

# Map of archaeological sites on Pukekura Pa

Jill Hamel, June 1993

ISSN 1171-9834

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Reference to material in this report should be cited thus:

Hamel, J., 1994.

Map of archaeological sites on Pukekura Pa.

*Conservation Advisory Science Notes No. 57*, Department of Conservation,  
Wellington. 22p.

Commissioned by: Otago Conservancy

Location: NZMS

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### Introduction to the map

The gun emplacements, tracks and other archaeological sites on Pukekura Pa have never been put together on a single map to show their relationships to one another and the modern buildings on the headland. The map of facilities and historic sites in the Draft Management Plan is based on wholly inadequate data (Map 8). I made two visits into the Albatross Colony under Department of Conservation permits on 16 July 1991 and 14 July 1992 for about six hours in total. Using an aerial photograph I have placed these sites in their relative positions (Fig. 1), and provided sketch plans, some roughly to scale, of most of the gun emplacements and the Pilots Beach wharf Figs 3-10.

A defence map drawn in 1917 provides a useful comparison with the modern map and shows the positions of many of the small houses of the settlement and the absence of Howlett Point battery at that date (Fig.2). The "garage" section of the Garage Battery was not in place, and the Stable Battery appeared to be very different from its present semi-demolished state. The main parapet curved round to the Saddle Battery. The only other archival map that I have added is a cross section of the sunken roadway and main parapet wall (Fig. 11).

Most of the sites are not at risk because they are built of concrete, with the exception of the Channel Battery and Old Stable which has been partly demolished and hence are more susceptible to normal processes of erosion.

Most of the drawings provide a plan view of a site, but many sites such as Howletts Battery are almost impossible to understand in three dimensions without measured vertical profiles, which I did not have the time or facilities to provide. The Tunnel Gate was relatively simple to provide elevation drawings for.

Other than the 1917 defence map and the 1889 section of the parapet wall, no archival material was used, and the 1917 map was not used during the field work. The names of the batteries are taken from the Draft Management Plan, though there is some confusion as to which battery should be called Howlett Point battery.

Sketch plans are no substitute for measured drawings and detailed photographs, which would provide proper baseline data for a maintenance programme. The ground surface needs to be searched in detail during winter when the grass is flattened for traces of midden material such as that showing on the road edge near the Saddle Battery. Early plans and photographs should be collated and used to find features on the surface.

This work was done partly to update the N Z Archaeological Association Site Record File and partly for the Department of Conservation Science and Research Division to assist in its management of all values on Pukekura Pa (Tairaroa Head).

## Notes on the individual sites

**Figure 2 Pilots Beach.** The seawall running from the beach west around to the stone wharf has been built of local volcanic rock, which has been trimmed and squared and the stones brought to course. The stones are graded with the larger at the bottom, well-crossed and laid steeply at a forty degree angle. For most of its length the wall is up to two metres high, with the larger stones being 80 x 35 x 15 cm. This wall is of much higher quality than the road walls around the harbour, which are built of lightly trimmed stones, not squared, not brought to course and rarely graded.

The end of a small tramway juts out beside the sanctuary boundary fence. It was first built in the 1890s to winch guns and stores up to the settlement, but its concrete sleepers suggest that it was refurbished during this century. The trace of its line can just be discerned in places running steeply up the hillside towards the parade ground. The sea wall is broken west of the fence and trimmed stones lie on the beach. The wharf is built of massive flat stones fitted to form a pavement. Three piles and two concrete structures mark the western end of the wharf. The round structure (shown inset) is one metre high and 2.5 m across with an odd pattern of bolts still set in it. The square concrete pad is 2 m across. The wharf is a favoured hauling out place for fur seals.

**Figure 4a The Channel Battery and old stable.** This whole structure has been badly damaged by bulldozing for the fence and deliberate demolition with explosives. It is very difficult to compare it with the 1917 map which may however be diagrammatic (Fig.5a). The steps and at least two sets of underground rooms are shown, but the observation post appears wholly different.

The underground rooms, represented by broken lines, are still relatively intact. The walls consist of wooden posts with plastered concrete panels between. The roofs of the passages are also beams and plastered panels, except in one of the side rooms which has a wooden ceiling. There is one brick partition wall. An ammunition or communication shaft drops from the structure above into the central passage.

The total length of the stables from one portal to the other is 26 m and the two side rooms are 5.5 x 4 m and 6.4 x 5 m respectively. The western passage and room system consists of a plain concrete walled room, 6.5 x 4 m, with a passage 1.2 m wide and 4 m long.

The flattened areas above the roadline were terraces for buildings which are visible in the well-known 1903 photograph of the settlement (Draft Management Plan)

**Figure 4b The observation post,** which may also have mounted a small gun, is half sunk into a mound of earth over the stables. It has a set of steps down to two metal doors and an ammunition shaft. The parapet is 46 cm thick and 1.16m high, and encloses an area about 3 m wide. There is a curious curved trough in the floor, 1.3 m long and 70 cm deep around the edge facing up the harbour. The sunken passage leading into it from the east is about 9 m long. The ceramic drain pipe set in a wooden surround presumably prevents build up of water behind the parapet wall.

**Figure 4c The eastern portal** would have been the main entrance and exit for the horses being brought in by the old road line. The door is 2 m high and 2.3 m wide, providing easy

access for a horse and wagon. There is an extra moulding over the lintel and the date 1895 inscribed over the door. Inside the door there are signs on the walls - "ARTILLERY STORE" on the right hand wall, and "TO MAGAZINE AND ? GROUP" on the left hand wall. The concrete steps beside the door have shaped concrete balustrades and end posts.

**Figure 4d The portal to the western room** is very similar in design to the eastern portal but it is wholly concrete with no wooden beams in the ceiling. The date is also 1895. The door is 2 m high but only 1.2 m wide.

**Figures 5 and 6. Four of the older batteries** shown on the 1917 map have been expanded by 150%. The battery under the modern observatory is so simple it was not worth expanding. The drawings do not seem very accurate and are probably meant to be diagrammatic. The Disappearing Gun has only part of its concrete apron shown but it probably extended all the way round even in 1917. There is a roadway marked running eastward from the gun which I have not checked on the ground. The water tank at the entrance to the Tunnel Gate is shown, but it is not apparent what the big oblong to the south east of the gun is meant to represent. Underground rooms are represented by broken lines.

