

# HERITAGE SCOPING ASSESSMENT OF THE ROGGEBBAAI CANAL PRECINCT, FORESHORE, CAPE TOWN

Prepared for

**The Environmental Partnership**

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Prepared by

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## **EXECUTIVE SUMMARY**

The Archaeology Contracts Office (ACO) of the University of Cape Town was appointed by The Environmental Partnership to undertake an initial heritage impact assessment of the proposed Roggebaai Canal Precinct , Foreshore, Cape Town.

### **Findings:**

- The canal passes mainly over reclaimed land, the impacts of which have been monitored by Neptune Consulting and others. No further impacts resulting from the canal are anticipated, as its construction is complete.
- There is a possibility that remains of shipwrecks and other maritime artifacts will be encountered close to the old shoreline and what used to be the small boat harbour area, however impacts are only expected where deep basements, services or underground parking is envisaged.
- The proposed business and residential development planned for the canal precinct may, in one area impact the buried remains of the old small boat harbour which lies under reclaimed land between the Caltex Garage at the V&A Waterfront, and the site of the existing customs examination shed.
- The customs examination shed (Queens Warehouse) is the only structure of any consequence that was present in the precinct in the Mid-20<sup>th</sup> century. Indications are that it was built after 1945 and does not fall within the conservation criteria of the National Heritage Resources Act 25 of 1999.

### **Recommendations:**

- An archaeologist should monitor excavations. In the event of a find being made, Heritage Western Cape and SAHRA should be informed immediately and mitigation/rescue procedures negotiated.
- There is extensive archival photographic footage of the Roggebaai area of 19<sup>th</sup> century Cape Town – a busy small harbour, fish market, port, semi-industrial and residential area. Some of this has been digitized for the purpose of this study should the architects and planner desire to draw from this to establish a sense of place for the new precinct.

## CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>4</b>
1.1	SCOPE OF WORK .....	4
1.2	METHOD .....	4
<b>2</b>	<b>HISTORICAL BACKGROUND .....</b>	<b>4</b>
2.1	THE 17 <sup>TH</sup> CENTURY .....	4
2.2	THE 18 <sup>TH</sup> CENTURY .....	5
2.3	THE 19 <sup>TH</sup> CENTURY .....	5
2.4	THE 20 <sup>TH</sup> CENTURY.....	6
<b>3</b>	<b>CURRENT STATUS OF HERITAGE SITES.....</b>	<b>7</b>
3.1	BUILT ENVIRONMENT .....	7
3.2	BURIED ARCHAEOLOGICAL SITES .....	8
<b>4</b>	<b>RECOMMENDATIONS .....</b>	<b>9</b>
<b>5</b>	<b>DESIGN INFORMANTS .....</b>	<b>9</b>
<b>6</b>	<b>APPENDIX A.....</b>	<b>10</b>
<b>8</b>	<b>IMAGES OF QUEENS WAREHOUSE (AUGUST 2003).....</b>	<b>16</b>
<b>9</b>	<b>REPORT BY GLENDA COX.....</b>	<b>18</b>
9.1	EXECUTIVE SUMMARY .....	18
9.2	INTRODUCTION.....	19
9.3	ANTICIPATED IMPACTS.....	22
9.4	LEGISLATION .....	22
9.5	RECOMMENDATIONS.....	23
<b>10</b>	<b>REPORT BY NEPTUNE.....</b>	<b>24</b>
10.1	INTRODUCTION.....	24
10.2	BASELINE ENVIRONMENT .....	24
10.3	TABLE BAY – ENVIRONMENTAL BACKGROUND .....	24
10.4	2. TABLE BAY – MARITIME HISTORICAL BACKGROUND .....	24
10.5	3. BOUNDARIES AND BRIEF HISTORY OF THE AREA DEMARCATED FOR DEVELOPMENT .....	25
<b>11</b>	<b>IMPACT ASSESSMENT .....</b>	<b>26</b>
11.1	1.MARITIME ARCHAEOLOGICAL SITES WHICH MIGHT BE AFFECTED BY THE CAPE TOWN INTERNATIONAL CONVENTION CENTRE .....	26
11.2	SOIL CONTAMINATION.....	31
<b>12</b>	<b>RECOMMENDATIONS .....</b>	<b>31</b>
<b>13</b>	<b>CONCLUSIONS AND SUMMARY .....</b>	<b>32</b>
<b>14</b>	<b>PROFESSIONAL TEAM .....</b>	<b>32</b>
<b>15</b>	<b>BIBLIOGRAPHY .....</b>	<b>32</b>

