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WELLINGTON'S DEFENCES: A RECONNAISSANCE SURVEYOF THE FORTIFICATIONS OF 1884-1945

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Around Wellington there are the remains of a number of forts and gun emplacements built in the period between 1884 and 1945. Since 1987 two of these sites, Fort Buckley (R27/159) and the anti-aircraft battery site at Brooklyn (R27/164), have come under threat from proposed residential subdivisions. In addition, the Departments of Defence and Justice each control a number of sites and both departments are looking closely at the land they hold with a view to disposing of any which they do not immediately require. A systematic survey of the fortifications, to make a preliminary record what now remains, seemed a timely project.

There is no detailed, fully referenced, account of these fortifications but a popular account (Waltz 1986) was available and was used to identify the approximate location of the various sites. Each was then visited in turn and a Site Record Form completed. Some further research was then undertaken to sketch in the history of the sites (Fox (1893) was invaluable for the early period) and to check the original field identifications. This latter task was particularly necessary because most of the features were, initially at least, unfamiliar. Essential background was provided by Barratt's (1981) book on the Russian 'threat'.

The sites discussed are all relict features in the landscape. They represent obsolete forms of fortification and outmoded types of weaponry. Even the most recent of the sites, Wrights Hill (which was completed only in 1945-6 at a cost of some £250,000), has now been abandoned for three decades. The comparatively recent date does not make it of any less interest as an historical feature, especially when it is seen in the context of the changing pattern of defences around Wellington in the period from the 1880s to the 1940s.

The period up to the end of World War I

It was generally agreed, in the second half of the nineteenth century, that New Zealand's coastal defences were grossly inadequate. Throughout this period, which begins with the Crimean War of the 1850s, the Russian presence in the Pacific was seen as the main external threat to New Zealand (Barratt 1981). Military experts were called upon to report on the measures required to protect the Colony, but the Government

