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ON TOP OR BEHIND? PA PALISADE POSITIONS

MICHAEL TROTTER

Where a Maori pa was protected by palisaded earthworks, most people would, I think, expect the palisades to have been placed on top – or perhaps along the outer edge – of the earthen defensive wall. Certainly in Elsdon Best's somewhat dated classic, *The Pa Maori* (Best 1927), or even in the more recent review by Aileen Fox, *Prehistoric Maori Fortification* (Fox 1976), there is no suggestion that they would be anywhere else. The assumption is, presumably, that pa designers and builders would wish to obtain maximum height in a protective structure of this nature by placing palisades on the highest part of the defensive wall.

However, this assumption is called into question by the evidence from several pa sites in the South Island where palisades were placed behind, or on the inner side of defensive walls.

The sites for which this feature is known are Takahanga Pa (site O31/63) in Kaikoura, Kaiapoi Pa (site M35/7) in North Canterbury, Ripapa Pa (site N36/3) in Lyttelton Harbour, and Onawe Pa (site N36/86) in Akaroa Harbour. All suffered depredation by Te Rauparaha and his forces in the early 1830s (Travers 1873, Burns 1980, etc) and it may be that the form of defence adopted was in response to the particular equipment or tactics used by the attackers.

Historical and Archaeological Evidence

The site for which most information is available is the **Kaiapoi Pa** in North Canterbury (it was sometimes incorrectly known as Kaiapohia in the past). The earliest reference to the defences here is by Tamihana, son of Te Rauparaha, who accompanied Bishop Selwyn to Canterbury in 1844. While in the area, he dictated in Maori an account of his father's 1832 attack on the pa to Edward Shortland who then translated it into English. His main reference to the palisades at that time was:

He pa w(h)akauaua Kaiapohia. He repo ki tetahi taka tae noa ki tetahi taha. Ko te taha kahore i karapotia ki roto ki taua repo i taeapatia. E toru nga wakapu o tenei taha. (Te Rauparaha 1844.)

Kaiapohia was a Pa of strength, defended on three sides by a swamp and the side not encompassed by the swamp was fenced with posts. On that side were three flanking projections pierced with openings for muskets. (Translation by Shortland 1844.)

The Maori version includes Tamahana's own sketch of the pa layout (with English annotations by Shortland), which is the earliest known plan of Kaiapoi Pa and it indicates palisading virtually all round with three bastions on the south side. Unfortunately the earthworks are not shown.

The following year, Tamihana wrote a history of his father's exploits, which was later translated by George Graham. In describing an earlier visit of the Ngati Toa to Kaiapoi in 1830, Tamihana related how Te Pehi, one of the chiefs accompanying Te Rauparaha, had ignored cautionary advice and had gone into the pa, but:

... ko te Rauparaha haere kau atu ki te maioro o te oanei ki tua o te taiepa ... (Te Rauparaha 1845: 47.)

TeRauparaha only went as far as the breast of the parapets of the pa on the outside of the palisading. (Translation by George Graham 1915-18: 47.)

This would appear to indicate that the palisades were inside the parapet, which in military terms is defined as a breast-high defensive wall of earth or stones.

Kaiapoi Pa was later besieged by Te Rauparaha's forces and burnt down in 1832.

Visitors from the 760 ton survey steamer H.M.S. *Acheron* in 1849 reported on the razed remains of the Pa, and it was noted in regard to the protective "fence":

Of this, one solitary beam alone survives. It is about 15 feet high & large as the Acheron's main mast, creating astonishment at the prodigious labour requisite to transport from a distance the thousands of trees consumed in the erection of this Pa, & the impossibility of reducing it by any contrivance of Maori warfare, fire only excepted. (Hansard n.d. 158, typescript page 081; see also Natusch 1978:101.)

But there was no indication of how this related to earthworks.

In 1870 a plan of Kaiapoi Pa was compiled from a survey by A. V. Macdonald and a field sketch by Alex Lean. Different redrawn versions of this plan were subsequently published by Stack (1893) and Slater (1912) but neither is an accurate copy of the original, although both have been frequently copied by others. Two notes that occur on the original Macdonald and Lean plan are particularly relevant:

"Traces of Palisades on top of Ramparts throughout"

“The walls were of slabs from 2 ft apart filled in with flax and sand”

These two separate statements, which are on different parts of the plan, have been taken to imply that there were two rows of palisades, about two feet apart, on top of the defensive walls (e.g. Brailsford 1981: 178). I suggest that such an interpretation is incorrect for three reasons: firstly, it is inconsistent with what the compiler of the plan actually wrote; secondly, a description by Canon Stack (below) refers to a double row of palisades behind the wall; and thirdly, the archaeological excavations here indicate that palisades were inside the wall, not on top of it. The original plan includes two cross sections of the wall on the west and south sides of the Pa but they do not show the positions of palisades.

