NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER

HAMLIN'S HILL (N42/137) EXCAVATIONS: FOURTH SEASON

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As a result of quarrying for clay soil beginning in 1969, a series of excavations in advance of the threat have been conducted on the lower knoll of Hamlin's Hill, site N42/137. They began with Davidson (1970) and were followed by Irwin (1975), Pearce (1977), myself, and subsequently by others (Walton,1979). The report here is on the work I carried out in the fourth season, early in 1975 (Fig 1). I visited the site in March of that year, and from maps of Davidson's and Irwin's excavation, and the signs of renewed activity at the quarry face, it was evident that an area with additional and potentially interesting structural features adjacent to the then current quarry face was shortly to be destroyed. This prompted me to carry out further rescue excavation there, and I arranged to spend Easter 1975 on the site. Unfortunately in the intervening period a broad strip adjacent to the quarry face was cleared of top-soil by bulldozer so that on arrival I was confronted by several hundred square metres of more-or-less severe damage, stretching right across the area scheduled for examination.

Although this seemed disastrous, features were quickly located within the damaged area, and these proved to be part of 'Pit F' plus the continuation of an internal fence identified by Davidson (1970:Fig.4, Fig.10). This, and the fact that the procedure used when removing the top-soil had led to the damage becoming progressively greater toward the west, encouraged me to investigate an area east of that previously excavated, and on odd days during the next month and for a week during May I examined some 130m^2 of the surface of this part of the bulldozer cutting for other features. This paper reports the results.

Excavation was on a square grid with 3m intervals, based on baulks remaining from previous excavations. Squares were numbered as in Fig.2.

During the excavation of Squares A1, A2, B1 and B2 trowels were used. Over the rest of the area excavated, however, the surface of the clay was shaved off smoothly using a sharp spade, a trowel only being used after features had been located. As well as being clearly much faster, this seems to be more effective at actually locating features. Many features have fills very similar to the natural clay of the hill, and these features are most easily recognised as being distinct, by detecting colour changes or disturbances to the grain of the soil, where these are at their most clear, i.e. at the edges.

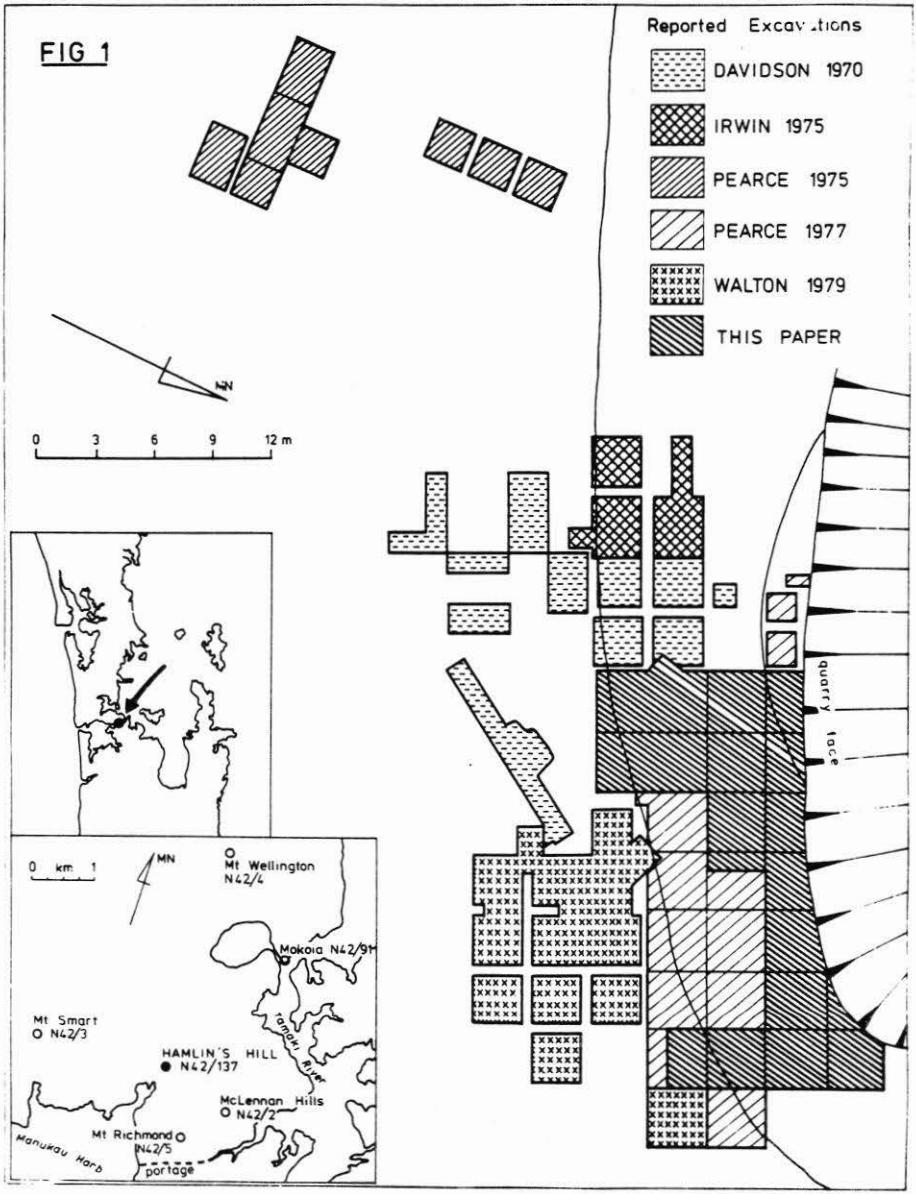

FIGURE 1. Excavations on Hamlin's Hill (N42/137).

