

# **QUEENS REDOUBT**

## **Report on the 2004 Archaeological Investigation**

**By Warren Gumbley**

**October 2004**

### **Introduction**

This report describes the results of the second series of archaeological investigations at Queens Redoubt at Pokeno, South Auckland. The first investigations were carried out in 1992 and are described in Prickett 2003.

The investigations described here were intended to identify the south corner of the redoubt ditch and to identify the structures and activities that occurred inside the defences at that corner of the redoubt. This began by excavating four test trenches with an hydraulic excavator. The first (most eastern) of these was abandoned when part of the adjacent house's septic system outfall trench was encountered. The fill of the ditch was easily recognisable as a mixed soil with a clear edge abutting the natural B horizon material (immediately under the topsoil). Once the location and alignment of the ditch was determined the topsoil inside the ditch was stripped by machine. The ground profile along the western edge of the site now slopes to the old Great South Road but the ground profile on the opposite side of the road shows that the ground level was originally higher and conformed to the ground surface within the redoubt. This re-contouring has certainly occurred since the redoubt was abandoned but the date is uncertain. Another aim of the investigation was to determine how much this had damaged the redoubt.

Two areas were investigated in 2004, one between the ditch and the driveway servicing the house in the south corner of the redoubt called Area V, and a smaller area between the driveway and the house called Area VI. Area V was approximately 300m<sup>2</sup> and Area VI was approximately 125m<sup>2</sup>. In both areas the topsoil was removed by hydraulic excavator before the features visible at the topsoil-subsoil interface were investigated by hand. The soils at the site have already been described in Prickett 2003.

The area was understood to have been cultivated in the past and in places plough marks could be distinguished at the interface of the topsoil and the subsoil. As a result it could be assumed that features and artefacts within the topsoil horizon were disturbed and that artefacts found in the topsoil could only have a general provenance. As a consequence the topsoil was not sieved and artefacts were recovered only when they became visible during topsoil stripping or as it was dumped.

## **Area V**

The four initial test trenches were enlarged to become Area V which covered the area between the access track and the redoubt ditch. When topsoil was being stripped at the north-western end of Area V (Fig. 2) an area with a concentration of cobbles in the topsoil (Feature X) was identified and this was accompanied with elevated levels of artefacts present in the topsoil (see below). The cobbles were broken or smashed rock a little smaller than the fist of an adult male. The density of the cobbles suggests that there was an area of cobbled paving, which had been disturbed and spread by cultivation after the redoubt's abandonment.

Three types of features were identified in Area V; drains (D1-3, D5, D6), postholes (P1-47), and four simple rectangular features (F1-F4).

### ***Drains***

(See Table One)

A series of drains provide information about the way the space inside the redoubt was divided. D2 and D3<sup>1</sup> were oriented parallel to the redoubt ditch and 6.75 metres from its inside edge. This feature is closely analogous to a feature identified at Alexandra East Redoubt, which was also dug parallel to that redoubt's ditch, but where it was 3.6 m to 4 m from the inside edge of that ditch. There it was interpreted as a toe drain immediately within the bank (and fire-step) erected on the inside edge of the ditch. A similar interpretation is appropriate for both D2 and D3 at Queens redoubt. Both of these drains were functionally related to D1, which leads from the junction of D2 and D3 to the edge of the ditch. Therefore, D1 was carrying water from inside the redoubt, under the bank and into the redoubt ditch. D2 had a measured fall toward the junction of D1 and D3 of approximately 4 cm per metre. D1 had a fall of 2.5 to 3 cm per metre toward the ditch. Both D2 and D3 had a half-round to sub-rectangular cross-section (Fig. 3) while D1 had a rectangular cross-section (Fig. 4). The eastern-most two metres only of D1 was investigated. As Fig. 5 shows the drain extended into the area inside the bank so that D2 and D3 would flow into it<sup>2</sup>. At the point where D2 entered D1 its base was 10 cm above the floor of D1. A metre from the intersection with D2 and D3 the evidence of timber bracing around a timber lining of D1 was identified in a recess that had been cut in the walls and floor of the trench where nails were found still in-situ. The recess on each side

---

<sup>1</sup> This also includes D7 in Area VI, which is a continuation of D3.

<sup>2</sup> Unfortunately the septic outfall trench for the nearby house had disturbed the area of the intersection, destroying most of D3 around the intersection and the south side of the junction.

was 10 cm deep but only 1 cm deep in the floor of the drain. On this evidence it seems certain that the drain was a wooden box culvert to transport stormwater under the bank and into the ditch. Adjacent to the mouth of the culvert a pile of boulders had been placed in the bottom of the ditch. The position of the boulders and the absence of erosion damage to the side of the ditch suggest the box culvert protruded approximately 1.5 metres from the base of the bank so that the water would flow directly onto the boulders and reduce erosion of the ditch.