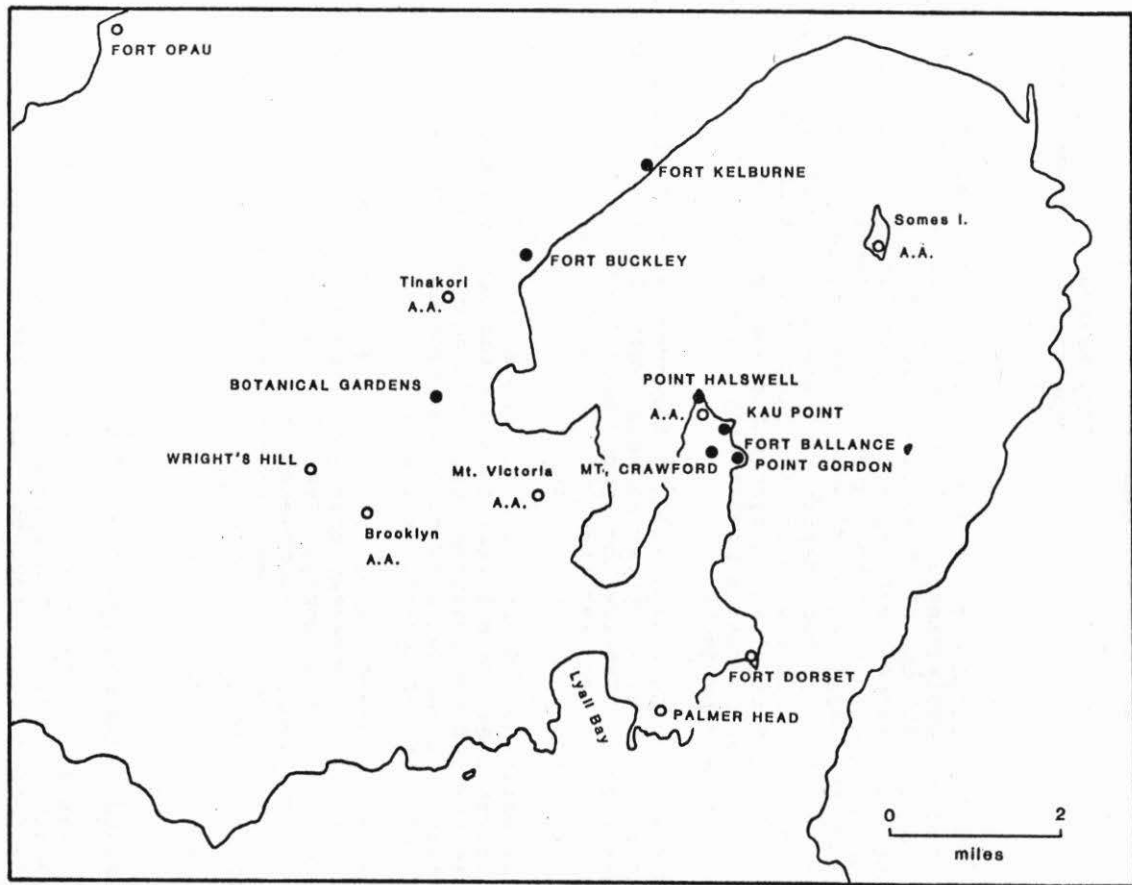


Figure 1. Wellington area showing location of sites.

generally balked at the cost of implementing their plans and only acted when it could no longer avoid it. The periodic prospect of war breaking out in Europe and leaving vulnerable colonies like Australia and New Zealand open to enemy raids gave a measure of urgency to defence spending, but could not completely overcome the Government's understandable concern about the expense involved.

The Imperial Government was unsympathetic: it had a need to cut its own defence expenditure and from the late 1850s onwards it increasingly insisted that New Zealand was a self-governing colony and had to take responsibility for providing whatever coastal defences were required. The cost of purchasing guns and coastal defence craft to protect the main ports had to be borne by the Colony. New Zealand argued that it was a special case: it was burdened with both internal strife and the threat of Russian expansion in the Pacific. It was even suggested, unsuccessfully, that the Imperial Government might make a gift to New Zealand of some outmoded smooth bore large calibre guns. Through the 1860s, and most of the 1870s, the New Zealand Government argued strenuously that the Imperial Government had a responsibility to shoulder a large part of the Colony's defence burden (Barratt 1981).

The first concrete steps were finally taken in the late 1870s when New South Wales, Victoria, and South Australia requested expert advice on putting their defences in order. New Zealand was pushed, as part of a wider plan, into ordering some 64-pounder guns for its own coastal defences. When the 24 guns, each with 150 rounds of ammunition, arrived in the Colony in 1879 the Government still had no plans for deploying them and they were put in storage (Barratt 1981). In February 1880 Col. P.H. Scatchley of the Royal Engineers arrived in New Zealand to report on her defence needs. He concluded that the main ports had to be made secure, thus providing safe fueling stations for the Royal Navy and leaving them free to deal with raiders in whatever manner was appropriate. The ports should be defended by heavy ordnance, by electric mines (detonated from the shore), and by torpedo boats. The defences should be manned by a well trained corps of volunteers. The geography of the ports, he concluded, would make a few well placed guns, in conjunction with electric mines, an effective defence.

The Government moved reluctantly, distressed at the expense of the big guns, and concerned at the impact the spending would have on its already tight budget. Five torpedo boats were ordered and arrived in 1884. Towards the end of that year work finally began on fortifications at Auckland, Wellington, Lyttleton, and Port Chalmers. A major "Russian scare" early in 1885 prompted more urgent action, however. The work on the fortifications was speeded up and the 64-pounders, so long in storage and already obsolete, were hastily mounted. The

volunteer corps required to man the forts were rapidly expanded. New Armstrong guns were ordered. These had the new breech loading mechanism and fired shells capable of penetrating armour. The new guns were all delivered by 1889 (AJHR 1889:H16). The Government's concern about the expense proved justified: between 1885 and 1892 the programme cost some £478,000 - some £239,000 had been spent acquiring weapons from England and an equal amount been gone on costs related to the construction of the fortifications (Report of Defence Engineer to Under-Secretary for Defence dated 11 May 1892, National Archives AD 62/1). Worse, the technology was changing very rapidly in this period and the fortifications themselves all too soon became outmoded and their guns obsolete.

