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Interim Report:

MAKARA BEACH (WELLINGTON) EXCAVATION

by Susan Davis

Note: Previously recorded as site no. N.160/3, a change in the National Yard Grid has shifted the site location onto a new map sheet, where it is now recorded as site no. N.164/2. A preliminary note of the species of moa found during the excavation, including the genera Diornis and Fachyornis, appeared in a previous NEWSLETTER, Vol.2 no.4 (Sept. 1959) pp.20-25. The following report was edited for publication by Colin D. Smart.

In January of 1958 a small excavation was carried out on the eastern end of the beach at Makara, on the western coast of Wellington. For some years moa bone had been found on the surface of the beach and several adzes of archaic type had been recovered. Besides this, several burials had been exposed and, during 1957, two were excavated, both being of the crouch type and one with a bracelet of dentalium shell around the ankle bone. The recovery of artifacts, human bone, moa bone, and large numbers of oven stones scattered on the beach surface, implied occupation of some sort, and so led to the excavation.

The area chosen for excavation was at the eastern end of Makara Beach, close to the Makara Stream. Here, on an area of level beach, appeared frequent evidence of ovens close to the surface, especially near to a small gully which ran parallel to the stream. Unfortunately the whole area of Makara Beach had been much disturbed in historic times; army activities in the Second World War levelled the sand dunes that covered the site, and undoubtedly disturbed much of the area, as have more recent building operations on the beach.

A datum point was established at a concrete post set in a fence running parallel to the sea and from this an 8 foot grid of 32 squares drawn up. These were lettered alphabetically from south to north, and numbered from east to west. It was planned to excavate a 6' x 6' area within the centre of each square, leaving a 1' baulk on all sides. This area proved far too small and hindered excavation.

Work started on the western side of the grid, B/7 being the first excavated, followed by D/7 and F/7 (see plan I). The first square to reveal bone material and an oven was F/7 and after this attention was turned to the next line of squares to the east. E/6, G/6 and H/6 were worked, F/6 was worked in a gale, and finally E/5 and H/5 were investigated. When F/6 was excavated, a collapse in the neighbouring squares prevented the full area from being worked, and an extremely small area of 6' x 5' had to be excavated.

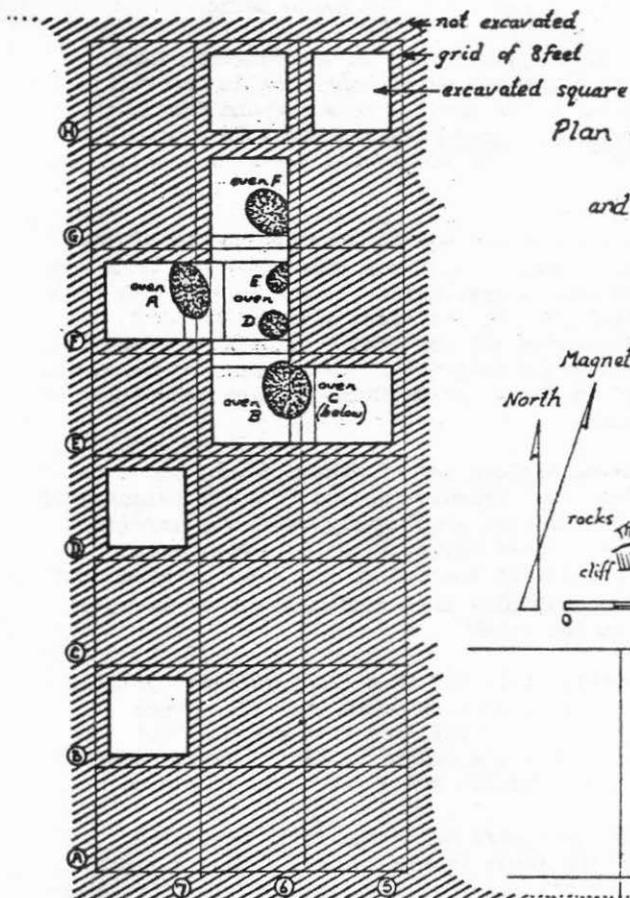
Baulks were removed where necessary. Altogether 9 squares were investigated and 5 ovens examined. Of these squares, only 4 proved really interesting, and these will be described in more detail.