Over two decades later, the Rev. James West Stack included a redrawn (and inaccurate) version of Macdonald and Lean’s plan in his book *Kaiapohia The Story of a Siege* (Stack 1893) but omitted the notes describing the palisades. In his account he made passing reference to “earthworks surmounted by strong palisades” and to a deep ditch on the landward side, but then continued:

Behind the wall of earth there was a double row of strong palisades, eighteen to twenty feet high, bound at the top and bottom to cross ties with a tough kind of woodbine called Aka. The cross ties were fastened to large totara posts, erected at intervals along the wall; and on the top of each post was carved a grotesque figure, inlaid with pearl shell, and painted with red ochre. (Stack 1893: 21.)

Canon Stack is not renowned for the accuracy of his writings (e.g. the reference to pearl shell) but it can be assumed he got his information from local Ngai Tahu who had first-hand knowledge of the Pa, and as he lived in the district for some years, it is likely that he also had personal knowledge of the site.

Archaeological excavations were undertaken at the invitation of the Pa Trustees in November 1986, January 1989 and January 1990 to provide details of the layout of the Huirapa gateway, which is about half way along the western side of Kaiapoi Pa (Trotter 1985, 1990). Here, the original palisading on the inner side of the defensive wall had at some stage been replaced with a more elaborate gateway structure, but had left a series of post holes which suggested that there had once been a double row of palisades less than a metre apart which had subsequently been removed. The position of the post holes can be seen in Figure 1, which shows a section through the defensive wall adjacent to the gateway.

In October 1991 Chris Jacomb carried out archaeological excavations at part of the main (southern) defensive wall where it was intended to erect an information and observation kiosk. This excavation gave a clear picture of the relationship between palisades and the earthen wall. Jacomb found evidence of two rows of palisading about a metre apart inside the earthworks – Figure 2,

showing a section through the wall, is adapted from his published report (Jacomb 1992). The tops of the palisade remnants were burnt and the original ground surface was heat stained. The limited size of the excavation gave only minimal information but it did appear that the outermost row (i.e. nearest the defensive wall) had probably comprised large posts about 1.75 metres apart interspersed with about ten smaller posts or stakes of split totara. No large post remains or large post holes were found on the innermost row of palisading. However, the extent of the excavation was insufficient to be sure about these details.

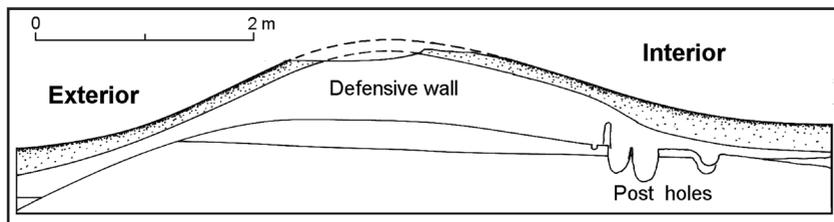


Figure 1. Section through the west wall of Kaiapoi Pa, near the Huirapa gateway.

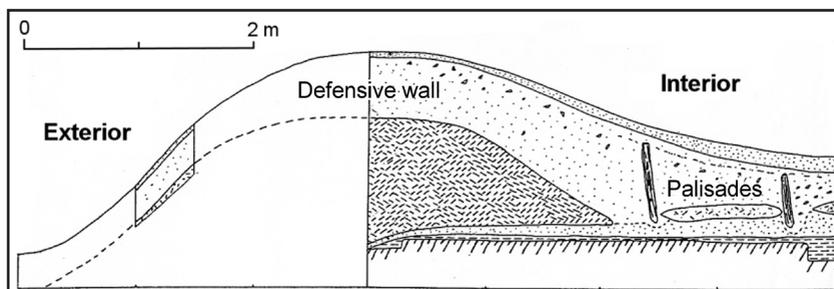


Figure 2. Section through south wall of Kaiapoi Pa. After Jacomb 1992.

Takahanga Pa in Kaikoura (site O31/63) was unsuccessfully defended against an attack by Te Rauparaha in 1830 (McCulloch and Trotter 1984: 415). Excavations carried out here at the invitation of the Kaikoura Runanga in 1982 showed that there had been a single row of palisade posts on the inner side of the defensive wall (Figure 3 – this and the following illustrations have been digitally manipulated to remove the two-times vertical exaggeration of the original diagrams so that they are more readily comparable with those of Kaiapoi Pa). The post holes averaged 2.33 metres apart. There had also been a light stake and vine fence along the top of the wall.