**Figure 7a Howlett Point Battery** is lower down the hill than the older batteries and commands the harbour entrance. The massive concrete work is very elaborately shaped with pipe railings along many of the edges. There are at least six cupboard like spaces, each 1.25 m wide, 75 cm high and 75 cm deep, with elaborate door niches in the concrete foundations. The doors are missing from all of them and presumably the niches were for holding ammunition. One of the gun mountings still has massive bolts. The gun platforms are roughly hexagonal, 3.5 x 4.5 m across and identical in size and shape. The platform between them is 7 x 1.25 m with a parapet 1.4 m high with two ammunition niches running into the front concrete apron, whose surface is nicely plastered and rounded to prevent shells lodging. The apron is 2.5 m wide, running the full length of the installation. A wide well, 7 m deep, has been dug behind the gun platform to provide access to the underground rooms, and a long set of concrete steps with no hand rail runs down into it. The material from the well must have been needed to provide a terrace for the gun platforms.

There is a remarkable early feature immediately north of the battery and shown in Figure 1. It is a massive, evenly sloping ramp running down across the cliffs with a 30 degree slope. It is about 7.5 m wide and ends cleanly 10-15 m above the sea, where a shear legs would have been able to hoist stores from a boat to the end of a winch line. The ramp has been cut into the cliffs which rise 8 m at the lower end and it now has about 30 cm of soil built up on it. It could have improved the line of sight from Howlett Point battery but the even floor suggests that it was used to pull sledges up. The top end has been disturbed by the battery, which was perhaps cut into its landing area.

**Figure 7b The underground rooms of Howlett Point Battery** are mostly simple plastered concrete rooms with arched ceilings and some brick linings. Each room, 2.5 m high, has a vent in the top running up to the platform above. The inner partition, which has partly fallen, is brick. All the door and window fittings have gone. The roof of the single room is reinforced with iron bars.

Among the graffiti on the wall are: "13th Heavy Regiment, 18th Heavy Battery, 1941 1942 82nd Heavy Battery, Gnr E M Dags 12th April 1943, Gnr E Perry WAAC Taiaroa Head 25/9/43". There are numerous 1930s dates.

**Figure 8 The search light platforms** are low down close to the tops of the cliffs north of the Howlett Point and Garage Batteries. They are flattened areas with concrete pads, 7 x 8 m and 3 x 4 m respectively, and with wide tracks leading down to them. A curious terrace and pit lies to the south east on the hillside. These searchlights would have been recent installations and do not show on the 1917 map.

**Figure 9 The Garage Battery** is so called because the underground room on its western side has wide garage-like doorways at both ends of it. It is an old feature in that it appears on the 1917 map, and the room may have been a stable for carts, horses and fodder out on the working part of the headland. The tracks to it now, however, are wide enough only in some sections for a vehicle. It is a very oddly shaped room.

The gun platform is sunken and does not require a parapet. The 2 m high broken portal to the east leads into a remarkably long and angled passage, 1.2 m wide, which leads to a completely dark room, 3.7 x 5.8 m, totally underground and lined throughout with concrete. Neatly made concrete steps with balustrades and posts lead up to an observation post with a parapet and a small ammunition niche, indicating that it was also a machine gun post.

Figures 10a,b,c,d. **The Armstrong Disappearing Gun installation.** This is the major installation on the headland. I have not provided detailed sketches of all parts it, since there are measured drawings already available. Also strictly speaking it is not an archaeological site but a B classified building. A plan view is provided to show the location of the various parts. I have shown a plan of the main Observation Post, extracted from working drawings done in 1941, as well as an exterior view of the Disappearing Gun with its loading bay for ammunition alongside of it.

An interesting feature of this battery is that so much of it is built in bluestone, neatly trimmed and mortared. (The other batteries are mostly concrete.) Some of the walls are old bricks and the floors are concrete. It would be interesting to find out from the archives how old each section is, since there may well be some early concrete work in it. The observation post is an open concrete box with one rounded corner and a stairway, which has had a tin roof put on top of it. Until very recently there were open slots all round between the tops of the concrete walls and the roof for observation, but these have not been converted to windows. A hatch with a ladder provided direct internal access to the gun, separate from the concrete steps.

One of the most attractive features is the Tunnel Gate and the long passage leading to it which allowed escape downhill if the area around the gun become uninhabitable. Part way down, there is a steep flight of 12 steps. The whole passage, which is about 25 m long, is lined with well-trimmed bluestone blocks, and the gate way is protected by a curtain wall holding up the end the passage. The outside walling is elegantly finished with small posts and bolstered top stones. Three ceramic pipes set in a wooden framing provide drainage. The iron gate is made of square sectioned metal rods.

## Summary

Pukekura Pa includes the remains of four known and badly disturbed middens from the Maori period, the light house and signal station, the defense installations including roads, a wharf and tramline, traces of early domestic settlement connected with both defense and the signal

station, and modern structures associated with wildlife management and tourism. Though man-made, the roofed buildings, the light house and the Disappearing Gun are not strictly archaeological sites under legislation, and neither are sites built after 1900. All interact physically, however, in the confined space of the headland, and all should be plotted and their effects on each other determined. Officially condoned destruction of archaeological values has continued from earliest European settlement right up to the present, and is likely to continue in the pursuit of tourist dollars. Fortunately with the declaration of the headland as a traditional site, all earth disturbance is now treated as potentially affecting archaeological values, and weighing up processes under the Resource Management Act may provide better protection of archaeological values.

Considering the social and historic importance of Pukekura Pa, the archaeological material as such is still very poorly documented, and this map highlights the deficiencies rather than fills the gap. It should provide a basis for planning a survey which could set up a proper data base for management by the Department of Conservation.

An ambitious programme to provide an integrated information system has been started by members of three University of Otago departments, the archaeological material being correlated by Dr Ian Smith of the Anthropology Department. Proper instrument surveys, the compilation of modern photographic records and correlation of archival material with the field evidence is needed for such a system to be worth presenting to visitors.

**Extra bibliographical material not cited in the Draft Management Plan for Taiaroa Head**

Hamel, G E 1992 Fish bones to plastic at Pukekura Pa. Report to the N Z Historic Places Trust.