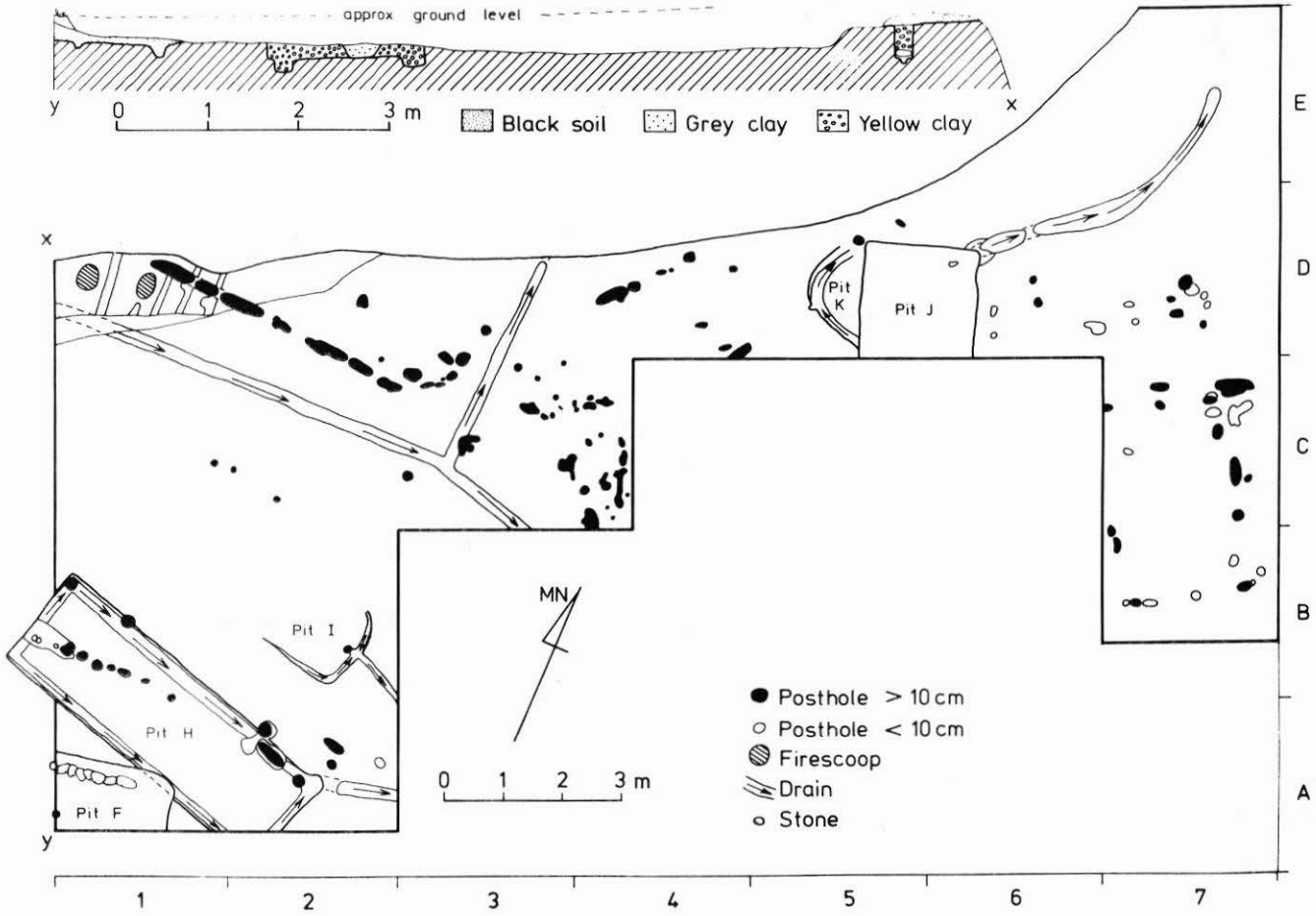

FIGURE 2. Hamlin's Hill excavation - fourth season.

Major structural features

Pits. Pits described here will be identified by letter, continuing from those (A-G) named by Davidson (1970:Fig.2).

Pit F (Fig.3): This pit, partly excavated by Davidson (1970:110), turns out to be about 3m long, by about 2m wide and is about 10cm deep. The stone covered drain on the northern side of the pit shown by Davidson was found to continue over most of the length of the pit. Two post-holes were found within the pit, and perhaps one but probably not both may relate to the superstructure of the pit. The fill of the pit was black soil.

Pit H (Fig.3): This pit is neatly rectangular, 5.6m long by 1.8m wide and 20cm deep where intact. Drains 15-20cm wide and 10-25cm deep surrounded the pit on all four sides. Fragments of bark-like material were noted at several points on the floor of this pit. No post holes can be associated with the pit with any confidence. The pit fill is a very clean yellow clay. The drains around the pit empty through a short tunnel into what was presumably an open trench about 20cm wide and 35-40cm deep, the water being led away towards what would be Square A3. The fill of this trench is soft brown soil with much charcoal included. Pit H is stratigraphically earlier than Pit F.

Pit I (Fig.3): Pit I is now represented by no more than part of the bottom of the drain that would have extended around the walls, the traces remaining indicating a pit a little more than 1.5m wide. A length of 3-5m is suggested. A posthole visible on the midline of the pit suggests association, but this is inconclusive. Water from the pit was led south-east toward Square A3. The material in the drain was grey, but the material was shallow and the area had been exposed to the sun for some time.

Pit J (Fig.6): Only the northern end of Pit J appears in the excavation, but it is known from subsequent work that the pit is a little over 5m long by 2m wide and almost 1m deep. The pit is filled with material rich in charcoal. Little of the floor of the pit has been exposed although enough evidence of a drain has been recovered to suggest it extends round the floor. Water collected is led away through a trench that emerges from the pit running more or less east-west, but which curves strongly toward the north. The trench-like drain contains a mixed fill, with yellow and white clay, lumps of consolidated volcanic ash called iron-pan by Davidson (1970) and Pearce (1977) and charcoal, including traces of a log apparently placed in the trench while burning. No doubt the trench was much longer before the bulldozer damage occurred.