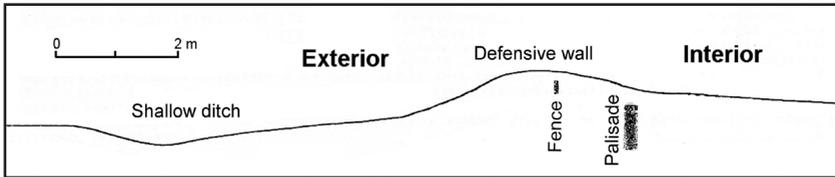


Figure 3. Section through the middle wall of Takahanga Pa. After McCulloch and Trotter 1984.

Te Rauparaha attacked **Onawe Pa** in Akaroa Harbour (site N36/86) immediately after sacking Kaiapoi in 1832, and here excavations in 1986 (Trotter and McCulloch 1994) revealed a double row of postholes, the remnants of palisades, inside the main defensive wall as in Figure 4. The posts were mostly spaced at 30–40 centimetre centres and had been placed in two rows that averaged 90 centimetres apart.

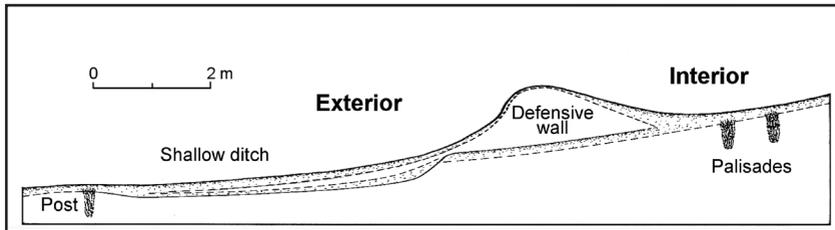


Figure 4. Section through the north wall of Onawe Pa. After Trotter and McCulloch 1998.

Canon Stack relates that the pa on **Ripapa Island** in Lyttelton Harbour (site N36/3) was abandoned on the approach of Te Rauparaha's canoes after the fall of Kaiapoi, but it was nevertheless "taken & destroyed & never afterwards occupied" (Stack 1872). This would have been in 1832. A plan and cross section of the pa, showing the earthwork defences and remains of palisades, was made by Captain F. Strouts in 1872, prior to the island first being used as a quarantine station and then for a European fort. Both the plan and section show that the single row of palisading had been along the inner side of the defensive wall – part of the generalised cross section, rescaled and redrawn for clarity, is shown in Figure 5.

Interestingly, when Colonel Slater redrew Strout's plan for the *New Zealand Military Journal* forty years later, he completely omitted the palisades, and in the cross section he shifted them to the centre of the wall. In his text he stated "The pa was surrounded by an earthwork with palisades on the outer side..." (Slater 1912: 217-220) – so it would seem that the idea of the

palisades being on the inner side of the wall did not fit well with the military perspective. And there is also a Lands and Survey 'tracing' of Strouts' plan that has the palisades repositioned to the outside edge of the wall (Canterbury Museum CMU 1711/1).

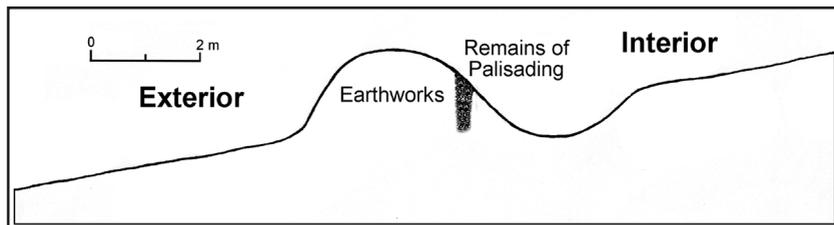


Figure 5. Generalised section through the wall of Ripapa Pa. After Strouts 1972.

Discussion

The rationale for placing palisades behind defensive walls may not be obvious, but as a form of defence it may have been reasonably effective. Of the four pa sites referred to here, neither Kaiapoī nor Onawe were taken by direct attack.

Kaiapoī succumbed to a ferocious warlord only after the palisades were inadvertently torched by the inhabitants after a prolonged siege (Te Rauparaha 1845; Travers 1873; Stack 1893; Burns 1980 etc.). Onawe was taken through a combination of subterfuge by the same attackers and of bad tactics by the defenders (Trotter and McCulloch 1998).

There does not appear to be any detailed account of how Takahanga Pa was taken (McCulloch and Trotter 1984), and Ripapa was never put to the test, having been abandoned on the approach of Te Rauparaha's fleet (Stack 1872).

Any question we may have about the positioning of palisades on these four sites may well be due to a lack of our understanding of the intricacies of Maori warfare at that time and of the precise role of the defensive structures involved.

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