

REGISTER OF HERITAGE PLACES

Assessment Documentation

11. ASSESSMENT OF CULTURAL HERITAGE SIGNIFICANCE

Cultural heritage significance means aesthetic, historic, scientific, social or spiritual value for individuals or groups within Western Australia.

In determining cultural heritage significance, the Heritage Council has had regard to the factors in the *Heritage Act 2018* and the indicators adopted on 14 June 2019.

11(a) Importance in demonstrating the evolution or pattern of Western Australia's history

Wadjemup/Rottnest Island was a site of strategic importance in Australia's coastal defences during World War II, which were extended and modernised with the installation of 6" and 9.2" gun batteries at Bickley Point and Oliver Hill in 1936. The large number of military structures, including the intact 9.2" guns at *Oliver Hill Battery, Wadjemup/Rottnest Island*, illustrate the Island's military history and its role in national coast defences.

Oliver Hill Battery, Wadjemup/Rottnest Island, comprising many and various intact components of a large calibre gun battery, is the only surviving World War II gun emplacement associated with the Fremantle Fortress in Western Australia.

Oliver Hill Battery, Wadjemup/Rottnest Island is important in demonstrating the role of women in World War II. Due to a shortage of manpower Australian Women's Army Service personnel were posted to multiple locations on Wadjemup/Rottnest Island. Their role of the Australian Women's Army Services (AWAS) in the underground plotting rooms was vital to the operation of Oliver Hill Battery, Wadjemup/Rottnest Island, and demonstrates the importance of women to the Australian war effort during World War II.

11(b) Importance in demonstrating rare, uncommon or endangered aspects of Western Australia's heritage

Oliver Hill Battery, Wadjemup/ Rottnest Island is the only example in Australia of a gun battery with 9.2" guns remaining in situ. It is also one of only five battery sites worldwide that still retain their guns in their World War II location.

11(c) Potential to yield information that will contribute to an understanding of Western Australia's history;

The place has importance for its ability to demonstrate the preparations that were undertaken to protect Fremantle Port from enemy attack during World War II. The positioning and installation of the 9.2" long range guns at *Oliver Hill Battery, Wadjemup/Rottnest Island* could comprehensively repel and attack enemy warships approaching from the northwest with the intention of bombarding Fremantle.

As a result of the retention of 9.2" H1 and H2 guns *in situ*, along with the associated infrastructure and detailed interpretation, *Oliver Hill Battery, Wadjemup/Rottnest Island* has high scientific value for its ability to contribute information leading to a wider understanding of Australia's defence and military history.

Oliver Hill Battery, Wadjemup/ Rottnest Island has archaeological potential to reveal information regarding the military occupation of the place during World War II, including the construction of the battery as well as its occupation and decommissioning.

11(d) Its importance in demonstrating the characteristics of a broader class of places;

Oliver Hill Battery, Wadjemup/ Rottnest Island is representative of the breech-loading gun batteries established to protect strategic defence positions during World War II in Commonwealth countries. It demonstrates the two-gun batteries that were installed in Australia between 1935 and 1945 and represents an integral component of the network of Fremantle Fortress coastal defence batteries that was developed to protect the Port of Fremantle in Western Australia during World War II.

As part of the Rottnest Fortress, *Oliver Hill Battery, Wadjemup/ Rottnest Island* is representative of places commandeered by the military during wartime and adapted for the purposes of national defence.

11(e) Any strong or special meaning it may have for any group or community because of social, cultural or spiritual associations;

Oliver Hill Battery, Wadjemup/ Rottnest Island and the other military sites located on the island are highly valued by the community of war veterans and the broader community because of their role in the defence of Western Australia, especially during World War II.

Oliver Hill Battery, Wadjemup/ Rottnest Island and the other military sites which formed part of the Fremantle Fortress are highly valued by engineering groups and enthusiasts for its demonstration of the place's role in the defence of Fremantle Port and the significant technical achievement of its construction at the time.

Wadjemup/ Rottnest Island is of cultural and spiritual significance to Whadjuk and Noongar people of the South-West as a place where the spirits of deceased ancestors travelled after death and is winnaitch (a place that should be avoided). Wadjemup/ Rottnest Island is of cultural significance to Aboriginal people in the

context of stories explaining the sea level rising (7,000-6,500 BP) and the separation of the island from the mainland.

11(f)¹ Its importance in exhibiting particular aesthetic characteristics valued by any group or community;

Oliver Hill Battery, Wadjemup/ Rottnest Island illustrates a significant period of occupation and utilisation of Wadjemup/ Rottnest Island. Collectively the individual elements, including the H1 and H2 9.2" guns and infrastructure, underground tunnels, railway lines, trenches and remnant structures within the landscape, combine to form a significant military cultural environment.

Oliver Hill Battery, Wadjemup/ Rottnest Island is a prominent landmark site on Wadjemup/Rottnest Island, contributing to the visitor's and residential community's sense of place.

Oliver Hill Battery, Wadjemup/ Rottnest Island demonstrates a vernacular military aesthetic characterised by pragmatic forms that are sited to take advantage of the natural landscape. Constructed to facilitate utilitarian purposes these structures are distinctive in employing simple forms, materials appropriate for local conditions and a narrow palette of colours.

11(g) Any special association it may have with the life or work of a person, group or organisation of importance in Western Australia's history;

Oliver Hill Battery, Wadjemup/Rottnest Island is associated with the 6th Heavy Battery Royal Australian Artillery and Royal Australian Engineers, who were stationed at Wadjemup/Rottnest prior to World War II and installed the guns and associated equipment.

Oliver Hill Battery, Wadjemup/Rottnest Island is associated with the Australian Women's Army Services (AWAS), who worked in the underground plotting rooms and were housed in temporary wartime hut camps in close proximity to the place during World War II.

Oliver Hill Battery, Wadjemup/Rottnest Island is associated with a number of military figures, including Lieutenant-General Sir John Talbot-Hobbs, who undertook a reconnaissance survey of Wadjemup/ Rottnest Island in 1934, and who along with Colonel Vernon Sturdee, advised on the location of the guns and other military installations on the island; Major E Scriven, who visited the island to inspect and advise on construction; Captain Frank Hussey, Engineer-In-Charge and for whom the diesel railcar which conveys passengers on the restored railway to Oliver Hill has been named; Major Pain and Lieutenant Colonel Lucas.

For consistency, all references to architectural style are taken from Apperly, R., Irving, R., Reynolds, P. *A Pictorial Guide to Identifying Australian Architecture. Styles and Terms from 1788 to the Present,* Angus and Robertson, North Ryde, 1989.