Three individuals played a major role in designing and supervising the building of the fortifications. Design of the gun pits for the new 'disappearing' guns was done from scratch, largely by the defence engineer, Lt. Colonel Boddam (AJHR 1887:H12). A.D. Bell replaced him in about 1887 and held the office till it was abolished in 1893 when the programme was winding down. Fox (1893) reported that the "gun emplacements constructed under [Bell's] guidance are models of what they should be". He also noted the important contribution made by Major-General Schaw, Royal Engineers.

In Wellington, work was begun on Fort Kelburne (R27/163) at Ngauranga in December 1884 and the position was completed by April 1887 (Fig. 1). The fort was intended as the core of the inner harbour defences. It had 2 gun pits, 120 feet apart, linked by a bomb-proof passage underground. Initially two 64-pounder rifled muzzle-loading (R.M.L.) guns with a range of 3,500 yards were mounted, but these were later replaced by two 6" Armstrong disappearing guns with long barrels and the new breech-loading (B.L.) mechanism. The new guns had a greater range (about 8000 yards) and were known as 'disappearing' guns because they sank back into the gun pit out of sight when they had fired.

A second position was begun in 1885 at Kaiwharawhara. Fort Buckley (R27/159) had 2 gun pits 77 feet apart (Fig. 2). It mounted two 64-pounder R.M.L. guns. Fort Buckley was intended to protect the inner waters of the harbour, and to support Fort Kelburne. It was, however, an unsatisfactory position: Lt.Col. F.J. Fox in 1893 noted that "the guns do not serve purpose of covering inner waters of harbour" and proposed to dismantle the work and transfer the guns to another position.

Fort Ballance (R27/161) on Point Gordon was the first of the channel defences to be built. Work began in 1885 and the fort, with supporting gun emplacements nearby, and with a minefield offshore, was intended to be the mainstay of Wellington's coastal defence works (Fig. 3). A report headed