## **1 Introduction**

The Archaeology Contracts Office of the University of Cape Town was commissioned by The Environmental Partnership CC to prepare a scoping heritage impact assessment of the Roggebaai Canal Precinct. The following pages contain a review of the known history of the area, describes the area and comments on the impacts of the envisaged development on any such sites and the historic landscape of which they form a part. Appendix A contains a collection of historic photographs of Roggebaai, which can be used to inform the visual qualities of the proposed development. Appendix B contains copies of reports by other consultants who have done background research in the area. This history of the area is fairly well understood since a strong body of heritage related work with respect to the foreshore and the Victoria and Alfred Waterfront already exists.

### **1.1 Scope of work**

According to the National Heritage Resources Act of 1999 development activities that exceed stipulated parameters require a heritage impact assessment. These studies, which normally proceed in phases, examine the impact of development activities on heritage. Broadly defined, the term “heritage” includes everything from geology, palaeontology and archaeology to built environment, landscapes and traditions.

### **1.2 Method**

The primary method has been examination of historic maps, texts and secondary sources of information. The area has been subject to a site visit to establish if there are any visible heritage aspects that fall within the criteria of the legislation.

## **2 Historical Background**

### **2.1 The 17<sup>th</sup> century**

Roggebaai was a broad curved shallow bay sheltered from the southeasterly winds in summer but affected by heavy Atlantic swells during the winter months. Most of the time it was a quiet sheltered bay and an easy landing area for small boats. The deeper waters provided an anchorage for visiting shipping. There were no formal harbour facilities apart from the jetty that was eventually built close to the castle. Larger ships would moor in deeper water, while goods and passengers were ferried to the shore and back with lighters and longboats. In pre-colonial times Khoekhoen herders, and before them San hunter gatherers would have exploited the easily accessible marine resources of the bay. Artifactual material indicating their presence has been found under the Kat balcony of Castle of the Cape of Good Hope, at the Golden Acre site and more recently, on two building sites in Green Point.<sup>1</sup>

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<sup>1</sup> David Halkett (ACO) pers com., Graham Avery (Iziko) pers com., Alan Morris (UCT) pers com, ACO in progress.

## 2.2 The 18<sup>th</sup> century

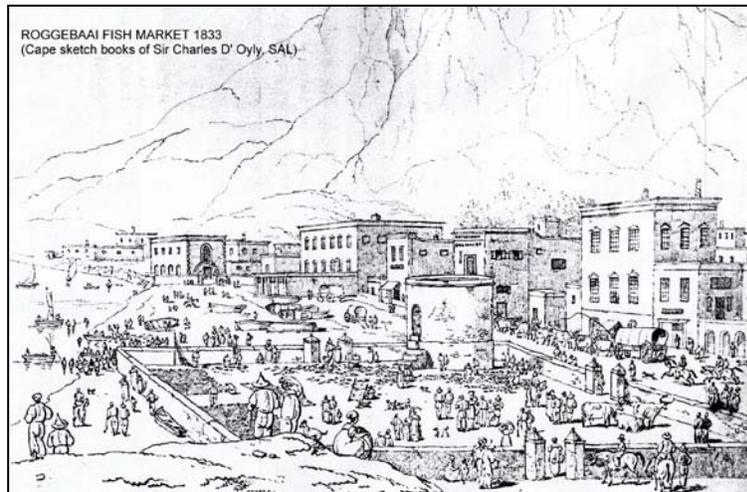
During the early 18<sup>th</sup> century Roggebaai began to assume a number of functions. It was the point from which fishing boats departed or were pulled up onto the beach, fish were landed here where they were cleaned and sold. Together with the local whaling industry these activities made the bay a busy part of the city, but also contributed to polluting the waters of the bay, which being shallow and sheltered gained a reputation for being thoroughly unsavory. Being immediately adjacent to Strand Street, the Roggebaai beach was a heavily used area.