For consistency, all references to garden and landscape types and styles are taken from Ramsay, J. *Parks, Gardens and Special Trees: A Classification and Assessment Method for the Register of the National Estate,* Australian Government Publishing Service, Canberra, 1991, with additional reference to Richards, O. *Theoretical Framework for Designed Landscapes in WA*, unpublished report, 1997.

11(h) Its importance in demonstrating a high degree of creative or technical achievement;

The construction of the *Oliver Hill Battery, Wadjemup/ Rottnest Island* as part of an integrated coastal defence system, and in association with the other installations on Wadjemup/ Rottnest Island, was a significant technical achievement during the wartime period. The transportation of equipment from the harbour to Oliver Hill, the construction of the facility and the successful installation of high precision artillery equipment demonstrates a considerable technical innovation at the time.

12. DEGREE OF SIGNIFICANCE

12. 1 CONDITION

Overall, the condition of *Oliver Hill Battery, Wadjemup/ Rottnest Island* is good, as a result of ongoing conservation works, most recently in 2013. The condition of individual elements within the place varies, depending on the level of exposure and conservation work that has been undertaken. Ongoing conservation works are likely to be required to protect the structural steel associated with the H1 and H2 9.2" guns from corrosion.

Wadjemup/ Rottnest Island comprises a complex archaeological landscape which encompasses terrestrial and maritime evidence of Aboriginal and non-Aboriginal occupation and activities across the island. Based on the nature of use and the level of disturbance to the site since the operation of *Oliver Hill Battery, Wadjemup/ Rottnest Island* it is likely that there are intact archaeological deposits and low to moderate artefact scatters dating from the military occupation within *Oliver Hill Battery, Wadjemup/ Rottnest Island*. The significance (or research potential) of areas of known and potential archaeology, including those which comprise Aboriginal, non-Aboriginal and both values, has not been assessed.

12. 2 INTEGRITY

This section explains the extent to which the fabric is in its original state.

Oliver Hill Battery, Wadjemup/ Rottnest Island has a high degree of integrity. Some ancillary built structures, machinery and fittings have been removed from the place. However a considerable number of extant and restored equipment and built elements associated with the World War II phase of operations remain.

12.3 AUTHENTICITY

This section explains the extent to which the original intention is evident, and the compatibility of current use.

Oliver Hill Battery, Wadjemup/ Rottnest Island has particular significance as an authentic example of such guns in situ. The place has a high degree of authenticity as a military base. Although the place no longer functions as part of the Fremantle Fortress coastal defences, it is now a tourist attraction in which the extant elements of the site are interpreted and exhibited in a manner to explain their original use.

13. SUPPORTING EVIDENCE

The documentation for this place is based on the Oliver Hill Battery Conservation Plan completed on behalf of the Rottnest Island Authority by Palassis Architects, in December 2005, with amendments and additions by the Heritage Council and the Department.

13. 1 DOCUMENTARY EVIDENCE

Oliver Hill Battery, Wadjemup/ Rottnest Island comprises two 9.2 inch (9.2") breech loading guns (1937; 1938) and their emplacements (1937) and associated infrastructure. The extant buildings and equipment, together with ruins and archaeological features and deposits associated with them, form part of a series of coastal defences located at Wadjemup/ Rottnest Island during World War II for the purpose of protecting the Port of Fremantle from bombardment and attack by enemy naval vessels.

Wadjemup/ Rottnest Island

Known to Whadjuk Noongar traditional owners as Wadjemup, Wadjemup/ Rottnest Island is the largest island on the continental shelf near Perth. Approximately twenty kilometres from Fremantle, it is a popular holiday destination for day trips and short-stay holidays.

The Noongar name for Wadjemup means 'place across the water where the spirits are'². The island was uninhabited when Europeans began arriving in the seventeenth century.³ However Wadjemup remained then and now a highly significant place for Whadjuk and Noongar people, as a resting place of the spirits.⁴ Wadjemup/ Rottnest Island separated from the mainland some 6,500 to 10,000 years ago. Recent archaeological research suggests that Aboriginal Western Australians may have been present on across Greater Swan region, including Wadjemup, for at least 20,000 years.⁵ Whadjuk people believe the connection is much longer.

European knowledge of Wadjemup/ Rottnest Island commenced in 1611 with Dutch navigators in search of a shorter route from the Cape of Good Hope to Batavia (now Jakarta). In 1696, William de Vlamingh, searching for a missing ship, landed on and explored Wadjemup/ Rottnest Island.⁶ The most common story about Wadjemup's colonial name ascribes it to Willem de Vlamingh who, on 29 December 1696, mistook quokkas for large rats ('rattenest': 'rat's nest').⁷

Rottnest Island Authority, 2018, Source: https://rottnestisland.com/the-island/about-the-island/our-history/aboriginal-history, Accessed 2020.

TPG for RIA, 'Rottnest Island (Wadjemup) Cultural Landscape Management Plan', May 2015, pp.9-10

Rottnest Island Authority, 2018, Source: https://rottnestisland.com/the-island/about-the-island/our-history/aboriginal-history, Accessed 2020.

Dortch, Charles & Joe Dortch 2012, 'Archaeological evidence for early human presence in the western reaches of the Greater Swan Region, WA', *Fremantle Studies*, 7: 51-76; Dortch, Joe & Dortch, Charles 2019, Late Quaternary Aboriginal hunter-gatherer occupation of the Greater Swan Region, south-western Australia, *Australian Archaeology*, 85:1, 15-29

⁶ TPG op cit, p.15

Somerville, W., Rottnest Island: Its History and Legends (Perth: Rottnest Board, 1948), p. 31, citing Extract from the Journals of a Voyage Made to the Unexplored South Land... (Amsterdam, 1701); Joske, P., Jeffrey, C., & Hoffman, L., Rottnest Island: a Documentary History (Nedlands: Centre for Migration and Development Studies, UWA, 1995), pp. 10-11, 18

After the establishment by the British of the Swan River Colony in 1829, Europeans soon settled on Wadjemup/ Rottnest Island, attracted by the prospects of salt harvesting, farming and fishing. William Nairne Clarke and Robert Thomson were the first to take up town lots and pastureland on the island⁸.

