

# ARCHAEOLOGY IN NEW ZEALAND



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# EXCAVATION OF WAIONEKE PA SOUTH KAIPARA 1968-1969

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# Introduction

The excavation of the Waioneke Pa was completed in the summer of 1968-69. It was the last excavation directed by Les Groube before he left for Canberra, and only an initial report was published (McKinlay 1971). The excavation yielded a large material collection with some significant finds. This paper extends the initial report, however, the time-lapse between excavation and write-up has provided a few difficulties which were heightened by the loss of the majority of artefacts and some gaps in recording and photographs. The remaining artefacts (67 from the original 503) are held at the Auckland Museum with photographs, maps and field notes.

## The Site

The pa was referred to as Waioneke at the time of excavation due to the name of the area. However, Spring-Rice (1996: 191) gives Puruto as the proper name for the pa itself. The pa was located on a rectangular shaped spur, which had overlooked a former tidal estuary currently adapted as grassland. The flattened area of the knoll was separated into two units by a central ditch running from the front to the back of the site (see Figure 1). The southern edge of the knoll fell to a steep cliff, the other three sides sloped to low-lying flats (McKinlay 1971, Irwin 1999). The eastern-most unit was approximately 72 m wide and the depth ranged from 25 m to 38 m. It was fortified across the front and sides by two banks separated by a ditch. The western-most unit was approximately 72 m wide with a 23 m depth; a low ditch was located on its SW side.

#### The Aims

Due to its defensive features the pa was defined as a 'ring-ditch' pa according to Groube's classification (Groube 1969: 18). Groube was attempting to

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determine a chronological and geographical evolution of the ring-ditch pa within the North Island (McKinlay *pers. comm.*). His expectation was that Waioneke's structural morphology would be similar to that of the Kauri Point Pa (Moir 1969: 12-13), due to migration to the Bay of Plenty. He believed this migration was caused by a subsistence adaptation from fishing to agriculture in the North coinciding with a population increase, which encouraged migration to the Bay of Plenty area (McKinlay 1971: 6). As Groube was primarily concerned with the physical shape of the pa, he concentrated on the features, and not so much on the faunal evidence. Similarities between the two pa were seen in pit shape and size, and buttresses at both ends of the pits. Contrary to Groube's expectation the dates for Waioneke were significantly later than the Kauri Point Pa (Moir 1969: 13). Recent classification of pa in Kaipara defines Waioneke as small and complex, based on its defence systems (with multiple ditches) and its location (Spring-Rice 1996: 158).

# The Excavation

Excavation was conducted on the eastern-most unit for six weeks by the University of Auckland Archaeological Society (Nugent 1977). The excavation was mainly in the central flat area, but extended to the NW and NW banks. The squares were two metres by two metres with a one metre baulk, which was mostly left in place. Initially two intercepting rows of squares were excavated and later extended in areas of interest (see Figures 1 and 2). At Easter (1968) McKinlay excavated another three squares in the NW corner which joined the original excavated area. Test pits were not used to determine any relationship between the two units or with the central dividing ditch (Spring-Rice 1996: 193). The impression of the excavators was that the western-most unit was a subsequent addition to the pa and had few defence features (McKinlay *pers. comm.*).

# Stratigraphy

The excavated area sloped significantly upwards from the NE end. A break in the slope was evident across the site, commencing where the first transverse row of squares was excavated (McKinlay *pers. comm.*). As is to be expected the downward sloping area (towards the NE) had much thicker layers of occupation debris on top of a group of pits. Up slope (toward the SE corner) the occupation debris was thinner, with a few hangi and pits which were just below the surface. The turf layer was relatively shell free and varied in depth. Beneath the turf layer was often a secondary turf layer which mixed with Layer 1. Layer 1 was divided into five sub-layers which consisted of a range of layers of midden, wood ash and soil mixtures which were more distinct in some squares



Figure 1. Map of Waioneke Pa site (Q10/32) showing excavation area.

than others. Layer 2 was also divided into three or four sub-layers consisting of varieties of midden and fill. Mixed within these fill layers were shell lenses and clay lumps. Some squares had a thin grey ash layer beneath the fill layers (Layer 2d). Layer 3 was a firm yellow sandstone bedrock into which the original storage pits had been dug.