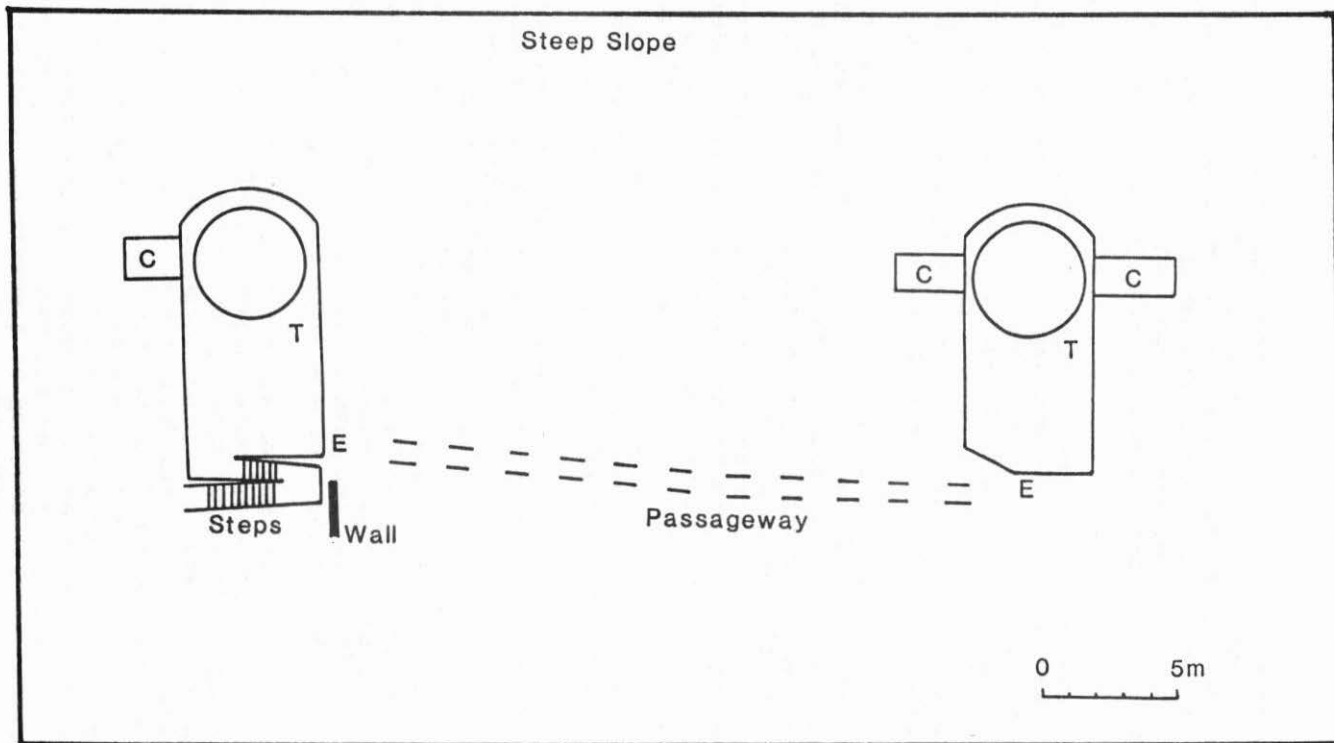


Figure 2. Fort Buckley. C = Chamber, E = Entrance, T = metal track for gun platform.

"Defences of New Zealand: Wellington" (National Archives AD 62/1) lists the armament in November 1889 as two 7" R.M.L. guns and one 6" B.L. disappearing gun. In addition, Quick Fire (Q.F.) Nordenfeldt 6-pounder guns were mounted at the flank angles. Loop-holed walls and musketry parapets completed the defences. Fox (1893), however, believed that the fort was altogether too conspicuous and proposed a number of changes to improve the work. He also proposed to dismount the two 7" R.M.L. guns, one of which would go to the high ground behind the city. Subsequently the main armament consisted of two 6" disappearing guns: sometime after 1893 one of the 7" R.M.L. gun pits was rebuilt to house the second disappearing gun.

Adjacent to the fort were an electric light 'seesaw' emplacement (not identified with any certainty, but possibly R27/169), the Gordon Point Battery (Fort Gordon) (R27/180), and the Low Battery (R27/177). The electric light emplacement was completed in 1891-2, and power was supplied by a generator within Fort Ballance itself. Fox (1893) wanted to "alter or do away with" the emplacement as he thought it "insufficiently protected, and in the direct line of fire delivered against Gordon Point Battery and Fort Ballance from a ship lying at or near the [harbour] entrance".

Fort Gordon consisted of a gun pit, mounting an 8" B.L. disappearing gun, and magazines (the position was ready but the gun had not been mounted when Fox reported in 1893). The Low Battery, which was down on the foreshore, mounted two 64-pounder R.M.L. guns 100 feet apart, through embrasures in a parapet. The magazine was underground, cut into the base of a spur. The position was well concealed behind a high rocky spur and could not be seen until the vessel was opposite. The guns initially mounted there (in 1891-2 financial year - Report of Defence Engineer to Under-Secretary for Defence dated 11 May 1892, National Archives AD 62/1) were put into storage and replaced by similar guns from Fort Buckley.

A minefield was planned for the channel between Point Gordon and Ward Island but was never laid. The facilities for servicing the minefield were all built however, including a depot in Shelly Bay (on the opposite side of the peninsula from Point Gordon, about due west from Mt Crawford). There were also some facilities in Mahanga Bay (the bay immediately north of Fort Ballance), including a boat shed and jetty to service a torpedo boat.

Behind Fort Ballance, on Mount Crawford, a musketry parapet (R27/151) was constructed. This was seen as a key position for the defence of the peninsula as it covered the rear of the fort and all land-approaches, and would support the operation of (mobile) field-guns. Roads were built to connect the various positions on the peninsula, and these are still in evidence.

