

**Archaeological survey of Whangawehi Stream riparian strip,
Mahia Peninsula, for Whangawehi Catchment Management
Group**



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Frontispiece

Ploughed terrace land about 800 m upstream from bridge. The midden Y19/127 is at centre and the clay pipe and soil-marks site Y19/128 is in the distance.

Introduction

The Whangawehi Catchment Management Group, Wairoa, is sponsoring the fencing and planting of a riparian strip on the lower part (up to about 5 km from the mouth) of the course of the Whangawehi Stream, Mahia Peninsula. The stream is the longest water course on the peninsula (Fig. 1, 2).

The survey was carried out by Kevin L. Jones and Edward Edmonds (tangata whenua) on Saturday 21 September 2013.

Earlier work on the peninsula includes surveys by Mike and Mary Jeal (Jones et al. 2001). In recent years there have been further surveys in the Mahia Beach and Whangawehi head waters area carried out by Kevin L. Jones Archaeologist Ltd. These earlier surveys have shown many pa on headlands and pa and pits on the edges of the high Pleistocene terrace which is the dominant land form on the eastern side of the peninsula. An example is Pukekura on the ridge just north of the Whangawehi bridge. Recently an Opus 2011 report has reviewed sites along the East Coast Road including the mouth of the Whangawehi Stream.

Few surveys have been carried out on valley floors.

Whangawehi, being the only sheltered anchorage on the eastern side of the peninsula, was used for whaling and other 19th C landings and commerce. Generally, apart from the missionary activities, this is poorly documented historically and archaeologically.

Prickett notes that in 1844 there was a 3-boat 20-man station at “Wangawai” (Prickett 2002: 116). He also notes that there is no archaeological record of the site. Whaanga notes that the local whaling industry was at its height in the 1830s and 1840s (see Mere Whaanga. 'Ngāti Rongomaiwahine - Natural resources and land use', Te Ara - the Encyclopedia of New Zealand, <http://www.TeAra.govt.nz/en/photograph/246/mahia>).

Statutory definitions and protection of archaeological sites

There are two main pieces of legislation in New Zealand that control work affecting archaeological sites. These are the *Historic Places Act* 1993 (HPA) and the *Resource Management Act* 1991 (RMA).

The NZ Historic Places Trust administers the HPA. The HPA contains a consent (authority) process for any work affecting archaeological sites, where an archaeological site is defined as:

Any place in New Zealand that

(a) Either –

(i) was associated with human activity that occurred before 1900; or

(ii) is the site of the wreck of any vessel where that wreck occurred before 1900; and

(b) Is or may be able through investigation by archaeological methods to provide

evidence relating to the history of New Zealand (HPA section 2).

Any person who intends carrying out work that may damage, modify or destroy an archaeological site, or to investigate a site using invasive archaeological techniques, must first obtain an authority from the Historic Places Trust. The process applies to sites on land of all tenure including public, private and designated land. The HPA contains penalties for unauthorised site damage or destruction.

The archaeological authority process applies to all sites that fit the HPA definition, regardless of whether:

- The site is recorded in the NZ Archaeological Association Site Recording Scheme or registered by the Trust,
- The site only becomes known about as a result of ground disturbance, and/ or
- The activity is permitted under a district or regional plan, or a resource or building consent has been granted.

Land forms and soils in the lower Whangawehi valley

The valley is dominated by a long escarpment to the north, cut from the lime- and mudstone sediments of the high terrace. Below this is a high terrace (about 10 m above the stream course) leading inland for about 2.5 km from the coast. Inland of that and on the south side is rolling hill country rising gradually to the Pleistocene terrace edge.

The soils in the riparian strip follow a typical East Coast Holocene pattern (see Jones 1988, 1991, based on earlier work by W.A. Pullar) (see Fig. 3):

- Mature “Waihirere” soils on older sediments (older than 600 years) about 10 m above the stream course
- Recent “Waipaoa” soils on very recent (last 150 years) sediments up to about 4 m above the stream
- Intermediate “Matawhero” soils, unusually deep (40 cm) topsoils formed on slowly accumulating sediments from infrequent large floods or slope wash over centuries. This last class of soils can also be seen at the foot of steep slopes.