In addition to toe drain and the under-bank culvert three other drains were identified in Area V. Two of these, D5 and D6 flowed into D2 while D4 was parallel to D3 and continued to the east in Area 6. D6 was a small 'stub' of a drain cut only 4 cm into the subsoil. This drain was 'square' cut and about 16 cm wide. D5 was longer and extended outside Area V and under the adjacent driveway. This drain was only slightly wider but deeper (cut about 10 cm into the subsoil) and semi-circular in cross-section similar to D2 and D3. It was also aligned so that it crossed the northern end of the structure/s represented by postholes 1 to 47 and it is possible that the drain had some association with the structure represented by these postholes (see below).

### ***Postholes***

Of the 47 postholes identified in Area V (Fig. 2) all but five are found in one of three rows aligned parallel to the southwest side ditch (P1-42). Of the others four (P44-47) form a structure to the side of the northern end of the western row and are probably from a sub-structure attached to the structure represented by the three rows. The fifth (P43) was located immediately north of the rows and may represent a sub-structure similar to P44-47 or be part of the foundations of another structure. All of the postholes were rectangular, obviously spade cut, and were only excavated to a shallow depth into the subsoil. These depths varied between 3 and 19 cm but most (31) were between 7 and 12 cm deep. While the length of the three rows varies this is a product of the shape of Area V, and the easternmost and middle rows are very likely to continue under the driveway. The westernmost row (P5-P42) was 18.6 metres (or 61 feet) long, and this is likely to have been the length of the building represented by the three rows. The attached structure (P44-47) was probably an entrance porch or similar annex, possibly even a stand for a water-tank (although the depth of the postholes is no greater than the others in the three rows).

The forty-two postholes (P1-42) found in the three rows indicate the same building style used at Alexandra East Redoubt where shallow post-holes were arranged in rows aligned with the long axis of the buildings. At Alexandra East this pattern was interpreted to reflect the practice of mounting stringers on the piles rather than the floor sitting directly on the piles.

### ***Other features***

A rectangular pit (F1) was found immediately adjacent to D3. It was not possible to determine whether the pit pre- or post-dated the drain, nor whether it had any particular

association with it. As well as soil the pit was filled with a barrel hoop, two brass tunic buttons<sup>3</sup>, a brass lid probably from an inkwell, the remains of three beer bottles<sup>4</sup> fragments, the remains of plates, cups, saucers, and mugs, metal fragments (inc nails), corks, charcoal, a slate fragment, a glass shirt button and a pressed metal button, and a number of cobbles. The quantity of material on the fill raises the possibility of the hole's use as a rubbish pit. However, this does not necessarily mean its primary use was as a rubbish pit, and certainly it did not contain any kitchen refuse.

F2 was another rectangular feature that appears to have been paired with F4, with which it shared very similar dimensions, fill and the presence of a post-mould. The two features were 2 m apart. The post-mould in each showed both had a large post (c. 30 cm diam.) placed against one wall in each hole — closest to the other. The physical relationships and their locations in the space between the bank and the structure/s represented by postholes 1-47 suggests these may have been the foundations of masts or tall poles.

Another rectangular feature is F3, which is located within the cobble concentration (Feature X) identified toward the north-west end of Area V. This was a shallow rectangular trench dug approximately 7 cm into the subsoil but with two extensions (both sub-rectangular in profile and square in plan) deeper into the topsoil such that these look like foundation holes for some form of structure with two post or pile holes a metre apart. Each of these were filled with 10 litres of cobbles and some brick fragments. As well as these, glass fragments, fragments of domestic crockery, the collar of a penny ink bottle, a small bone fragment, nails and a piece of coal were also found in the fill. It is difficult to say whether the cobble in-fill was deliberate or simply a reflection of the relative density of cobbles in the surrounding area. The presence of the other material noted above suggests that the latter may be more likely.

## **Area VI**

As noted above the toe drain found in Area V (D3) continued in this area where it was given the signifier D7. The remainder of D4 also continued in Area VI. Both D4 and D7 ran parallel to the ditch and were dug 1.2 m apart. A 3.3 m section of the drain was filled with water-rolled cobbles. The function of the cobble in-fill is unclear but evidently relates to some activity that may otherwise damage the profile and presumably the function of the drain. There was no cobbling in the adjacent section of D7, which also maintained the semi-circular profile of D3.

Twelve shallow<sup>5</sup> and square postholes were clearly identified in Area VI, but several possible square pile-holes were identifiable in the lowest part of the topsoil during topsoil removal, and these indicate that other postholes were present but not dug into the subsoil. The recorded postholes in the area do not show a clear pattern in the same manner as those in area V. However, P48 to P52 do form at least part of one row, and I

---

<sup>3</sup> A small tunic button and a large 14<sup>th</sup> Regiment tunic button.

<sup>4</sup> A large bottle and two small bottles.

<sup>5</sup> All less than or equal to 9 cm depth into the subsoil.

propose that P57 is a single remnant of another row and P58 and P59 the survivors of another — each row would have been equidistant (1.75 m and 1.65 m) and with similar distances to the gaps between the rows of piles in Area V. On this basis they suggest a building 4 m (13 feet) wide<sup>6</sup>.