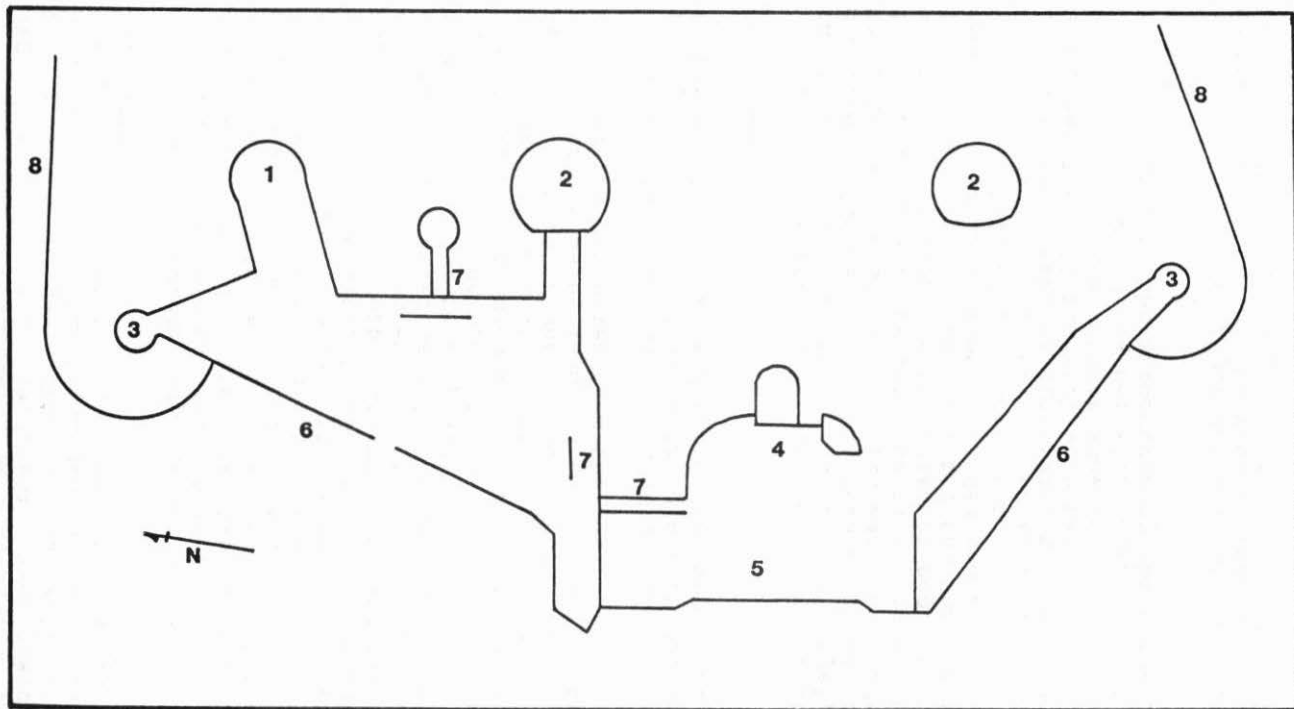


Figure 3. Fort Ballance. The fort occupies an area which is about 200 yards long and 125 yards broad. 1 = gun pit for 7" R.M.L. gun, 2 = gun pits for disappearing guns, 3 = gun pits for Q.F. Nordenfeldt guns, 4 = Fire control, 5 = defensive casemate (with loopholes), 6 = free standing wall (8' high) with loopholes, 7 = steps, 8 = concrete (retaining) wall 8 - 12' high. Plan drawn from an original plan, aerial photographs, and fieldwork.

Further gun emplacements were located at Point Halswell (R27/167) and Kau Point (R27/168). Each position mounted an 8" B.L. disappearing gun. The Point Halswell gun was mounted by November 1889, the Kau Point gun by 1891. Lighter, 6-pounder, Hotchkiss or Nordenfeldt guns were mounted in support of the main armament.