Archaeological sites will not be found on the “Waipaoa” soils, i.e. on the lowest flood-prone terraces. Pa, storage pits and other evidence of pre-European settlement are most often found on the “Waihirere” soils and sometimes partly buried on Matawhero soils.

Field methodology

I have examined 1945 vertical aerial photographs (Fig. 4). These show no sites in the riparian zone. Quickmap (early survey plans, including Maori Land plans, on-line) has been searched but, unfortunately, an error in the system meant that the correct plans (ML 2251 and ML 2615) were not able to be recovered.

The survey route followed existing fences on the *true right of the stream* on the Baytown Investments Ltd land and on the *true left* on the forestry land owned by Grandy Lake Forest (NZ) Ltd as far as the western boundary of the Taharoa Trust (Figs 2, 5).

On the *true left of the stream* we followed the edge of recent ploughing on the high terrace of Baytown Investments Ltd and, on the *true right*, a newly marked line for proposed riparian fencing on the Taharoa Trust land.

Particular attention was paid to the edge of the terrace where there were Waihirere or Matawhero soils, and where there were cuts made by the fencing route in the low hill/ridge country.

In areas of cuts or plough disturbance we looked for shell midden, ovenstones, artefacts or charcoally soils and other “soil marks”. According to Wikipedia, “*Soil marks* are differences in soil colour as a result of archaeological features. They can be seen when a ploughed out earthwork has left hard dry material of a former bank and damper wetter material from a former ditch. They can also occur when a feature has cut through the top soil to reveal underlying chalk.” (http://en.wikipedia.org/wiki/Soil_mark)

The ploughed areas and the low cuts made for new fencing on the Baytown Investments Ltd land revealed a number of sites.

The sites have been sketch-planned, GPS readings taken, and uploaded to Archsite using a customised upload spreadsheet. The Archsite site numbers have been allocated (e.g. Y19/128).

Results

The sites found are listed below in Archsite order following the true left (north side) going up the stream and the true right (south side) going down. Figure 5 shows the site locations.

Y19/127 E2027663 N5660338 (Fig. 6)

On edge of first high terrace on true left facing down river to the Whangawehi bridge.

From surface: 0-8 cm grey sandy loam, 8-22 conc. Midden: tuatua, cockle, Cooks turban, Struthiolaria (?) gastropod, ovenstones, 22-40 grey sandy loam grading to y.br. hard sand.

Y19/128 E2027604 N5660151 (Figs 7, 8)

At end of prominent point in the terrace land on the true left of the Whangawehi. This is the tidal limit and the inland limit of access for boats and even small ships (at high tide).

The end of the point has a number of changes in the colour of the ploughed surface including a line of ploughed- up subsoil across the point and lines of black charcoally soil, suggesting that a pa (possible) or a house with a bank fence lay on the point with terraces stepping down the point. They have been recently ploughed over.

The 1945 aerial photograph (Fig. 4) suggests that there was a kind of mid-level terrace at the very tip of the point. It does not show a defensive ditch and bank as for a pa.

Overall, the site appears to have been that of a mid- 19th C house or houses or whare on the middle terrace with nearby haangi or cooking area. There appears to have been a bank on the high terrace which shows as a white or light-grey soil mark; this may have been an enclosed garden, as the hoe (see below) suggests.

Finds include a clay pipe stem and a clay pipe bowl (half) and stem, a black beer bottle base, a piece of green case gin glass, and a pressed-metal hoe head (Fig. 8). Edward Edmonds also noted a spade or spade blade in the ploughed area. These came from the high terrace ploughed area near the point.

The clay pipe bowl has a distinctive chevron pattern at the mould parting both on the bottom and on the distal side (nearest the smoker). The bowl is 45 mm deep and the aperture at the top had an external diameter of 28 mm.