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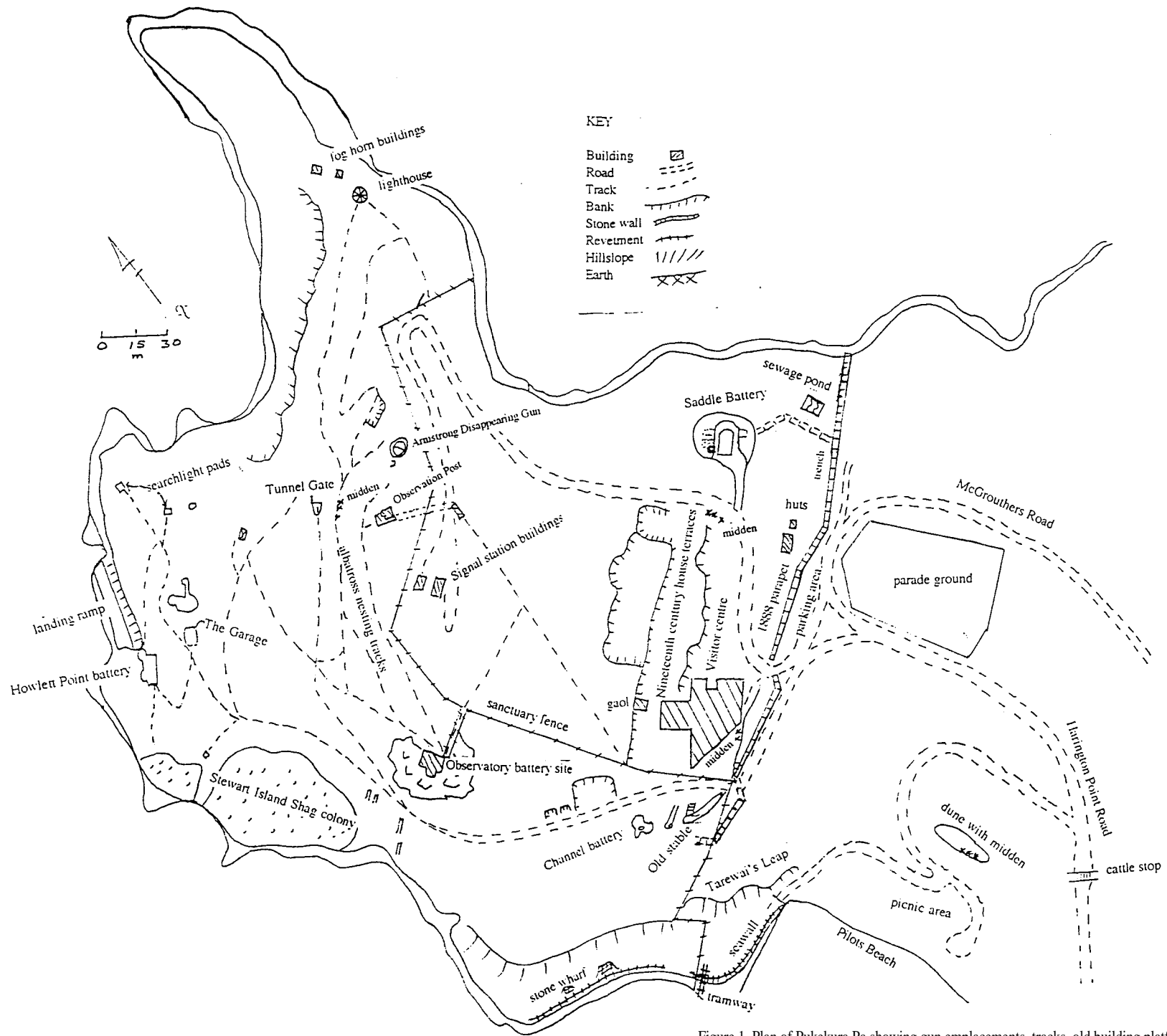


Figure 1. Plan of Pukekura Pa showing gun emplacements, tracks, old building platforms, modern buildings and other man-made features.





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Figure 2 Defence map drawn 1917, showing all the batteries except the big Howlett Point battery.