Aboriginal Prison Period (1839 – 1902)

In June 1839, the Colonial Secretary announced in June 1839 that Rottnest Island would become a penal establishment for Aboriginal people. The Crown resumed all land⁹ and restricted access to the Island, compensating settlers with property on the mainland. For almost a century the place served as a prison for Aboriginal men and boys. During its time as a prison, some 3,700 Aboriginal men and boys, from many parts of the State, were held there.¹⁰

One of the consequences of the Aboriginal Prison period was that Wadjemup/Rottnest Island was almost entirely developed by forced Aboriginal labour. Over the prison period, the prisoners constructed a large number of buildings and other structures including the seawall and lighthouses.¹¹

Oliver Hill was named after Mr. Adam Oliver who was a gaol warder in the 1860s. 12

The Rottnest Aboriginal prison formally closed in 1902, as regional gaols were being used instead for the detention of Aboriginal prisoners. ¹³ Fremantle Prison continued to use the island as an annex until 1931. Closure turned the attention of the public and the Government to Wadjemup/ Rottnest Island's possibilities as a leisure destination.

Holiday Playground (1902 - Present)

From 1902, ferries carried tourists to Wadjemup/Rottnest Island on Sundays. During these times visitors and prisoners were kept well apart. In 1907 plans for transforming Wadjemup/Rottnest Island from a prison settlement to a recreation and holiday Island were drawn up by the Colonial Secretary's Department.¹⁴

In 1917 Rottnest Island was declared an A-Class Reserve (excluding the lighthouses and prison) under the *Parks and Reserves Act* (1895) and the Rottnest Board of Control was formed. ¹⁵ A series of improvements to the facilities across the island were progressively implemented, including the conversion of many prison buildings into tourist accommodation, offices and facilities, tree planting and the construction of tea rooms, stores and additional accommodation. ¹⁶ Recreational and holiday pursuits have continued on Wadjemup/Rottnest Island from 1902 to the present day except for its closure during the World Wars for military functions and during the 2020 COVID-19 pandemic.

⁸ Ferguson, Rottnest Island, p. 7

⁹ Government Gazette, 1 June 1839

¹⁰ TPG op cit., p.28

¹¹ TPG op cit., p.28.

Rottnest Island Authority, undated, Rottnest Island Oliver Hill Battery Heritage Trail.

In 1881 the State Government established the Rottnest Island Boys' Reformatory for colonial boys adjacent to, but separate from, the Aboriginal Prison. The Reformatory operated for 20 years and closed in 1901.

Somerville, Rottnest Island, p. 94

¹⁵ TPG op cit., p.46

¹⁶ TPG op cit., p.46

Oliver Hill Battery, Wadjemup/ Rottnest Island forms part of a series of former military sites across Wadjemup/Rottnest Island valued and visited for their contribution to the defence of the Fremantle Harbour during World War II. As a tourist and education site, it is closely associated with the Battery Observation Post (BOP) and the Port War Signal Station (PWSS) located nearby at Signal Ridge to the west, and the sites of P3321 Bickley Battery and P525 Kingstown Barracks (RHP), in the south-east, which together formed a valuable part of the coastal defence system.

Military Operations

World War I

World War I was declared on 4 August 1914. Rottnest Island was commandeered for use as an Internment Camp by the Department of Defence. Rottnest Camp, was located in the north of the Thomson Bay Settlement area, but only operated until November 1915.¹⁷ The Defence Department handed the island back to State Government control in December 1915.

Rottnest Island Fortress (1935 – 1945)

As early as 1925, it was recognised by the governments of both Australia and Great Britain that Australia's coastal defences, including Fremantle, required improvement, and recommendations were made to the Commonwealth Government by the Committee of Imperial Defence. However, despite the priority given to defend vulnerable points along the Australian coastline, by early 1934 limited improvements had been made at Darwin, and little had been done to improve the defences at Fremantle.¹⁸

As the international situation in Europe deteriorated during the 1930s, the Australian Military Board submitted an urgent Minute to the Minister for Defence on 17 April 1934 recommending that the British Chief of the Imperial General Staff be requested to expedite the conversion and despatch of 9.2 inch (9.2") guns for Sydney and Fremantle.¹⁹

At the July 1934 meeting of the Defence Committee, the Chief of the Australian Naval Staff, Vice Admiral Sir Francis Hyde, expressed the view that as Fremantle had now been decided upon as the Convoy Assembly Port, it should figure next to Sydney in priority for the completion of its Coastal Defences. The Chief of the Australian General Staff, Major-General Bruche stated that it was the intention that Sydney would receive the first two Batteries of 9.2" guns on order and the next Battery would go to Rottnest Island.²⁰

This strategy of coastal defence using 9.2-inch guns was based on the view that the likely aggressor - the Japanese - would be deterred by the presence of

Between 1914 and 1926, and again between 1939 and 1971, all immigrants or 'aliens' to Australia who were not British subjects were required to register with authorities following the outbreak of war. Aliens were classified according to their nationality in the following categories: Allied, Neutral, Indeterminate and Enemy. Approximately 700 men of Serbian, Croatian and Dalmatian background were held at Rottnest Camp. Source: National Archives of Australia, http://www.naa.gov.au, Accessed August 2020.

Engineers Australia, Western Australia Division, August 2010 (March 2011 version), Nomination of Fremantle Fortress - Rottnest Island WW2 Coastal Defence Facilities for a Engineering Heritage National Landmark, p. 9.; Australian Military Board Minute Agenda No. 26/1934 dated 17/4/1934

¹⁹ ibio

Defence Committee Minute No. 46/1934 dated 19/7/1934

the British base at Singapore from sending battleships and aircraft carriers south to Australia. The most likely Japanese attack force would comprise cruisers, armed merchant vessels, submarines, and aircraft carried on these vessels, which could be dealt with by the planned 9.2-inch guns. However, as Japanese cruisers were restricted to 8-inch guns, under the terms of the Washington Agreement, and as these guns outranged the 9.2-inch coast guns by some 1,200 yards, the coast gun positions needed to be at least that distance forward of the areas they were to protect. In addition, to provide close protection against enemy craft that might venture closer to harbour facilities, the 6-inch guns, with their lower trajectory and faster rate of fire, were also necessary, as well as various anti-aircraft weapons.²¹

A preliminary reconnaissance of Wadjemup/ Rottnest Island to select the sites for the 9.2" and 6" gun batteries was conducted by Lieutenant-General Sir J.J. Talbot Hobbs, Brigadier Martin, Major Pain and Lieutenant Hussey during late May 1934.²² A further and more involved report on the 'Rottnest Defences' was prepared by Major Pain and Lieutenant Hussey on 10 September 1934.²³

In late September, the Prime Minister informed the Western Australian Premier:

