

Council Management Plan

Archaeological Survey and Monitoring of Site Work. Plantagenet Battery Restoration Project, Albany WA

© City of Albany

Adoption Date: Not Applicable
Adoption Reference: Not Applicable
Review Date: 30 June 2013
Maintained By: Executive Director of Corporate & Community Services
Document Reference: NMP086425

102 North Road, Yakamia WA 6330
PO Box 484, Albany WA 6331
Tel: (+61 8) 9841 9333
Fax: (+61 8) 9841 4099
staff@albany.wa.gov.au
www.albany.wa.gov.au



**ARCHAEOLOGICAL SURVEY AND
MONITORING OF SITE WORK.
PLANTAGENET BATTERY
RESTORATION PROJECT, ALBANY WA.**



Prepared by

Gaye Nayton BSc (Hons), AACAI, APhR

For The
City of Albany

February 1999



PAGE 5

- (1) Not cleared for the complete length, only at each end.
- (2) What evidence is there to conclude that this is a lean to shed?

PAGE I6

- (3) Should read MF 58 L9Z (Footscray 1958 L Mk.9 Z)
A blank cartridge

PAGE I7

- (4) & (5) "Two other magazines" should be described as "two engine rooms" needed to supply power for the two WWII searchlights. "look out station" should read "control bunker for search lights"

PAGE I7

- (6) N.C.O.'s cottage/caretaker's cottage I892
The cottage was removed to Kendenup in 1920- 25.
The Feb 1999 fire has exposed this area.

PAGE I7

- (7) Should read "engine room"

PAGE I7

- (8) Should read I892

PAGE I7

- (9) "is a multi strand copper cable about 1½" in diameter intended to supply electric power to the searchlights."

PAGE I8

- (10) Where is Test Excavation 6. Not shown on map.

This report has been prepared by

Gaye Nayton B Sc (Hons) AACI APhR
10 Central Ave
Maylands 6051
PH 08 9271 1277 Fax 08 9271 1277

Site Director

ARCHAEOLOGICAL TEAM

Gaye Nayton
Darren Cooper

Site Director
Archaeological Assistant

ACKNOWLEDGMENTS

The author would like to thank the City of Albany personnel involved with this project. I would also like to thank Albany Forts personnel for their interest and help.

TABLE OF CONTENTS

TABLE OF CONTENTS	1
TABLE OF FIGURES	2
TABLE OF PLATES	2
BRIEF	3
STUDY AREA	3
METHODOLOGY	3
RESULTS	5
Gun Battery	5
Lean To Shed	5
Wall 3	7
Wall 4	8
Wall 5	10
Barbette	12
Range Finder Post	12
Artifacts	16
Tramway and Magazine	16
Magazines	17
Tramway	17
RECOMMENDATIONS	18
Vegetation	18
Clearing of overlying soil sediments	18
Conservation	19
Magazine	19

TABLE OF FIGURES

FIGURE 1 SITE LOCATION PLAN	4
FIGURE 2 SITE PLAN	6
FIGURE 3 WALL ELEVATION	7
FIGURE 4. WALL 2, ELEVATION	7
FIGURE 5. WALL 3, ELEVATION	7
FIGURE 6. WALL 4, NORTHERN PORTION, ELEVATION	8
FIGURE 7. WALL 4, SOUTHERN PORTION, ELEVATION	8
FIGURE 8 WALL 5, ELEVATION	10
FIGURE 9 BARBETTE	12
FIGURE 10 RANGE FINDER POST ELEVATIONS.	14
FIGURE 11. ARTIFACT CATALOGUE	15

TABLE OF PLATES

PLATE 1 CLEARING VEGETATION	9
PLATE 2 GUN BATTERY	9
PLATE 3 WALLS 1 & 2	9
PLATE 4 WALL 3	9
PLATE 5 RESTORED SHELL STORAGE UNIT	9
PLATE 6 RESTORED GUN BATTERY	9
PLATE 7 WALL 4, SOUTHERN END	11
PLATE 8 FLOOR LEVEL STORAGE UNITS	11
PLATE 9 RESTORED SMALL STORAGE UNIT	11
PLATE 10 TEST EXCAVATION 4	11
PLATE 11 BARBETTE	11
PLATE 12 RING FROM BARBETTE	11
PLATE 13 ROCK TRENCH AND T.E.3	13
PLATE 14 SIDE SECTION T.E.3	13
PLATE 15 RANGE FINDER POST	13
PLATE 16 EMBANKMENT	13
PLATE 17 TRACK GOING UNDER WWII MAGAZINE	13
PLATE 18 TRAMWAY <i>IN SITU</i>	13

ARCHAEOLOGICAL SURVEY AND MONITORING OF SITE WORK. PLANTAGENET BATTERY RESTORATION PROJECT, ALBANY WA

BRIEF

The City of Albany plans to relocate a Mark VI gun to the Plantagenet Battery built in 1893 and abandoned in 1910. The project will involve clearing vegetation around the gun pit, cleaning out the gun pit, renovating the gun pit and re-establishing the direct link between the magazine and the gun pit. Renovating the magazine is not part of this project.

The archaeologist's brief was to assess the proposed project and determine what archaeological investigation or monitoring of site works was needed to ensure that heritage information was not lost due to the proposed development.