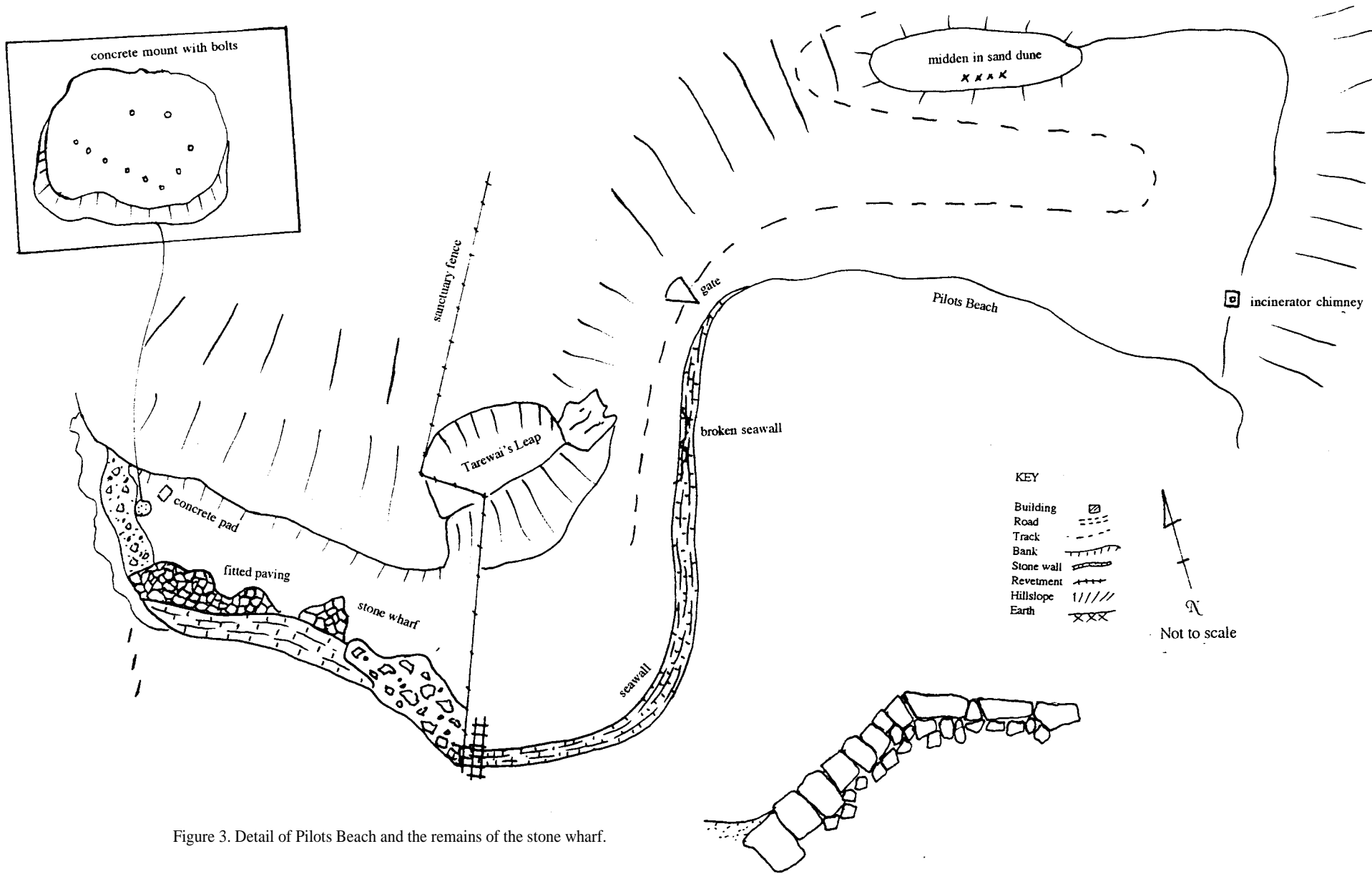


Figure 3. Detail of Pilots Beach and the remains of the stone wharf.

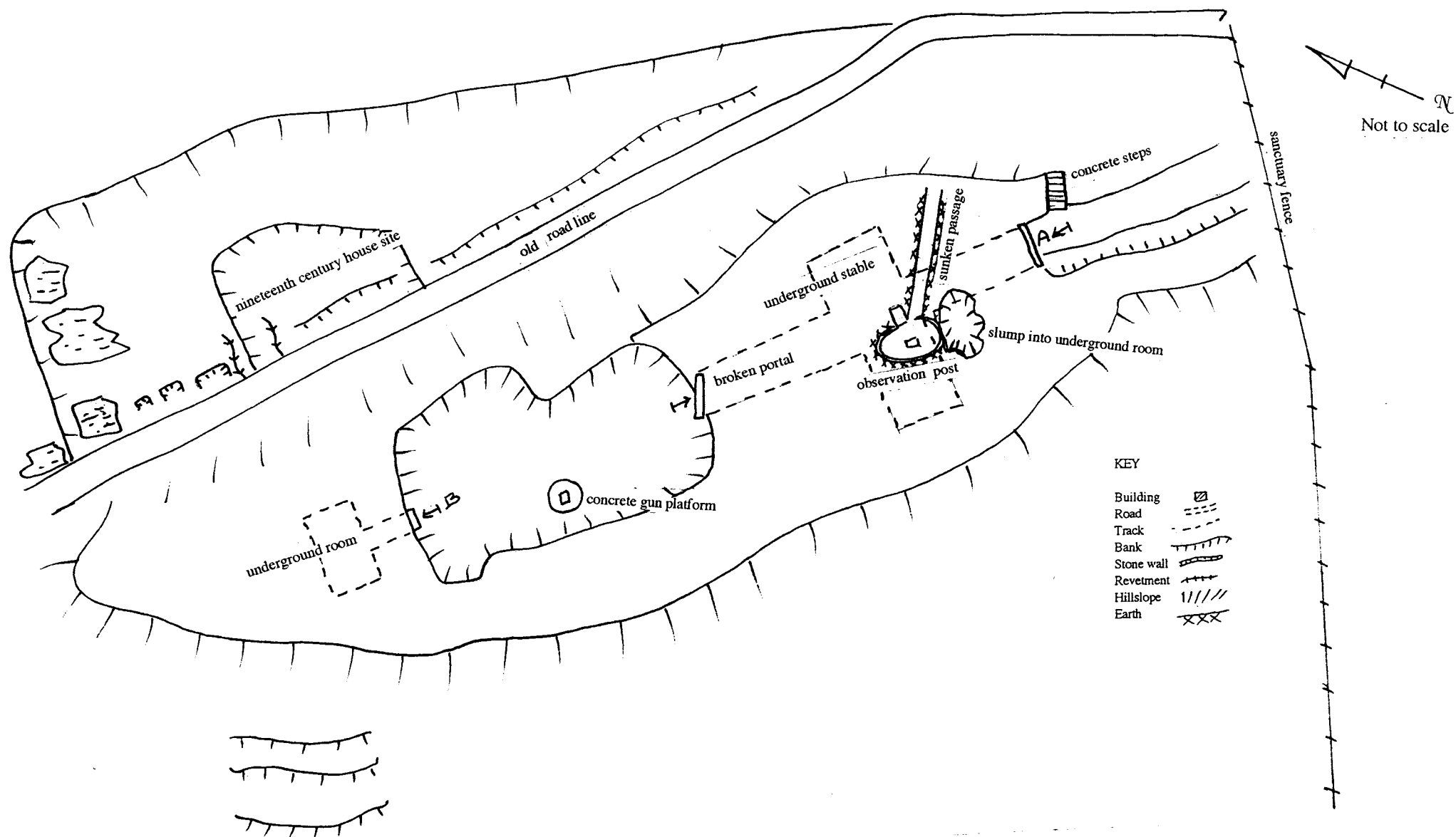


Figure 4a Plan of the Channel Battery and the Old Stable.