Figure 2. General view of excavation to the east. Auckland University Photo Archive.

# **Occupation: Layer Three**

The site was first modified with the digging of large storage pits and bins (Law 1968, McKinlay 1968:87). There were eleven large pits excavated and eight smaller pits or bins. The arrangements of these could be sorted into two groups in different areas of the site. The first grouping was located in the centre of the site and was presumed to have been dug first. The second grouping of pits and bins was in the NE area of the site. The earlier pits were filled with the debris from the digging of the subsequent pits (McKinlay *pers. comm.*).

# Central Pit Grouping

The earliest group of pits dug on the site consisted of eight pits located close to one another alongside five bins or smaller pits. There was evidence of living activities or around the pits, suggesting that the site may have been used mainly

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for storage at this point. The pits were dug close enough in time to be arranged next to each other with no intercutting. However, one square had four small bins, two of which did intercut. One of the pits had an oval shaped buttress in the centre of the floor. The buttress was free-standing and was about 60 cm long by 25 cm wide, surrounded by a 12 cm wide ditch. Exterior postholes suggested that these pits had all been roofed and shallow ditches and water channels around the pits supported this also. A number of pits had postholes in the pit floor as well as around the edges. The pits had been deliberately filled with sandstone boulders, yellow soil and debris from the digging of the NW pits (Groube 1970: 15).

#### Postholes

There were over 217 small postholes and stake holes located in and around the pits, interpreted as predominantly for pit roofs and firescreens around hangi areas. Some of the postholes surrounding the pit were quite large, up to 20cm wide, although exact measurements were not noted. The posts had decayed away as there was no evidence of forced removal or burning. One pit had 8 postholes on its floor and 19 postholes located around a pit and bin. Eight of these postholes circled the west side of the pit indicating a wind break or roof.

#### Fire scoops

There were three to four areas of fire scoop which were excavated in the NE and NW areas of the site. The most condensed area of hangi showed three separate fire scoops with postholes indicating screens. One square with hangi had 48 small postholes and another had 42 small postholes around the fireplaces. One of these fire screens was shown by 19 postholes lined on the NW side of the fireplace. These hangi areas were quite small and the fire-cracked stones did not exceed one or two buckets-full, indicating family sized fires (McKinlay *pers. comm.*).

# **Occupation: Layer Two**

Some time after the construction of the pits and firescreens extensive defence features were constructed, including a palisade, which encased the NE and NW sides of the site and banks and ditches encircling the area to create a 'ring-ditch' pa. The occupation debris from this period was designated as layer two. During this time, the original storage pits were filled with the debris from the digging of new pits in the NW of the site. A minimum of two rows of palisades were excavated. They were probably constructed at the same time. Internal postholes indicate the construction of an internal stage or platform on the NW or front of the site. The palisades were probably to protect the assets of these larger pits (McKinlay *pers. comm.*). At the time the palisades were erected around the site

a layer of pipi shells was placed on the exterior of the palisades walls in a 30-40 cm wide strip. This was a practice to guard against an attacking party approaching the pa at night, the sound alerting the occupants (Smith 1896: 88). After the palisade walls were constructed, midden was piled up along the interior (McKinlay *pers. comm.*).

The palisade rows were not excavated fully but two squares revealed 29 postholes in two rows. These postholes were large - some being over 20 cm wide (McKinlay *pers. comm.*). Four separate areas of firescoop and hangi were excavated, and a possible house floor had a fireplace and a large stone anvil nearby.

## NW Pit Grouping

This group of pits (Figs. 3a and 3b) was located in the NW area of the site. The grouping consisted of a very large pit, two large pits and three shallow bins. Three bins were located at the east end of the largest pit. The bins were shallow and ranged in size from 50 cm square to approximately one metre square. The formation of 123 postholes at this level around the pits suggested pit roofs, palisade rows and one house floor consisting of 19 postholes, both in separate areas of the site.



Figure 3a. Pit and bin complex as seen from the NE.



Figure 3b. Pit and bin complex as seen from the SW.