After studying the proposal it was determined that an archaeologist should.

- a) Suggest low impact methods of vegetation clearance and monitor the actual clearance around the pit and between the pit and the magazine.
- b) Survey the cleared area with a metal detector to determine if special activity/soldier's rest areas can be determined.
- c) Test excavate selected areas.
- d) Test excavate or monitor the clearance of the gun pit as deemed appropriate.
- e) Record *in situ* features such as the gun pit and rail tracks

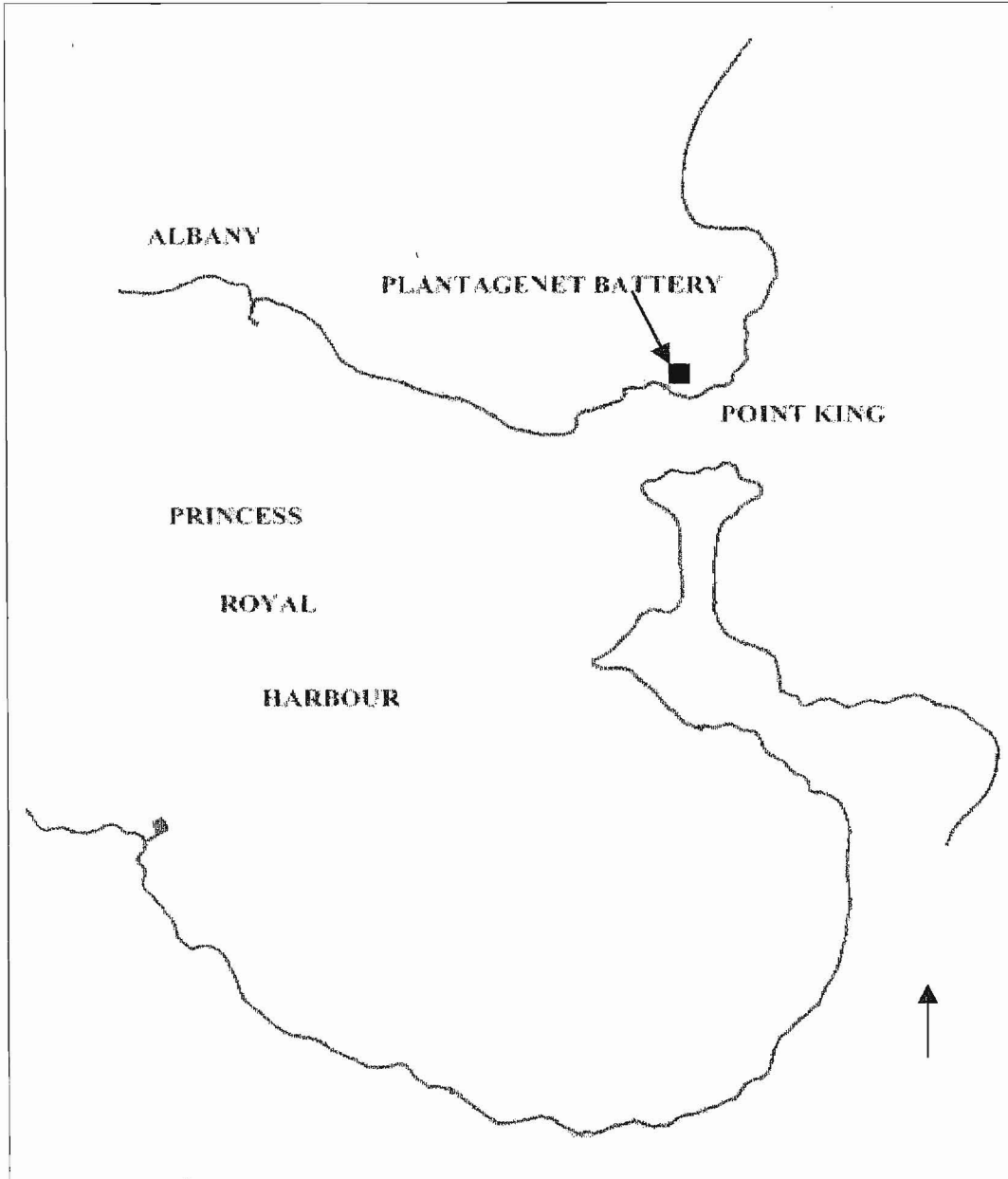
STUDY AREA

The Plantagenet Gun Battery is located on the flank of a hill directly above Point King (Fig.1). The magazine is located on the crest of the same hill. Therefore the study area comprised the flank and crest of the hill.

METHODOLOGY

The archaeologists monitored vegetation clearance from in and around the gun battery (Plate 1). The method of site clearance suggested was clearance by chain saws. Where necessary this could be followed up by poisoning the remaining roots and allowing them

FIGURE 1 SITE LOCATION PLAN



to wither *in situ*. It was not recommended that the roots be physically removed as this would disturb any archaeological layers.

A walk over survey and a metal detector survey were carried out over the general area around the gun battery. Evidence of artifact scatters, gun pits or other features was sought. During this inspection the range finder post and the track connecting it to the gun battery was discovered. However, no areas of artifact scatters were detected on the hillside surrounding the battery.