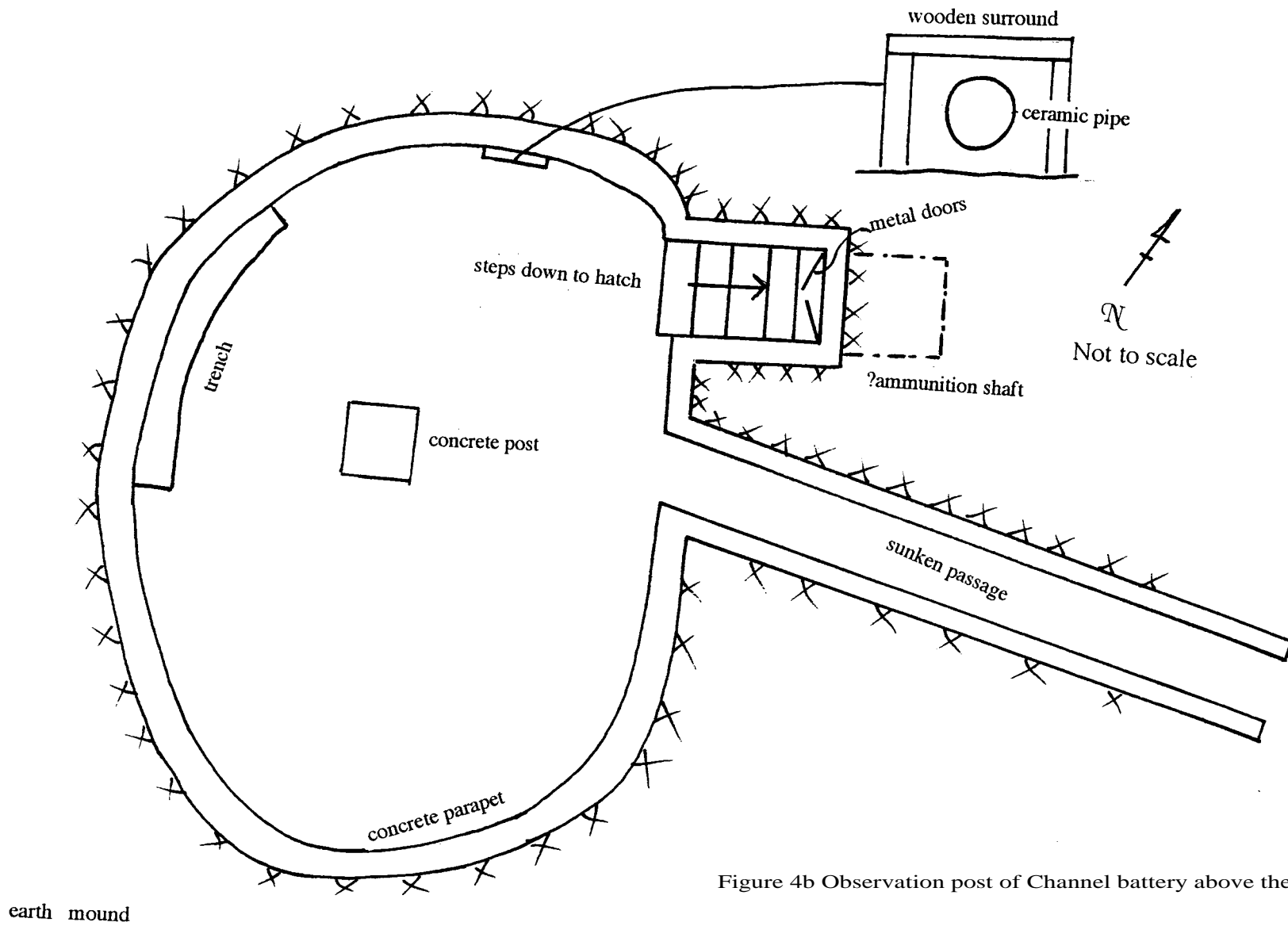


Figure 4b Observation post of Channel battery above the old stable

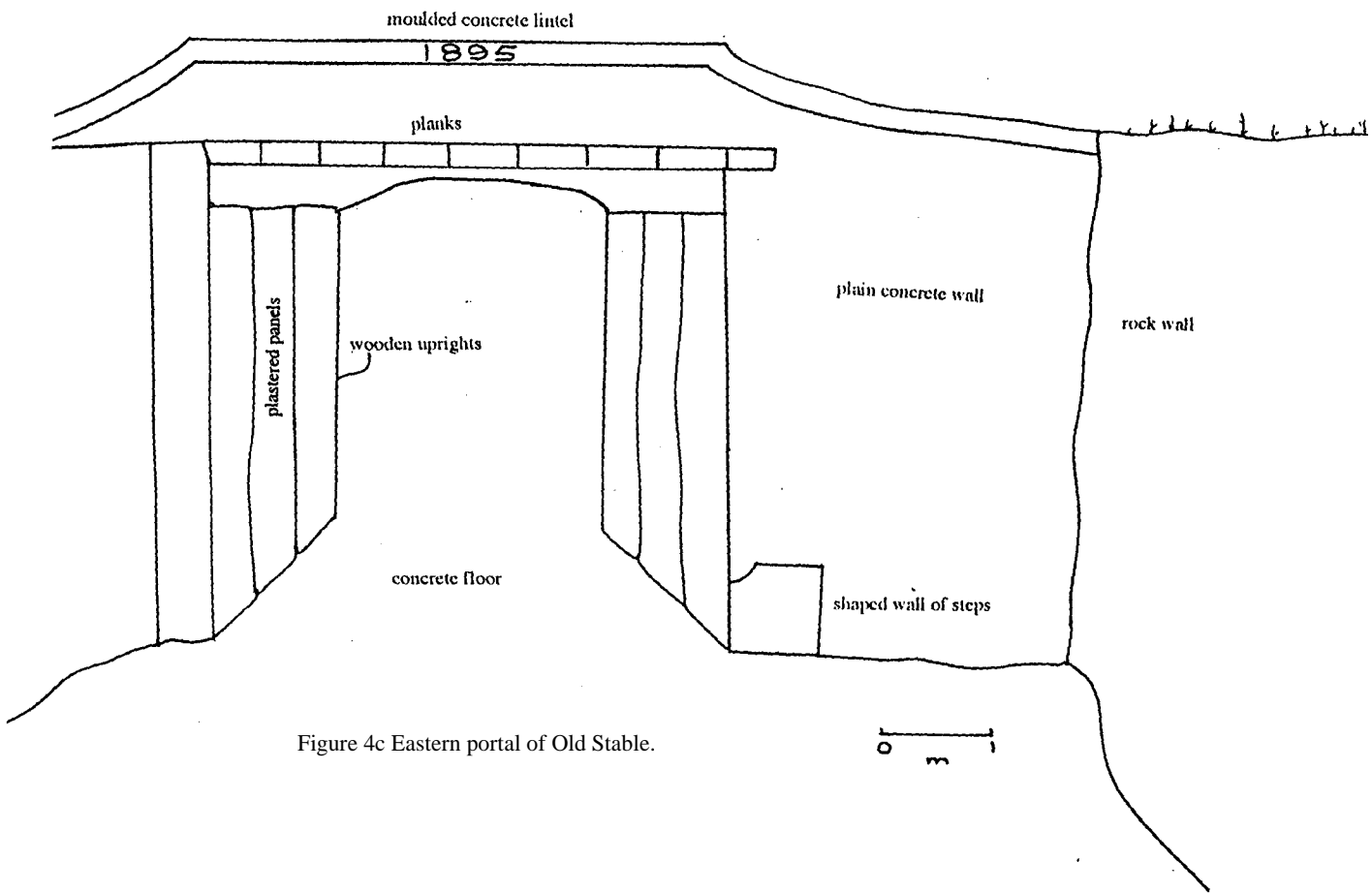


