Robben Island Museum (RIM)

&

UNIVERSITY OF THE WESTERN CAPE (UWC)

CONSERVATION MANAGEMENT PLAN FOR THE SITE OF GUN NO.2

DRAFTED AND COMPILED BY

MWAYI LUSAKA (3377919)

IN PARTIAL FULFILLMENT

FOR

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CHAPTER 1

THE CONSERVATION MANAGEMENT PLAN FOR GUN SITE NUMBER 2 ON ROBBEN ISLAND MUSEUM.

1.0 INTRODUCTION.

Every year the Robben Island Museum in Conjunction with University of the Western Cape offers scholarships to students for the African Progamme in Museum and Heritage Studies. As a requirement in one of their courses, the site Management course, the students are expected to choose a site on the island and produce a Conservation Management Plan of their site. I chose the Site of the 9.2 inch British Naval Gun (Gun Number 2) because of my passionate interest in world warII history. This Conservation Management plan although academic in nature should be taken seriously by the authorities of the Robben Island Museum especially the section of conservation and be incorporated in their Conservation Management Plan because it has been prepared based on all the principles and practices of professional conservation management plan . This Conservation Management Plan has the following core features; The background which gives some historical overview of the site, the objectives which highlight what the conservation management plan intends to address and achieve, the general description of the site highlighting the general state of conservation of the site, the methodology that was used to come up with this Conservation plan, statement of significance of the site to guide conservation ,the policy frame work under which the conservation plan will be working, the management activities to be carried out on the site on routine or suggested time interval, the developmental impacts on the site , recommendations and conclusion, reference of literature and other sources used to prepare this management plan and the appendix containing some valuable pictures of the site.

2.0 BACKGROUND INFORMATION

Gun number 2 together with Gun number 1and 3, the De Waal Battery ,underground bunkers and associated buildings had one use ;they were the main defence of Table Bay during WWII and subsequent training for the SA Navy until the 1970's.

2.1 PERIOD UP TO 1939

Prior to 1939, Robben Island was used (1866-1921) as a convict station (1846-1931) hospital for lepers (until 1931) and lunatic asylum (until 1921). In 1936 Robben Island became a military reserve. No structures existed on the site nor does it appear to have had any significant use prior to the 1940s.

2.2 PERIOD 1939 TO 1945 (WWII)

Robben Island was identified as a strategic defence site prior to WWII. The military occupied the Island in 1936 and commenced with infrastructure for a defensive site for the two 9.2" guns in October 1939. The battery is divided into three 9.2" Gun emplacements; whereby, Gun 3 (Mk IX turret) was the first to be mounted with Gun 2 (Mk IX turret) following shortly. By November 1941 both guns were manned as a modern counter bombardment battery. The third 9.2" gun, Gun 1 (Mk X turret) was mounted near the end of WWII. Each gun emplacement consisted of the gun turret, gun pit, munitions bunker, hydraulics bunker, two out buildings as stores and ablutions. The firing control system to the battery consisted of a plotting room (8m deep bunker), command post (bunker), model range, wireless station, auxillary engine facility and pump station, all connected to an independent power plant (bunker) enabling the battery and its fire control network to operate independently from the rest of the Island. The guns were manned until January 1944, when all operational personnel were withdrawn and the guns were handed over to care and maintenance units. The guns never fired in anger during the War.

2.3 PERIOD 1945 TO 1975

Robben Island remained occupied by the Army and Navy till 1959. Thereafter, the three gun emplacements and De Waal Battery as a whole, was in the care of the Coastal

Artillery Maintenance Unit (CAMU) at General Naval Workshops (GNW) Wingfield; responsibility included regular maintenance and upkeep of the battery until about 1975. During this period, the guns were used for training and the last known firing of the guns is reported to be late 1960's early 1970's.

2.4 PERIOD 1975 TO 1990

When the guns were decommissioned in 1975, the guns were rendered inoperable by the Coastal Artillery Maintenance Unit by removing hydraulic power pumps, ammunition hoist drive motors, breech blocks, pneumatic piping, the manual elevation and traversing hand wheels and the main power generating equipment. All sighting and directing systems removed and disposed off. Thereafter the battery was left to the tender mercies of the elements.