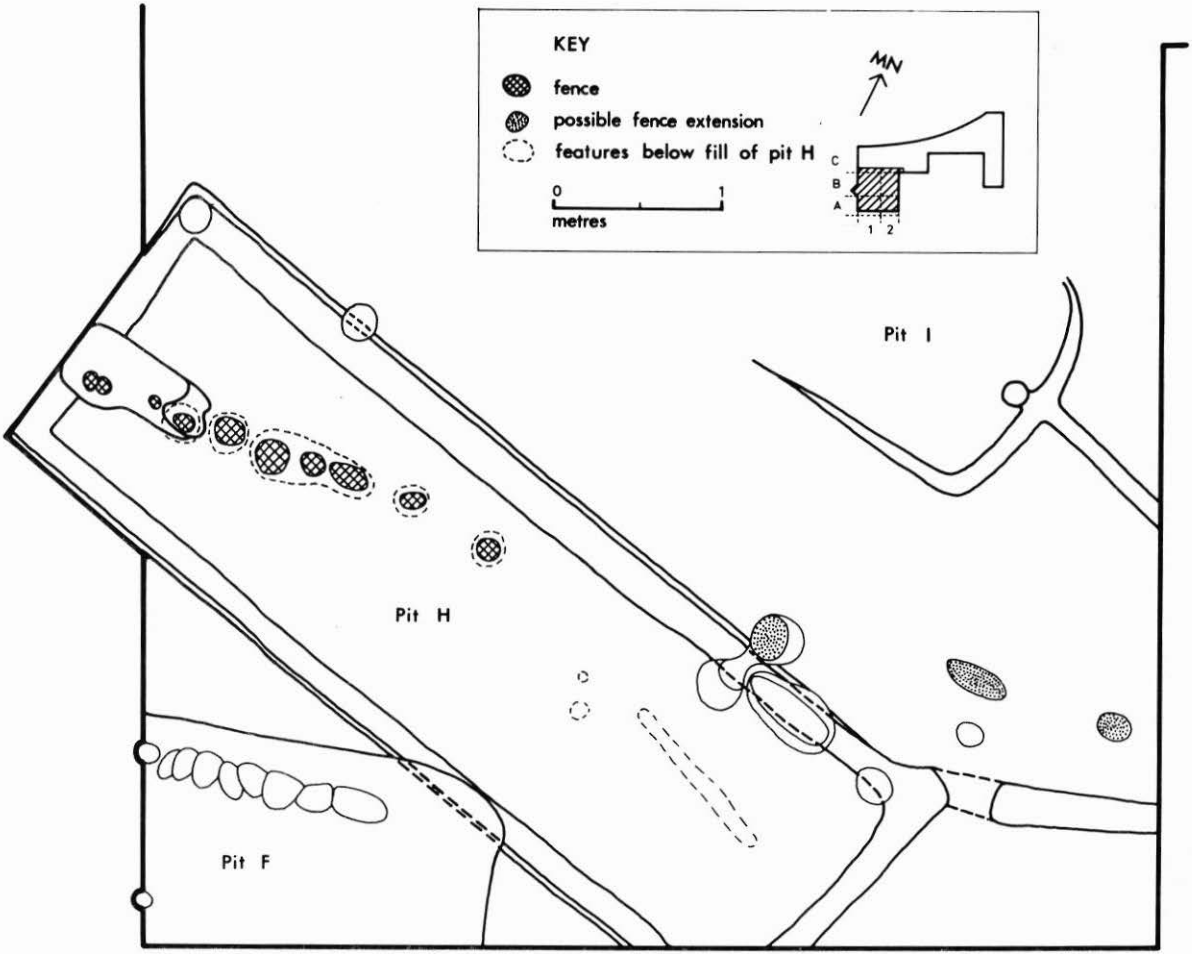

FIGURE 3. Hamlin's Hill excavation - fourth season.

The trench also passes under two tunnels, one immediately adjacent to the pit, the other at a distance of about 1m. The latter seems to have been left when the trench-like drain was dug but the former was artificially constructed, using a whitish clay very similar to the material of the floor of the pit.

Interpretation of these tunnels is difficult, but I think that they are related to two successive structures covering the pit. The first involved the tunnel further from the pit and probably incorporated two postholes found in alignment with this tunnel and others found to the west of the pit (Fig.6; Pearce,1977:Plan B). This structure seems to have proved unsatisfactory, and it is not clear how the arrangement can have worked. The later structure involved the rebuilt tunnel immediately adjacent, and probably consisted of a low sloping roof. The details of this structure are not known, but tunnels leading to drains exist adjacent to Pit H (this paper) and Pit E (Walton,1979).

Pit K (Fig.6): This pit is now represented by only one corner of the pit base. As a result none of its measurements can be accurately reconstructed, but some general indications remain. The pit does not appear on the eastern side of Pit J, so its northwest-southeast dimension cannot be more than about 2m. Presumably this is the width, the length being rather greater. Pit K was certainly much shallower than Pit J. A drain runs around the edge of the still extant portion. Its fill was clay rich in charcoal. Pit K was cut by Pit J.

Drains. Apart from the trench-like drains on the floor of or leading from the pits as already described, an impressive drain of larger size and more elaborate construction runs across the excavation from the western edge of Square D1 to the southern edge of C3 (Fig.4). It is known that this drain extends for at least 25m overall (Pearce 1977: Plan A). Construction of this drain involved cutting a trench about 40cm wide and 40-60cm deep so as to expose the upper surface of a stratum of volcanic ash within the hill. A slot 5-10cm wide was then cut through this ash and down to a second ash layer about 5cm below the first, and the slot was covered with slabs of basalt brought onto the site for the purpose. Basalt cracked into very similar slabs are now exposed in a cutting beside the Southern Motorway some 2km away, and it is very likely that similar material can be found considerably closer to the site, though the exact source has not been identified.