Figure 4c Eastern portal of Old Stable.

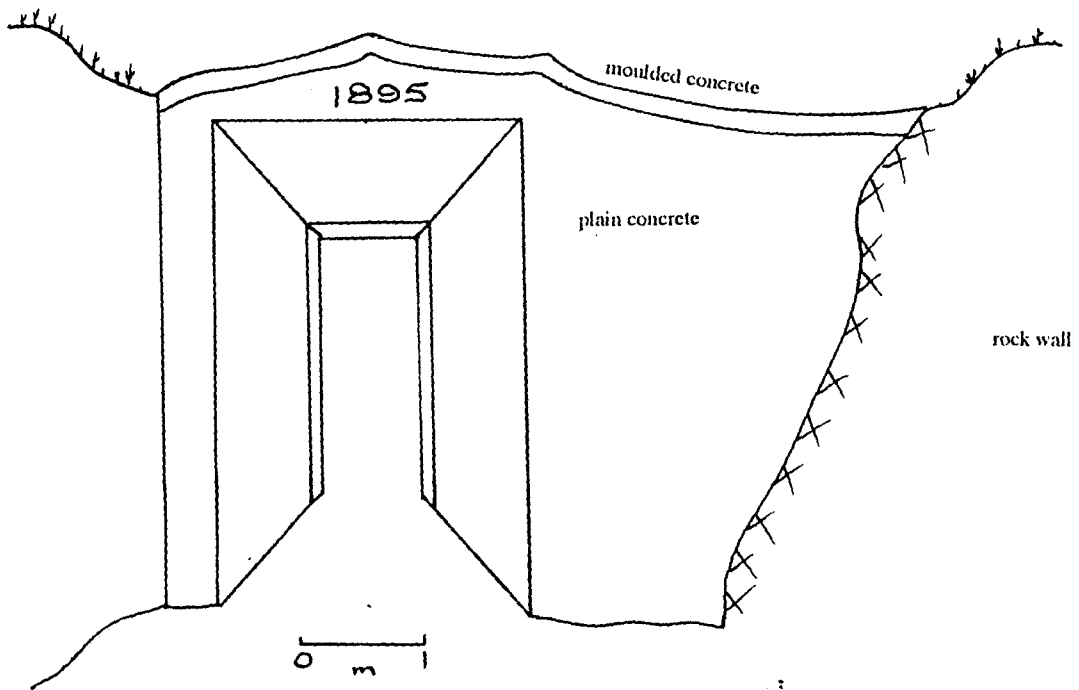


Figure 4d Portal to underground room west of Channel Battery gun emplacement.