2.5 PERIOD 1990 TO 2013

In 1993, the SA Naval Works Branch executed building repair on the gun civils; which included the repainting of the guns internally and externally and the installation of power and lighting to Gun 1 and 2 mounting, gun pits and magazines. These repairs and renovations were not managed or based on the original authentic installation diagrams or guidelines; but of the day. Therefore, Gun 1 and 2 has electrical wiring and fittings that have no relevance to the historical period of 1939-45.

With Mandela as the first president of the new nation of South Africa the island symbolized reconciliation in the democratic transition of 1994 and became a national museum and heritage site (then monument) in December 1996.

Robben Island was opened to visitors in January 1997 and work soon commenced on various infrastructural upgrades. At that time, no conservation management plan (CMP) had yet been developed. Robben Island Museum Commissioned base line studies of its heritage resources in 1998 and a formal conservation planning process commenced in early 2000, finally reaching completion of the first phase in 2003.

In December 1999 Robben Island became a world heritage site as a symbol of 'triumph of the human spirit over adversity'.

Recently only the site of Gun number 3 has undergone full scale restoration in a joint project between the Robben Island Museum and the South African Navy.

3.0 GENERAL OBJECTIVE

The general objective of this Conservation plan is to identify and address the conservation challenges on the site of Gun number 2.

3.1 SPECIFIC OBJECTIVES

- To provide the description and state of conservation of the site.
- To provide the state of significance of the site.
- To provide the appropriate policy framework to guide activities on the site.
- To provide a risk management plan.
- To provide a visitor management plan.
- To explore the developmental impacts of the site.
- To suggest and provide the necessary recommendations

4.0 METHODOLOGY

The following methods were used in the collection of information for the full preparation of

Of this conservation management Plan

4.1 SITE SURVEY & OBSERVATION METHODS

The site survey which requires the researcher to be directly on the site and see with his or her eyes the general state of the site in question is qualitative in nature and therefore uses qualitative methods. Because the researcher is to come up with the qualities and general description of the area Observation method which employs the sense powers of sight, feeling, and touch is prominent. Similarly this survey used the qualitative method of observation whereby the general condition of the site was recorded after seeing for example the colour of the paint and its condition, observing and describing the surrounding landscape and other associated features.

4.2 ARCHIVAL AND LIBRARY RESEARCH

Documents from the archives and books from the library with relavant information about the site were used.

4.3 INTERNET RESEARCH

Appropriate websites containing second world war information especially with regard to British Naval 9.2 inch Guns were searched and used.

4.4 INFORMAL INTERVIEW

Informal interviews with some workers on the site were conducted.

4.5 USE OF PHOTOGRAPHS

Photography was used as a method to show the general state of the site today so that it will be compared with the future state some years from now.

5.0 POLICY FRAMEWORK

The conservation activities on the site will be dully guided by relevant legal instruments. The Conservation principles of the Burra charter 1999 will be fully used especially article 2.4 which stipulates that places of cultural significance should be safeguarded and not put at risk or left in vulnerable state and also article 3 which advises that conservation should be based

on respect for the existing fabric, use, associations and meanings. It requires a cautious approach of changing as much as necessary but as little as possible.

CHAPTER 2

SITE DESCRIPTION AND STATE OF CONSERVATION

1.0 GENERAL STATE OF CONSERVATION

The main space where the gun is stored is in fair condition: The inside is painted white but it is tainted with droppings of birds. Birds are the main threat to its cleanliness .The outside dominated by a metal canopy is painted green and the condition here is also fair except at the window where there are droppings of the birds. The floor on which the gun is standing is in poor condition since the green paint is fast peeling off. The cloth at the back of the Gun is the one which is in bad condition as it is heavily tainted by droppings of birds.

