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## SOME HISTORICAL AGRICULTURAL FEATURES NEAR WAVERLEY, SOUTH TARANAKI

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This report describes the investigation of two sets of long, broad, slightly raised, banks of earth (Q21/239) at a locality near Waverley, South Taranaki (Fig. 1). This investigation was undertaken in 1974, while the excavations at the Kokako site (Q22/21) (Cassels and Walton 1991) were under way. An investigation of borrow pits and made soils (Q22/36, Q21/234) (Walton and Cassels forthcoming) was done at the same time.

Within a small area on the west side of the Whenuakura River are a number of archaeological features including a small pa (Q21/226), a number of clusters of pits (Q21/235, 236, 237, 238), and a borrow pit and made soil (Q21/234). Also within this area are a complex set of linear depressions and banks which appear to relate to agricultural uses of the land over the last 150 years or so.

The changes in land use since the 1940s can be determined from aerial photos (RN 373/-14-15 (1942), RN 3391/10-11 (1962), SN 5009G/2-3 (1976)). The area concerned is bounded on three sides by valleys and in 1942 was a single paddock. By 1962 the paddock had been divided into two, the northern one of which had been ploughed. By 1974 the eastern ends of the two paddocks had been cut off to create a third. These changes were accompanied by some re-alignment of the existing fencelines. By 1974 only one paddock remained largely unploughed and it was in this area that the investigations were centred. This paddock, and most of the sites in it (with the exception of Q21/238), were mapped as part of the exercise.

The aerial photographs show that few of the features can be explained in terms of events which occurred after 1942. Shallow linear depressions near Q21/226 (Walton and Cassels forthcoming; Fig. 4), however, lie on, or close to, a fenceline shown on the 1942 aerial photograph. The features probably represent earlier alignments of the fence shown in the 1942 aerial photograph. None of the other features have this sort of association with the pattern of land use evident in the 1940s: they appear to be much older.

Maori occupation in the area in the first half of the 19th century is largely undocumented but probably involved both tending of crops and livestock. The area was gradually settled by Pakeha from the mid 1860s. Some of the features encountered probably represented old fencelines and cultivation dating

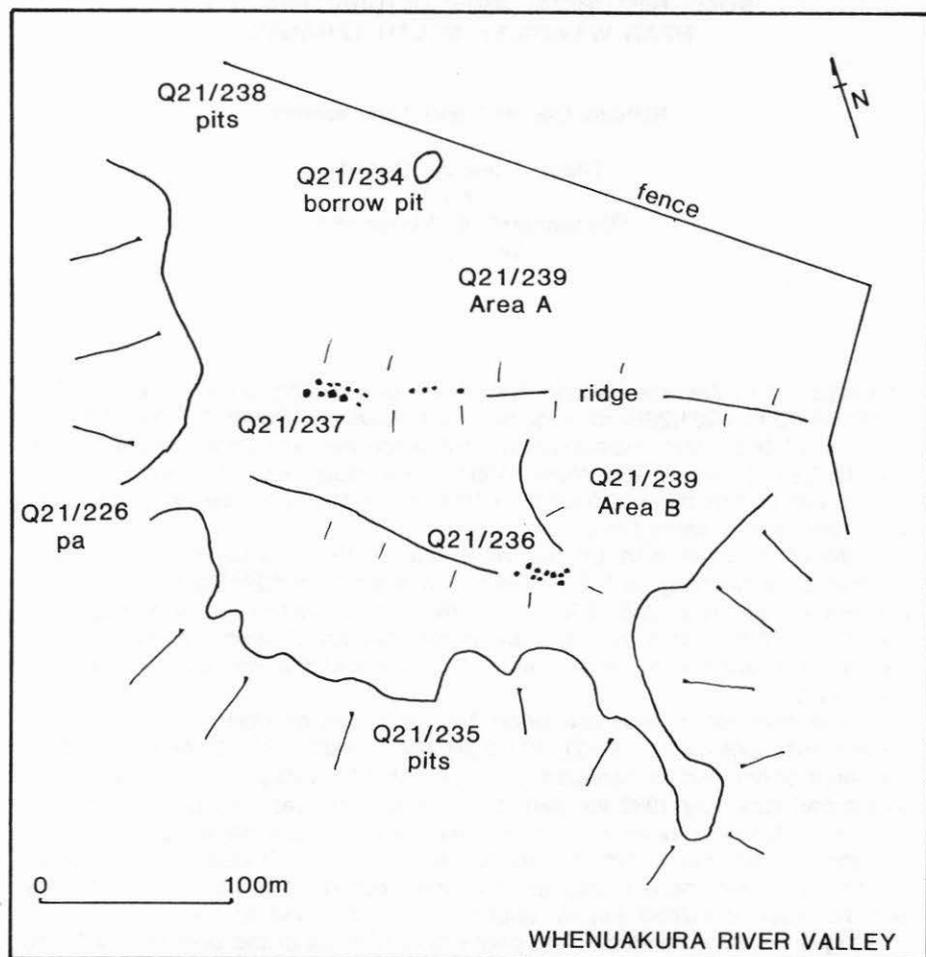


Fig. 1. Plan of archaeological features in Dickie's paddock, showing setting and location of banks investigated. The site is on the west side of the Whenuakura River about 2 km NNW of the Kokako site (Q22/21 (see Cassels and Walton 1991: 187, Fig. 1).