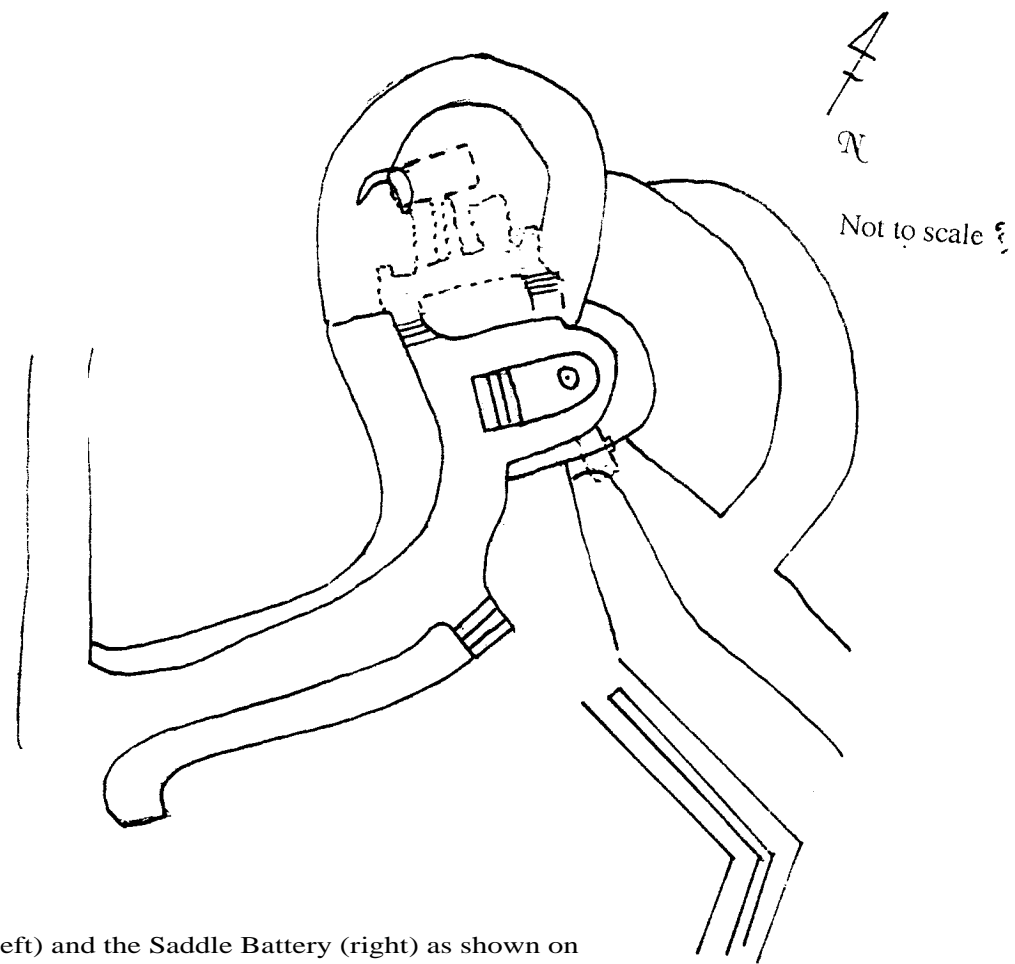
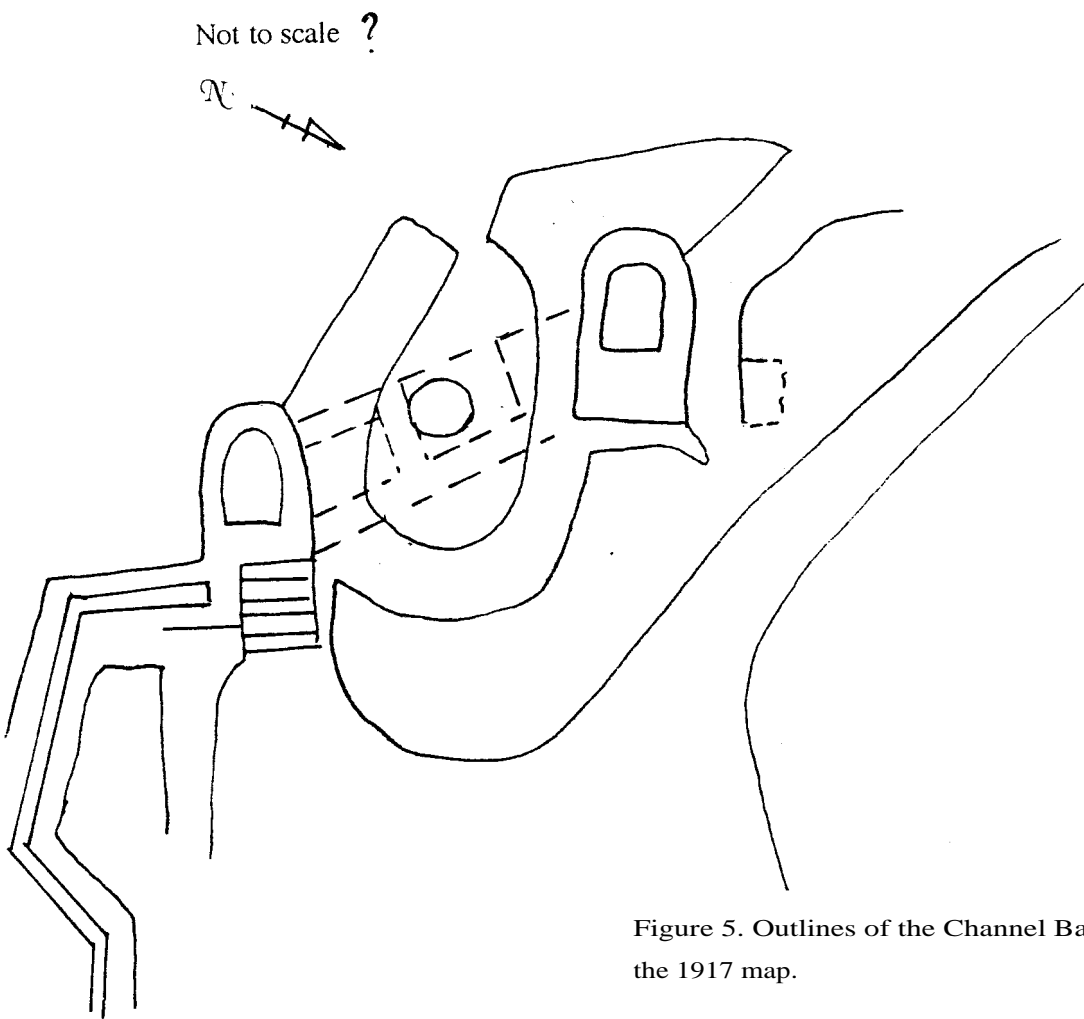


Figure 5. Outlines of the Channel Battery (left) and the Saddle Battery (right) as shown on the 1917 map.