No.	Description	Name		Material	Condition	Comments
1	Green metal cover or canopy	Outside cover of the gun		Metal	fair	There are droppings at around the window
2	Huge ,heavy metal shaft in white colour inside the green canopy	Gun		Metal	fair	The metallic component is still strong but its only affected on top because of the droppings of the birds which have greatly tainted its white colour
3	Redish colour	The inside floor of the Gun		Metal	fair	The metal is still strong but its redish colour is being tainted by the birds droppings
4	White paint	Inside walls of		Metal	fair	Tainted by the

		the Gun				droppings of birds
5	Green concrete floor	The stand on which the gun rests		concrete	fair	The paint is peeling off on the floor,there is no drainage so water stagnates leading to much of the peeling of the paint
6	Green cloth covering the back of the Gun	Lona		Plastic material	bad	Heavilly tainted by droppings of the birds
7	Two white small buildings with gardens at the top	armories		bricks	good	They were used for storing rifles, they are a few metres from the Gun
8	A concrete ground at the base of the gun	Park		concrete	fair	Weeds are growing on the park leading to cracks and breaking of the park
9	A small road	road		Earth road	fair	For cars
10	Small metal louvered building	Air vent		Metal	fair	The metals are visibly rusting ,placed at a distance from the gun, has an inside tunnel connecting it to the main Gun
11	Green foot path cover	Top of the underground chamber		Metal	fair	Underground there is a chamber(couldn't tell the condition inside as I couldn't access inside)
12	Large sharp pointed metal at angle extending from the main Gun	Gun Barrel of the Gun		Metal	good	Aiming towards the west coast of the island.
13	Steep steps	Steps to the gun		Metal rail and concrete	good	Needs to climb with care

2.0 SITE PLAN & LAYOUT

Gun number two is situated at the North West coast of the Robben Island. The gun points towards the west coast. The main surrounding features include the two armories that are disguised with gardens of flowers at the top , the air vent, the road to its right and a toilet further from the two.

CHAPTER 3

STATEMENT OF SIGNIFICANCE FOR CONSERVATION OF GUN NUMBER 2 AND ITS SITE.

1.0 THE HISTORICAL CONTEXT OF GUN NUMBER TWO

Gun number 2 on the Robben Island is among the original ninety-eight 9.2 inch Mk IX-X British Naval guns that were used during the second world war as coastal defence guns across the British empire. The Gun is among the major arsenals and weapon hardware that was mounted on the island during the second world war. The others include Gun number 1, Gun number 3 and the De Waal Battery which was used to power these Guns . The history of the built fabric on the site (including De Waal Battery, Gun 1 &2) spans the period 1939 to 1944 as a fully operational military defence installation. The Gun number 2 and the other two Guns(Gun 1 & 3 plus the De Waal Battery) was among those guns located around the Cape Peninsula built on the eave of the outbreak of WWII as the main coastal defence system protecting Cape Town from a possible sea attack. The guns were manned until January 1944, when all operational personnel were withdrawn and the guns were handed over to care and maintenance units. From 1945 to 1959, the Island was used by the Army and Navy for training; where the Navy occasionally manned the guns at De Waal Battery. The last known firing of the guns is reported to be late 1960's early 1970's. The guns were finally stripped and decommissioned around 1975. The perimeter of the site changed little over time, and the built fabric, was subject to limited change. The camouflage paint scheme was altered at different periods until what is currently seen, the last restoration work done by the SA Navy in 1993.

2.0 STATEMENT OF PRIMARY SIGNIFICANCE OF THE GUN AND ITS SITE.

2.1 HISTORICAL SIGNIFICANCE

Considering its role during the Second World War the Gun is of Historical Significance.

2.2 EXTENDED SIGNFICANCE OF THE GUN

2.2.1 TECHNOLOGICAL SIGNIFICANCE

The 9.2 inch Guns of which Gun Number 2 is one of the them have a unique design and technology of their own time . Their technological distinction is observed in the following aspects and areas of mechanical operation: mounting, installation and organization.

A . MOUNTING

The Mounting gave a maximum elevation of 15 degrees, and maximum range of 21,000 yards. This and some modified to Mark VI (30 degrees and 29,500 yards) were manually powered, the projectile and propelling charge were manually hoisted to loading level, the projectile manually loaded and rammed, and traverse and elevation were by handwheels. There was an elevated platform around the breach area for the gun detachment commander (No 1) and some detachment members, and a gun shield to the front. The ordinance and mounting together weighed some 125 tons, they were well balanced and the handwheels needed very little effort to move the gun.