The walls of the trench, in good condition when excavated, deteriorated very quickly when exposed, and the fill of the drain appeared to be formed of unweathered lumps of clay, so it seems that the trench was refilled immediately the slabs were laid. The fill also appeared

to be quite porous, distinct paths left by trickles of water being common, and water was actually running in some portions of the covered slot when slabs were lifted. The trench would therefore seem to have acted as an efficient soak over its entire length.

As shown in Figure 4 the drain has a distinct bend toward the southern edge of Square C3, a slightly narrower side branch of similar construction joining the main drain at that point. The trench for the branch drain clearly ended just before the edge of the quarry face, but a tunnel continued below ground, emerging from the quarry face some 15cm below the surface of the bulldozer cut.

When levels were taken at various points at the base of the slot within the main drain and side branch it was found that the main drain ran from north-west to south-east as expected, but the side branch ran from the junction toward the quarry face, the fall being 10cm in about 3.5m. This is rather surprising. The tunnel at the end of the branch drain, taken to be the same as those associated with Pits E, H and J, suggests that another pit - here referred to as 'Pit L' - was attached to the end of the branch. It is possible that this branch drain was simply unsatisfactory, but the explanation preferred is that the quarry face has led to a loss of moisture and shrinkage sufficient to distort the levels. This possibility will be checked as the face is advanced further.

The main drain, presumably, served just the same sort of function as the branch drain. Thus it is probable that one or, more likely, several other pits were also attached to the main drain to the north-west of my excavation.

Post Hole Alignments and Timber Structures. All the structures and individual features within the area scraped by the bulldozer have been damaged to some extent, but there are good reasons why structures represented by post holes are going to be considerably more difficult to detect than has been the case with those features discussed so far. There is clear evidence of more than one phase of occupation over much of the site, with the result that post holes from successive structures appear in palimpsest and finding the sets of post holes to be grouped together into single structures is a serious problem. This difficulty is increased when unknown depths of material have been scraped from the surface of the site. Pits and drains are not so vulnerable, partly because they are generally dug more deeply into the ground, so the material evidence itself and its stratigraphic inter-relationships are less at risk.

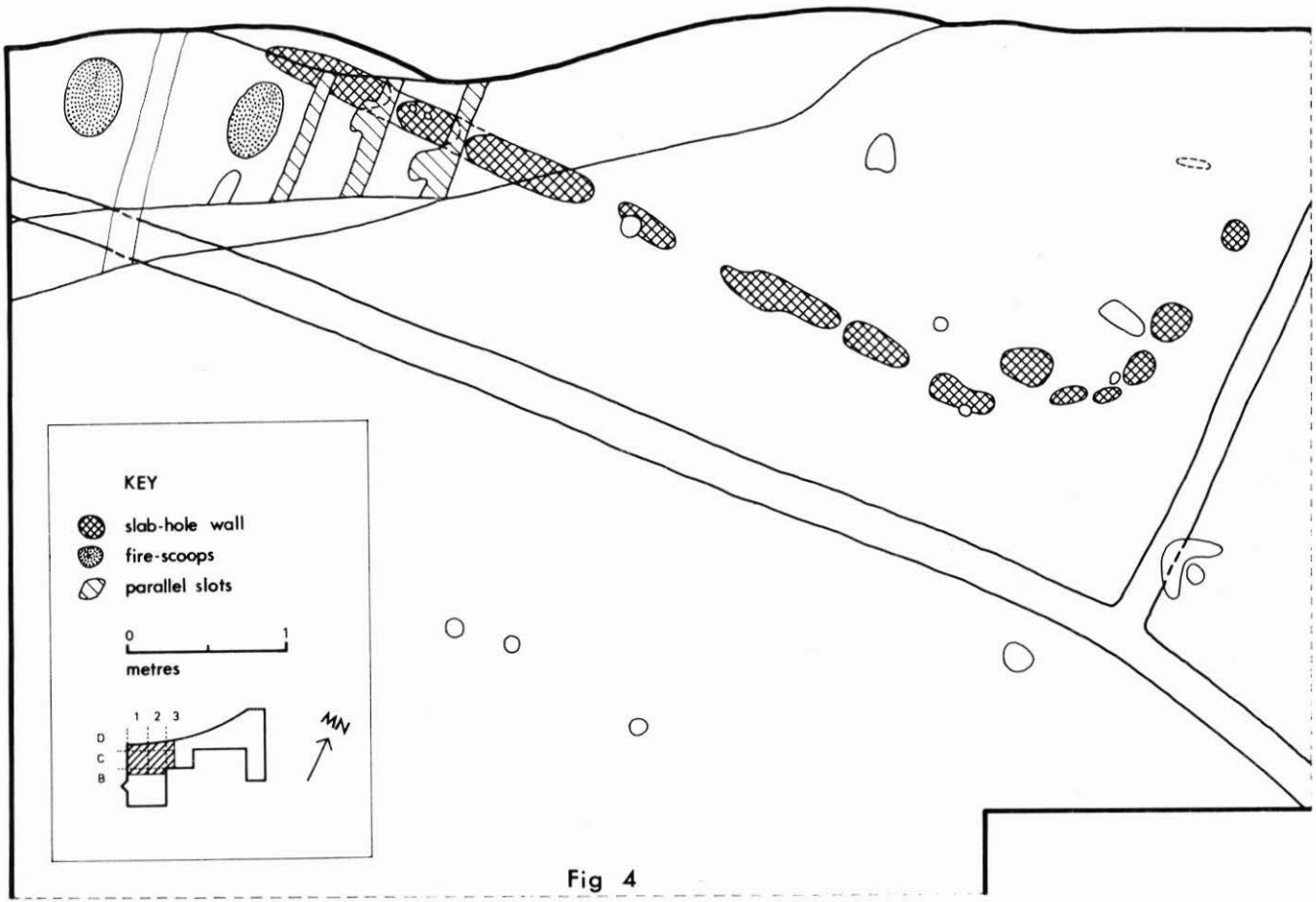

FIGURE 4. Hamlin's Hill excavation - fourth season.