The remaining four postholes (P53 – P56) were found along the northwest edge of D4. They were roughly parallel to the P48 – P52 row of postholes and so may be associated with the same structure. However, the 4 postholes (P53 to P56) are too widely spaced to be the remains of piles for a building (c.f. Area V) although like the building foundation pile holes these are relatively shallow, which means they were not the remains of a fence. They may represent an adjunct or attached structure such as a veranda or porch. If this were the case the cobble filled segment of D4 may have been used for entrance and egress from the building or for the dispersal or storm-water from the roof of that structure.

Two irregular depressions were found in Area VI F5 and F6. F5 was shallow (< 10 cm) and irregular in form but included the leg of an iron bedstead, glass bottle shards, fragments of a glass tumbler, part of a tableware bowl, a bullet<sup>7</sup>, nails and a number of cobbles. Only part of the feature was excavated so any interpretation can only be tentative but it appears that this was simply a shallow depression filled with some rubbish as well as soil, and levelled. F6 is similar to feature D identified in Area II (Prickett 2003, 23-24). Like D only part of F6 was within Area VI, and little was in the feature other than soil.

Like Feature X (the part of Area V where there was a concentration of cobbles in the topsoil) there was a similar concentration of cobbles in the north-western margin of Area VI indicating cobble paving in this area.

## **Ditch**

Two cross-section profiles through the defensive ditch were examined and recorded. Both profiles showed evidence of modification of the original profiles after the redoubt was abandoned.

### ***Ditch Profile A***

Profile A shows the cross-section profile of the southwest axis of the ditch parallel to Great South Road and the re-contouring noted above. This resulted in the lowering of the outside edge of the ditch by 0.6 m. Otherwise the ditch's profile appears to have been better preserved than those described in Prickett 2003 and so offers a good indication of a typical ditch profile at the time of the redoubt's construction. The original width of the ditch at this point was 4.3 m (14 ft) and it had a maximum depth of 2.4 m<sup>8</sup> (8 ft). The fill pattern indicates an early stage of fill, a darker well mixed soil which may have come from the outside of the ditch and a later stage that forms most of the fill.

---

<sup>6</sup> There were at least two buildings of this width at the redoubt (Prickett 2003, 16).

<sup>7</sup> The bullet had been discharged but was not an Enfield bullet.

<sup>8</sup> 2.2 m depth from the topsoil/subsoil interface.

This certainly came from the remains of the bank that lined the ditch. The bottom of the ditch in this section was not flat but had a small ridge close to the outside edge forming a small drain along the bottom of the outside scarp of the ditch. Re-deposited yellowish-brown clay filled the gap between the inside scarp and the drain.

### ***Ditch Profile B***

Profile B is a cross-section through the southeast axis of the ditch, the same side as the cross-section shown in Fig. 14 in Prickett (2003, 21-23) which is approximately 45 metres north of Profile B. This is a similar profile to those described by Prickett (2003). The pattern of the fill again shows that the bulk of it came from inside of the ditch. Unlike Profile A both sides of the ditch were reduced, especially the outside scarp of the ditch. Some of this reduction will relate to post-abandonment erosion, in particular the weight of the bank on the inside edge of the ditch is likely to have induced some collapse. Nonetheless, the clay soils into which the ditch was excavated are coherent and the degree of reduction seen on the outside edge of the ditch is unlikely to be attributable to natural erosion other than a minor component. This is emphasised with comparison to Profile A. Some, probably most, of the reduction will be related to the deliberate filling of the ditch. In addition there are some more recent deposits visible here — the dumped shell layer and those above it. The clay layer is probably spoil excavated from the septic tank trench adjacent to the profile.

### **Artefacts**

As noted above the artefacts recovered from the topsoil in both Area V and Area VI were identified on an opportunistic basis when artefacts were exposed during the stripping of the topsoil by machine, rather than through methodical excavation by hand. Therefore, this is not a complete sample, but it is a representative sample. The artefacts recovered from the topsoil covers a range of artefact categories typical of the 3<sup>rd</sup> quarter of the 19<sup>th</sup> century. As well as fragments of bottles (most of them alcohol) and domestic crockery, window glass and hand-forged nails were common. The latter were almost certainly remnants from the construction and/or demolition of the buildings within the redoubt.

Personal items were rare and mostly these were pieces of clay tobacco pipes. Unsurprisingly the range of artefacts found in the drains was fundamentally the same as that for the topsoil<sup>9</sup>. Personal finds in the drains were similarly limited to tobacco pipes but with the addition of a brass/copper medallion or pendant from D2 and a brass tunic button<sup>10</sup>. Interestingly the proportion of the artefacts in the topsoil appeared to be elevated around F3<sup>11</sup> in Area V where cobbles were also common in the topsoil. This area is approximately 15% of Area V inside the bank and provided 40% of the artefacts found in Area V.