In 1783 in response to growing political tension, two gun batteries were built by the French to supplement the defences at Cape Town. Known as the Roggebaai Batteries, these were designed to supplement the firing arcs of the Imhoff and Amsterdam Batteries. It is not clear when these batteries were demolished, however their remains may yet lie under the edge of reclaimed land between Adderly and Long Streets.

Shipwrecks during the violent northwesterly storms were an annual occurrence with sailing vessels dragging their anchors in heavy swell and ending their lives on the beaches of Table Bay. Remains of vessels have been found under the site of the Table Bay power station, the Civic Center, and apparently under the Caltex service station at the entrance to the Waterfront (a detailed report by Neptune is appended).

## 2.3 The 19<sup>th</sup> century

During the 19<sup>th</sup> century Roggebaai began to play an increasingly diverse role. By that time its use as a fish market, small boat landing area, whale processing area had become very much a tradition of the City. The commencement of the British occupation (1806) and the abolition of slavery saw Cape Town becoming a crowded place short of



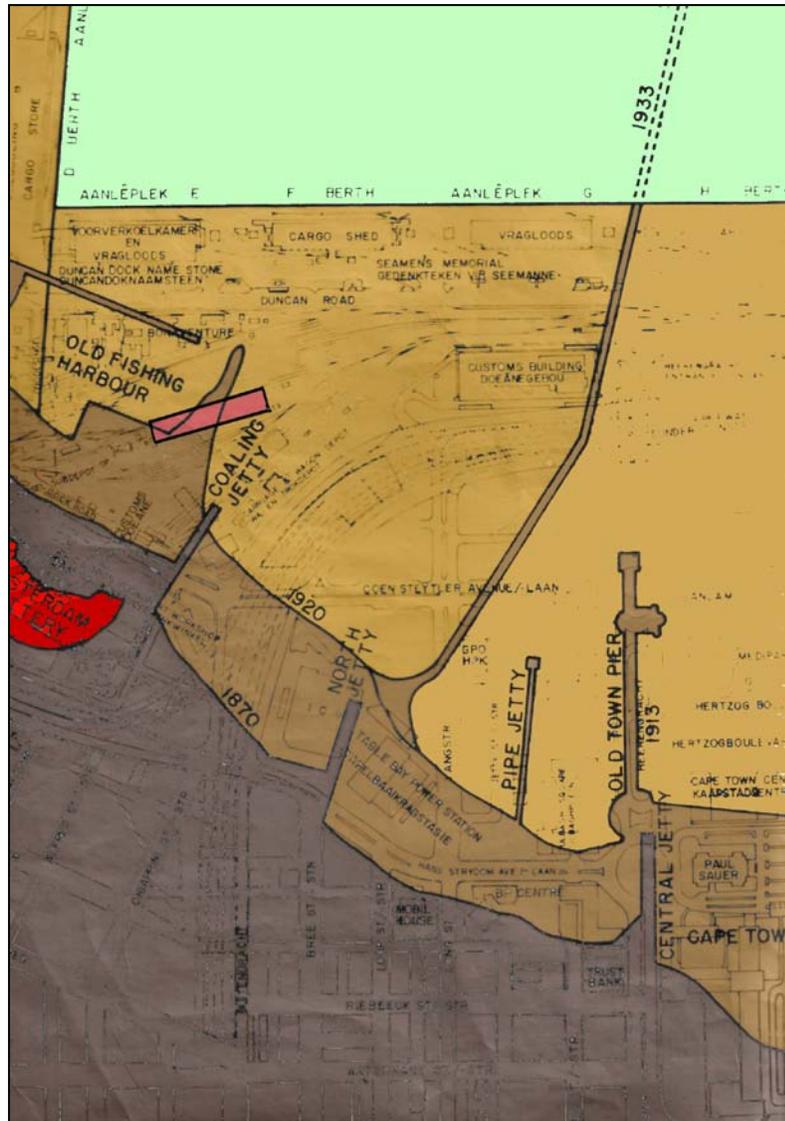
accommodation for a growing underclass – slum landlords hired out backyards and privately owned alleys to people desperate for a roof over their heads. Pollution was severe in parts of the city and health conditions poor. Roggebaai was a dirty bustling back-water, where boats of all manner were pulled up on to the beach. Along the polluted shore were houses of the underclass, over crowded and unhealthy but made worse by the offal and sewage from the city that found its way into the shallow bay. Table Bay's pollution became more serious once mechanically powered vessels called in regularly with the water being polluted by

oil and coal dust. By 1870 the Alfred Basin and Breakwater had been completed to make the bay safe for shipping during the winter storms, while fishing boats still used a sheltered area in the lee of the basin.