Much more important, pits and drains are continuous features, while standing structures generally involve discrete post holes. Construction methods on Hamlin's Hill commonly involve rows of posts connected by shallow grooves, presumably to take bundles of reeds or other suitable materials as walling. But the groove is the first feature to be destroyed by the bulldozer, and without it a very few postholes widely spaced could be all that remains of important walls. The recognition of a timber structure is also going to be made more difficult when part of its plan remains unexcavated, whether this is due to the structure extending beyond the quarry face or because of only partial excavation of what remains. By contrast, Pits I, K and L can be readily reconstructed from very fragmentary evidence, Pit L actually having been entirely to the north of the present line of the quarry face, with only the exit tunnel of the drain from the pit still extant. If the identifications of standing structures was as easy as this, we would be able to reconstruct a house from the three postholes in Square C2.

Nevertheless, postholes are numerous within the area excavated and in some cases these form rows, inviting consideration as evidence of structures. A few of these alignments are completely convincing, while others are more problematical. One provisional alignment has already been suggested - the two postholes and the tunnel to the east of Pit J. A second is the short stake hole row in Squares C3 and 4 (see Fig.5). This is a reasonably straight line of five small holes with black fills, more or less uniformly distributed over a distance of about 2m.

More clear-cut is the row of post and slot holes in Square D4 (Fig.4). These features are in good alignment over 2m, are isolated from other features by more than 1m, and have identical fills - soft rich brown soil. It makes sense to see this as the wall of a structure, but nothing useful can be said about its form as alignments like this are difficult to interpret further. Three groups of features are much more cohesive, however, and the possible structures they represent will be discussed in detail.

Fence (Fig.3): As noted above, the fence identified by Davidson (1970: Fig.10) was found to extend into the area of excavation reported here, a row of postholes lining up well with those excavated by Davidson extending across Squares B1, A1 and A2. Overall, the alignment runs for at least 12m, and neither end has yet been found. The distribution of features over this distance is far from uniform, however. For example, there is a gap of over 1.5m between adjacent postholes between Squares A1 and A2, and gaps of about 1m are common at either end of the row as at present known (see Fig.3 and Davidson 1970:Fig.4). By contrast, the central section of the row is characterised by posts that are set close

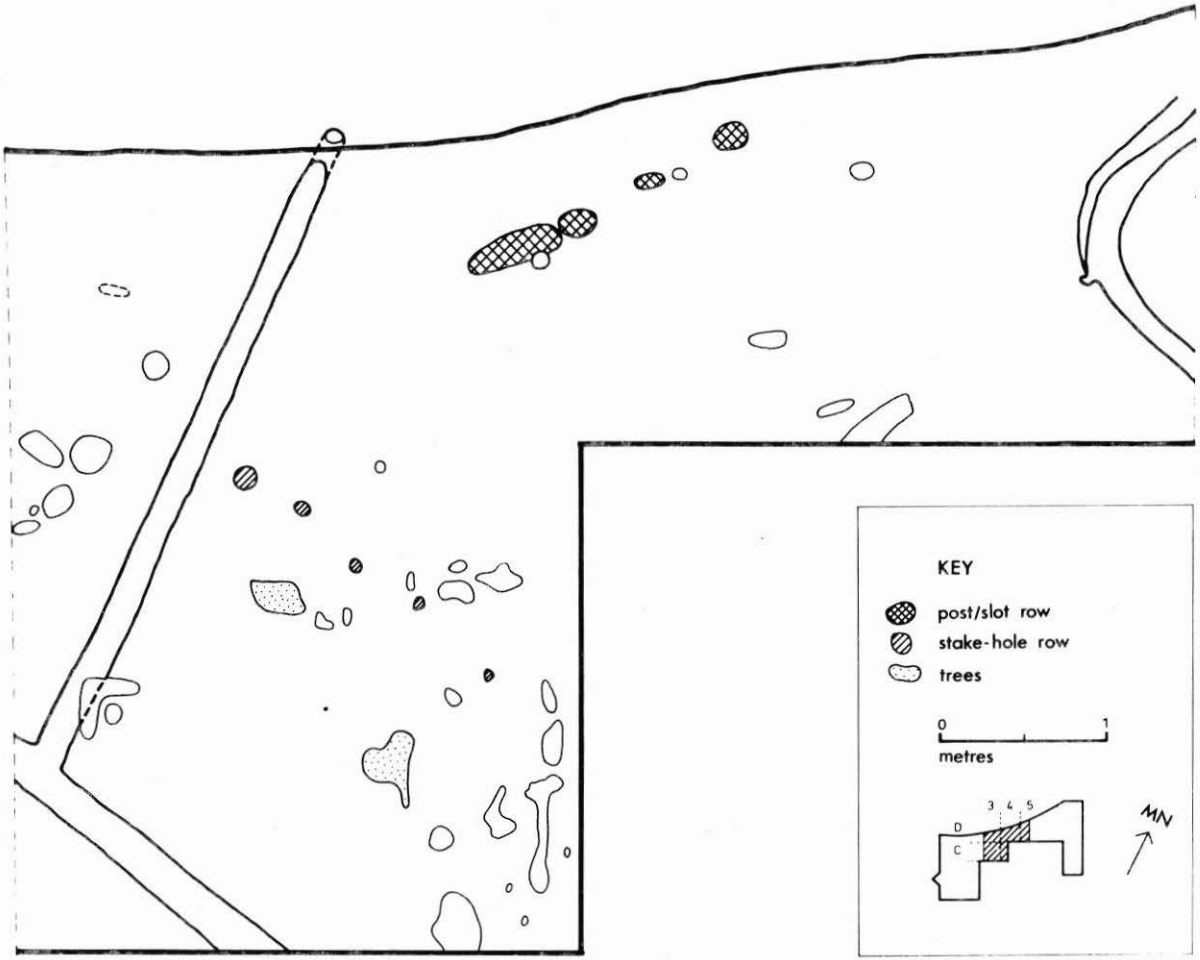

FIGURE 5. Hamlin's Hill excavation - fourth season.

together - 14 in about 3m - and sometimes these are also connected by a shallow trench. It is not clear what these groups represented if they are from separate structures, but the changes in the distribution of postholes are real, and there is no assurance that the 12m plus of 'fence' represents a single structure.