SQUARE B/7

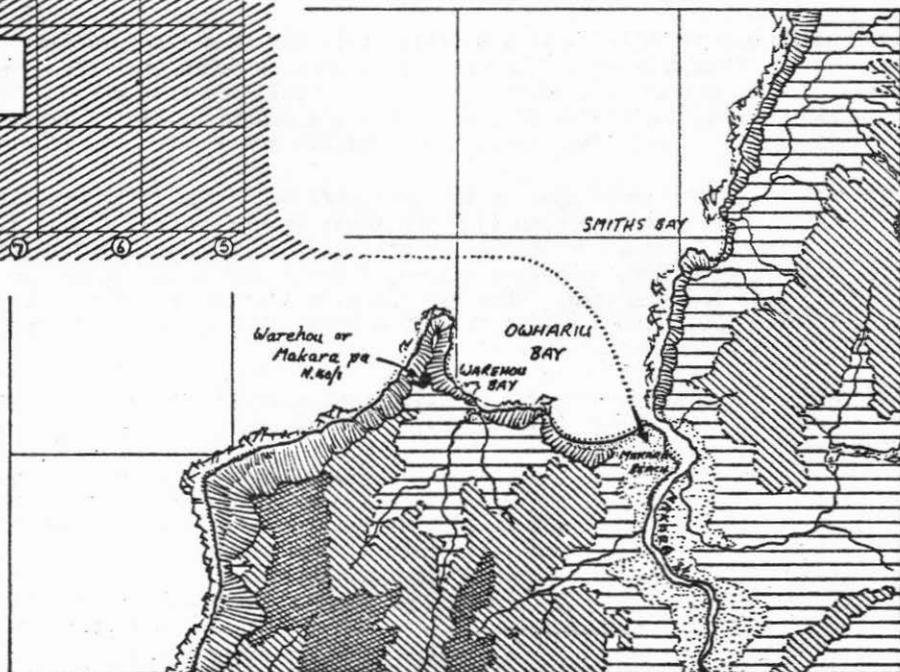
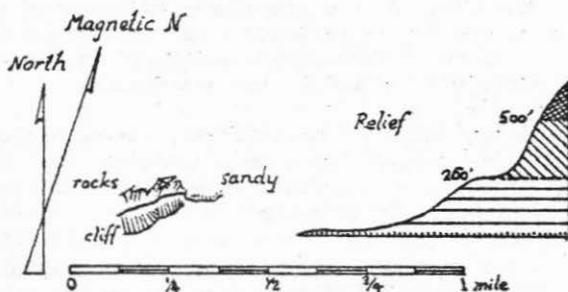
This was excavated first, and yielded no bone material nor any trace of ovens. Surface finds however included fragments of bone and clay pipe.

SQUARE D/7

Some heat fractured stones were found on the surface of this square and, as in B/7, fragments of bone and clay pipe. Below the surface however only clean sand was encountered, until at a depth of 2' to 2'6" a stony dark yellow layer