to the period from about 1870 to 1940, but the changes in this period are not documented anywhere, so it is impossible to determine the origins of individual features except from their form and context. Out of the numbers of features present two were chosen for further investigation because their form and setting suggested they may date from the last century.

## AREA A

The interpretation of the layout or arrangement of features in Area A (Plate 1, Fig. 2) is complicated by the presence of more than one set of features. The superimposition of features one upon another, however, offered a means of determining relative order of construction. A recent track, with two branches, runs across features 1-4. This track is visible on the 1962 aerial photographs and was still used by stock in 1974. Feature 3 consists of two banks on either side of a narrow depression. It does not have the form of a ditch and bank fence (Smart 1966: 22), but possibly marks the position of an old fenceline, as may also features 4 and 5. Features 3 and 4 are parallel, suggesting that they were associated. Feature 5 butts against Feature 4 and is a secondary feature. Features 3-5 may, therefore, form a group.

Of more interest is the presence of three sides of what appears to have been some form of enclosure (features 1 and 2). Disturbance at one end has obscured the area where the fourth side might have been.

A section of the most prominent bank of the enclosure was excavated. The bank was about 2 m wide and up to 200 mm high. A narrow trench, 6.45 m long and 0.3 m wide, was cut across one of the more substantial parts of the bank. It showed that the bank consisted of heaped up topsoil (Fig. 3). The source of this material was not evident, there being no sign of a ditch on either side. The soil in the bank contained more charcoal than the soil on either side but the quantity was small. The presence of the charcoal hints at deliberate construction of the bank.

Under the bank, a deep posthole, 160 mm wide and some 900 mm deep, was found. Presumably the post went through the bank and the upper part of the posthole had been obliterated by worm action and other soil processes.

An area (2.55 m by 0.7 m) along the top of the bank was then excavated and two more postholes were found (Plate 2). These were 1.3 m south and 1.1 m north of the first posthole. They were similar in size to the first posthole.

The soil profiles on either side of the fence were similar. A thin zone of mixing between the topsoil and the subsoil almost certainly indicates cultivation but, as the mixing was uniform on either side and under the bank, this cultivation predates the fence. There was no evidence that the area inside the enclosure had been cultivated. It may have been used to pen stock.

## AREA B

In Area B there are six banks, five with similar orientation, in an east-facing half-basin (Plate 1, Fig. 4). A sixth bank runs at an angle across the other five. This sixth bank is definitely a cultivation feature as it bounds a small area which has been ploughed. This interpretation is not evident from ground inspections, but the cultivated area, and the bank along the edge, show clearly on Buist's oblique aerial photographs. The parts of the other five banks which fall within the ploughed area have been flattened but not entirely obliterated. The sixth bank thus postdates the other five.



Plate 1. Aerial photo showing form and setting of the banks, looking south. Photo: Alastair Buist.

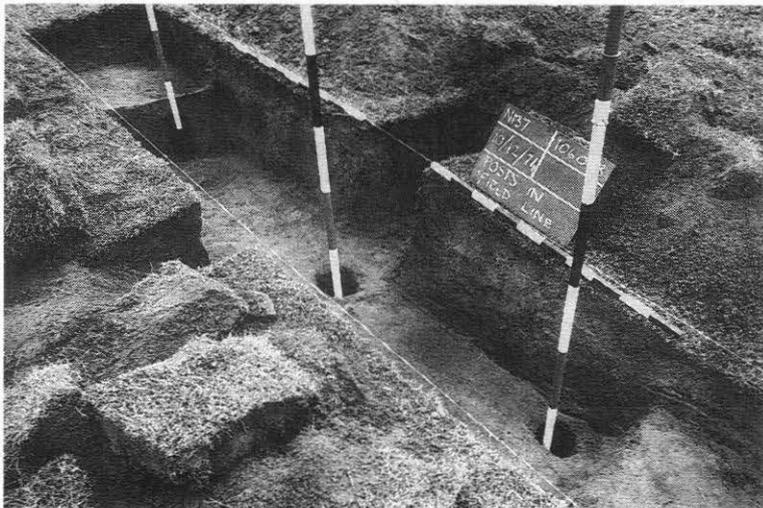


Plate 2. Area A: postholes in or under bank. Photo: Richard Cassels.