The clay pipes could have been in use some time between 1830 and 1900. Black beers are a common bottle type that was also in use over a long period of time up until the 1890s.

Y19/129 E2026770 N5659946 (Fig. 9)

At edge of wide area of high terrace on true right of river about 1.5 km up from the Whangawehi bridge.

A recently ploughed area of about 10 x 10 m with scatter of bricks and brick fragments in the topsoil. At one spot about 4 m from the new fence is an area of intact bricks which may be the base of the chimney. At very edge of the terrace is a small pit (about 2 x 2.5 m) with a distinct bank on the river side.

The bricks are 215 x 105 x 65 with no frog mark; they are poorly fired with a low level of vitrification and are orange or buff (firebrick) in colour. These are typical bricks of a type that would have been in use from about 1850 to 1890.

Y19/130 E2027452 N5660007 (Fig. 10)

Near edge of steep escarpment to river just west of a deeply indented small stream on true right of river.

A house (whare) floor cut into a gentle slope. On the south and west sides a small scarp has been formed and there is a low bank on the north (downslope) side. The floor is open (the porch area) to the north or north-east. The area of the floor is about 3.8 x 6 m, which is quite large for such a floor. The recent fence cutting just below the site area has exposed dark charcoally soil to a depth of about 20 cm and there is a small piece of bottle glass with marked surface irregularities and bubbles in the glass (i.e. probable early to mid 19th C in age).

Y19/131 E2027713 N5660144

Below farm road and not far from fence on true right of river.

Concentrated cockle and some *Struthiolaria* (?) gastropod midden at bottom of 15 cm of topsoil. About 15 square metres in area.

Y19/132 E2027840 N5660333 (Fig. 11)

On true right opposite the prominent point. The site is adjacent to and south of the new fenceline and descends to the west.

The crest of the slope may be levelled but there are 3 distinct terraces running down slope to the west 3 x 2 m, 4 x 2 m, 4 x 3 m spread over about 60 m. The fence cutting to the north has cut into a cockle midden in the topsoil which extends over about 5 m.

The false pa (Fig. 12)

A broad ditch or channel cuts off a broad point in the river on the true left and about 3 km up from the bridge. The channel is about 28 m long, 8 m wide and about 1.5 m deep and encloses an area of about 25 x 35 m on the point. This point and the channel is not unlike some pa on river points elsewhere on the East Coast (see Jones 1991: 238). However, the surface of the point is only at a low height above the stream (no more than 5 m, where pa are often more than 6 m above the river); the channel and its base are too wide and the base is flat with stream marks; and there is no trace of an inner bank where the outcast would have been thrown from digging out the ditch. Finally, there are no ovenstones, darkened soils or pit outlines showing in the eroded river banks, nor surface features.

It is possible that the stream could have flooded through a defensive ditch and widened it.

On balance, however, it must be concluded then that this is not a pa, or perhaps that it is a "faux pa".

Significance of the sites located

The most significant of the sites are:

- mid-19th C terraces/domestic enclosure with soil marks and clay pipes on the wide bend (Y19/128)
- pre-European or mid-19th C house (or whare) floor with ovenstones (Y19/130).

The following analysis follows the *Historic Places Trust archaeological guidelines series no. 2*.

Y19/128

Condition	Ploughed and terrace edges chipped down but sub-surface remains below the plough zone will exist.
Unusual, rare or unique?	If this site is an outlier, or a domestic outlier of the Whangawehi whaling station, then it is a rare site.
Information potential	If this site is an outlier, or a domestic outlier of the Whangawehi whaling station, then it has very high information potential.
Amenity value	As part of the riparian strip, this site area will continue to contribute to the cultural landscape values of the valley.
Cultural associations	If this site is an outlier, or a domestic outlier of the Whangawehi whaling station, then it is an example of early Maori/Pakeha social contact and very significant.