By the end of the 19<sup>th</sup> century several large jetties had been built into the bay and a small boat harbour (fishing boats) was established between 1870 and the first land reclamation in 1920. The remains of the North Warf situated at the bottom of Bree Street were located by archaeologists in 1987<sup>2</sup> while the coaling jetty was found by Navradinov and Sharfman at the commencement of excavation of the Roggebaai Canal.<sup>3</sup> Hart located a portion of walling under reclaimed land that was identified as part of the old Fishing Harbour during excavation for services of the Clock Tower Precinct of the Victoria and Alfred Waterfront.

#### 2.4 The 20<sup>th</sup> Century

Enormous changes to Roggebaai took place in the 20<sup>th</sup> century. Firstly there was substantial land reclamation which saw the older jetties of Roggebaai covered with fill. A small fishing harbour was built into this immediately east of the South Arm of the Victoria Basin. In 1933 a massive random block mole was built into the sea from the bottom of Bree Street. Built from 6 ton concrete wave breakers piled on the sea bed, this temporary harbour was designed to provide additional shelter for large ships, however it was not a great



Sequence of land reclamations on the foreshore. The Customs examination shed (pink) lies over the footprint of the old fishing harbour (Map after South African Transport Services, Historical Development, Table Bay Harbour)

<sup>2</sup> Saitowitz, S and Zeeman, U. The North Warf. Unpublished Report

<sup>3</sup> Pers comm.

success. Remains of this structure were found during the recent construction of the Cape Town Convention Center and proved to be very difficult to remove. The massive reclamation of the Foreshore and the construction of Duncan Dock was completed in 1945 creating a large open space “in front” of the city which has come to be known as the “Foreshore”.

Development of the foreshore area has taken place slowly with the area immediately adjacent to Duncan Dock being used for Port infrastructure, marine business, railways and goods yards. Today the immediate area of the Roggebaai Canal on the foreshore had a bleak quality, some of the buildings are deserted and unused pending the development of the Roggebaai Canal Precinct.

### **3 Current status of heritage sites**

#### **3.1 Built environment**

Since most of the affected area was only developed after completion of the reclamation in 1945, none of the built structures are technically protected by heritage legislation. The only substantial structure in the area is the Customs Inspection Shed or Queens Warehouse.

##### **3.1.1 Customs inspection shed (Queens Warehouse)**

This prominent building was one of the first structures to be erected on the newly reclaimed land of the foreshore. It was a key component of the Duncan Dock infrastructure situated alongside a series of railways lines that connected with the dockside. The building is substantial in size being designed to handle large amounts of cargo at any given time. Its interior is a single enormous space without any dividing walls, and a steel framework supported roof. Its exact date of construction is unknown but by deduction it is estimated to date to between 1945 and 1952. Its presence is not indicated (or even considered) in the foreshore planning document of 1940 and not present on aerial photographs taken of the harbour in 1944<sup>4</sup>. Of interest is that fact that it was originally named the Kings Warehouse (still visible on the paintwork on east front) but this was hurriedly painted out and replaced with “Queens”. King George V1 died in 1952, which would indicate construction of the building shortly before this date. The structure is probably younger than 60 years of age and is not protected.

The building is of minor historical significance in that it is associated with the early days of Duncan Dock and the Foreshore reclamation, however the fact that it will be a difficult structure to put to adaptive reuse and wont contribute to the aesthetics of the proposed development outweighs any need for conservation.

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<sup>4</sup> Report of the Town Planning Advisers on the Cape Town Foreshore Scheme. 1940. South African Railways and Harbours. Pretoria: The Government Printers.