The Botanic Gardens emplacement (R27/166) was one of the last defence works completed. A 7" R.M.L. gun from Fort Ballance had been earmarked for this position which was intended to cover the waters of the inner harbour. Other proposed works appear to have been abandoned. From £200,000 in 1885-6, the budget had shrunk to £13,000 in 1890-1, and only £7,000 in 1891-2. In 1892 the Defence Engineer noted that "the smallness of the vote, £7,000 only, has prevented any substantial works being entered upon, and has necessitated the convict labour being employed to a greater extent than usual on earthworks and other details not demanding outlay of moment for material, in order to keep within the mark". (Large numbers of unemployed had been used in the years 1885-6 and 1886-7 but convict labour was used increasingly from about 1888 (AJHR 1888 H5)). Amongst the casualties of the budget cuts was the proposal to mount a gun on the western headland of Lyall Bay to prevent troops being landed at Island Bay or Lyall Bay and attacking the batteries from the rear.

Fort Dorset was built in 1910 and was the principal fort through the 1st World War with both Fort Ballance and Fort Kelburne fully manned and acting in supporting roles.

What remains?

Of the nine positions constructed in the 1880s and 1890s, three (R27/163, 167, and 177) have been largely or completely destroyed. The major loss has been Fort Kelburne (R27/163). The site was manned during World War I but, after the war, the fort was stripped, the gun pits filled in and houses built within the position. After years of neglect, the site was finally destroyed to make way for the Ngauranga interchange: demolition began in September 1963 and by early December there was nothing left of it (Penlington n.d.). The National Historic Places Trust, as it then was, had declared that the fort was "not worthy of preservation". Photographs (now in Alexander Turnbull Library) were taken at the time of the fort's demolition and these show such things as the defensive casemate (a covered chamber with loopholes for musketry) and the unearthing of the structures on which the disappearing guns were mounted.

The Point Halswell gun emplacement (R27/167) was destroyed by the construction of the Massey Memorial in the 1920s. The terraces and foundations just behind the Memorial are not

associated with the gun emplacement: they date from World War II when there was a harbour defence boom across the harbour from near this point.

There is little to mark the location of the battery on the foreshore at Point Gordon R27/177). The parapet has gone. The entrance to the magazine under the spur has been filled with dirt but the top of the doorway is clearly visible.

Fort Buckley survives, although its future is in doubt if the proposed residential subdivision proceeds. The fort is of particular interest as it was one of the first forts built, and retains many of its original features. In most of the other fortifications the 64 pounders which were originally mounted were subsequently replaced by the more modern disappearing guns and this resulted in substantial remodelling or rebuilding of the gun pits. Fort Buckley was abandoned in the early 1890s and only ever housed 64 pounders.

The gun pits for the 7" R.M.L. guns were of similar design to those built for the 64 pounders. Two examples survive: one at Fort Ballance and the other in the Botanic Gardens. The Botanic Gardens gun pit has been filled in but part of the outline of the gun pit is still visible. Both the gun pit and the underground chambers of this emplacement are intact.

The fortifications at Point Gordon (particularly Fort Ballance and Fort Gordon) are undoubtedly the most important of the surviving fortifications. Fort Ballance was manned during World War I but the guns were removed after the war. In the 1920s magazines were constructed using the gun pits built for disappearing guns (two in Fort Ballance and one at Fort Gordon). In 1941 the fort was re-armed with two 4" guns to protect the harbour entrance but the exact position of the guns is not known. The 1880s layout and many of the features, however, are surprisingly little modified. Two of the Fort Ballance gun pits have been filled in, as has the Fort Gordon gun pit. A significant part of the site is underground. (This was a feature of a number of the sites but the underground structures, even when accessible, were not inspected for safety reasons.) The gun pit at Kau Point has been filled in and dirt has been pushed into the entrance to the underground chambers. Otherwise the installation is mostly intact.

Two sites have been found in the field but have not been positively identified in documentary material seen so far. R27/169 is a large, semi circular, pit about the same size as a gun pit. The straight face of the pit is concrete, and there is a small concrete base, but the other sides are earth. It does not look like the gun pits on any of the other sites and may be an electric light 'seesaw' emplacement. R26/170 is also of uncertain function. The position has been filled in, making

it difficult to get an idea of the layout. Earth has been pushed into passageways and entrances but in places the fill has collapsed inwards revealing the doorways and chambers below.