Y19/130

Condition	The terrace itself is in very good condition but the haangi remains on the slope below have been cut through by the new fenceline.
Unusual, rare or unique?	House or whare floors are not uncommon in the Wairoa area. This example is quite large in area. If this site is an outlier, or a domestic outlier of the Whangawehi whaling station, then it is a very rare site.
Information potential	House floors and their environs are important sources of information about past lifeways. If this site is an outlier, or a domestic outlier of the Whangawehi whaling station, then it has very high information potential.

Amenity value	As part of the riparian strip, this site area will continue to contribute to the cultural landscape values of the valley.
Cultural associations	House or whare floors are evidence of a conservative building tradition in Maori society. If this site is an outlier, or a domestic outlier of the Whangawhi whaling station, then it is an example of early Maori/Pakeha social contact and very significant.

As noted in the tables above, both of these sites may be of the whaling era (1830s) and outliers of the whaling settlement pattern. It is indeed possible that Y19/128 is the Whangawhi whaling settlement, or at least the domestic part of it: the houses may have been up the stream, while the shore processing was down at the coast.

Site management as part of the riparian zone

It would be worthwhile to incorporate the two sites Y19/128 and Y19/130 within the protected riparian zone. This would involve fencing or re-fencing into the riparian zone. If this is done, then the surface should be retained in grass as far as possible.

Care should be taken to incorporate all of the site(s) area into the riparian zone and not allow any new fence alignments to cut through the site(s).

The other sites would be adequately protected within the grazed area except that they will be prone to increased erosion by stock tracking along the new or proposed fencelines.

Artefacts

Under the Protected Objects Act 1975, the artefacts (a black beer and clay pipes), being of European origin, are the property of Baytown Investments Ltd. They are currently being held by Kevin L. Jones Archaeologist Ltd. They can be delivered to Baytown Investments Ltd if wanted.

References

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- Jones, Kevin L. 1991. Age of pa in relation to river terrace soils and landforms, East Coast, North Island. *Geoarchaeology: an International Journal*, 5 (3): 255-273

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Acknowledgements

To Mary O'Keeffe for searching on Quickmap and to Nicola Molloy for upload of the Archsite data. Many thanks to Edward Edmonds for his help in the field.