---

<sup>9</sup> The excavation of the drains was all by hand. Therefore the samples from the drains may be considered relatively complete.

<sup>10</sup> A small 12<sup>th</sup> Regiment tunic button.

<sup>11</sup> Refer to the attached inventory where these are provenanced as Topsoil Finds set 1, Topsoil Finds set 2, and Topsoil Finds set 3.

### *Acknowledgements*

The investigation was carried out for the Queens Redoubt Trust and I would like to thank them for the opportunity investigate another redoubt. The excavation was done by a number of enthusiastic volunteers. The plans and drawings in this report were done by Malcolm Hutchinson.

### **References**

Prickett N. 2003 The history and archaeology of Queen's Redoubt, South Auckland. Records of the Auckland Museum 40: 5-37.

Table One: Dimensions of drains in Area V and Area VI

	Width	Depth <sup>12</sup>	
D1	52 cm	38 cm	
	50 cm	48 cm	
	58 cm	46 cm	
D2	70 cm	24 cm	At culvert
	70 cm	22 cm (45 cm below grass)	
	70 cm	15 cm (40 cm below grass)	
	45 cm	12 cm	Adjacent to D5
	35 cm	8 cm	Adjacent to D6
D3	49 cm	17 cm	Adjacent to septic trench.
	35 cm		Adjacent to F1.
D4	15 cm		At edge of Area V.
	25 cm	4-10 cm	In Area VI.
D5	16 cm	10cm	
D6	16 cm	4 cm	
D7	32-35 cm		Continuation of D3 in Area VI.

Table Two: Dimensions features in area V and area VI.

	Dimensions	Depth <sup>12</sup>	
F1	100 x 40 cm	54 cm	A regular rectangular cuboid.
F2	104 x 55-60 cm	96 cm	Post-mould 36 x 32 cm.
F3	149 x 49 cm	46 cm (38 cm)	Southern posthole (22 x 23 cm) fill included 10 L of cobbles and 2 brick fragments. Northern posthole (22 x 25 cm) fill included 10 L of cobbles and 4 brick fragments.
F4	113 x 52 cm	95 cm	Post-mould diam. 30 cm.
F5	Max. diam. 300 cm.	< 10 cm	Irregular form and partially excavated only.
F6	Max. diam. 120 cm	7 cm	Partially excavated only.

<sup>12</sup> Depth refers to depth into below topsoil.





Fig 3: Feature D1

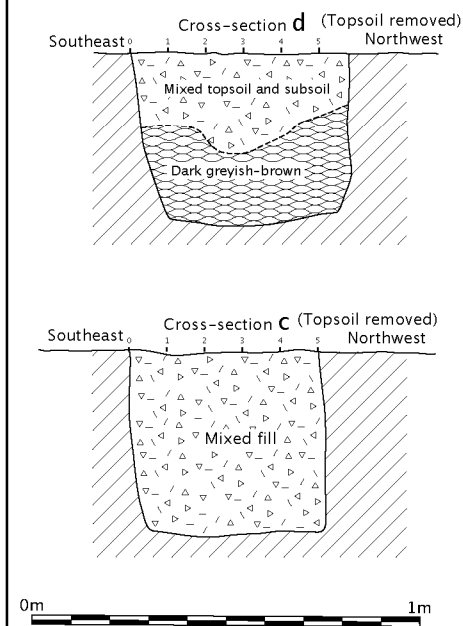


Fig. 2: Feature D2

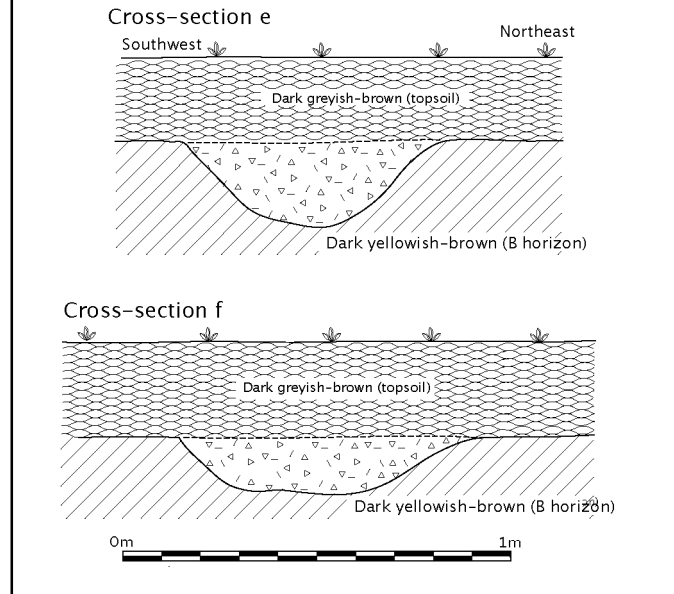
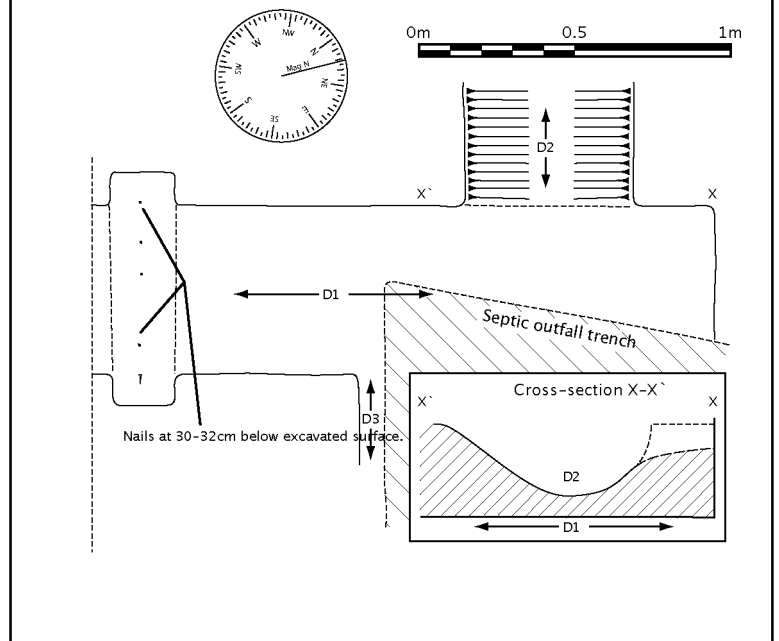


