/- 45	<u>Chione</u> sample - from firescoop (Feature 17) at base of shell deposit.
Wk-:1134	77	A41	190 +/- 45	210 +/- 45	<u>Chione</u> sample - from within shell deposit.

DISCUSSION

The investigation of R11/1519 provided evidence that people kept returning to specific areas of the site over at least a 300 year period (Table 1). This lengthy period of utilisation coupled with the temporary nature of settlement contrasts with the findings in the Matukurua lava fields of South Auckland. In this area evidence for long-term occupation has been uncovered (Bulmer and others in prep.). Bulmer has recently suggested that people there lived permanently within the lava field gardening lands (Bulmer 1987:12-14).

Clearly, there appear to have been differences in settlement patterns and land utilisation on the Auckland lava fields. These differences may have related to the distance to volcanic cone pa, with gardens distant from these population centres being the focus of more permanent occupation than that revealed at site R11/1519. Permanent settlement in the region of R11/1519 may have occurred in the vicinity of the volcanic cone pa of Green Mount (1 km from the site) and Te Puke O Tara (1.5 km distant). The people living near these two pa would have cultivated the land around R11/1519 and viewed the lava field as a convenient route to the Pakuranga Creek and Tamaki River, from where access could be gained to the portages of the Manukau Harbour.

The features investigated at R11/1519 are similar to those examined by Clark in lava field areas on the island of Hawai'i. Clark (1983:276-279) discusses a number of features in which fireplaces were found in association with ash, charcoal and midden deposits. The proposition advanced was that these features represented hundreds of years of either permanent occupation or temporary shifting residence. The evidence from R11/1519 can be interpreted more definitively. The most likely interpretation is that this site was the focus of short-term but recurrent occupational episodes.

Site R11/1519 was probably favoured as a camping place for a number of reasons. One likely reason was the presence near Feature A41 of a spring supplying fresh water, (access to clean fresh water was limited on the lava field owing to the absence of surface water and streams). A second reason probably involved the close proximity of gardening areas, the presence of which can be inferred from the large number of horticultural mounds recorded at the site (Albert 1987:117 ff). Cultivation required people to return to a specific area regularly, although not necessarily annually as gardening areas may have been rotated (Leach 1984:63). Another advantage to camping on the edges of lava fields was that these areas were dry, in contrast to the surrounding lowland areas. Further, by camping on the edges of lava flows

resources from both the lava fields and the probably more densely forested lowland areas could be readily exploited.

CONCLUSION

The investigation of Feature A41 and the Central Plateau provided evidence that site R11/1519 was intermittently occupied for a period of over 300 years. The structural and stratigraphic evidence indicated that permanent habitation did not characterise the excavated areas of the site. A paucity of faunal and lithic material implied an absence of specialised subsistence and domestic activity. Gardening was very likely to have been the predominant subsistence activity, while temporary shelters were probably the major types of structure present.

Evidence for more permanent habitation in this part of East Tamaki will probably be found in closer proximity to the cone pa of Green Mount and Te Puke O Tara.

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