The largest pit excavated was approximately three and a half metres long. and at least one and a half metres wide, but was not fully excavated. Three postholes in its floor formed a midline from buttress to buttress at each end. The original ko (stick) marks could be observed in the sides of the pit walls (see Figure 4). 41 postholes were located in the two squares around the largest pit. The most significant factors about this pit was that it revealed evidence of large quantities of material being burnt within the interior. At a time when the pit was still in use, evidenced by clean and well a maintained floor, a large amount of ignitable material, possibly its



Figure 4. Ko marks on wall of pit.

roof, was dumped into the pit and set on fire. This fierce burning was evident in the charred discolouration of the pit walls and quantities of shell which were reduced to powdered lime deposits (McKinlay *pers. comm.*). While this fire was still burning various other combustible materials were added along with large quantities of dirt, sand and shell. This latest addition smothered the fire resulting in the preservation of half-burnt items, notably a charred flax kete with the carbonised remains of kumara inside it. Upon excavation the kete virtually disintegrated but the vegetable remains, totalling one whole kumara and a few fragments (Leach 1987: 85), remained stable enough to be retained. The kumara was catalogued as vegetable remains at the Auckland Museum (1969) and was taken to the Bishop Museum in 1974 (McKinlay *pers. comm.*), however, the Bishop Museum has no record of the sample's whereabouts today (Yen *pers. comm.*).

#### Burials

Two shallow burials were discovered in adjacent squares behind the NW palisades. Both burials were less than 50cm beneath the surface. The first had massive cranial damage with the top two thirds of the skull missing. The body was trussed with the head pointing towards north (Law 1968). The rib cage was very compacted, and a full set of teeth was evident, indicating a premature death (Davidson 1987). The burial, dug into a midden and refilled, was one of haste. The second skeleton also had cranial trauma with a circular hole in the left temple and a corresponding opening at the base of the head. The skeleton was also curled up but was not trussed (Law 1968). A small amount of red ochre was found next to the burial (Auckland Museum 1969). The jaw jutted out from the other facial bones, and a full set of teeth was evident here also. The remains were placed together in one of the larger pits and buried by backfill at the conclusion of the excavation (McKinlay *pers. comm.*).

Other human bones were also evident within the unexcavated baulks, possibly another 3-4 individuals. These had also been buried in shallow scoops and were not removed. The burials indicate that if the cranial damage was caused during an attack on the pa then some occupants survived the attack (Davidson 1987: 192), and occupation evidence above these areas suggests that occupation resumed after the attack for a period of time. It is possible that the burials relate to skirmishes following the 1825 battle of Te-Ika-a-Ranganui (Spring-Rice 1996: 193).

#### Artefacts

There were thirty-seven artefacts excavated from Layer 2 in twelve squares including hangi stones, fish and bird bone, a greenstone adze and chisel, obsidian, a chert knife and stone flakes, fish hook points, a drilled dog molar, a drilled shell, a sandstone rubber, and rat tooth fragments. Many of these artefacts were studied by Nugent (1977). The chert knife was 11.5 cm long and 5 cm wide, the reverse side of the knife revealed deliberate shaping for a comfortable fit to the hand, the long blade remained exceedingly sharp (Nugent 1977: 7). The greenstone chisel, less than 1 cm thick and over 5.5 cm long, was highly polished with the proximal end broken away (Nugent 1977: 4). The range of bone fish hook points was identified as being constructed from groper spines, but two were made from an unidentified fish-type species (McKinlay 1969 *corres.*). Three dog teeth were worked slightly and used as fishhook points (Nugent 1977: 10). These artefacts indicated the wide range of everyday activities which were performed on site including wood and stone modification.

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#### **Occupation: Layer One**

Following this period of probable attack and upheaval in the pa, and perhaps after a short period of abandonment, the pa was again occupied. The occupational evidence was directly above the burials and also the largest pit. The area was refortified. These subsequent palisades were situated within the original fortified area, reducing the enclosed space. Three palisade lines now crossed the front of the site on top of the inside bank, and two palisade rows lined the west side of the site on the bank. The posthole alignment along the NW side of the site suggested a longitudinal interior palisade (Law 1968), or internal platform (McKinlay *pers. comm.*).