Plan of excavations on site N.164/2
MAKARA BEACH
 and map showing locality

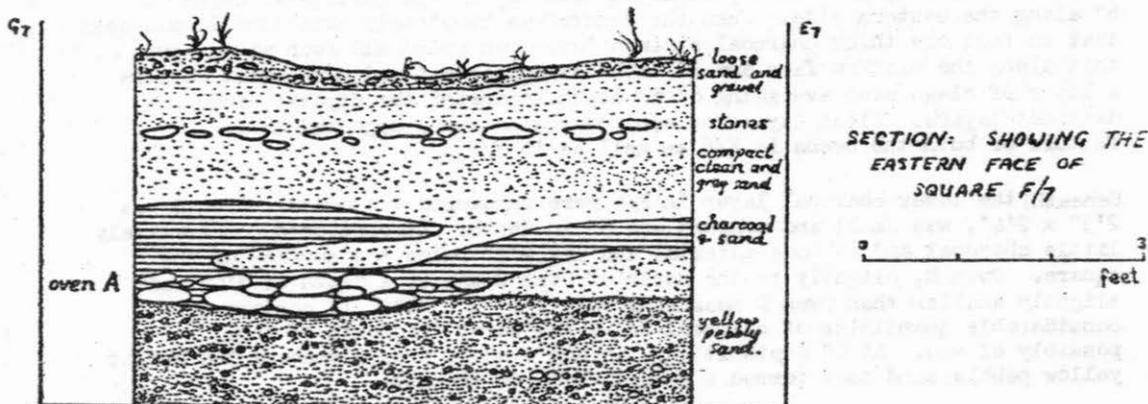


was uncovered. This layer ran right across the beach, and appeared in all the squares excavated.

SQUARE F/7

Square F/7 was cleared of surface gravel and small boulders. It was found that there were frequent heat fractured stones at a depth of between 4" and 8" from the surface on the southern and eastern side of the square, but they were not associated with an oven at this depth. They were possibly scattered from another oven. Fragments of clay pipe were found 9" below the surface level and shells of Haliotis australis and Lepsia haustrum were found scattered in small quantities through the sand.

The first evidence of an oven was found in the eastern section of the square, where a distinctly charcoal stained layer was revealed at 1'6" depth and was found to spread across the square, omitting only the south west corner. The layer varied in depth, from 10" in the eastern section to an average of 6" along the northern face. Small pieces of charcoal were found throughout the layer. Closer investigation of the eastern end of the square revealed an oven (oven A) running back under the baulk that separated F/7 from F/6. The oven measured about 4' along the eastern end of the square and contained bone material and large quantities of charcoal. The oven stones, fractured by heat, were loosely packed and lay just over 2' below the surface. Oven A measured 6" in depth at the centre. The excavation of the baulk was planned for later in the programme of the dig when, unfortunately, much of F/7 had been collapsed by bad weather. But out of the ruins it was possible to trace the complete outline of Oven A. It was found to continue across the baulk, measuring finally a straggly 5' x 2'10". A charcoal sample from this oven has been dated as 880 ± 84 years before 1950 (1070 A.D.) The baulk excavation yielded some bone material and large quantities of charcoal.



SQUARE E/6

The surface area of square E/6 was cleared and pieces of charcoal, a seal (?) tooth and small pieces of moa bones were recovered. The first evidence of an oven appeared in the north-east part of the square, where a charcoal stained layer of sand was found at a level of 1'4" along the northern side. This was followed through to the eastern part of the square but was absent along the southern and western sides. Averaging 6" in thickness this layer overlay a

narrow band of clean sand which in turn overlaid the first oven found in E/6 - Oven B. This was found to be almost 4' square; a large oven of loosely packed heat fractured stones set in thick charcoal. It stretched 2' along the northern face and almost 2' along the eastern side, projecting some 4' out into the square, and averaged 4" in depth. Oven B lay between 1'4" below 1'6" below the surface. No large pieces of bone were found in the oven, even when the E/6 - E/5 baulk was removed, but several very small burnt fragments were noticed.