I desire to inform you that it is proposed to proceed in the near future with certain important fortification works on Rottnest Island for the protection of the Port of Fremantle. When the plans are further advanced you will be advised in greater detail, especially as to the areas of land which will be used for barrack and armament sites. In the meantime it may be assumed that the work to be undertaken will not only not cause any detriment to the island as a holiday resort, but will add considerably to its interest in this respect.²⁴

The construction of new facilities at both Wadjemup/ Rottnest Island and Meeandip/ Garden Island in addition to the works to the mainland to extend the existing coastal defence system for the Port of Fremantle created what became known as the 'Fremantle Fortress'.²⁵

Major construction works on the 'Rottnest Island Fortress' commenced in 1935. The jetty located at the southern end of Thomson Bay was extended and a heavy lift overhead gantry was installed. A narrow gauge railway connecting the Army Jetty with P525 *Kingstown Barracks* (RHP), and Bickley and Oliver Hill Batteries was completed in April 1936. To save costs, sleepers, rails, fish plates, dog spikes and ten sets of points and crossings were removed from the disused Henderson Naval Base. Additional second hand rails were purchased from Western Australian Government Railways. The railway was manned by army personnel and initially used to carry all the heavy equipment up to Oliver Hill and

David Homer, *The Gunners: A History of Australian Artillery*, Allen and Unwin, Sydney, 1995, p 204-205, cited in Palassis Architects, 2005, Oliver Hill Battery Conservation Plan, p. 8

²² NAA: CRS/B197, File No. 1855/1/192

²³ NAA: CRS/B197, File No. 1855/1/215

cited Ferguson, Rottnest Island, p. 95

Engineers Australia, 2010 op cit, p. 3.

²⁶ Palassis, 2005 op cit., p. 9.

²⁷ NAA: MP729/6, File No. 23/406/65; Palassis, 2005, op cit., p. 9.

DOI Bill of Quantities and Estimate for Construction of a Railway at Rottnest Island dated 3/9/1935

²⁹ Palassis, 2005 op cit., p. 9.

Bickley Batteries.³⁰ The embankments and sand hill cuttings were replanted and camouflaged with the assistance of the State Government botanist.³¹

Completed in September 1937, P525 *Kingstown Barracks* (RHP) was occupied by the 6th Heavy Battery RAA and the 5th Fortress Company RAE. The Barracks complex was expanded in 1938.³²

Four Fortress Observation Posts (FOP) were constructed at Bare Hill, Tree Hill, Mt Herschell and Cape Vlaming. A three story Battery Observation Post (BOP) and the Port War Signal Station (PWSS) were constructed at Signal Ridge in 1938, along with a timber barracks building for the contingent of Women's Royal Australian Navy Services (WRANS) deployed there.³³

Six searchlights with their own engine houses were also installed at strategic locations around Wadjemup/ Rottnest Island³⁴ to provide illumination so that the guns could be fired at night.

The Fremantle Fortress formed part of a network of batteries established across Australia. A total of seven 9.2 inch gun batteries were constructed in Australia before and during World War II, including those at Wadjemup/ Rottnest Island and Garden Island, one in the Northern Territory at Darwin, and four in New South Wales.³⁵ Several 6 inch guns were installed at batteries on Wadjemup/ Rottnest Island (Bickley Battery), Buckland Hill, Swanbourne and Fremantle, and in Queensland and New South Wales.³⁶

Construction of Oliver Hill Battery

The majority of the construction at *Oliver Hill Battery, Wadjemup /Rottnest Island,* including the tunnels, buildings, concrete emplacement structures, engine rooms and search light emplacements was undertaken by civilian contractors, with specialised work performed by military personnel.³⁷ Construction of the Oliver Hill Battery complex was challenging due to both the isolation of the post as well as the limited facilities and transport. All materials other than sand and water were required to be transported by barge from Fremantle, and shipments were delayed by a number of factors, including poor weather, the sinking of one of the barges and the weight of the individual elements for installation.³⁸

Construction of the gun emplacements commenced in March 1936 and was completed in December 1937. The work was undertaken by Contractor F.J.

The line was later extended to quarries, gun sites and other construction sites.

GB Hill & Partners Pty Ltd, November 1995, Oliver Hill Battery Conservation Assessment, for Rottnest Island Authority, p. 10; Rottnest Island Authority brochure 'Rottnest Island Oliver Hill Battery'

³¹ Palassis, 2005 op cit., p. 9.

P3321 Bickley Battery is located within the registered curtilage of P525 *Kingstown Barracks* (RHP) NAA: K1067/118

GB Hill and Partners, 1995, op cit. p 12; NAA: 1855//1/215, 1906-1935; Engineers Australia, 2010, op cit., p. 26.

Phillip Point, Thomson Bay, Bickley Point, North Point, Cape Vlamingh and Kitson Point

North Head, Sydney Harbour; Cape Banks, La Perouse; Fort Drummond, Wollongong; and Fort Wallace, Newcastle

Engineers Australia, 2010 op cit, pp. 3, 10; Palassis 2005, op cit., p. 8.

GB Hill and Partners, 1995, op cit. p 11.

A complete gun turret and all its components weighed 142.2 tonnes.

GB Hill and Partners, 1995, op cit., p. 10; Rottnest Island Authority brochure 'Rottnest Island Oliver Hill Battery'

Deacon at a cost of £55,344, under the supervision of Captain (later Brigadier) Frank Hussey of the No.5 Fortress Company, Royal Australian Engineers (RAE).³⁹ Captain Hussey had previously carried out the initial site surveys of the island.

The two 9.2" guns (H1 and H2), each weighing approximately 28 tons, and were transported to Fremantle separately in 1937; H1 aboard MV Wairangi and H2 on MV Karamia. Each gun, its mountings, sights and sundry equipment cost £40,400.⁴⁰ The 9.2" H1 gun barrel was manufactured in 1901 by Elswick Ordnance Company (UK) and was originally supplied to the Royal Navy, for use in Hong Kong. The breach block was manufactured by the Elswick Ordinance Co. The gun was transferred to the British Army for land service in 1910.⁴¹ The 9.2" H2 gun had been used by the British Army at Portland Harbour in the United Kingdom in 1919. The breach block is stamped 1902.⁴².