A walk over survey was carried out in the general area of the magazines to locate the start of the tramway between the magazine and the gun battery and the site of the NCO quarters. While evidence was uncovered to suggest the location of the quarters the route of the tramway could not be determined exactly. The search for the tramway then switched to near the gun battery and a cutting was followed up the hill to the magazine area. A one-metre wide swathe of vegetation was cleared for the length of the suspected track so that a metal detector survey could be carried out. ①

Six small areas in and around the gun battery, range finder post and tramway were test excavated to determine the depth and richness of artifact layers and to uncover possible features. All excavations were back filled to prevent accidents and to preserve the integrity of adjoining areas and of features uncovered. The gun battery and range finder post were photographically recorded and surveyed onto a site plan. The full range of photographs has been archived separately to this report.

Installations at the Albany Forts were inspected both to record artifacts, which had been removed from the Plantagenet Battery, and to compare features found at the battery with fully conserved counterparts. Items of interest were photographed and included in the photo archive.

RESULTS

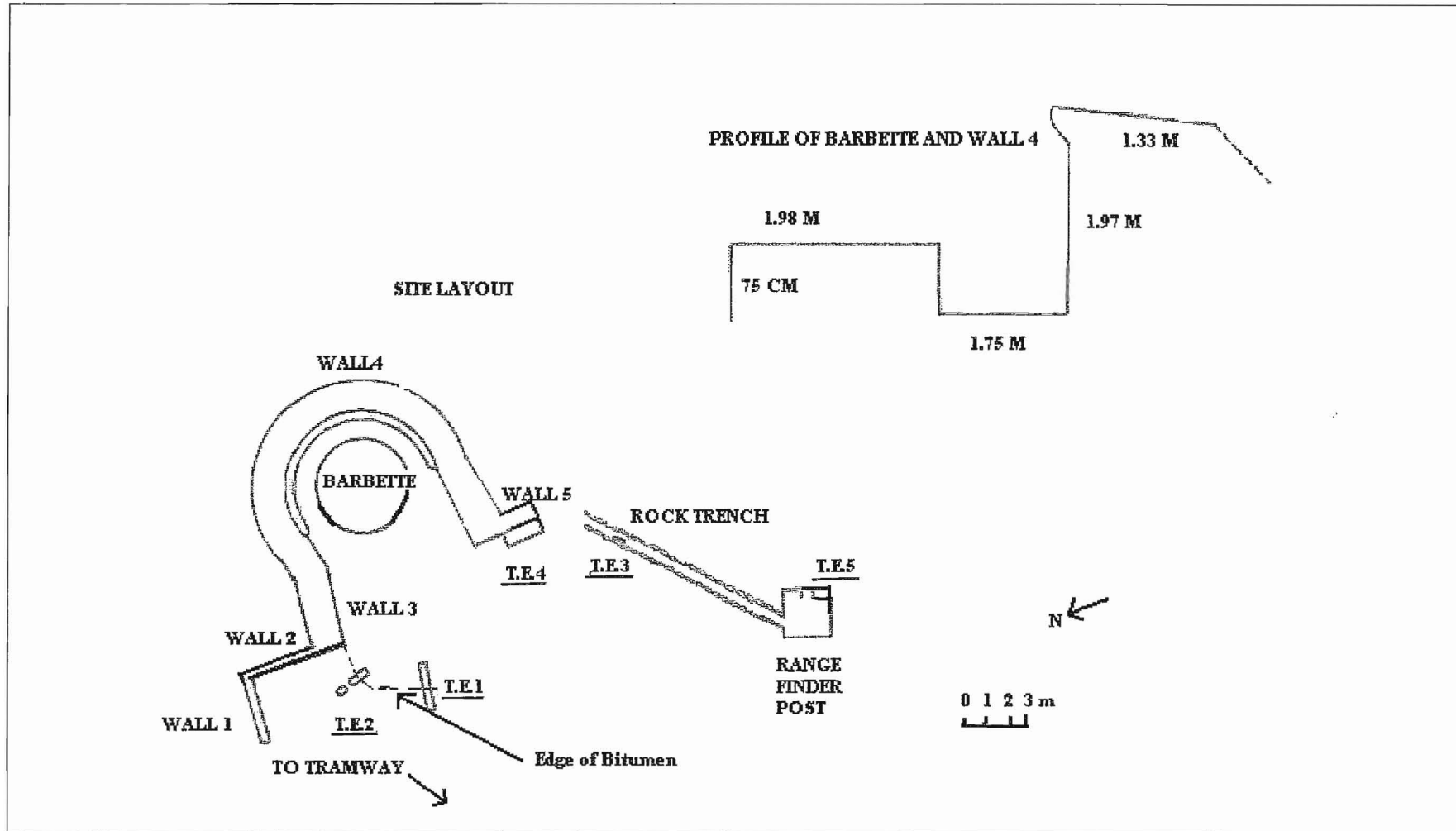
Gun Battery

The vegetation was cleared from the emplacement allowing details to be recorded (Plate 2). The battery was oriented so that the guns pointed east overlooking Point King and the entrance of Princess Royal Harbour. This means the emplacement lay on a north to south line (Fig 2). The main features of the emplacement were concrete form work with the use of wood and metal being mainly confined to doors hinges and screw bolts. Several surfaces had been defaced with graffiti, which has been both painted and scratched onto the walls.