Figures

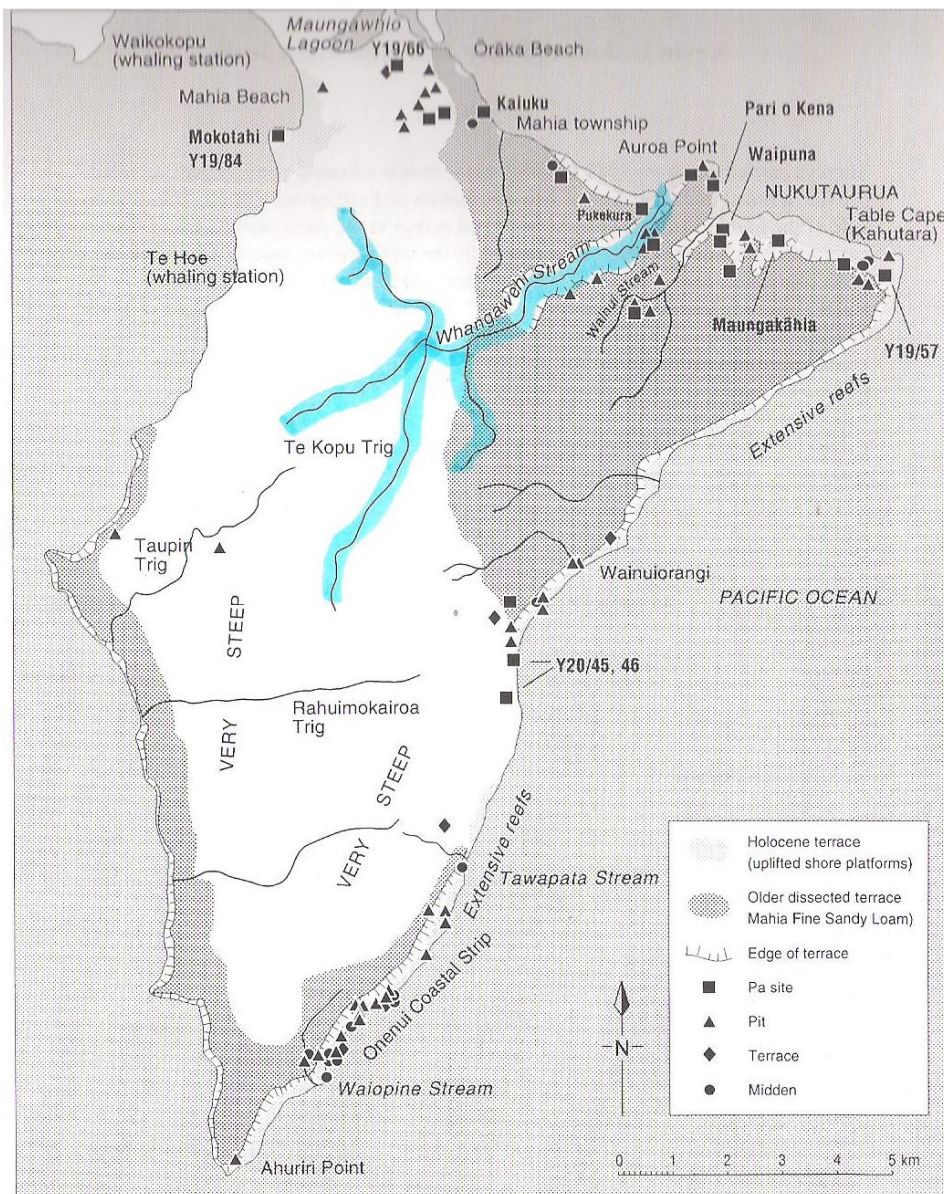


Fig. 1. Archaeological sites on the Mahia Peninsula and course of Whangawehi Stream in blue. (Source, Jones et al. 2001.)