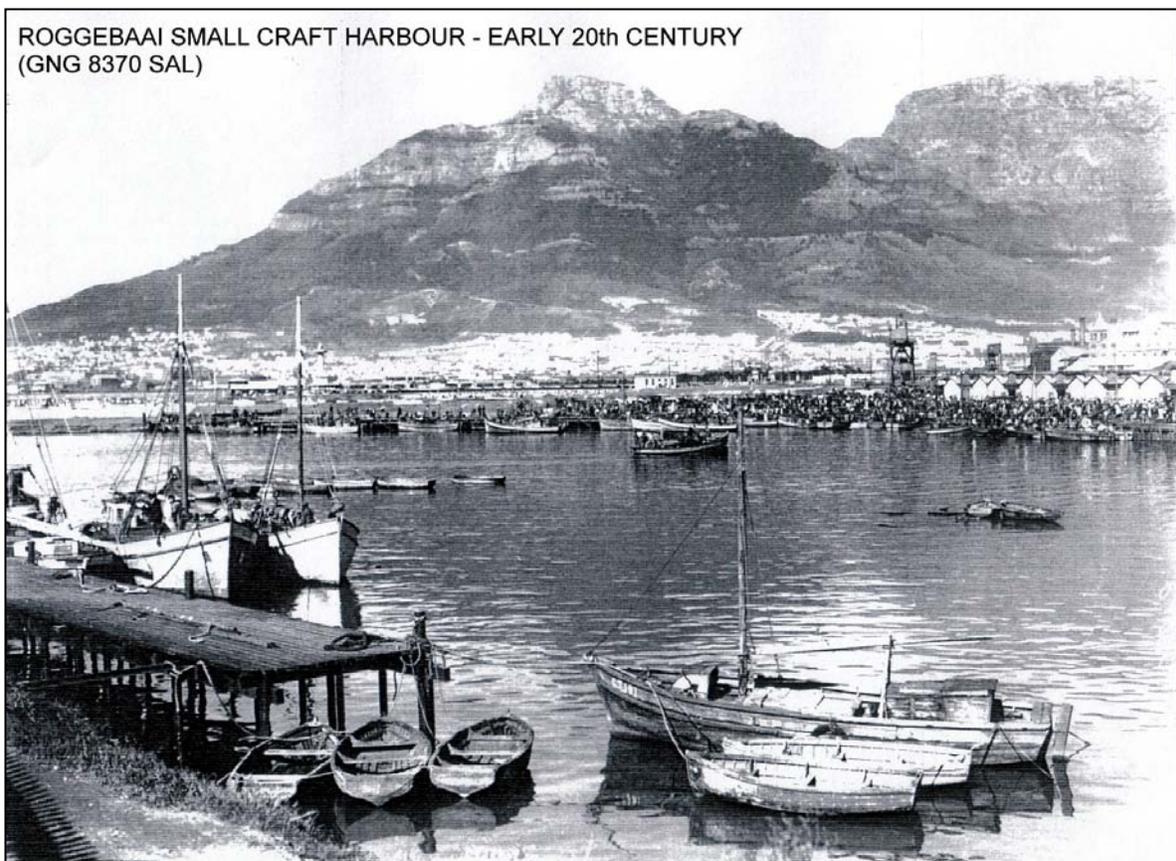
## 3.2 Buried Archaeological Sites

### 3.2.1 Shipwrecks

The major portion of the development area lies within reclaimed land. Monitoring of deep excavations at the Convention Center produced very little by way of maritime artifacts. Although many ships were wrecked in the area, we suspect that the seabed was thoroughly dredged in the 1930's after this part of the bay was enclosed within the harbour created between the random block mole and south arm. It would have been necessary at that time to dredge the bay to a depth of at least 10 meters to create an anchorage for large ships. This would have destroyed shipwreck material in the area. If anything has survived it is likely to be below 10m below the current land surface.

### 3.2.2 Fishing harbour

There is a possibility that parts of the small boat harbour may be encountered in shallow excavations in the vicinity of the cargo shed. Warfside walling was found close to the Clock Tower Precinct. Within the area that was enclosed within the fishing harbour maritime artifacts are a strong possibility and these may be encountered at a depth of about 5m below the current land surface.



#### **4 Recommendations**

- Any deep excavations in the development area should be inspected on a twice- weekly basis by an archaeologist.
- In the event of an archaeological finds being made, the archaeologist will need enough time to photograph, record and sample or excavate the find as he/she may need.
- The Customs Examination Shed should be photographically recorded before it is demolished.
- The development area as a whole poses little risk to existing heritage material.