In the layer of clean sand that was found under Oven B, a number of burnt fragments of bone were recovered as well as a small piece of worked moa bone. Below this layer, which varied in thickness from 2" to 3" lay Oven C. When the baulk between E/6 and E/7 had been removed, the oven was shown to be 2' below the surface, measuring 3' x 2'6" and about 6" in depth, although the full size was not ascertained as it still continued under the northern face. Thick charcoal lay between the loose hangi stones and several pieces of bone were recovered lying close to the oven - all of them lying under the baulk. In the final stage of the excavation in order to obtain the full outline of ovens B and C, a section was cut into the northern face of square E/6. Final measurements were Oven B: 4'6" x 3'6"
Oven C: 3'6" x 2'3"

A charcoal sample from Oven C has been dated as 392 ± 84 years before 1950 (1558A.D.)

SQUARE F/6

Square F/6 was excavated after E/6 and G/6 had been completed and unfortunately part of the F/7 - F/6 baulk had meanwhile crumbled. The area excavated measured only 6' x 5' (see plan). The usual fragments of bone were found amongst the surface gravel, including a small piece of human skull as well as clay pipe fragments. At a depth of 10" on the eastern side of the square, a charcoal stained layer was encountered. It was found to cover the square except for the south-west corner, and to vary in depth from 12" in the north-east corner to 6" along the eastern side. When the square was completely excavated it was seen that in fact one thick charcoal stained layer ran round all four sides, but that along the eastern face and in both the south-west and north-west corners a layer of clean sand averaging 6" in depth separated the deposits into two distinct layers. Clean layers of sand overlying ovens appeared to be a feature of both the ovens in E/6 as well as in F/7.

Beneath the lower charcoal layer in F/6 were uncovered two ovens. Oven D was 2'3" x 2'4", was small and compact and 5" in depth. It contained comparatively little charcoal and no bone material and lay 2'2" below the surface of the square. Oven E, slightly to the north of Oven D was at a depth of 2'0" and slightly smaller than Oven D measuring only 1'8" x 2'10". It contained considerable quantities of charcoal and a few burnt fragments of bone, possibly of moa. At 4" depth it lay, as did Oven D, directly above the bright yellow pebble sand that formed a natural base to the site.

SQUARE G/6

Square G/6 was cleared of the usual surface gravel and bone fragments. A layer of charcoal stained sand was found at a depth of between 8" - 10" below the surface, and this contained odd heat fractured stones and small lumps of charcoal. Varying considerably in depth, from 8" on the northern side to 2" on the western, the dark layer gave way to one of clean sand under which, in the south-east corner, lay Oven F. At 1'6" below the surface, the oven measures 4'0" x 4'6" and was 5" in depth. The cooking stones were compact and this oven was remarkable for the large lumps of charcoal found within it. No bone material was found within the oven.

SQUARES E/5, H/6 and H/5 were also excavated, but all proved to have been disturbed and, beyond burnt oven stones on the surface of squares E/5 and H/5, there was no trace of intact ovens. These latter squares fronted on to the small gully which lay on the eastern side of the excavation and it was apparent that the stream which had caused the gully had cut through the layer of ovens and charcoal stained sand; the exposure of ovens and charcoal along the gully face confirmed this, especially as they were at the level of the ovens excavated further to the west. Fragments of moa bone were recovered from amongst the surface gravel in the gully.

Further confirmation of the gully postdating the ovens was obtained by running a trench across the gully. Excavation showed that the gully had cut cleanly through the light grey sands and darker yellow pebbly sand.

CONCLUSION

It is quite obvious that the main significance of this excavation lies in the bone material recovered. The almost total absence of artifacts or even a working floor makes speculation about the hunters who cooked there difficult. The small pointed artifact recovered from square E/6 appears to be made of moa bone although its use is unknown.

In this preliminary announcement of the two dates (Oven A - 1070A.D.; Oven C - 1558A.D.) of charcoal samples obtained from the site, there is no place for a detailed discussion of the implications of the almost 500 years difference between them. These dates, as well as the date of a bone sample still to be run, will be discussed more fully in a later report by J.C. Yaldwyn. If the possibility of sample contamination is ruled out there are perhaps two interpretations. The charcoal from Oven A may have resulted from the burning of old wood, perhaps driftwood from the beach, thus giving a date much older than the use of the oven, and the more recent date would be more correct. If the two dates are in fact valid, it would suggest that the area has been used, and ovens constructed in it over a considerable period of time.