Lean To Shed

At the northern end of the battery, walls 1 and 2 formed two sides of a lean to shed (Fig 2 & Plate 3). Wall 1 sloped in height from south to north. It partly supported a corrugated iron roof the end of which was embedded into the concrete of the wall (For close up details please see photo archive). The corrugated iron extended along the top of the wall to a point, which was approximately one meter above present ground height. Marks on wall 1 indicated that a wooden post had been placed against the wall at this point to support the lower edge of the roof (Fig 3 & Plate 3). A wooden roof beam had also been laid in concrete along the top of wall 2 forming the upper end of the roof. ②

FIGURE 2 SITE PLAN



A rectangular recess in wall 1 once supported a beam as did a similar recess in the corner of wall 2. A second recess in wall 2 was actually a ventilation shaft for the shell storage unit in wall 3 (Fig 4).

FIGURE 3 WALL ELEVATION

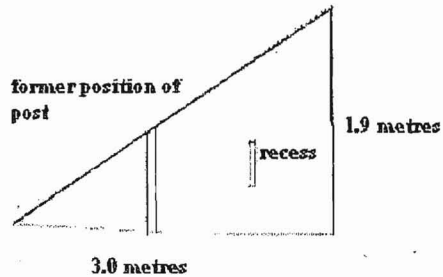
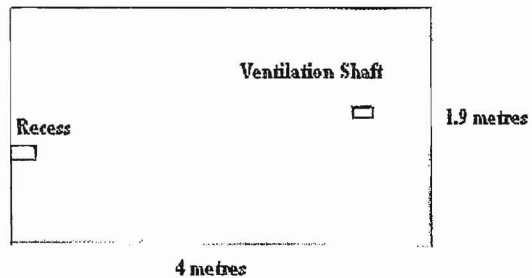


FIGURE 4. WALL 2, ELEVATION



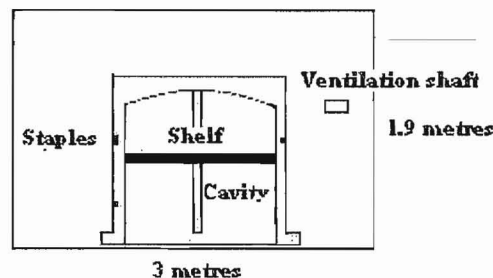
Test excavation 2 was located near the south west corner of the shed (Fig 2). The area excavated was in total 50 x 20 cm excavated as two adjoining pits, which were 15 cm deep. The excavation revealed the edge of the hard cover and that the adjacent shed had probably been floored with pea gravel. Glass found was modern but a shard of tin and a nail are likely to be from the shed.

A metal detector survey of the floor of the lean to and adjacent areas including a flat area to the north suspected of being a rest area indicated the presence of metal scattered across the site.

Wall 3

Wall 3 faced south west and contained a shell storage unit (Fig 2 & Plate 4). The horizontal wooden rack within the unit was in good condition (Fig. 5) however the wooden slats which should have lined the walls of the unit and the vertical beam in the center of the back wall were missing. Patches of red paint still exist on the wooden racks and on the lower half of the door recess.

FIGURE 5. WALL 3, ELEVATION

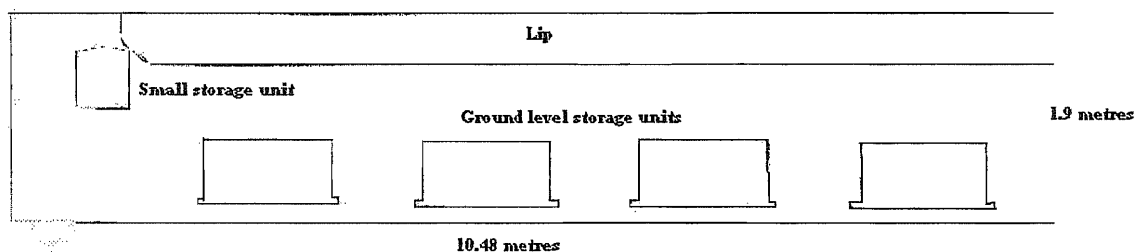


Two circular lead vents located in the top back corners of the unit still had their covers in place (for details see photo archive). The vents lead to rectangular ventilation shafts the left hand one of which opened out into wall 2 while the right hand shaft opened into wall 3. Vent covers for the outside openings are no longer in place. The bases of staples, which held a steel bar across the front of the unit, are still partly *in situ*. A very similar feature exists at a restored gun battery at the Albany Forts (Plate 5). This feature however has the vents in a different position.

Wall 4

Wall 4 formed a half circle enclosing the barrette, over which the gun would have been fired, as shown in Plate 6. It contained five floor level storage units, three small arched units and a unit similar to the one in wall 3 (Plate 7, for more detail see photo archive). The inner surface of the recesses, which were protected from weathering, still had a lining of pale cream lime render. No evidence was found that signs had ever been pinned to the wall.