H1 and H2 were installed in 1937 and 1938 respectively by the No. 6 Heavy Battery of the Royal Australian Artillery under the supervision of Major F. Nurse and Warrant Officer Gallagher⁴³. A gantry was transported from Sydney and temporarily erected over the emplacements to enable the installation.⁴⁴

The two 9.2" guns were proof fired on 21 November 1938. In 1939, the 9.2" guns were fitted with fire control equipment and searchlights were erected. The guns had an effective range of about 29,000 metres and their primary role was counter bombardment.⁴⁵

The power house (Engine Room) equipment was installed by the Royal Australian Engineers under Warrant Officer Lake by 1938. The underground combined Fortress and Battery Plotting Room was constructed from the surface by open excavation, and completed in November 1939. Armoured underground electrical cables allowed the transmission of target bearings to the Fortress and Battery Plotting Room from the Fortress observation posts across the island.⁴⁶ Due to delays, the artillery fire control equipment was not operational at Oliver Hill until late circa 1940 or early 1941.⁴⁷

The following description of the individual elements installed at *Oliver Hill Battery, Wadjemup /Rottnest Island* is taken from the Oliver Hill Battery Conservation Plan.

The surface features of the Battery comprised the two 9.2-inch guns, the steel gun housing and gun pit below, as well as the crew shelter and gun store. Below ground structures included the Pump Chamber, Shell Store, Cordite Room, Engine Room, Casualty Clearing Station, connecting tunnels and the Fortress and Battery Plotting Rooms- were built after open excavation of the site, with soil and planting replaced over these on completion of the works. Reinforced

Engineers Australia, 2010 op cit, pp. 3, 10, 14.

GB Hill and Partners, 1995, cited in Engineers Australia, 2010 op cit, p. 14

GB Hill and Partners, 1995, cited in Engineers Australia, 2010 op cit, p. 14

Engineers Australia, 2010 op cit, p 14.

Engineers Australia, 2010 op cit, p. 14.

⁴⁴ GB Hill & Partners Pty Ltd, 1995, op cit., p. 10

Bickley Battery with two 6" guns was proof fired on 25 July 1939, and fully operational from December 1939. Its primary role was close defence of the shipping channel known as the South Passage between Wadjemup and Carnac Island.

The Coast Defences of Western Australia 1826-1963: R.K. Glyde, 1995 unpublished

⁴⁶ GB Hill & Partners Pty Ltd, 1995, op cit., pp. 10-11, 14, 22

⁴⁷ GB Hill & Partners Pty Ltd, 1995, op cit., pp. 10, 11, 14

concrete construction was the building material adopted throughout, with the roof over the engine room, pump chamber, magazines and plotting rooms constructed using folded steel sheeting, over which reinforced concrete was placed. 48

There were two 9.2-inch BL MkX guns (on MkVII mountings) on Oliver Hill, with the easternmost HI situated on the 129-foot contour line, while H2 was located on the 107-foot contour. Both of these guns, as well as other above-ground structures, were concealed with camouflage netting. The Close Defence Battery Observation Post (CDBOP) was sited on the highest point of the [Wadjemup] Hill. In normal circumstances, the guns were electrically and hydraulically operated, although they could be manually operated in an emergency. The electrical supply was provided by an underground engine room situated between the two gun emplacements- at a point known as 'Hell's Gully'- the place to which the light railway ran. Power was supplied from two 180 HP 6 VCR Ruston Hornsby diesel engines, directly coupled to a DC generator producing 440 volt power. From the generating equipment, electric power was distributed to a pump chamber at each gun, where high pressure oil was used to position the gun, as well as operating the gun hoist, loading and wash out gear. 49

Also constructed at Oliver Hill were two dummy guns and a dummy railway line made from old sleepers and lengths of jarrah timber. These decoys, built on the high ground north of the Battery Parade Ground, were camouflaged with wire netting, and scrimmed with painted off-cuts of sheet metal.⁵⁰ They were later removed and installed some distance from Oliver Hill.⁵¹

World War II

On Sunday 3 September 1939 the two Rottnest Island Batteries together with the 6" Batteries at Swanbourne and Arthur's Head, Fremantle were placed on war alert. In June 1940 Rottnest was declared a prohibited area and all recreational activity ended.⁵²

When Japan entered the war on 7 December 1941 a general strengthening of all gun batteries took place. However, as there was a shortage of manpower due the requirement for military reinforcements in Darwin and the newly commissioned batteries in Timor and New Guinea, Bickley Battery received its first posting of 30 Australian Women's Army Service personnel. They were billeted at Bickley Swamp and commanded by an AWAS Lieutenant.⁵³ In 1942 fifty Australian Women's Army Services (AWAS) personnel were sent to Wadjemup/ Rottnest Island to operate the underground Plotting Rooms at Oliver Hill Battery. They were temporarily housed in the married quarters at P525 *Kingstown Barracks* (RHP) before purpose built barracks were constructed at Oliver Hill.⁵⁴

Hill and Partners, Oliver Hill Battery Conservation Assessment, p. 22., cited in Palassis, 2005, op cit., p. 11

Clyde, The Coast Defences of Western Australia, p. 98, cited in Palassis, 2005, op cit., p. 12

From the account of John Houlton, 'Bickley Battery, Rottnest Island', in Joske et al, Rottnest Island, pp. 271-272, cited in Palassis, 2005, op cit., p. 12.

⁵¹ Palassis, 2005, op cit., pp. 11-12.

West Australian, 11 September 1940

Brief on Rottnest Island for the Visit by the Hon. L.H Barnard, Minister for Defence on 3 August 1974

Other women deployed at Wademup included the Women's Royal Australian Navy Services (WRANS) who operated the Port War Signal Station on Signal Ridge (Wadjemup Hill) Palassis, 2005, op cit., p. 11

Although the inner approaches to the Port of Fremantle were well protected by the existing facilities, additional batteries were installed on Meeandip/ Garden Island, Fremantle Harbour, Leighton and Swanbourne (north of Fremantle) and P3365 *Cape Peron K Battery Complex* (RHP) (south of Meeandip/ Garden Island) during the war. The Fremantle Fortress, and in particular the two Wadjemup/Rottnest Island batteries, provided long range protection against potential damage to the Port delivered by ship-borne long range guns.⁵⁵ The specific role of *Oliver Hill Battery, Wadjemup /Rottnest Island* was counter bombardment for targets in excess of 10,000 yards. Operating with a 360 degree traverse and a maximum range of 29,500 yards, the guns provided protection for vessels awaiting entry into the Port of Fremantle.⁵⁶

Throughout the war all gun batteries in the Fremantle Fortress, including *Oliver Hill Battery*, were controlled from the combined Battery Observation Post/Fortress Fire Command building, located at Signal Ridge, near P3254 *Rottnest Island Light Station* (RHP). The Battery Observation Post was located on the top floor and it was from here that the Battery Commander co-ordinated the fire of the guns from Oliver Hill, in concert with the commanders and staff located on the other floors who collectively managed the remaining gun batteries in the Fremantle Fortress.⁵⁷

Oliver Hill Battery, Wadjemup /Rottnest Island never fired a shot in anger throughout World War II. A shift in focus saw a decline in Australia's involvement in the Pacific in 1944. Oliver Hill Battery, Wadjemup /Rottnest Island ceased operational duties on 1 December 1944. In January 1945, the Commonwealth War Cabinet directed the majority of coastal defence equipment at Fremantle be placed in 'care and maintenance'. Oliver Hill Battery, Wadjemup /Rottnest Island and Bickley Battery were each placed in combat storage, and their full-time troops disbanded or transferred. By December 1945, tourists were once again visiting Wadjemup/ Rottnest Island.