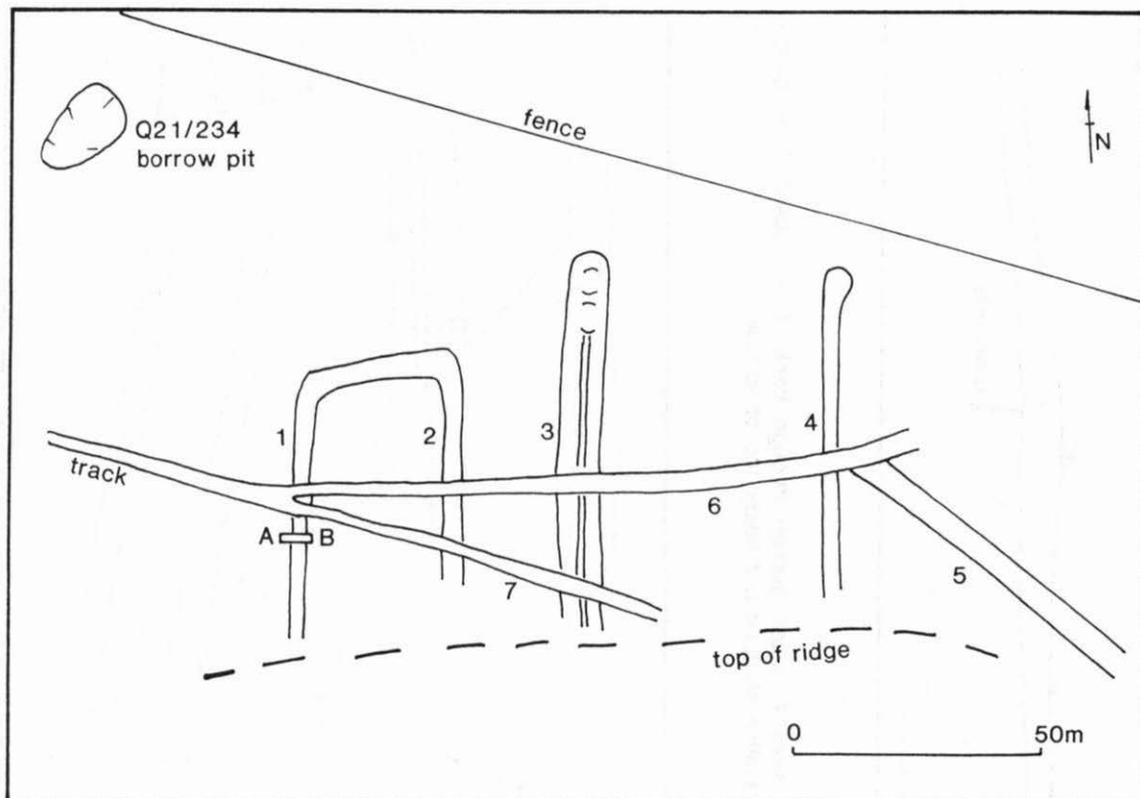


Fig. 2. Area A plan.

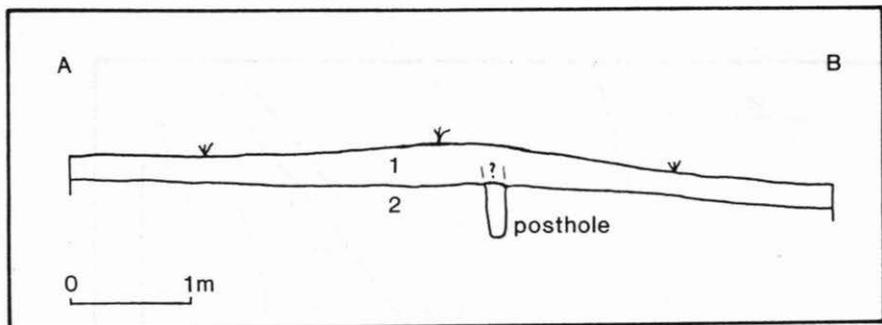


Fig. 3. Area A: cross section through bank. 1 = Topsoil, 2 = subsoil. Excavation stopped just below top of subsoil.