# Postholes

Eighty-one postholes were excavated from this layer, A large posthole was also located next to one of the burials. Two squares on the NW of the site contained the palisades lines dug into areas of midden. One of these had 29 postholes arranged in three rows, and the other had 5 definite postholes dug into the midden. The outline of the largest pit was evident from this layer with eight postholes sunk into the top of the fill. Another 27 postholes were located around the pit's outline. There were four separate areas of hangi and firescoop. Two squares had one area of hangi in each square and a hangi fireplace with hangi stones was located just within the west side palisade area. Another area of oven depressions and hangi was located also in this area (Groube 1970: 20). Hangi and dense occupation material were evident directly above the area of the largest pit (McKinlay *pers. comm.*). The midden piling up on the interior of the palisade walls increased considerably. After the posts had rotted in the ground the dense midden filled the postholes.

### Artefacts

Layer 1 had the majority of the artefacts with 466 artefacts excavated. Artefacts were found in nearly every square. These were concentrated in the areas of the house floors or in middens (Law 1968-9). The majority of the artefacts were complete. Four whole polished basalt 2B adzes and fragments suggesting eight others were recovered (Nugent 1977: 3). There was finely polished basalt pieces from a patu, tattoo chisels, bird bone cloak toggles, a chert knife, sandstone rubbers, a hammerstone and stone grinder, bird bone pickers, a bird bone cloak toggle and canine and fish hook points. Other material recovered included flakes and cores of argillite, obsidian and chert and worked greenstone. Worked dog teeth were found as well as sting-ray barbs and spears, human bones and a skull fragment. A pendant was made from a human patella (McKinlay 1969). Such finds were rare for North Island sites (Davidson 1987: 87).

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Figure 5. Range of fish hook points made from bone and dog teeth. Auckland University Photo Archive.

# Radiocarbon Dating

Eleven samples were gathered on site, three of these were carbon dated at the Australian National University (McKinlay 1971).

**ANU 760:**  $290 \pm 95$  BP. Wood fragments from a post-hole at the time of first fortification (McKinlay 1971: 91).

ANU 761a: 100  $\pm$  85 BP. Charred twigs and flax from debris in pit where carbonised kumara was found.

ANU 761b: 75 ± 80 BP. As above.

These dates were calibrated by Law in 2001 using CALIB.

**ANU 760:** 290  $\pm$  95 BP. Wood fragments from a post-hole at the time of first fortification.

**ANU 761a/b** pooled:  $87 \pm 57$  BP. Charred twigs and flax from debris in a pit where carbonised kumara was found. 761a and 761b are from the same context and are not significantly different so they have been combined in a pooled age. **ANU 762**:  $80 \pm 70$  BP. Shell sample from midden in fill of a pit in Layer 2 surface (Spring-Rice 1996).

# Conclusion

The sequence of occupation progressed from a relatively small occupation party who stored kumara in large pits and bins dug on a spur overlooking the tidal estuary. After some time the site was defended through the construction of ditches, banks and a palisade. Another group of larger pits was dug and the old pits were refilled. After some use of the new pits an attack was made on the pa which left at least six people dead and material burnt in the pits. The palisades were not burnt but rotted where they were placed. Some time after the attack the pa was reoccupied for a time. At its maximum capacity, this pa was presumed to have supported fewer than two hundred people (Law 1969, Moir 1969: 12). Ultimately the pa was abandoned (McKinlay 1971: 90), leaving a rich record of artefacts which revealed the occurrence of varied everyday activities.

## Further Modification to the Site

The completion of the excavation was quite traumatic for the members as labour had by this time dwindled to a minimum number, and the large area of squares and pits required backfilling. The farm owner at the time offered to help with backfilling, which was accepted. However, no one was quite prepared for him to use a bulldozer to rapidly smash the remaining unexcavated baulks whilst driving the soil haphazardly back into the squares (McKinlay *pers. comm.*). As a result, the structures of the pits and squares were destroyed making re-excavation of this area impossible. Adding to this, more recent modifications of the site for farming purposes have included the flattening of all defence features for planting shelter belts on the spur, and a kiwi-fruit orchard has been planted on the low-lying fields surrounding the knoll (Spring-Rice 2000, *pers. comm.*).

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