Post World War II

In 1960, the derelict Oliver Hill railway, used to transport the guns and infrastructure to the site and which had been buried in sand and vegetation, was reinstated. No. 44 Railway Squadron RAE, in a mission code-named 'Operation Quokka', removed the 9.2" ammunition stored on site and transported it to the Army Jetty via the railway. The heavy calibre artillery shells, weighing approximately 100 tons, were then disposed of at sea.⁶¹

All remaining underground equipment at *Oliver Hill Battery, Wadjemup /Rottnest Island*, including diesel engines and generators, was removed in 1963. All guns remaining on Wadjemup/ Rottnest Island, with the exception of those at *Oliver Hill*

⁵⁵ Engineers Australia, 2010 op cit, p. 3.

GB Hill & Partners Pty Ltd, 1995, op cit., p. 9

⁵⁷ Palassis, 2005, op cit., p. 12

⁵⁸ Palassis, 2005, op cit., p. 13.

Palassis, 2005, op cit., p. 13; The Coast Defences of Western Australia 1826-1963: R.K. Glyde, 1995, unpublished

Joske, Jeffery & Hoffman, Rottnest Island, p. 277

⁶¹ Palassis, 2005, op cit., p. 13

Battery, Wadjemup /Rottnest Island, were dismantled the same year.⁶² The H1 and H2 guns at Oliver Hill Battery, Wadjemup /Rottnest Island remained in situ.

Heritage and Tourism

The Oliver Hill Battery, including the original 9.2" guns and supporting infrastructure, was classified by the National Trust in 1980, and included on the Register of the National Estate in 1982.

Restoration work to the H1 gun, partly funded by a Commonwealth Bicentennial Grant of \$60,000, was undertaken in 1986, with the assistance of the 5th Military District Workshop Company Royal Australian Electrical Mechanical Engineers and other volunteers. Further work was undertaken in 1990, including the installation of interpretation. From 1989, the guns and tunnels of *Oliver Hill Battery, Wadjemup /Rottnest Island* have been tourist attraction on the island.

Oliver Hill Battery, Wadjemup /Rottnest Island was entered in the State Register of Heritage Places on an interim basis in 1992.

In 2000, refurbishment of the H1 gun was undertaken by Clifton Coney Stevens, Taywood Engineering Ltd. and BMP Industrial Pty. Ltd., at a cost of approximately \$135,000.65 In 2004, the Rottnest Island Foundation obtained funds under the 2003/04 Lotterywest Conservation of Cultural Heritage Grants Program for the conservation of the Battery Observation Post. In 2005 a Conservation Plan was prepared for Oliver Hill Battery on behalf of the Rottnest Island Authority by Palassis Architects.

In 2010, Engineering Heritage Australia awarded the Fremantle Fortress – Rottnest Island WW2 Coastal Defence Facilities, including *Oliver Hill Battery, Wadjemup /Rottnest Island*, its highest accolade of Engineering Heritage National Landmark in recognition of the significant technical achievement in installing the facilities and the considerable social significance that the place holds for many ex-service men and women who served on Wadjemup/ Rottnest Island during World War II.⁶⁶

In 2013 the Rottnest Island Authority undertook urgent conservation works to the guns and tunnels at *Oliver Hill Battery, Wadjemup /Rottnest Island*. The works included concrete repair at various locations at H1 and H2, repairs to and replacement of the drainage system to both gun pits, replacement of steel gun doors, repainting and installation of camouflage netting. The 1.2 million dollar refurbishment included works to both *Oliver Hill Battery, Wadjemup /Rottnest Island* and Bickley Battery and was completed in time for celebration of 75 years of artillery in Western Australia at Wadjemup/ Rottnest Island, which also marked

The guns at Bickley Battery were sold for scrap. The fittings were removed and the gun was cut into pieces. Two sections of the barrel were left near the mounting and a second barrel were buried in the sand until they were salvaged for refurbishment in 1980 by the Australian Army. Naval Historical Society of Australia, Source: https://www.navyhistory.org.au/ww2-bickley-naval-guns-at-rottnest-island-w-a/2/, Accessed November 2020.

GB Hill & Partners Pty Ltd, 1995, op cit., p. 9

⁶⁴ Palassis, 2005, op cit., p. 14

⁶⁵ ibid

Engineers Australia, Western Australia Division, Fremantle Fortress - Rottnest Island WW2 Coastal Defence Facilities Engineering Heritage National Landmark, November 2010.

the 75th anniversary of the proofing of the gun in readiness for work in World War II.⁶⁷

In 2014 Rottnest Island Authority was awarded a Western Australian Heritage Award for 'Outstanding conservation of a non-residential place' for the Rottnest Island WWII Defence Establishment, Rottnest Island, for the work undertaken at Oliver Hill Battery, Wadjemup /Rottnest Island, and Bickley Battery.⁶⁸

In 2021, tours by the Rottnest Island Voluntary Guides continue to take visitors through the underground tunnels and to view the restored H1 and H2 guns.⁶⁹

13. 2 PHYSICAL EVIDENCE

Oliver Hill Battery, Wadjemup/ Rottnest Island comprises two 9.2" breech loading guns and their emplacements and underground facilities, railway lines and paths, archaeological features and remnant structures located in and around the undulating landscape of Oliver Hill which formed part of the coastal defence system established during World War II to defend the Port of Fremantle.

The place is located across an area of approximately 44.74 hectares over Oliver Hill, approximately 3 kilometres west of P516 *Thomson Bay Settlement, Wadjemup/ Rottnest Island* (RHP) and 800 metres to the east of P3254 *Rottnest Island Light Station* (RHP) on the adjacent Wadjemup Hill. The airstrip, P516 *Thomson Bay Settlement, Wadjemup/ Rottnest Island* (RHP) and the mainland can all be seen from Oliver Hill Viewpoint, however the dominant features comprise the Battery Observation Point on Signal Ridge, Lake Serpentine and Government House Lake beyond.