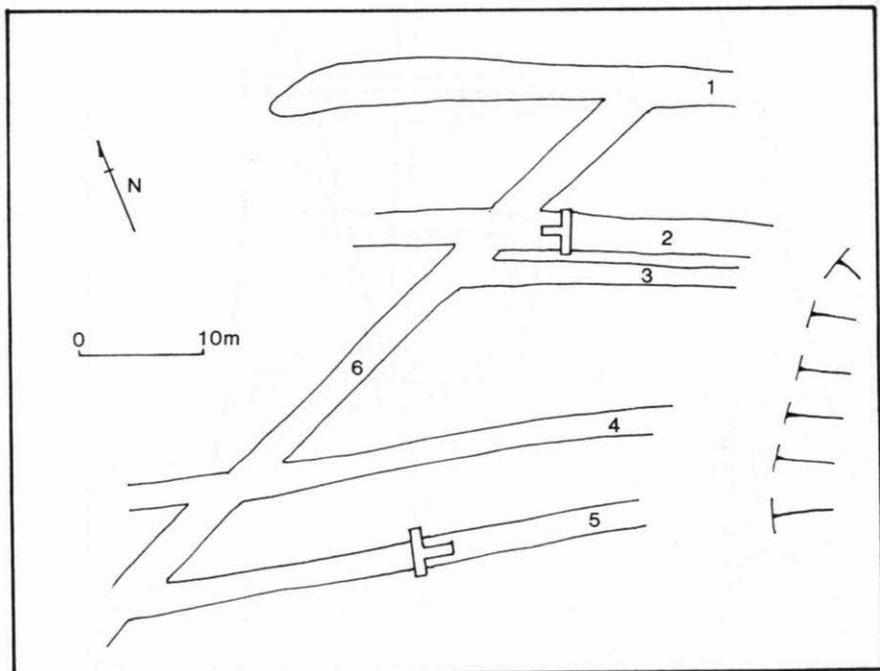


Fig. 4. Area B plan showing layout of site and location of excavations.

The five banks have a similar orientation but they do not form a parallel set, nor are they equally spaced. Two are almost side by side. The banks vary in width but were up to 3 m across. They also varied in height but did not exceed 150-200 mm.

Two of the five banks were selected for investigation. In each case excavation took the form of a 'T': two intersecting trenches cut across and along the bank (each 3.5 m across and 3 m long).

Again the banks proved to be composed of topsoil. There were no traces of ditches on either side of the bank. Two possible stakeholes were identified in one excavation but no definite features were found.

The banks do not appear to have been associated with substantial fences, although if light fences or hedges were used, they may have left few traces. The layout, however, does not suggest fences and some form of cultivation may have produced the features, just as it was responsible for the formation of the sixth bank.

The origin and function of the banks in Area B remain unresolved. They are probably a by-product of an agricultural practice rather than deliberately constructed features and some form of cultivation is the most likely explanation.

## DISCUSSION

The changing pattern of land use of any particular locality over the last 150 years can seldom be documented in any detail from written records. Archaeological remains may provide the only hint of changes which have occurred in the late 19th and early 20th centuries. This history of changing land use is often germane to the interpretation of the prehistoric evidence, but it is also a subject of interest in its own right. This study is, however, little developed in New Zealand.

Immediately adjacent to Area A there is evidence of prehistoric or early contact period kumara growing in the form of a borrow pit/made soil and numerous storage pits. The enclosure is probably a 19th century feature and may be of Maori or Pakeha origin. (In 1876 Maori reasserted their claim to the land in this vicinity by moving there and building a kainga. The exact location of this settlement, which was occupied for only about 2 months, is not known.) Most of the other features here presumably date to the period 1870-1940, except for the stock track which is a very recent feature.

In Area B, feature 6 postdates the other five banks and all are probably by-products of cultivation. It is difficult to say when the ploughing associated with feature 6 took place. It may have occurred after 1942, after the original paddock had been subdivided, and when ploughing began on a large scale nearby. Only a small area was ploughed at the time, and this was also the case earlier when the other five banks were created, presumably sometime before 1940, but possibly as early as the mid 19th century. A prehistoric date is regarded as extremely unlikely.

A possible reconstruction is:

<u>Area A</u>	<u>Area B</u>	<u>Suggested Chronology</u>
Borrow pit/made soil		before 1840
Enclosure		1840s-1870s
Features 3-5	Features 1-5	1880s-1930s
Stock track	Feature 6	after 1940

If this interpretation is correct, then in this one locality there was a range of agricultural evidence dating from before 1840 through to 1974. Both fencelines and cultivation have left their mark. Fencelines, in particular, were represented by field remains which have taken a number of different forms.

Most of the features in Areas A and B no longer exist. When the locality was revisited in 1986 they were found to have been obliterated in just a few years by regular ploughing.

## CONCLUSIONS

The banks are, almost certainly, directly or indirectly associated with fencing and cultivation. One bank was associated with a substantial fence but the other examples investigated were probably by-products of cultivation.

Although no direct evidence was found to date the features excavated, a mid 19th century origin is favoured for the enclosure. The other banks may be of similar antiquity but are probably younger.

## ACKNOWLEDGEMENTS

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