Before the excavation, the surface indications led us to believe the beach could possibly yield evidence of former habitation of an early type. Moa bones were plentiful and often fractured, ovens were common and adzes of archaic type had been found (an almost perfect Ib was recovered from the beach). We were unaware of course, that the site had been badly disturbed and, after excavation, still distrusted the top 12" of most of the squares (finding fragments of clay pipe at quite low levels justified this).

But the oven layer, comparatively uniform across the site, and lying immediately above the yellow stony sand that formed a natural base to the site, was undisturbed, except along the eastern squares. The gully had cut through the site exposing ovens which lay at the same level as those excavated. Excavation of the ovens was quite straightforward, typically groups of burnt stones packed with charcoal. The interest in them lay in the bone material recovered. Whilst a few pieces of bone lay inside the ovens, most of it lay outside, scattered around the edge of the ovens. Concentrates of bone occurred around Oven A and Ovens B and C. Thus it appears that bones were thrown out of the ovens after food was consumed.

Charcoal stained sand ran in layers over most of the site, while clean sand immediately overlay the ovens, in most cases charcoal stained sand presumably was put on to extinguish the fire, or cover over the cooking stones.

A consideration of the Makara Beach area indicates that quite possibly a habitation site lay further back under what is now the beach settlement, and that the beach area was used for cooking. Fragments of bone and shell have been found amongst the houses there. It is more sheltered behind the beach.

Because we found no recognisable artifacts it is impossible to say with any certainty to what phase the site belongs, although the dates are early. Moa bone was recovered in quantity, and other bone material showed the encampment had a varied diet.

I have to thank Mr J. Bruce Palmer, Dr J.C. Yaldwyn for his encouragement and great interest in this excavation, also Dr R.A. Falla and the many who helped with identifications and with the excavation. Miss W. Mumford was of great assistance in drawing the sections and plans.

EXCAVATIONS AT WAREHOU PA
1962

For want of a traditional name we propose to use "Warehou" as suggested by J.W. Brodie (see page 158)

This excavation was carried out by the Wellington Archaeological Society under the direction of C.D. Smart from 20th to 24th May, 1962. The report was compiled by Maureen O'Rourke from field records of Mary Oliver, John Daniels, Fred Knox, Michael Hitchings and Colin Smart.

SETTING

Site N160/1 (Grid ref. 269304) is situated on the headland at the western extremity of Owhariu Bay. The surrounding countryside is now for the most part barren and hilly, but was once covered by broadleaf podocarp forest. A narrow rocky coastal strip, forming sand or stone beaches, is backed by near vertical slopes which taper off at stream outlets.

Makara Stream is the largest source of fresh water in the immediate vicinity, flowing into the bay at its north eastern sweep. There are, however, two small streams, one of these being situated near the base of the pa site.

The undermass of the area is composed of greywacke and where exposed through lack of cover it appears as rubbly weathered rock (rotten rock). This rock has a thin covering of steep hill soils, sandy and stony loams, formed from silt and gravel. Small areas of alluvial soil occur in the valley of the Makara Stream.

Shellfish of the rocky shore, fish, and birds would have been plentiful. Moa bones have been found in the area and after the finding of moa bones in midden and oven layers on Makara Beach (N164/2), Yaldwyn (1959:22) considers that moa was also hunted here.

CLIMATE

The following records have been obtained from the Meteorological Office, Wellington:

Temperature: Yearly mean of 51.4; mean daily maximum and minimum in 1961 of 56.6 and 47.5 respectively; relative humidity (9a.m.) 86pc.
Rainfall: 4.7" spread over a total of 135 raindays in 1961.
Frost: 28 days in 1961.
Gales: 24 days of gale in 1961 concentrated mainly from July to September.