Oliver Hill comprises two spurs orientated in a north-east direction. The eastern most spur houses the Oliver Hill Battery H1 gun emplacement and the western most spur houses the Oliver Hill Battery H2 gun emplacement. 'Hell's Gully' runs between the two.

These gun emplacements provide the dominant features of the site and along with the site of the former 'dummy guns', also located on these spurs, provide excellent viewing locations. The underground magazines, pump chambers, engine room, tunnels and plotting rooms, which illustrate the facilities required to make the guns operational, are largely concealed from view. Entries to the underground facilities and ventilation cylinders are discernible at close range.

A series of pathways and steps connects these facilities across the site. Railway lines, which originally accessed the gun emplacements and underground facilities, are in evidence throughout the site...

...The passenger railway, the road and the walking track meet approximately 100 metres to the south-west of HI gun emplacement and terminate at the Oliver Hill Train Station and the bitumen turning circle adjacent to the HI Gun emplacement.

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Weekend Notes, 2013, Project 2013 - Commemoration of Artillery, Source: https://www.weekendnotes.com/project-commemoration-of-artillery/, Accessed October 2020

Government of Western Australia, 20147, Media Statements, Outstanding heritage projects awarded, https://www.mediastatements.wa.gov.au/Pages/Barnett/2014/04/Outstanding-heritage-projects-awarded.aspx, Accessed October 2020.

Oliver Hill was closed in October 2020 for construction works Source: Rottnest Island Authority.

There are a number of historic structures still extant on site. Only the H1 Gun emplacement and associated underground magazine and pump chamber, tunnels and engine room are available for (guided) public access. These facilities have been fitted with interpretive signage and panels.⁷⁰

The following elements are located on Oliver Hill and are associated with the wartime operations of the *Oliver Hill Battery, Wadjemup/ Rottnest Island*. The two 9.2" guns H1 and H2 and their associated infrastructure are addressed separately due to differences in condition and public access, although the operation was the same. Each gun location comprised a reinforced concrete gun store and crew shelter about a small parade ground.⁷¹ Below ground structures including the Pump Room, shell Magazine, cordite Magazine and Casualty Clearing Station. H1 was also connected via underground tunnels to the Engine Room, while H2 was connected to the Fortress and Battery Plotting Room.⁷²

H1 Gun and associated infrastructure

The element comprises

- Gun emplacement including 9.2" gun piece, gun platform and gun pit
- H1 Gun Store and Crew Shelter
- H1 underground tunnels, Magazine, Casualty Clearing Station, Pump Chamber and Engine Room

The H1 gun is intact. The remnant fabric includes the original H1 gun and revolving Gun House or turret, gun barrel, breech mechanism, operating levers, and steel operating mechanisms.⁷³ The following description is taken from the 2005 Conservation Plan.

The surviving fabric includes the original guns and revolving gun platform, including the gun piece, breech mechanism, operation levers, gun elevation mechanism (to raise the gun from 5 degrees depression to 35 degrees elevation), ammunition hoist from the gun pit, hydraulic rammer and recoil mechanism. The lower gun pit contains the gun pedestal and mechanism, including hydraulic oil motors to swivel the gun through 360 degrees. The gun pit also contains ammunition trolleys and the fire doors to the no longer extant ammunition hoist in the magazine below. There are several gun shells (which appear to be either replicas or solid training rounds) on display.

In addition to the gun emplacements, the underground structures are constructed of reinforced concrete, which has been painted a cream colour. The roofs to magazines, engine room and pump rooms comprise steel C-section sheeting, placed alternatively upwards and downwards to support the reinforced concrete above. The magazines each contain separate rooms for handling the cordite and shells and the mechanical hoist to lift these to the gun pit above. The below ground pump chambers no longer contain any equipment.⁷⁴

⁷⁰ Palassis, 2005, op cit., p. 32

⁷¹ Palassis, 2005, op cit., pp. 35-6

GB Hill & Partners Pty Ltd, 1995, op cit., p.22.

GB Hill & Partners Pty Ltd, 1995, op cit., p. 35

⁷⁴ Palassis, 2005, op cit., pp. 35-6

Following the 2000 conservation works, the H1 gun and underground tunnels and rooms were stabilised. The steel components were painted light green and the concrete components a cream colour. Additional works were undertaken during the 2013 conservation works to repair concrete, metal conservation to the guns including the reinstatement of the original colour scheme and interpretation of the camouflage paint scheme.

The Crew Shelter includes an interpretative display and photographs and forms the starting point for the guided tour, while visitor's belongings can be stored in the former Gun Store during the tour.⁷⁷

An external flight of concrete stairs, with steel balustrade, descending to the west of H1, provides access to the underground facilities of Casualty Clearing Station and a tunnel which leads to the Magazine and Pump Chamber. Another entrance accesses a tunnel in the valley to the west of H1, which leads to the Engine Room and up into the Magazine.

H2 Gun and associated infrastructure

The element comprises

- Gun Emplacement including 9.2" gun piece, gun platform and gun pit
- H2 Gun Store and Crew Shelter
- H2 underground tunnels, Magazine, Casualty Clearing Station and Pump Chamber

Conservation, stabilisation and repair works were undertaken on the H2 gun housing and barrels in 2013. The steel components were painted dark green.

The underground facilities for H2 are located south-west of H2. The steel service entry door accesses the Casualty Clearing Station and a tunnel which leads to the Magazine and Pump Chamber.⁸⁰

Engine room

The underground Engine Room is located in the valley between H1 and H2, and is accessed via tunnels from H1. Constructed in reinforced concrete, with cream walls, the roof comprises folded steel sheeting, over which the reinforced concrete was installed.⁸¹

The two diesel engines, generators and control systems which powered both H1 and H2 guns were removed in 1963, although evidence of the concrete housing for the engines is still extant. Interpretation panels are mounted on the walls of the room.⁸² The underground cables to H1 and H2 are thought to remain extant.

⁷⁵ Engineers Australia, 2010 op cit., p. 14

⁷⁶ Palassis, 2005, op cit., p. 36

Engineers Australia, 2010 op cit., p. 14

This entrance was the entry point for the delivery of shells and cordite. GB Hill & Partners Pty Ltd, 1995, op cit., p. 24

This entrance was widened to provide access for stretcher cases and first aid facilties. GB Hill & Partners Pty Ltd, 1995, op cit., p. 24; Palassis, 2005, op cit., p. 36

⁸⁰ Palassis, 2005, op cit., p. 36

⁸¹ GB Hill & Partners Pty Ltd, 1995, op cit., p. 22, Palassis, 2005, op cit., p. 36

Engineers Australia, 2010 op cit., p. 14

Battery Plotting Rooms

The underground Battery Plotting Rooms are located separately in a valley south of H2, and accessed via a single above ground entry point. No equipment associated with the operation of the Battery is located in this area and they are not open to the public.⁸³

Remnant Structures/Ruins

Evidence of the following elements, in varying degrees of condition and intactness, are still present within the curtilage of *Oliver Hill Battery, Wadjemup/ Rottnest Island*.