FIGURE 6. WALL 4, NORTHERN PORTION, ELEVATION



Each of the floor level storage units once had a wooden plank as a base. The plank slotted into the bottom of the unit via a built in recess on either side (Fig. 6 & Plate 8). The two most northern units and the one to the south still had the wood *in situ*. The central two units appear to have been exposed to more weathering and the wood has rotted away. The restored gun battery at Albany Forts (Plate 6) indicates these storage units had no other built in furnishings.

FIGURE 7. WALL 4, SOUTHERN PORTION, ELEVATION

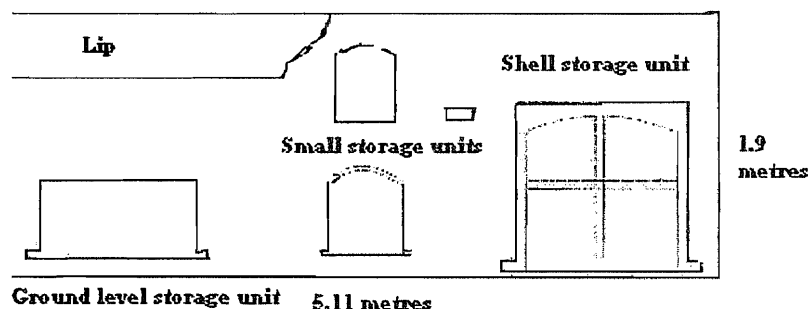


PLATE 1 CLEARING VEGETATION



PLATE 2 GUN BATTERY



PLATE 3 WALLS 1 & 2



PLATE 4 WALL 3



PLATE 5 RESTORED SHELL STORAGE UNIT

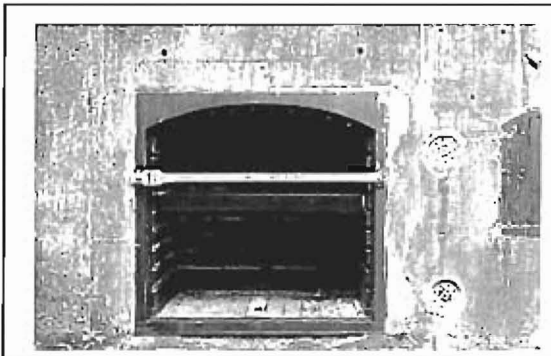


PLATE 6 RESTORED GUN BATTERY



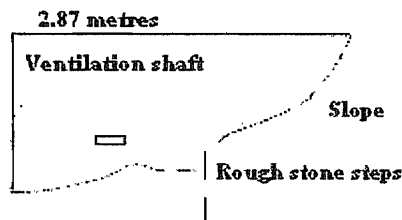
Two identical small arched units were located in the same position at the northern and southern ends of wall 4 with an overhanging lip along the inside of the wall between them. A slightly larger unit was located immediately underneath the southern unit (Fig. 7 & Plate 7). They were all similar with a door recess and with the larger unit also having a slotted recess at the bottom for a doorsill. None still had the wood *in situ* although traces of render remained in all three. The larger unit had beige render over the pale cream and wooden studs in the back wall. These were probably for a shelf as shown in a similar restored unit at Albany Forts (Plate 9). However, that in the Plantagenet gun battery did not have an air vent.

The large shell storage unit in wall 4, like that in wall 3, had the wooden rack in good condition with the rest of the wooden fitting missing. The bases of the staples, which held the bar across the opening, were also still *in situ*.

Wall 5

Wall 5 is partly buried in the surrounding bank, with the southern end of the wall at the same level as the ground to the south and east of the gun emplacement. The northern end of the wall is the same height as walls 3 and 4. The wall is featureless except for a rectangular air vent connected to the large shell storage unit in wall 4.

FIGURE 8 WALL 5, ELEVATION



Test excavation 4 was excavated beside the southern end of wall 5 to locate any evidence of steps allowing access to the range finder post located further to the south. The pit was excavated as a trench 40 cm wide and just over a meter in length. The depth excavated varied along the length of the excavation in response to present and past ground level changes. Evidence was found of a stone retaining wall with rough step like changes in elevation (Plate 10). There was no direct evidence for wooden steps but the stonework is much more likely to have been constructed as foundations for wooden steps than as actual steps. Artifacts recovered during the excavation consisted only of relatively recent bottle glass, which was on the surface and not retained.