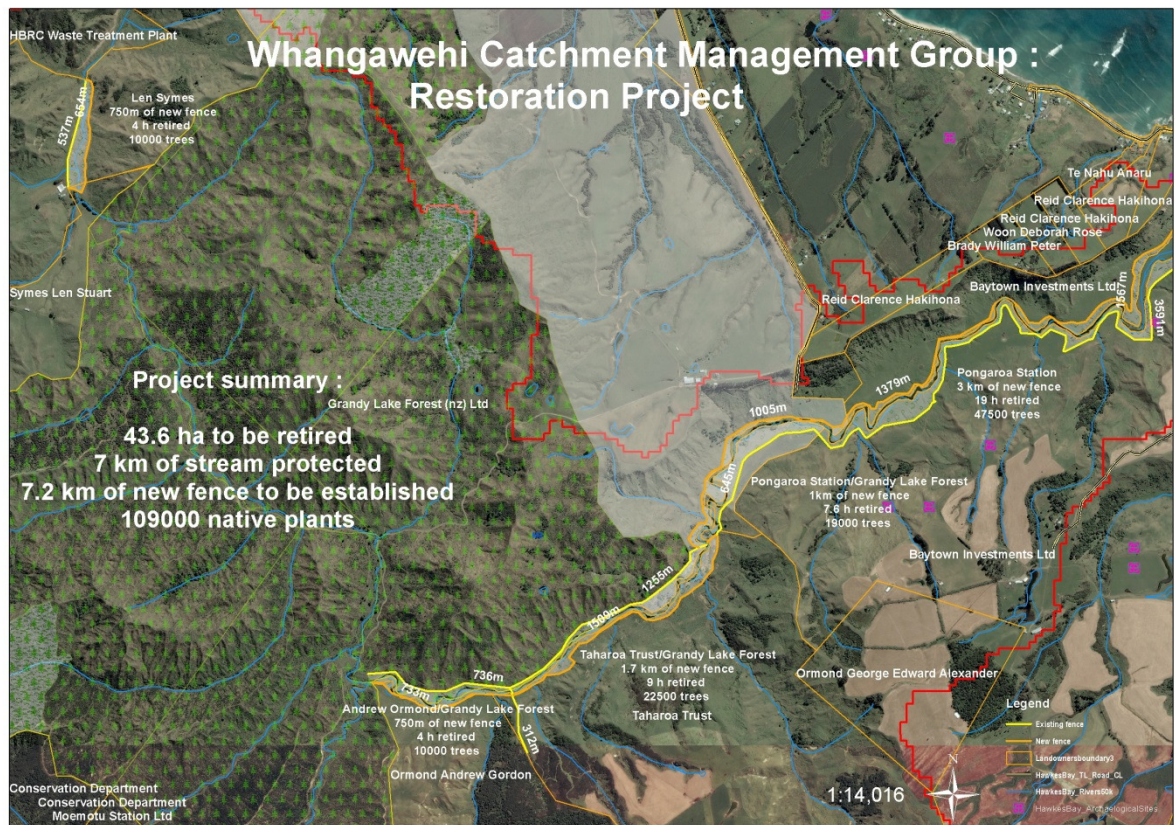


Fig. 2. Land ownership of the riparian zone. The yellow line is existing riparian fencing, the buff or orange line is proposed.



Fig. 3. This point showing the upper escarpment (top) and a sequence of soils: light grey Waipaoa, mid-grey Matawhero and Waihirere on the high terrace. The colluvial soils below the escarpment are Matawhero.



Fig. 4. Aerial photo 20 March 1945 showing lower course of the Whangawehi Stream.



Fig. 5. Site locations and numbers. Y19/131 not shown. The outlines of Y19/128 and Y19/130 should be fenced into the riparian strip.



Fig. 6. Shell midden and ovenstones Y19/127.

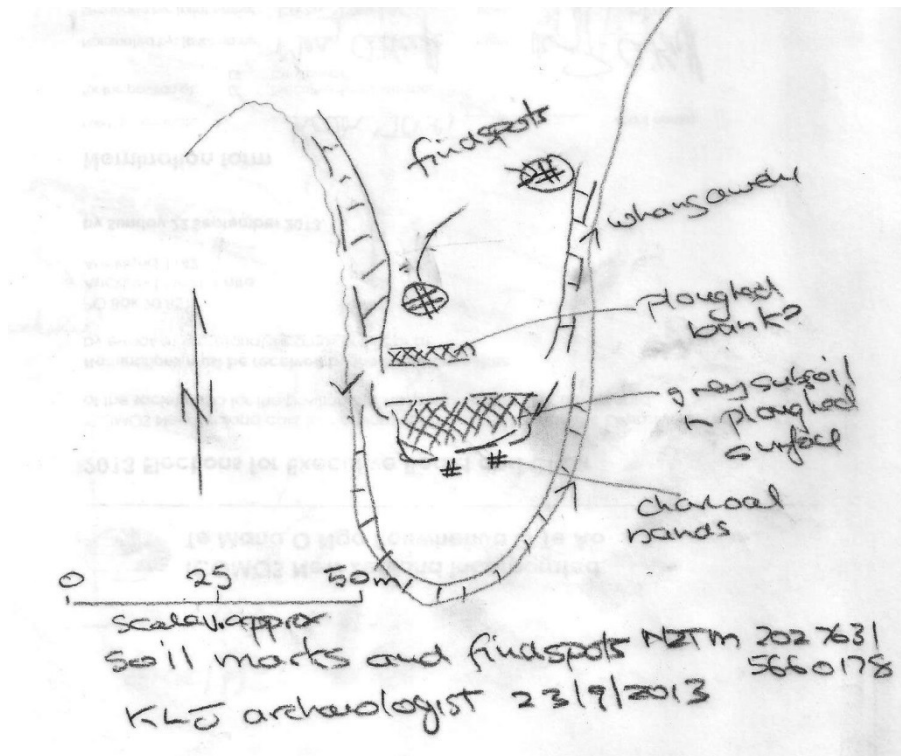


Fig. 7. Point with soil marks of a house (?) and gardens Y19/128.