Fig. 4: Drains D1, D2, D3 intersection



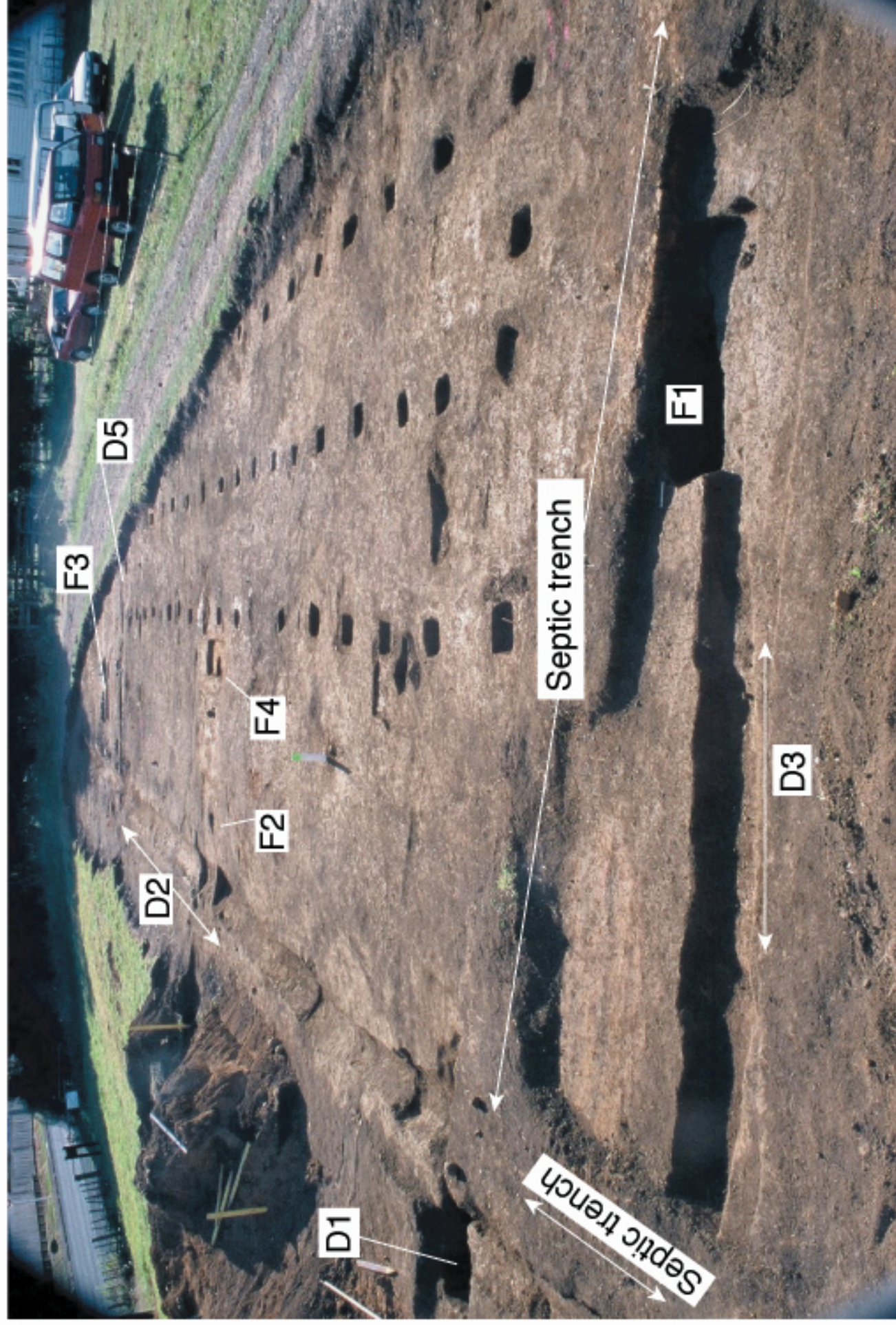


Fig 5: Area V — Looking NW showing the three rows of foundation postholes and other features.