World War II

In the 1930s defence needs were re-examined and new gun emplacements, supplemented by anti-aircraft batteries, were planned. Again the main concern was the possibility of enemy shelling of the city and the port. The greater range of guns meant that this could be done from as far away as Palliser Bay and so the defences had to be located on hilltops from which they could cover the whole of Cook Strait. An emplacement with two 6" guns (the guns had a range of about 20,000 yards) was constructed at Palmer Head (R27/171) and was the nucleus of the outer coastal defences during World War II. To cover the northern part of the Cook Strait area Fort Opau (R27/175) was added in 1941. It had an armament of two 6" guns. Fort Dorset held both 6" and 4" guns. Fort Ballance, with its two 4" guns, had a support role in securing the harbour entrance. Radar was installed in 1941 and made the whole coastal defence system even more formidable.

In 1942 work began on a further position on Wrights Hill (R27/173) (Gordine 1979). This site was intended as the centrepiece of the new defence system. Three gun pits for 9.2" guns were planned but only two were ever mounted (in 1944). The guns had a range of about 30,000 yards. Underground were three magazines (each with a shaft for the hoist which carried the ammunition up to the gun pit), an engine room, a plotting room, and a command post. These are connected by about a half mile of tunnels.

There were five anti-aircraft batteries: Tinakori Hill (R27/165), Mt Victoria (R27/160), Brooklyn (R27/164), Point Halswell (R27/174), and Somes Island (R27/179). Each site consisted of four reinforced concrete gun emplacements for heavy anti-aircraft guns and a command post, also built of concrete. An example of a gun emplacement from Point Halswell is shown in Fig. 4. Each emplacement is octagonal in shape with attached 'wings'. The gun was mounted in an open area in the centre of the structure and there were eight small chambers off the working area around the gun. Larger rooms ('wings'), with access from the smaller chambers, are attached at two or three points.

What remains?

By the late 1950s the fortifications were obsolete and some parts of the forts had been converted to other uses, while other parts had been simply stripped and abandoned. In the