Postholes from part of the row were clearly visible in the surface of the fill of Pit H that survived the bulldozer, so the fence is later than the pit. Strangely, the holes seemed to grow wider when the fill of the pit was removed ("elastic-sided", they were called). This additional fill was much cleaner, and the impression gained was that the darker central fills were the moulds of the posts of the fence. As described above, Pit H was deliberately filled with clean clay, and my interpretation is that the postholes were dug from the floor of Pit H, and the posts installed, before Pit H was systematically filled, the same fill being packed around the posts.

Rectangular Structure (Fig.7): Postholes in Squares B7, C7 and D7 appear to form several alignments, oriented roughly parallel to the axes of the excavation grid. North of the two alignments in D7 destruction becomes rapidly greater, but from there south it seems that most postholes will have survived the bulldozer, and this is of course an advantage. On the other hand, the relatively narrow strip excavated in this area makes interpretation rather more difficult, as does the fact that more than one structure seems to be represented, though all post holes have the same clean clay fill.

Certainly some alignments are more convincing than others. Also, any patterns selected are influenced by one's preconceptions and what one thinks should appear in the archaeological record. Yet it is true that while many alternative interpretations may be possible, when some account is taken of features in adjacent squares (Pearce,1977:Plan B), there is one arrangement that appeals very much. This is shown in Figure 7.

Prickett (1974) has presented a survey of the New Zealand Maori house as represented in ethnographic sources and among archaeological remains. There he has clearly set out the basic archaeologically detectable characteristics of the whare puni. It is rectangular, with long axis north-south; it has a small door in a short and most probably the northern wall, and probably to the left of centre going in; and it has a porch at the same end as the door.

The structure in Figure 7 is about 4m by 5.5m, and close to rectangular. Among historically known examples the length/breadth ratio is usually in the range 1.5-2 (Prickett,1974:51), while for this structure the ratio is 1.38, a little lower than expected.

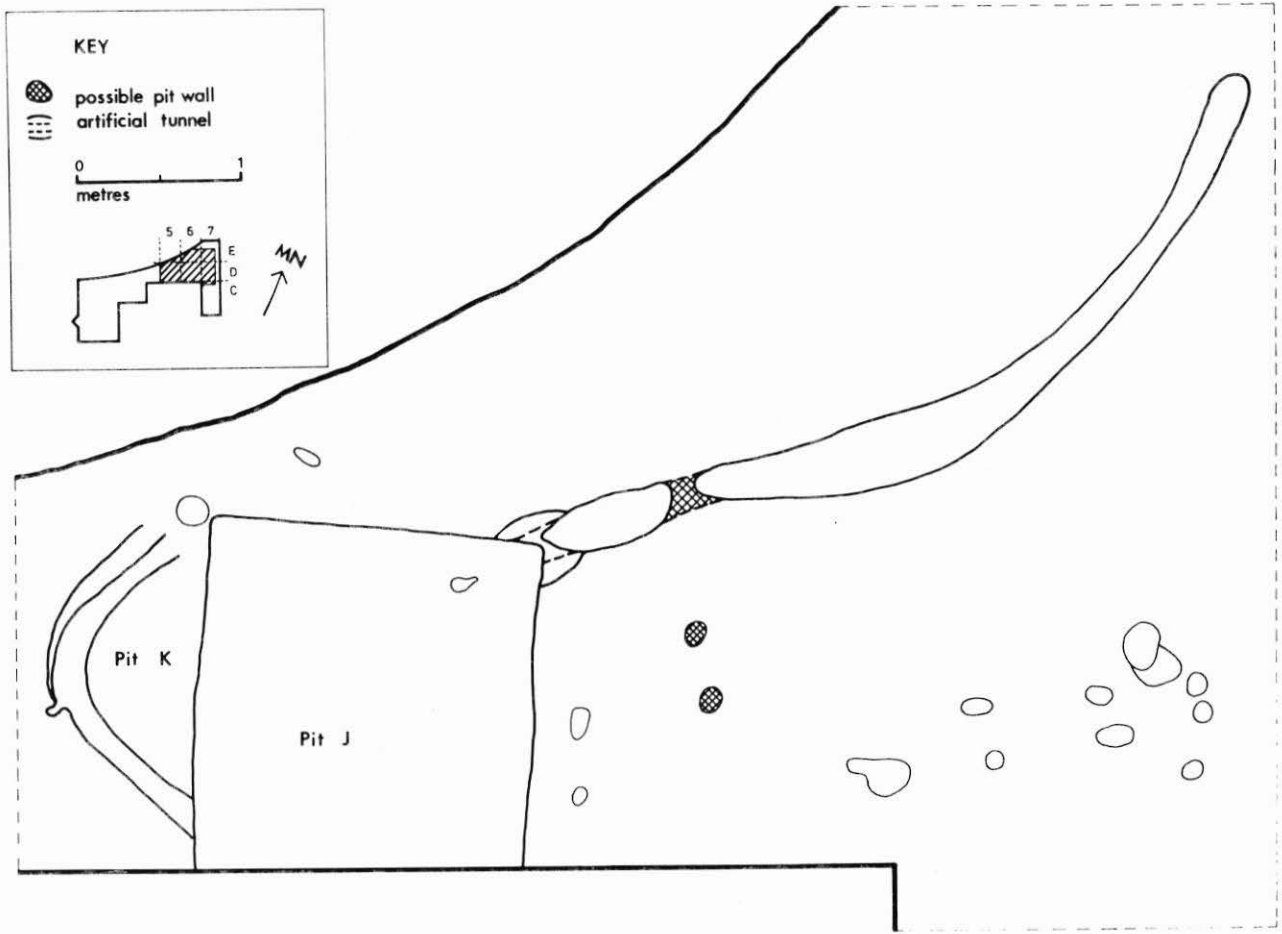

FIGURE 6. Hamlin's Hill excavation - fourth season.