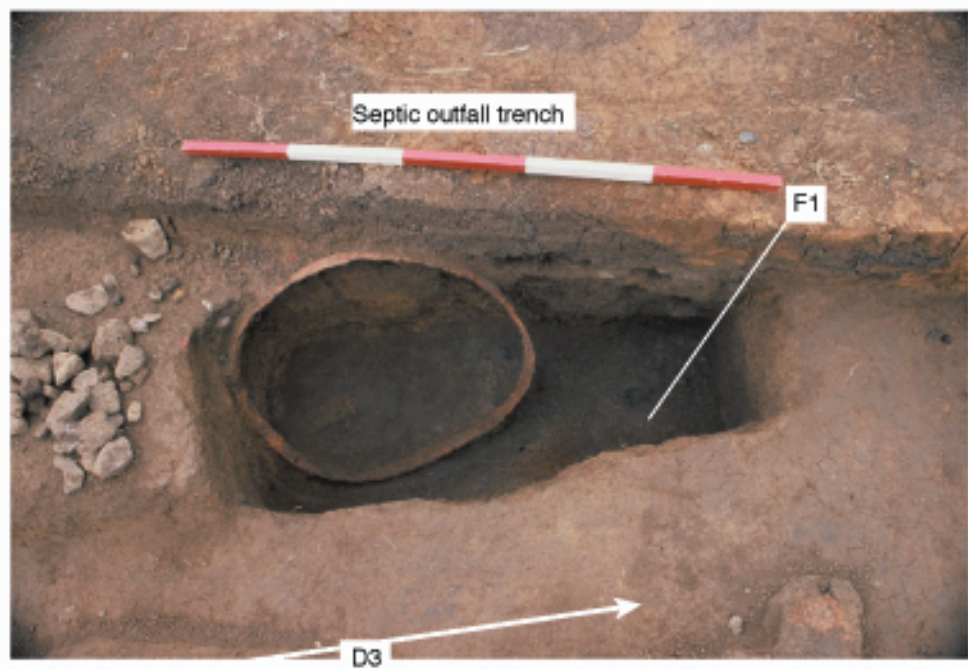


Fig. 6: F1 — Top: During excavation. Bottom: F1 following excavation.



Fig. 7: F4 — Partially excavated posthole and excavated post-mould.

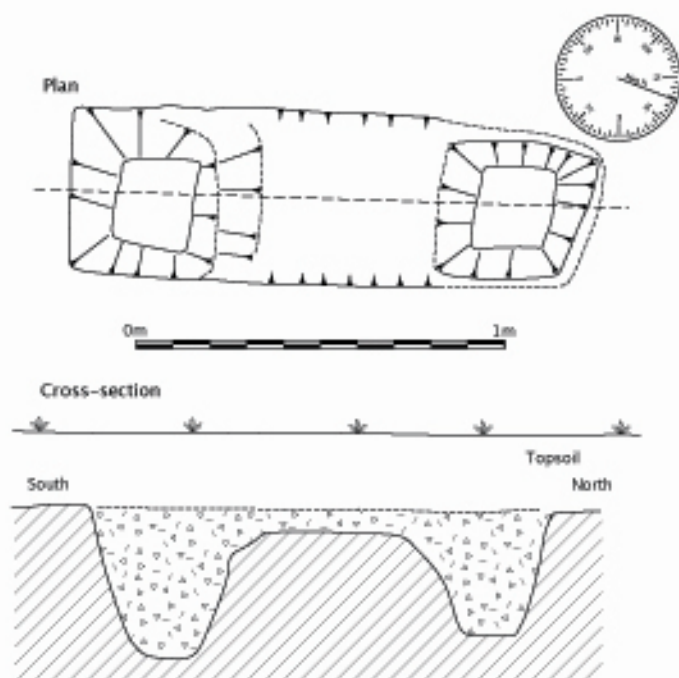


Fig. 8: F3 — Top: Photograph following excavation. Note piles of cobbles and bricks recovered from each hole. Bottom: Plan and profile drawing.