PLATE 7 WALL 4, SOUTHERN END



PLATE 8 FLOOR LEVEL STORAGE UNITS

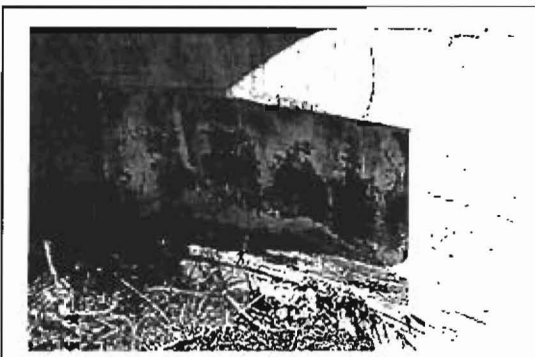


PLATE 9 RESTORED SMALL STORAGE UNIT

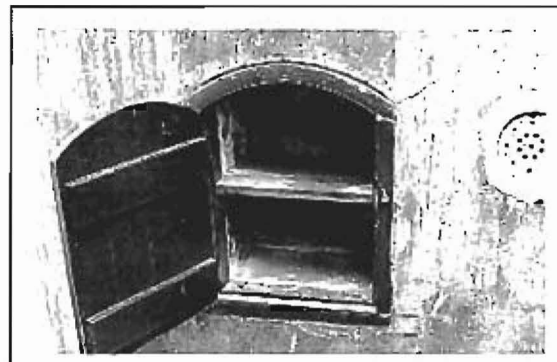


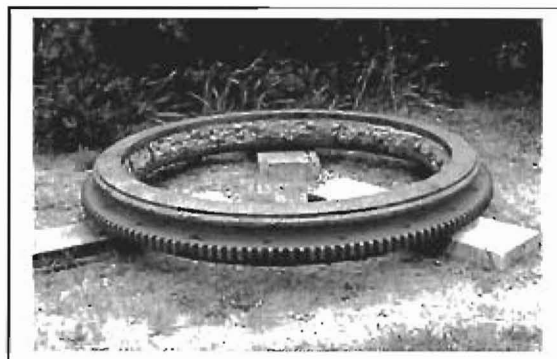
PLATE 10 TEST EXCAVATION 4



PLATE 11 BARBETTE



PLATE 12 RING FROM BARBETTE

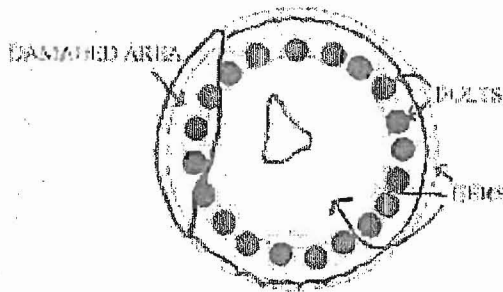


Barbette

The barbette stands 75 centimetres high and has a diameter of 3 metres (Plate 11). The sides of the structure are perpendicular and the top surface has three tiers, which rise in height from the rim to the centre of the structure (Plate 11). At the junction of the second and third tiers is a ring of 20 steel bolts spaced 39 cm apart. These bolts once held the ring on which the gun turned. The ring has been blasted off the structure causing considerable damage. It is now located at the Albany Forts (Plate 12).

The outer rim of the barbette has been almost completely destroyed. The damaged area forms the outer tier on Figure 9. The central highest tier has also been much damaged with only a central portion remaining at the original height. However, the most damage has occurred along the northern edge of the barbette where all three tiers and the base beneath have been removed for a depth of 60 centimetres.

FIGURE 9 BARBETTE



Test excavations 1 and 2 were excavated to find the edges of the hard cover around the barbette. Their location, and the edge of the hard cover, is marked on Figure 2. Test excavation 1 was excavated as trench 3 metres by 25 cm wide. Depth varied from 10 cm to 40 cm in response to changes in present ground height. Details of test excavation 2 have already been given in a previous section. The excavations showed that a hard cover of bitumen overlain with wind blown sand surrounds the barbette. No artifacts contemporary with the barbette were uncovered during the excavation of test excavation 1 and those from test excavation two are thought to belong to the lean to shed.

A metal detector survey of the gun battery area indicated some scattered metal over the area of bitumen. No evidence of metal or surface indications of artifacts was found outside of the depression within which the gun battery is situated.

Range Finder Post

To the south of the gun battery a range finder post was located (Fig. 2). It was joined to the battery by a shallow rock lined trench, which started near the southern end of wall 5 (Plate 13). Test excavation 3 was located within the trench to determine the ground