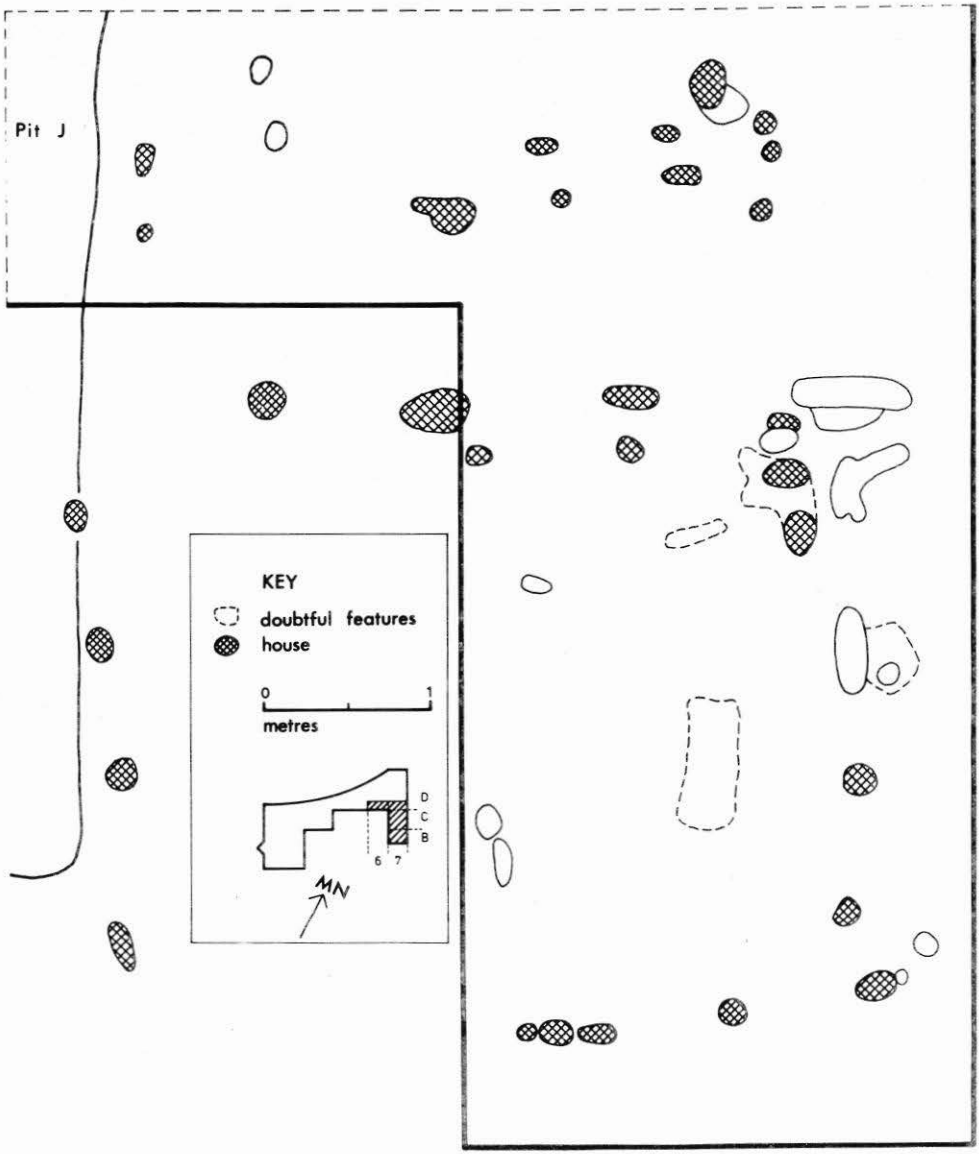

FIGURE 7. Hamlin's Hill excavation - fourth season.

The doorway is visible in the northwestern corner of Square C7, the postholes flanking the door being elongated (Fig.7; Pearce, 1977: Plan B). This suggests that boards rather than simple posts were accommodated, which ties in well with the idea of a (perhaps decorated) doorframe as illustrated in numerous descriptions of Maori life. Immediately behind these slots is a second pair of smaller postholes, presumably for helping to secure what would probably have been a sliding door. The distance between the slots is 78cm, the gap between the inner posts narrower at 70cm. This compares with 18-24 inches (46-61cm) indicated in early historical records.

The porch is less clear-cut, as there are two rows of postholes, approximately 15cm apart, that could mark its northern edge. Also, both of these rows are a little to the south of the posthole (still 35cm deep, though damaged) that I take to mark the north-east corner of the structure. It is possible that both rows are actually part of the structure, perhaps retaining a slab of wood such as often marked off the porch of a house from the outside proper, although it seems a little unusual to have posts further forward still. As it stands, the distance between the front wall of the house and the nearer row of slots taken as marking the front of the porch is 1.1m, and the reconstructed porch is therefore about 20% of the total length of the house compared with a proportion ranging between 8% and 24% in ethnographic examples (Prickett,1974:90).

The structure suggested here has the important features to be expected in a house of prehistoric New Zealand, and agrees tolerably well in the various dimensions discussed. Other interpretations may be offered, but I have no hesitation in identifying the building as a <u>whare puni</u>, and will refer to it as House I.

Postholes from the portion of House I overlapped by Pit J have not been found. It seems likely that they were destroyed by its construction, in which case Pit J is later than the house.

<u>Slab-hole Wall</u> (Fig.4): This is a very striking row of slots, most about 20cm wide and up to 80cm long. The row passes through the narrow ridge of more-or-less intact material adjacent to the quarry face, and here the slots are cut from the bottom of a continuous trench about 15cm deep to a total depth of about 40cm.

The presence of identical fills - soft brown soil merging into yellow clay, with various coloured mottles - suggests that a short line of three circular postholes forming a rough perpendicular to the line of the major wall is related to it. It therefore looks as though we have a corner and a substantial part of the southern wall of a structure. The structure had one dimension of at least 6m, but neither dimension can be accurately reconstructed.