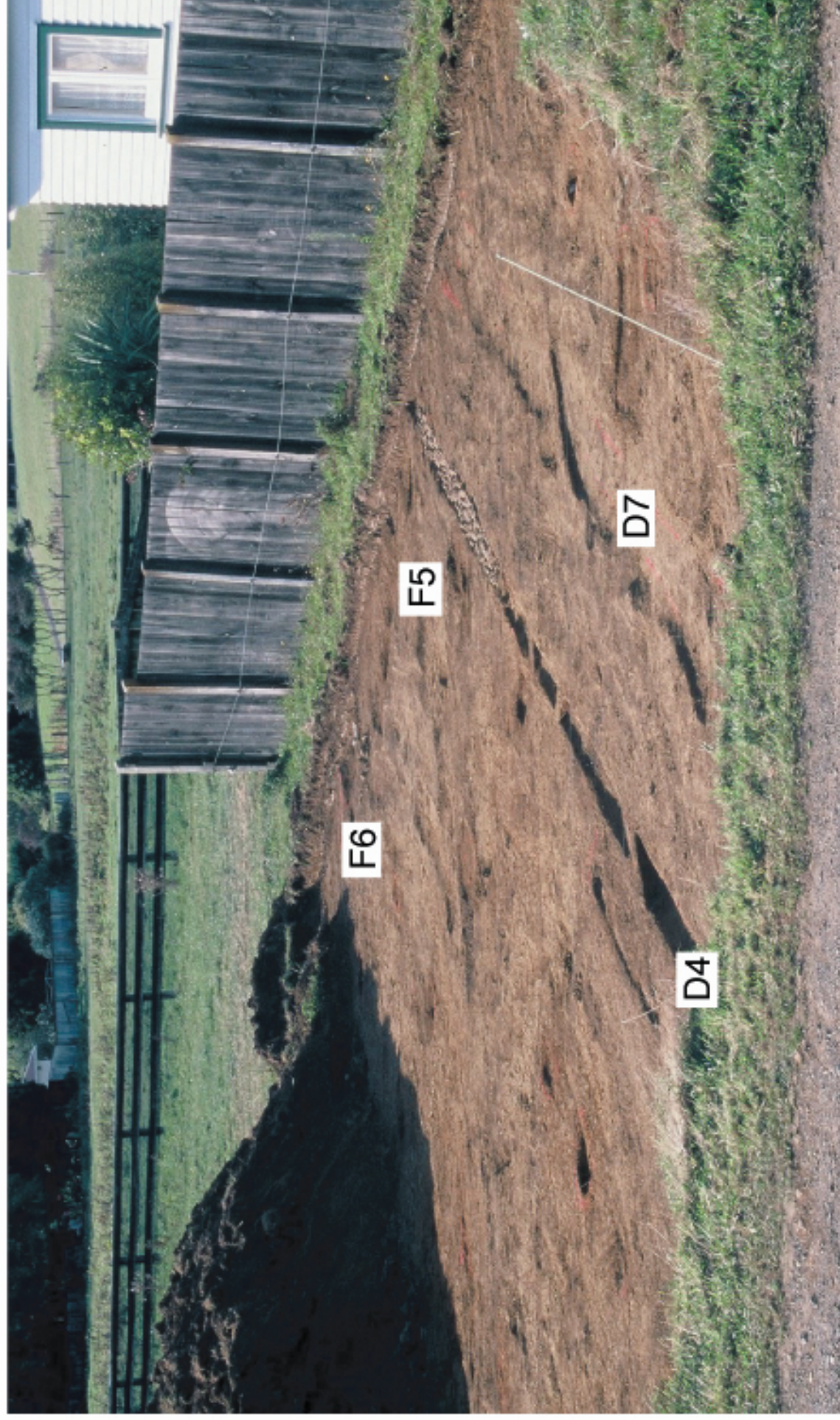
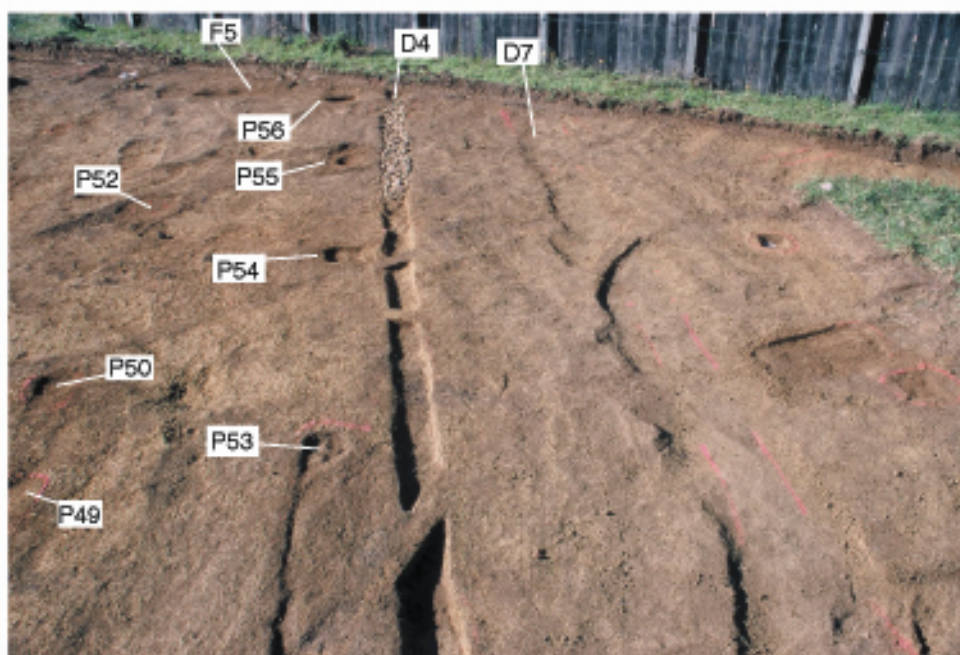


Fig 9: Area VI.