- Dummy guns 1 and 2; located on the northern-most point of each spur.
- (Gunner's) Cottages No.1 and No. 2
- Water tanks
- Workshop
- Latrine block
- Oil & Paint store
- Skidding store
- Close defence battery observation post
- Remnant rail lines visible in Hell's Gully and adjacent to H1 gun emplacement, and may be present in other locations.

Although the elements are no longer structurally intact, it is likely that archaeological artefacts or deposits are present in these locations.

Remnant elements, including railway embankments, vents, trenches, weapon pits, gun placements, dugouts and bunkers, are present in various states of ruin across the place. Remnants of the boundary fence, comprising barbwire fencing on timber posts and star pickets are also present.⁸⁴

AWAS Barracks and Camp Sites

The accommodation facilities located at *Oliver Hill Battery, Wadjemup/ Rottnest Island* are no longer extant. The men stationed at Oliver Hill Battery were accommodated in a campsite west of H2 Gun. Substantial concrete footings, water tanks, trenches, dugouts and bunker remnants are present across the area.

The members of the AWAS who operated Oliver Hill Battery were apparently housed in hutted accommodation north of *Oliver Hill Battery, Wadjemup/ Rottnest Island*. Other sources suggest the AWAS camp was located just south of the H1 gun. Evidence of footings, brick fragments and other building remnants are located across the area.

⁸³ Engineers Australia, 2010 op cit., p. 14; Palassis, 2005, op cit., p. 36

⁸⁴ GB Hill & Partners Pty Ltd, 1995, op cit., p. 54; Palassis, 2005, op cit., p. 49

⁸⁵ GB Hill & Partners Pty Ltd, 1995, op cit., p. 32

Hand drawn map displayed in military exhibit in Salt Store Museum, Wadjemup/ Rottnest Island. Investigation into archival records are likely to provide further information on this matter.

Archaeology

It is likely that there are intact archaeological deposits and low to moderate artefact scatters dating from colonial settlement to the present within the curtilage of *Oliver Hill Battery, Wadjemup/ Rottnest Island*. Archaeological investigation within the area is likely to reveal further information regarding operation of *Oliver Hill Battery, Wadjemup/ Rottnest Island*. Archaeological elements may be associated with the construction, operation and decommissioning phases of the battery railway line, including but not limited to: the barracks, cottages and other building remnants across the site; anti-aircraft guns; search light positions; the underground electrical cables between built elements. The archaeological features associated with the site of the camp, west of the gun emplacements, are likely to be intact.

Aboriginal artefacts have been found elsewhere on Wadjmeup/ Rottnest Island and it is possible that artefacts or other evidence of occupation may be present within the curtilage of *Oliver Hill Battery, Wadjemup/ Rottnest Island*. Additional information on the colonial farming occupation, and the long-term use of the island as a holiday destination is also likely to be discernible from the archaeological record. The significance (or research potential) of areas of known and potential archaeology, including those which comprise Aboriginal, non-Aboriginal and both values has not yet been comprehensively assessed.

Visitor Facilities

The modern Oliver Hill Station comprises a brick paved station platform and a white picket fence, located at the end of the rail line below H1 gun. A timber picnic shelter, modern toilet block and signage have been erected for the use of tourists. Interpretation panels and exhibits have been installed in and around the H1 gun, Crew Shelter, Gun Store, Tunnel and Engine Room. New paths have also been constructed to two lookouts to each gun.

13. 3 COMPARATIVE INFORMATION

Principal Australian Historic Theme(s)

• 7.6.12	Conserving Australia's heritage
• 7.7.1	Providing for the common defence
7.7.3	Going to war
8.1.4	Enjoying a natural environment

Heritage Council of Western Australia Theme(s)

•	501	World Wars and Other Wars

• 506 Tourism

Comparative Analysis

Six other 9.2" gun batteries were constructed in Australia before and during World War II, including one other in Western Australia at Meeandip/ Garden Island, one in the Northern Territory at Darwin, and four in New South Wales at North Head, Sydney Harbour; Cape Banks, La Perouse; Fort Drummond, Wollongong; and Fort

Wallace, Newcastle. Six inch guns were also installed in Brisbane Port, Sydney Harbour, Botany Bay and elsewhere at Wadjemup/ Rottnest Island.⁸⁷

In 1946, all the 9.2" batteries around Australia were placed in storage condition, except those at North Head (NSW) and Meeandip/ Garden Island (WA), which were maintained for training purposes. As a result, the majority of 9.2" guns in Australia were scrapped or removed from their locations during decommissioning. In most cases, the batteries themselves are no longer extant or still in Defence ownership and have restricted access. North Head Battery in Sydney is the site of a National Artillery Museum, which conducts tours of the complex and underground tunnels, however its guns are no longer extant.⁸⁸

Elsewhere, gun battery sites retaining 9.2" guns in situ and operate as tourist attractions are located in O'Hara in Gibraltar and on Robben Island in South Africa. Other tourist attractions are located in Sydney (North Head Battery), Darwin, New Zealand, Canada, Hong Kong and Singapore although the 9.2" guns are no longer extant. Pre-World War II guns are retained in situ in Bermuda.⁸⁹

Oliver Hill Battery, Wadjemup/ Rottnest Island is the only example in Australia of a gun battery with 9.2" guns remaining in situ. It is also one of only five battery sites worldwide that still retain their guns in their World War II location.

13. 4 KEY REFERENCES

Oliver Hill Battery Conservation Assessment, completed on behalf of Rottnest Island Authority by GB Hill & Partners Pty Ltd, in November 1995.

Oliver Hill Battery Conservation Plan completed on behalf of the Rottnest Island Authority by Palassis Architects, in December 2005

Rottnest Island/Wadjemup Cultural Landscape Management Plan, completed on behalf of Rottnest Island Authority by TPG, in May 2015.

13. 5 FURTHER RESEARCH

Engineers Australia, 2010 op cit, p. 10; Palassis 2005, op cit., p. 8.

⁸⁸ Palassis, 2005, op cit., pp. 55-57

⁸⁹ Palassis, 2005, op cit., p. 57