PLATE 13 ROCK TRENCH AND T.E.3



PLATE 14 SIDE SECTION T.E.3

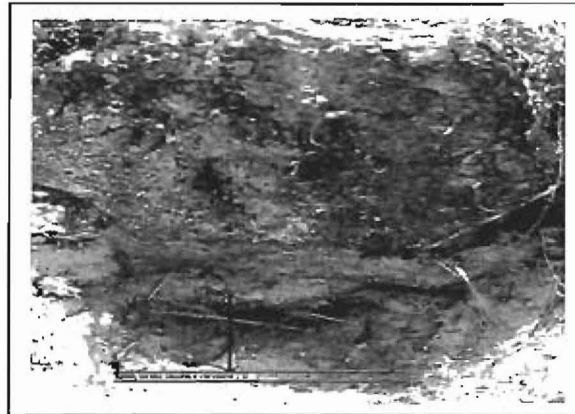


PLATE 15 RANGE FINDER POST



PLATE 16 EMBANKMENT



PLATE 17 TRACK GOING UNDER WWII MAGAZINE

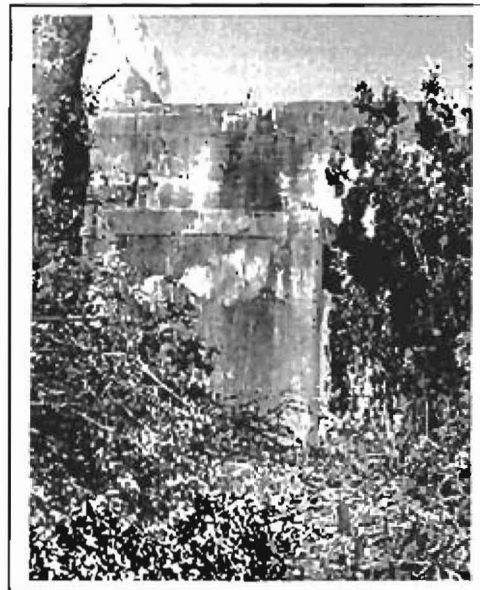


PLATE 18 TRAMWAY *IN SITU*



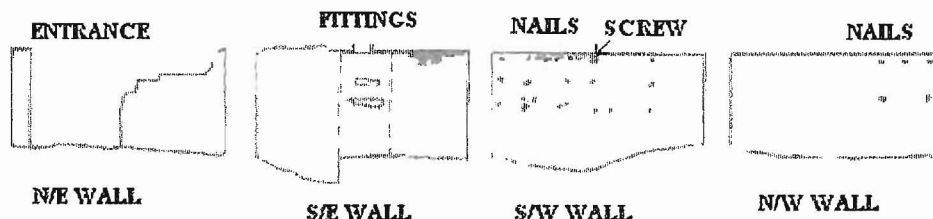
height when the trench was in use. The rock wall at this point proved to be only 37 cm high (see Plate 13 for location of test excavation). The previous ground surface was not located at the bottom of the rock but 9 cm underneath where a 2 cm deep layer of pea gravel was located (Plate 14) and removed as spit 2. Pre 1920s (ca 1860-1920) glass was recovered both from immediately above and immediately below the pea gravel confirming that this feature was part of the short operational lifespan of the gun battery. The difference in height suggests the gravel path was laid first in a cutting dug into the sand and the rocks were a later innovation to keep the soft sand from caving in.

The range finder post was located 9.7 metres from the southern end of wall 5 with an entrance in its north east wall. It's walls were 1.8 metres long forming a square and 1.16 metres deep. It was constructed of concrete covered brickwork with a concrete floor, which sloped down to the southern corner. The bricks are moulded red bricks with a shallow rectangular frog. The post was orientated so that the south east wall overlooked the entrance to Princess Royal Harbour. The remains of fittings on the south east wall denote where the range finder was located (Plate 15). The remains consist of a partly broken lip surmounted by two iron hoops below which are marks where a fitting has been rendered against the wall. At the bottom of the wall the remains of two thin rendered side walls are still in evidence.

On the south west wall is a series of rhomboid headed wire nails of a type not available until 1895 (Fig. 10). There are two different sizes of the same nail type and a copper screw located in the wall. On the ground adjacent to the wall was metal sheeting and it appears the nails held the sheeting in place on the wall. While the sheeting currently shows no evidence of writing it is likely that it once contained the distances and elevations to different landmarks seen from the post.

The north west wall also shows evidence of attachments for signs. There are five rose headed wire nails arranged in a rectangle, four of which still had fragments of metal sheet attached. The nails were harder to positively identify without removal but they appear to be a nail type, which was available from ca 1880 to 1900.

FIGURE 10 RANGE FINDER POST ELEVATIONS.



Test excavation 5 was located in the southern corner of the ranger finder post. It was a 40 x 45 cm square excavated to a depth of 26 cm. The surface material was a thick mat of roots under which was sand and more roots. Most artifacts found were construction related with cast iron and tin sheet possibly being from the range finder and its targeting

chart. A British 303 cartridge, which is a military cartridge in use between 1888 and 1950, is likely to be from the occupational lifespan of the gun battery. (3)

A metal detector survey within the range finder post indicated the presence of more buried metal in the wind blown sand. A search of the hillside around and above the post did not yield any evidence of buried metal or exposed artifacts.

Artifacts

Artifacts recovered during the excavations are listed in Figure 11. Almost all were construction related with one cartridge and some bottle glass relating to the occupational lifespan of the gun battery.

FIGURE 11. ARTIFACT CATALOGUE

Location	Quantity	Identification	Function	Date Range
T 2 Above				
bitumen	1	Clear bottle Glass -5mm thick	Drink	Modern
T 2 "	4	Flat Metal Plate - rusted	Construction	
T 2 "	1	Brown Glass Flake	Drink	Modern
T 2 "	1	Rhomboid Nail	Constructor	1880's - 1900
		Clear Glass with greenish tint- thin		
T 3 - S1	5	(2mm thick), curved, one piece	Drink	Pre 1920's
		Clear Glass with greenish tint - 3mm		
T 3 - S 3	1	thick	Drink	Pre 1920's
T 5 - Sur	1	Half Pressed Brick, wire cut	Construction	
	1	Piece Cement Render	Construction	
	1	Sheet Tin	Construction	
		Bullet cartridge - British 303 rifle -		
T 5 - S1	1	<u>Head Stamp MF 58 Z67</u>	Military	1888 - 1950 (3)
T 5 - S2	3	Rusted cast iron	Construction	
	2	Rusted Sheet Iron	Construction	
T 5 - S3	2	Rusted Cast Iron	Construction	
T 6 - S 1/2	5	Granite	Construction	
	7	Laterite pebbles	Construction	
	many	Rusted Cast Iron - small flakes to 5	Tramway	
T 6 - S 2	many	Rusted Cast Iron - Small flakes to	Tramway	

Tramway and Magazine

Recording and surveying the area containing the magazines was not part of this brief. However, the brief did include finding the track of the tramway between the gun battery and the magazine therefore the area is included marginally in this report.