Fig. 8. Clay pipes, black beer and case gin, Y19/128.

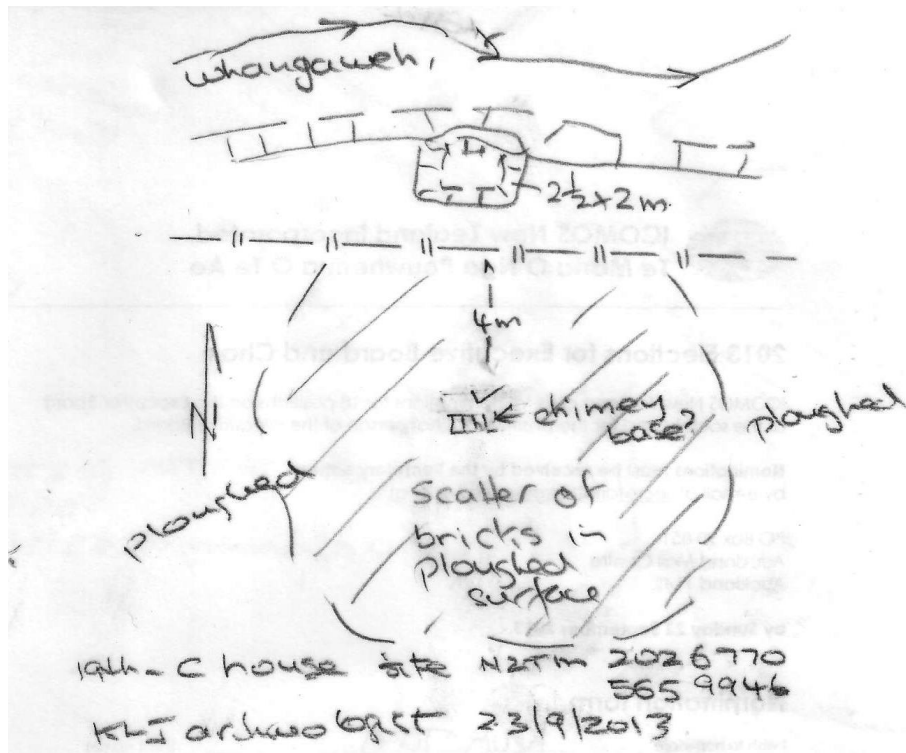


Fig. 9. The house with chimney and pit behind fence Y19/129.