The Gun was hydraulically powered and the platform was enclosed in a roofed gun house with three sides and a rear . The hydraulics meant that both projectile and propelling charge could be hoisted in a single load.

B. INSTALLATION

Each gun mounting was installed on a central cast-steel pedestal in an open concrete gun pit 35 feet in diameter and 11 feet deep. The gun and mounting weighed 125 tons. A very narrow gauge rail track was embedded around the gunpit floor. A trolley was manhandled around the track between the two ammunition lifts (one for projectiles, one for propelling charges) and the rear of the gun (this position varied depending on where the gun was pointed)

Below the gun pit were the separate ammunition bunkers for projectiles and shells with direct access to the ammunition lifts. These bunkers had an access road leading to them for ammunition

re-supply. The guns presented only a very small target above ground level, guns and gunpits were camouflaged.

C. ORGANISATION

Two or three guns comprised a named battery position with the guns manned by a Heavy Battery(On Robben Island the three Guns are Gun 1,2,3 and the battery is the De Waal Battery). Increasing range led to new centralised control arrangements. Fortress observation posts, equipped with rangefinders and directors were sited 4000 – 10,000 yards apart to give observation of all the sea area within range. They reported enemy ship bearings and distances to the 'Fortress Plotting Centre' (FPC) where the attackers' positions and courses were plotted, converted to coordinates and then assigned as targets to batteries by the fire commander. The details were telephoned to batteries. The battery plotting room used a Coordinate Converter to turn the coordinates into bearings and elevations and transmitted them to the guns where pointers were matched by changing the guns' traverse and elevations.

The Observers also reported fall of shot relative to the targets, the FPC used an Encoder to convert these into a Clock Code, which the battery converted to its Left/Right, Add/Drop corrections. Various types of radars integrated into the fire command soon became widespread in WW2 and enabled effective night engagements.

2.2.2 RARITY VALUE OR SIGNIFICANCE

Gun number 2 and the other two Guns on Robben Island are among the remaining 28 Guns from the original 98 Guns of this kind that did service worldwide during the second world war.

3.0 CONCLUSION

Gun Number 2 therefore is primarily of Historical significance because of its role during second world war.However its unique technology and its rarity in these modern days accord it also some extended significance . The Gun therefore calls for urgent and proper Conservation Management plan .

CHAPTER 4

THE RISK MANAGEMENT PLAN FOR GUN NUMBER2 AND ITS SITE

There are quite a number of risks that the 9.2 inch MK IX-X British Naval Gun Number 2 and its associated sites are subjected to. The following are therefore the major risks that were observed and how they Can be managed.

1.0 RISK: THE BIRDS.

Problem; Since Robben Island is also rich in natural heritage of which the birds form part of the biodiversity of the island the sight of the birds is not something uncommon. These birds however constitute part of the major and troubling risk to this Gun number 2 and of course the other Guns(3,1) The huge heavy metal shaft inside the canopy which is meant to be pure white has been greatly tainted by the droppings of the birds. The inside floor which is originally reddish in colour is also greatly tainted. Other features of the Gun that have been affected by birds droppings include the inside walls of the gun and the green cloth covering the rear side of the gun.

Solution; The problem of Birds on the island is one of a contentious issue which puts the environmentalists and heritage managers on the collision course as proposed solution by one is often seen to be to the disadvantage of the other. There is need for wider and deeper consultation between the two sides to strike a balance. In the immediate term however the best way is to make sure that the windows are thoroughly closed and the openings of the cloth at the rear of the Gun are properly closed by the Cloth so that the birds cannot find their way into the inside of the Gun .