Irwin's comment (1975:52-54) that elongated slots would be suitable for holding split planks makes sense, and Pearce (1977:77) reports the remains of planks in two small slots on the site. There was no trace of timbers in the slots in question here, but substantial timbers seem indicated.

More than one kind of structure recorded ethnographically might produce features of this kind. One possibility is another whare puni, this time a larger specimen, because of the generally impressive construction, and because its orientation suggests that this is going to be the shorter wall, indicating a house well toward the upper limit of the ethnographic size range. An alternative is that it might have been something like the impressive cookhouse at Taupo made of "enormous slabs, well fitted together" described by Wakefield (quoted by Prickett,1974: 41). As the former interpretation is somewhat more likely, the structure will be referred to here as House II.

Other Features

Very few other features seem capable of providing useful information about the site, but two of the more interesting will be briefly discussed.

Parallel slots. Parallel slot-like features (Fig.4) run across the narrow ridge of intact material adjacent to the quarry face. Although I have no idea what they mean the features are mentioned because of their peculiar fill - a homogeneous rich chocolate brown material.

Tree Holes. Two features (Fig.5), both containing black fill, appeared to have several smaller holes radiating from the floor and sides of the irregular central holes. They are interpreted as being traces left by small tree stumps. This does not prove that they would not have been involved in cultural events, of course, as trees might provide an excellent base for storage platforms.

Artefacts

No artefactual material was found in clear stratigraphic context during the excavation, while surface collection over a wide area of the bulldozer scrape and along the quarry face produced only a small chisel in poor greenstone (the stone dull and rather greyish, with heavy black flecks), and a neat blade of obsidian (grey in transmitted light, with a slight purple tinge), together with a handful of scraps of 'grey'and 'green' obsidian.

Discussion: the sequence of occupation

The stratigraphic relationships remaining intact within the area excavated in 1975 can be easily summarised: in the southwest Pit H is earlier than Pit F and immediately below the fence, and in the northeast Pit J is later than Pit K and also probably follows House I.

In terms of alignments, Pit H, Pit I, the big drain, and House II seem to form a neat group of parallel structures stretching right across the western end of my excavation. House I is orientated rather differently, but the value of alignments as evidence is rapidly reduced by increasing distance between structures, so this difference cannot be relied on too heavily.

The significance of fill colours is also affected by distance, but the postholes of the two houses were filled with soft brown material containing very little charcoal, while most other features contain charcoal in at least moderate amounts. This suggests that the postholes of the two houses might have been filling at a time when there was little charcoal about. Perhaps the houses were the earliest structures on the site. Davidson (1970:120) too suggests that the houses she identifies in her Squares 1 and 4 might be the earliest structures found in her excavation.

The fill of the slots in Davidson's houses included midden material (Davidson,1970:116,Fig.5; Irwin,1975:Fig.3), but it is clear that midden debris is not to be expected in dwelling houses (Groube,1964:55; Prickett, 1974:128). In this case, however, it would seem that midden was deposited after each of the three superimposed houses, but the generally simple stratigraphy argues against a sequence of six superimposed occupations, and it could also be questioned whether successive houses would be built on a dump. Finally, these houses appear to lack porches and northern walls, and although evidence of a porch might be elusive, the lack of a main wall is a serious deficiency. However, if hangi ovens and wall slots had been contemporary - an arrangement specifically not excluded by Davidson (1970:116) - these peculiarities would be explained quite neatly. The interpretation offered, therefore, is that the three-sided structures on Hamlin's Hill are cooking shelters.

Similar arguments from Polynesian ethnographic behaviour can be applied to the problem of establishing correlations within the site, though negative influences - that a correlation is unlikely or impossible - will be much stronger than positive inferences. For example, Pit K would have been very close to and partly in front of House I if they had been contemporaneous. This is a most unlikely arrangment, and though

both are stratigraphically below Pit J it seems almost certain that the two belonged to separate phases of occupation.

A similar situation applies with House II and Pit L: if these are the appropriate functional categories for the structures it is unlikely that they were contemporaneous. Pits attached to the north-western end of the main drain could possibly be contemporary with House II, however, depending on the distance between the two. The drain might need to extend a good deal further than it now does, but clearly it extends beyond the quarry face (see Pearce,1977:Plate 5, Plan B), by which time the drain and any pits attached to it would be some 4m from the nearest remaining slots of House II.

It is clear that the scattered and sometimes inconsistent evidence discussed here cannot produce a single clear description of the occupations that have occurred on the site. Some areas, particularly Squares B2 and 3 and C2 and 3, have been scraped almost bare, and over almost all of the area excavated the features present have been reduced to the point where they are just truncated holes in the clay natural. The stratigraphic relationships that can now be known with certainty are therefore only those involving features that intercut directly, and a number of the correlations that once existed are going to be lost. Still, it strikes me that a general picture of a settlement involving houses, pits and large drains covering hundreds of square metres is not inconsistent with the material excavated so far, and there is an indication that at an early period the occupation was very extensive: rather than making a direct approach the main drain takes a rather inefficient route to the scarp, suggesting that settlement beside the scarp was extensive enough and dense enough to crowd out the route of the drain.

House II might not be part of this settlement, but a possibility is that the house was built to take advantage of the dry site provided by the combination of the main and branch drains.

If, as I suspect, Pit H was part of an extensive early occupation, a large settlement probably persisted, with some change of layout, after the fence was built across the pit, but it is not clear that it would have survived until the time of the cooking shelters stratigraphically above the fence. Cooking shelters and fire-scoops are clearly widespread on this area of the site (Pearce,1977:Plan B), and these are usually stratigraphically close to the top of the sequence. An explanation that occurs to me is that the lower knoll of Hamlin's Hill might have been the locality of the cooking area for some of the extensive occupation on the upper knoll.

Acknowledgements

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