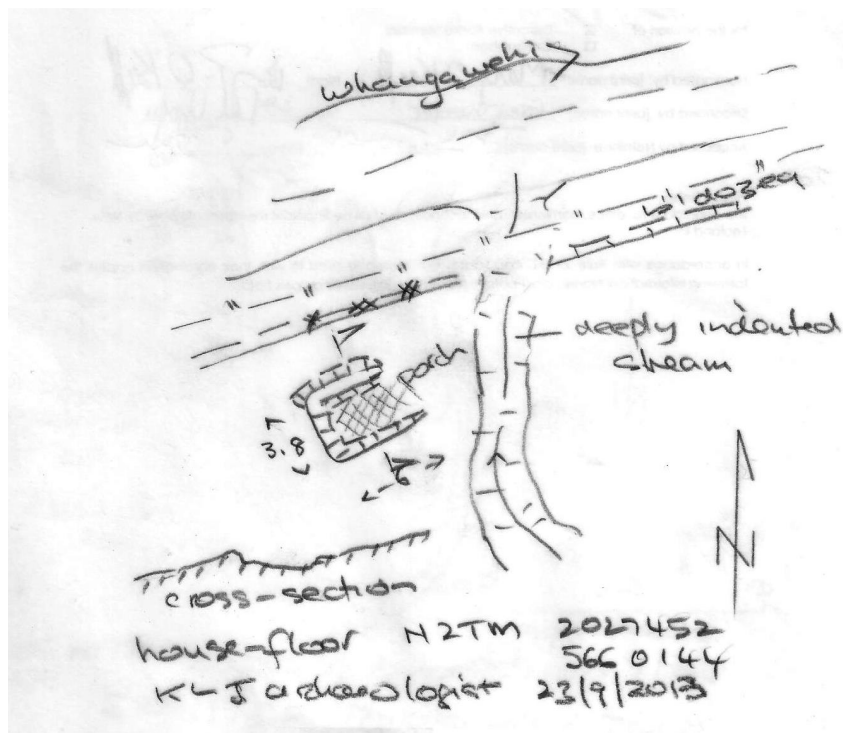


Fig. 10. The house (whare) floor Y19/130.

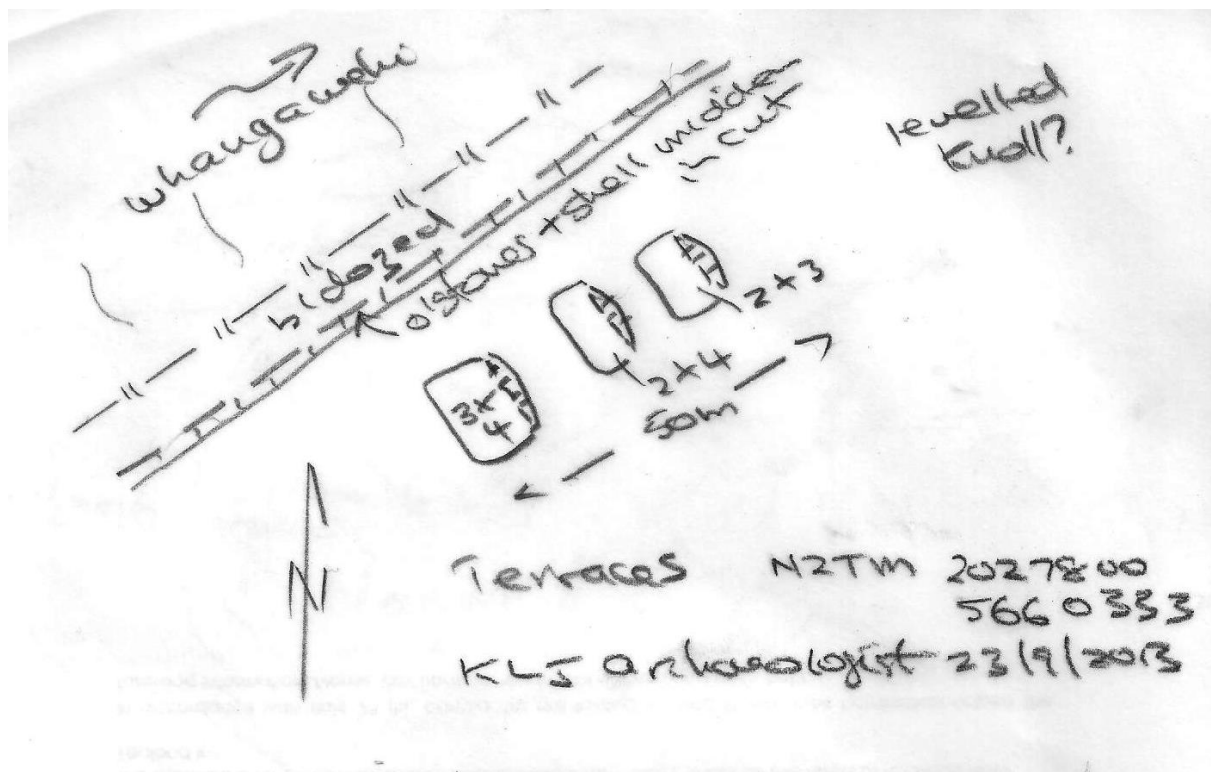


Fig. 11. Sketch plan of terraces (not to scale) Y19/132.



Fig. 12. The “false pa” on Grandy Lake Forest land.