2. 0 RISK: WEATHER ELEMENTS

Problem; The Gun and its associated features like the air vent are hugely subjected to elements of weather like rains and sudden changes to temperature. The rain waters have led to the peeling of the paint on the concrete platform on which the Gun rests. This is also compounded due to the fact that the drainage system on this concrete platform is blocked so water stagnates leading to much of the peeling on this concrete floor. The metals of the air vent are also visibly and progressively rusting due to oxidation processes.

Solution; The blocked drainage system on the concrete platform needs to be opened by plumbers. There should be periodic painting of the concrete platform. The Air vent also needs some constant periodic painting to protect it from agents of corrosion which are water and oxygen leading to oxidation.

3 .0 RISK; WEEDS

Problem; The weeds have virtually colonized the site of the park leading to the cracking and breaking of the concrete car park. These weeds also make an impression to the onlooker that the site is totally in derelict and unkempt.

Solution; The weeds can be checked by constantly uprooting them or just sprayed with chemical fumigants to suppress their growth.

4.0 RISK: ACCIDENTS

Problem; The top of the underground chamber which looks like a path to a common eye can be a trap to someone who can easily cave in if the top part of the chamber is not well supported. Even though for purposes of deception to an enemy during the second world war times it was important but today its use is now past and is therefore open to tourists who may encounter this problem. Again The steps to the Gun are so steep and inclined such that someone who is not careful can slip down.

Solution; There should be a signage warning the visitors about the presence of the top of the underground chamber of warning them away from stepping on it. The railings should be doubled as there are only single rails. The visitors should be warned to climb carefully especially when going down.

CHAPTER 5

THE VISITOR MANAGEMENT PLAN FOR GUN NUMBER 2

Gun number 2 on the Robben Island Museum forms part of the World war II facilities and sites on the island. Situated to the North west coast of the Island the Gun directly points to the west coast. Its appeal to visitors would be its historical significance as well as military scientific technology of the early 1900s. This Gun is 9.2 inch MK-X British naval gun that was used during the Second World War. Its technological attraction is that it's an improvement on the Mk VIII with an increased bore length from 40 to 46.7 calibers, increasing the muzzle velocity from 2.347 feet per second (715m/s) to 2.643 feet per second (806m/s)[1].

Currently the site of Gun number 2 is not open to visitors touring the island. However if in the near future the Robben Island Museum decides to open it to tourists the site needs to meet the following conditions outlined in this visitor management plan for better tourist experience.

1.0 ROAD IMPROVEMENT;

The road that leads to Gun number 2 is too narrow for the large tour Buses that ferry tourist around the island touring historical areas. There is a need to widen the road.

2.0 REGULATORY PATHWAYS

If the tourists will be required to get out of the Bus to see the Gun then there is a need for regulatory path ways to control and guide their movement to and from the Gun.

3.0 USER FRIENDLY STEPS

The steps into the inside of the Gun are very steep and not user friendly to the disabled tourists who may also wish to Go and see inside the Gun. To accommodate them it would be proper to devise some steps for the disabled onto the Gun.

4.0 DEMONSTRATION OF HOW THE GUN WORKS;

[1] Hogg, IV.(1998).Allied Artillery of World War II.The Crowood Press, Malbarough.

There is a need for the tour guides to be oriented by the naval authorities of South Africa on how these Guns were operating so that they should be able to demonstrate to the tourists who are very eager and curious on how these machines were working. These will really enhance and spice up the experience of the tourists.

5.0 CONTROLLED NUMBER OF TOURITS TO GO INSIDE.

Since the inside of the Gun cannot accommodate all tourists inside the Bus at once there is need to have a controlled number that can go inside in turns to both see the Gun and learn how it operates.

6.0 ERECTION OF THE SIGNAGE.

There would be need for a signage explaining briefly the history of the Gun. This is ofcourse to complement what the tour guide will tell to the tourists through his narration.

7.0 FIXED INTERVAL PERIOD FOR BUS VISITATION AT THE SITE

As a way of avoiding congestion at this small site there has to be an agreed interval of time for buses to visit the site. This will also address the issue of noise

to other tourists coming from the narration of the tour guide from the other group.