Magazines

Originally one magazine and a NCO officers house were built near the crest of the hill, with a tramway connecting the magazine to the gun battery below. Two other magazines and a lookout station were built in the same area during World War II. A visual search could not determine the route of the tramway from the original magazine. (4)
(5)

A short search was conducted of the general area both to familiarize the archaeologist with what was there and to determine if there was any likelihood the site of the NCO officer's house had survived. Vegetation around the magazine area is very thick but a large patch of exotic bulbs and a Blue Brush tree were located in approximately the right area. The concentration was found in a relatively flat area and was very roughly rectangular in shape. Both types of plants are found scattered across the hill but are generally in small pockets except where they have found an area of better soil. This large concentration suggests an area of better soil, which could be due to the organic material provided by a timber house rotting *in situ*. This may be the site of the NCO officer's house with a rock platform at the front of the building. The area has undergone soil build up rather than erosion therefore there were no older artifacts on the surface to confirm that this is indeed an archaeological site. (6)

Tramway

The tramway route could not be traced down the hill from the magazine therefore a search was started from the gun battery. The tram track was traced up the hill as a cutting approximately 5 metres wide. The up hill side of the cutting was more prominent as this side had to be cut further to create a flat rail bed. The cutting started approximately 10 metres from the lean to at the northern end of the gun battery. Near the lean to is a flat area, which was cleared of vegetation so that a metal detector survey could be carried out. The cutting starts north west of this area. Further up the hill the cutting ends and the track continues on a low embankment which is level with the ground surface on the up hill side but build up to the same level with earth and rocks on the down hill side (Plate 16). Near the magazines the track runs over the natural ground surface which appears to have needed little modification to provide a suitable level space. At the crest of the hill the track runs under one of the World War II magazines which is situated between two large rock faces (Plate 17). It then curved around the edge of one rock face and ran straight to the front of the nearby 1898 magazine. (7)
(8)

Once the likely route of the track was established an approximately 1 metre wide swath of vegetation was cleared along its length to allow a metal detector survey. This established the presence of metal along the entire length of the tramway. The signal on the embankment was stronger than elsewhere, however, this was due to the presence of a World War II communications cable. The laying of which would have disturbed the upper reaches of the tramway. (9)

Test Excavation 6 was located in the lower cutting area approximately 12 metres from the start of the cutting. A wider area of vegetation was cleared to allow room for the excavation and a trench 3 metres long by 50 cm wide was excavated. Under 10 cm of leaf litter was a grey sand layer also approximately 10 cm thick. At the bottom of this layer sections of rail could be seen. The rails and the sleeper they were bolted to were actually embedded in a layer of yellow sand (Plate 18). The rails were 6-7 cm high (the variation is caused by deterioration) and 65 cm (2ft) apart and at this point they were orientated at an angle of 260 degrees. While still *in situ* the rails and sleepers are not in good condition.

(10)

RECOMMENDATIONS

A number of procedural recommendations arise out of the findings of this report. Where archaeological monitoring or excavation is indicated the work should be carried out by a qualified historical archaeologist.

Vegetation

1. It is archeologically acceptable for the vegetation in and around the gun battery to be cleared to allow access and viewing.
2. Care should be taken not to over clear and create a situation where erosion takes place.
3. The plants should not be removed by machinery which up roots them and churns up the soil layers, as this will seriously disturb the archaeological record of the site. Alternative methods, which leave the roots to rot *in situ*, should be pursued.

Clearing of overlying soil sediments

1. It is archaeologically acceptable for the bitumen hard cover around the barbette and the floor of the range finder post to be cleared without an archaeologist present. These areas are not thought to contain artifact layering or hidden features although some artifacts may be present above the hard cover. Sediments should be removed by shoveling and sieving to retrieve any artifacts. This should be done systematically and the location of artifacts recovered recorded on a site plan. The artifacts should be tagged or bagged with their location recorded on the tag or bag.
2. The rock lined trench to the range finder post, the floor of the lean to shed, the cleared area beyond it, the tramway track and the area immediately around the range finder post should not be cleared, beyond removing vegetation, without archaeological monitoring. These areas are all likely to contain features and artifacts such as evidence to indicate whether there was a roof over the range finder post and artifact layering relating to the use of the gun battery.

Conservation

1. Expert advice should be sought on repairing the concrete form work on the barbette and removing graffiti from the form work.. In particular care is needed to ensure that concrete repairs do not chemically damage the remaining heritage fabric.
2. The tramway track should not be opened up for assess without getting expert advice on the conservation implications of having intact rails and sleepers in poor condition only 10 cm under the present track surface. The tracks lie along one side of the cutting and it may be possible to direct pedestrians alongside them without impacting the heritage fabric.
3. Conservation advice should also be sought before any section of the track is uncovered for display purposes. If a display is decided on then the display area should be excavated by an historical archaeologist.
4. Expert advice should be sought on whether the existing woodwork on the gun battery can be conserved and left *in situ*.

Magazine

1. The magazine area should be archaeologically investigated before any conservation or clearing work is undertaken on the magazine or adjoining areas.