Fig, 10: Top — Area VI: View along D4.  
Bottom — D4: Close-up of cobblong in drain.



Fig. 11: F5 — Bed frame in-situ.



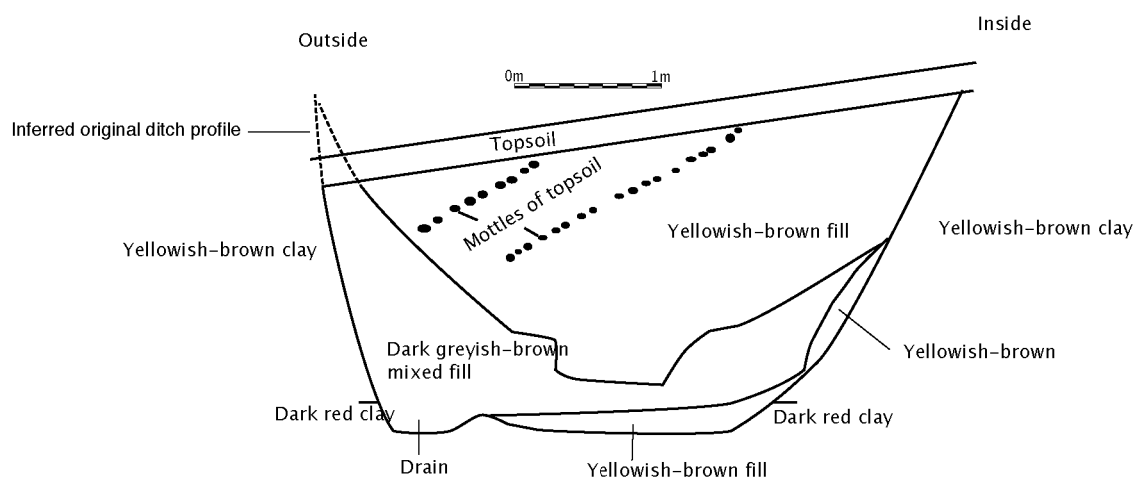


Fig. 12: Defensive ditch — Profile A (northwest face).

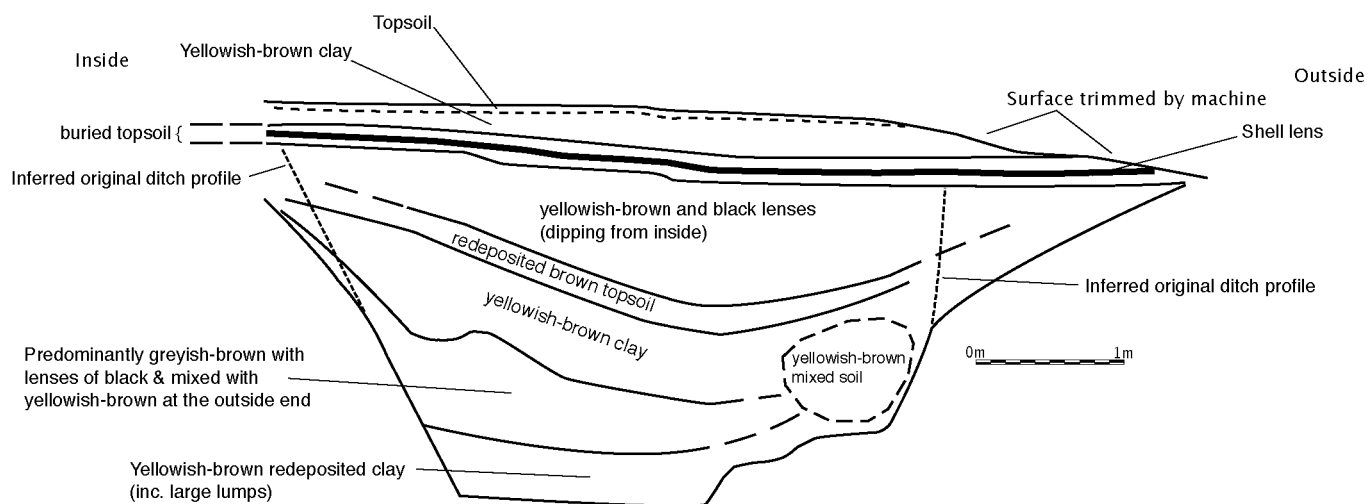


Fig.13: Defensive Ditch — Profile B (northeast face).