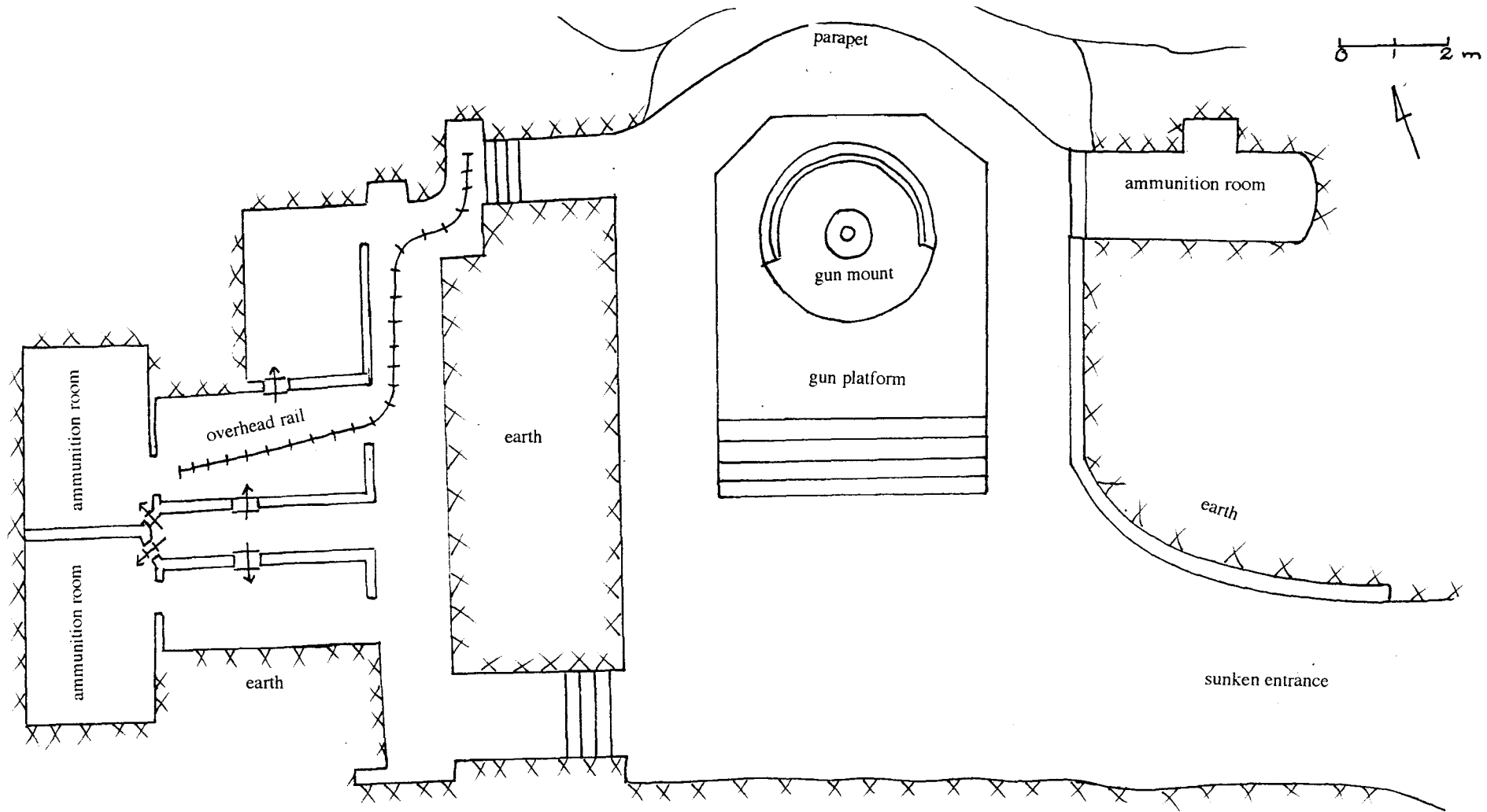


Figure 5a Plan of the Saddle Battery showing the gun platform and underground rooms for ammunition. A central corridor between the ammunition rooms has four small viewing hatches.

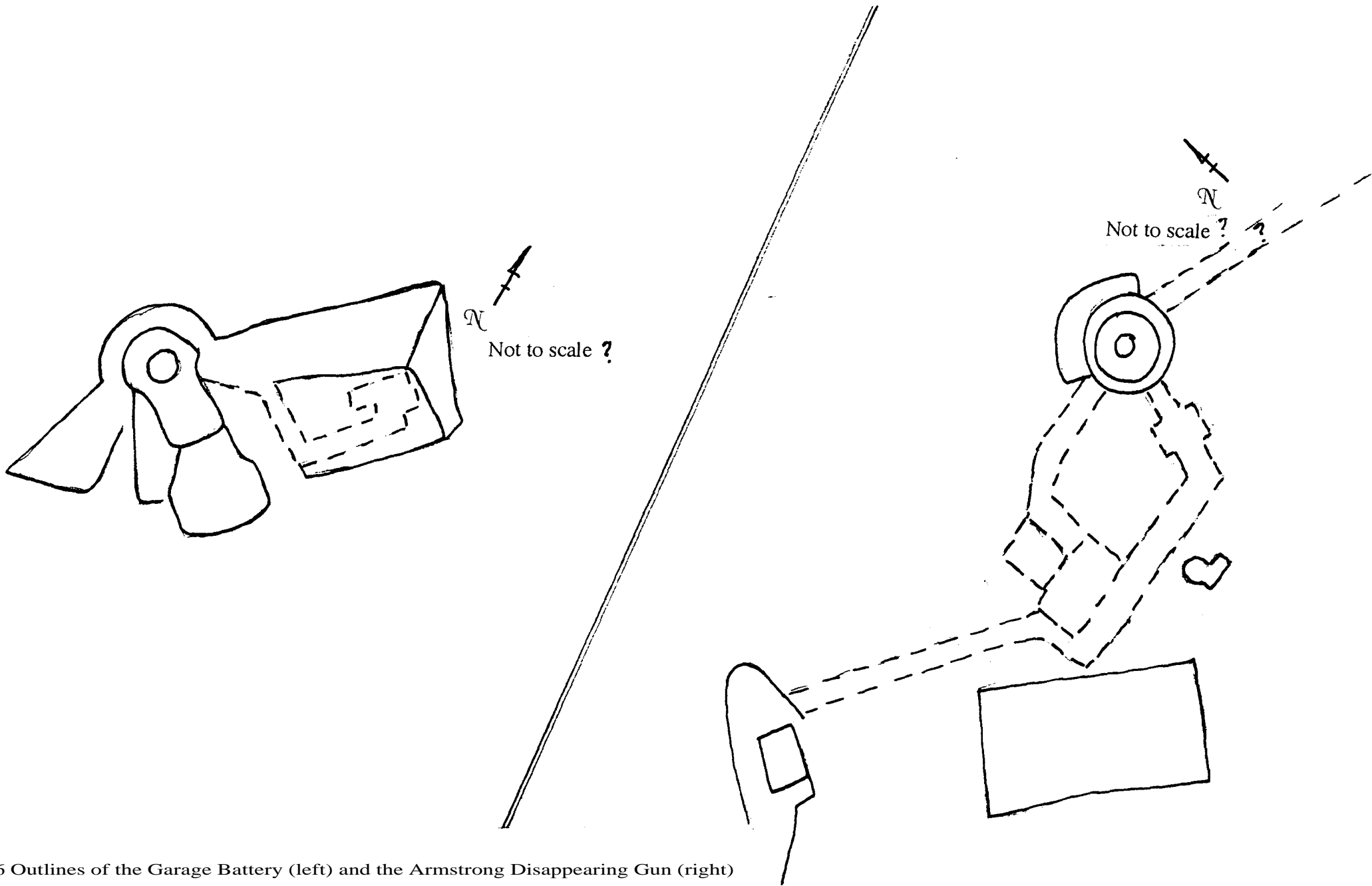


Figure 6 Outlines of the Garage Battery (left) and the Armstrong Disappearing Gun (right) is shown on the 1917 map.