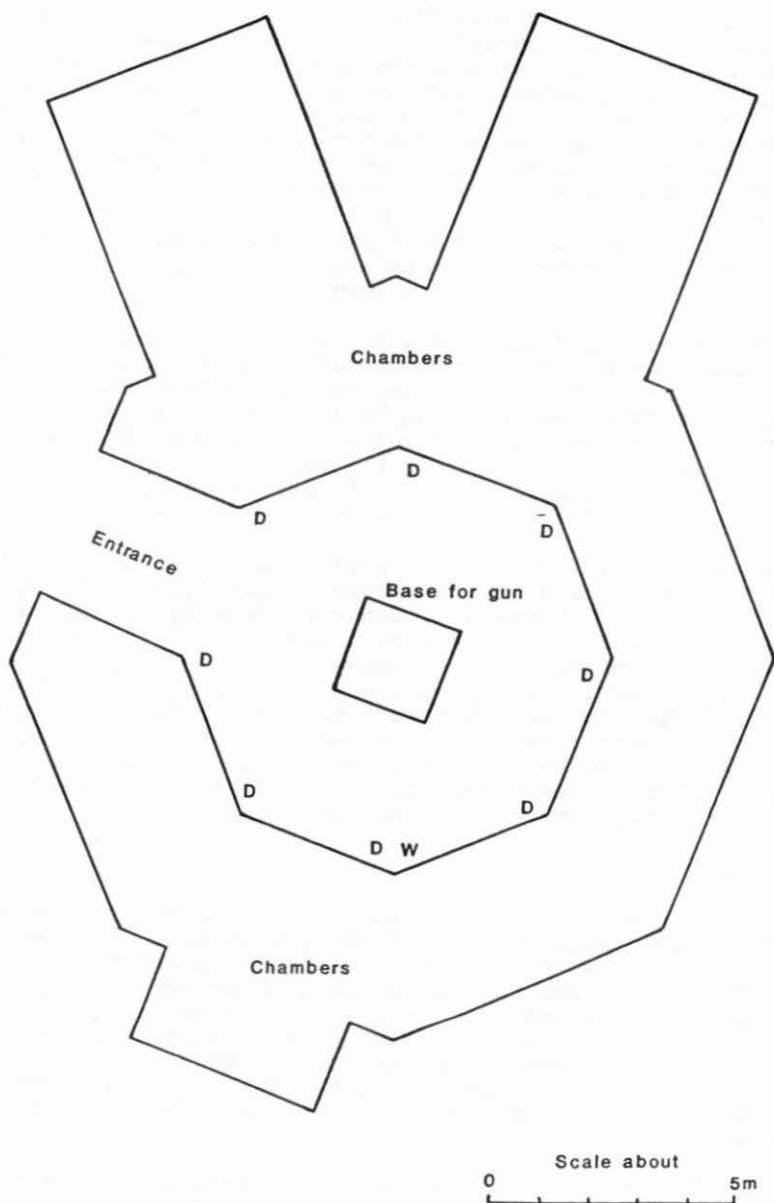


Figure 4. An A.A. gun emplacement at Point Halswell (R27/174).
 Plan of the 2nd emplacement from the Massey Memorial
 end. D = Door, W = Window (one only).

1960s there was pressure to "tidy up" the sites and make them safe and less of an eyesore. As a result a great deal of damage was done. The Palmer Head gun emplacement, the principal coastal defence battery during World War II, was largely destroyed. Some of the terracing cut for the barracks and other facilities has not been completely obliterated by the bulldozing but there are few signs now of any of the structures and much of the interest the site held is gone. A small cluster of concrete buildings (R27/172), usually (but mistakenly?) known as the Moa Point Radar Station, is situated on the end of a nearby ridge and is the only part of this extensive installation to have survived.

Fortunately, a similar emplacement - Fort Opau - has survived and is now a major focus of interest on the Makara Walkway. Wrights Hill, designed as the centrepiece of Wellington's defences, but completed only as the war was ending, has also largely survived. The site is in a Recreation Reserve administered by the Wellington City Council. Open days, when the underground part of the complex has been opened up to the public for a small charge, have proved very popular.

Two of the A.A. gun emplacements (those on Tinakori Hill and Mt Victoria) have been completely destroyed. Both the Tinakori and Mt Victoria A.A. gun emplacements were located in the Town Belt and there was public pressure to tidy them up. Both sets of structures were removed over twenty years ago. A plaque was recently put up on the site at Mt Victoria by the gunners of the 22nd Anti Aircraft Battery, N.Z. Army, on the occasion of their 50th Jubilee reunion. The other three A.A. battery sites, one in private ownership and the other two in the hands of government departments, have survived largely intact but their future is by no means assured.

Conclusions

The 1880s saw a spurt in the building of coastal defences around the four main ports. In Wellington this resulted in the construction of two major fortifications and a number of gun emplacements in order to defend the harbour entrance and the inner waters of the harbour from a raid by an enemy warship. A rather different pattern of defence was required by the 1930s with big gun emplacements on hilltops intended to cover the waters of Cook Strait, preventing the enemy getting close enough to shell the city and the port. Anti-aircraft defences were also installed.

There has been a gradually changing attitude towards these sites as historical features. Twenty-six years ago the New Zealand Historic Places Trust could say Fort Kelburne was not worthy of preservation: it is difficult to imagine it taking such a position in a similar case now. The significance of the

early forts is no longer in doubt: there is active interest in places such as Fort Cautley (North Head, Auckland), Ripapa Island (Lyttleton Harbour), and Tairoa Heads (Port Chalmers). In Australia too a similar attitude to conservation of the fortifications of this period is apparent.

It might be thought that there would be less interest in the 1940s sites, the apparent interest in the Wrights Hill fortress notwithstanding. (It is difficult to know exactly what the attraction is.) Even these 1940s sites, however, are associated with a war which is now far enough in the past for most New Zealanders to know little or nothing about the sites, and the function they served. They too may be gradually acquiring the historical aura necessary if they are to survive as part of the landscape.

Acknowledgments

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