CHAPTER 6

DEVELOPMENTAL IMPACTS ON THE SITE OF GUN NUMBER 2

The developmental impacts on the site of gun number 2 are hereby defined and understood as those structures, changes and modifications that have taken place either on the site or directly on the Gun itself so as threaten or exert an impact on the authenticity and originality of the site and the Gun itself.

According to Feiden etal (1998) *Management guidelines for world cultural Heritage sites* authenticity can be jeopardized by the destruction of historical strata, modern replacement of original element particularly if based on conjecture and the addition of new elements.

The developmental impacts that have taken place on the site would be assessed here based on their impact on the following aspects of the authenticity of the site and the Gun; authenticity of design of the Gun, authenticity in materials of the site and the Gun , authenticity in workmanship and lastly but not least authenticity in setting.

2.1 DEVELOPMENTAL IMPACTS ON THE SETTING OF THE SITE

Situated to the North west coast of the Island the Gun directly points to the west coast. However a few meters from where the gun is aiming towards the coast there is a woodlot of alien vegetation mostly eucalyptus or bluegum which in a way blocks the coast from the Gun. This is the development which is impacting on the setting of the Gun since it was pointing towards a clear unhindered coast during the times of the war.

2.2 DEVELOPMENTAL IMPACTS ON MATERIALS OF THE GUN.

Although there is no much development so as to affect on the material of this monumental Gun we can still speculate that some maintenance activities like painting may have affected the original colour of the Gun. Thus as part of conservation measures to protect the gun from

corrosion it is painted and the paint over the years may have changed from the original painting of the Gun from the time it was first used. However other than this there isn't much development that has affected the material aspect of the Gun.

3.0 DEVELOPEMENTAL IMPACTS ON THE DESIGN OF THE GUN

There is no development on the site that has affected the Mechanical design of the Gun.

4.0 DEVELOPMENTAL IMPACT ON USE OF THE GUN

The fact that the Gun is now an object or artifact at the museum is in its own a developmental impact because the Gun cannot be put to use as was the case in the past.

5.0 DEVELOPMENTAL IMPACT ON THE WORKMANSHIP OF THE GUN

There is no developmental impact on this aspect of the Gun.

TIME LINE OF ACTIVITIES

The inspection of activities on the site could be done routinely and reports produced quatery.

CHAPTER 7

RECOMMENDATIONS AND CONCLUSION.

1.0 RECOMMENDATIONS

The following are some of the recommendations to the Robben Island Museum with regard to this Conservation Management Plan of the site of Gun NO.2.

- The Robben Island Museum should incorporate this Conservation Management Plan in their Main Conservation Management Plan.
- The Robben Island Museum need beef up its qualified staff in site management and make sure that there is regular inspection of all the historical fabric on the site with immediate report on any diagnosis of decay, leakage or disorder of any hertitage resource on the site and that the responsible staff produce quarterly reports of the state of conservation and condition of the heritage material on this world heritage site.
- There should be continuous dialogue to to find ways to minimize the cultural and natural conflict on the site.

2.0 CONCLUSION

The success in conserving the significance of a site depends on an effective Conservation management plan. This conservation Management Plan has taken on board all the important aspects of management plan and should therefore be incorporated in the main management plan of the Robben Island Museum.

REFERENCE

Feiden etal (1998) Management Guidelines for world cultural site .

Harriet Deacon (2004): Intangible Heritage in Conservation Management Planning: The Case of Robben Island , International Journal of Heritage Studies , 10:3,309-319.

Hogg, IV(1998) .Allied Artillery of World War II. The Crowd Press, Malbarough

Robben Island Museum Preservation Plan: The Restoration of WW2 Structures, DEL WAAL BATTERY,ordinance BL 9.2 inch MK VIII and MK IX, MKX Coast Defense Guns.

Wikipedia- BL 9.2 Inch Gun MKIX-X

APPENDIX I PICTURES OF GUN NO.2 & SITE

Fig 1; One side of the Gun which is tainted by birds' droppings

Fig 2; The inside floor which is heavily tainted with droppings of birds.

Figure 3; The concrete park which is colonized by weeds

Fig 4, weeds and visibly rusting air vent

Fig 5; The plat form with no drainage