#### **5 Design informants**

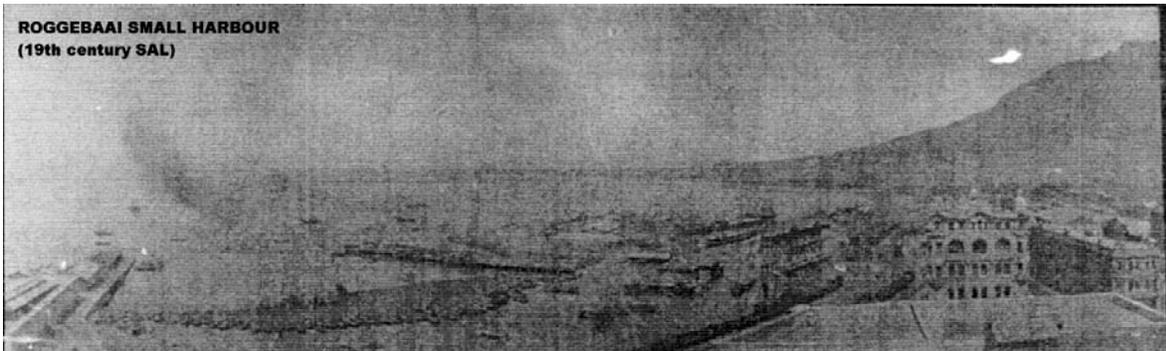
The good documentary and photographic record of the Roggebaai area allows us to reconstruct a vivid picture of what it may have been like in the late 19<sup>th</sup> century before it was destroyed by land reclamation.

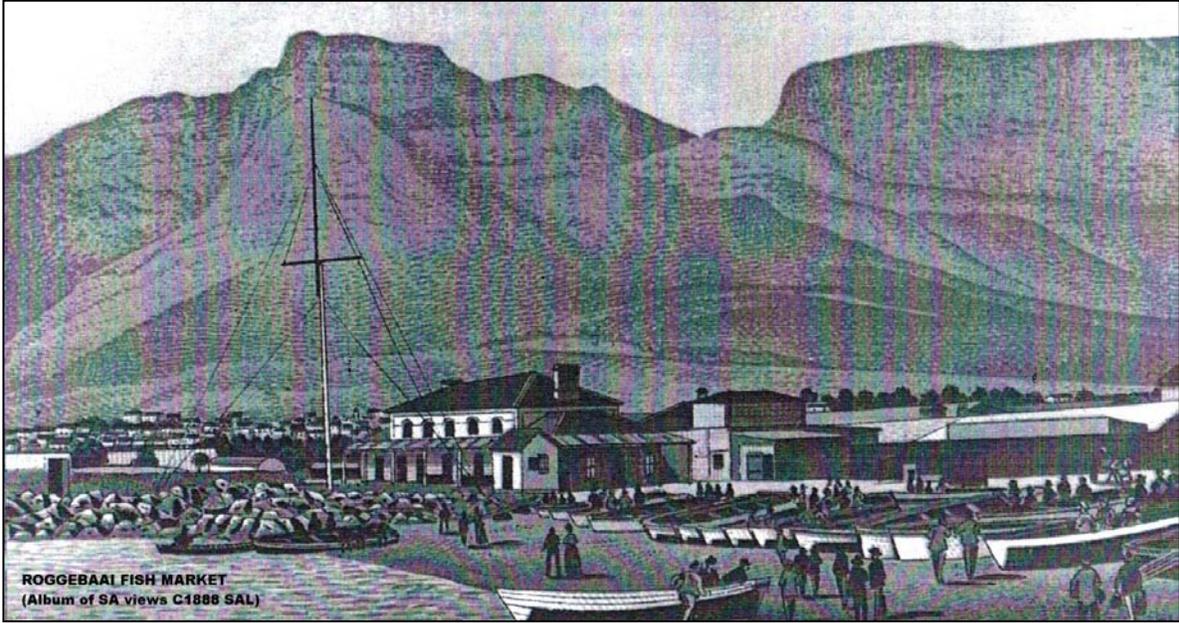
- A busy harbour and beach crammed with small wooden boats and sailing craft.
- Place where fish were cured and sold, boats and nets mended.
- A place where people lived and worked – namely immigrants, freed slaves, fishermen and artisans.
- A place of eclectic architecture, run down buildings, Victorian industrial structures, Bokaap style houses, flat roof vernacular dwellings, larger Cape vernacular town house style buildings.

Research and report by Tim Hart, Harriet Clift and David Worth

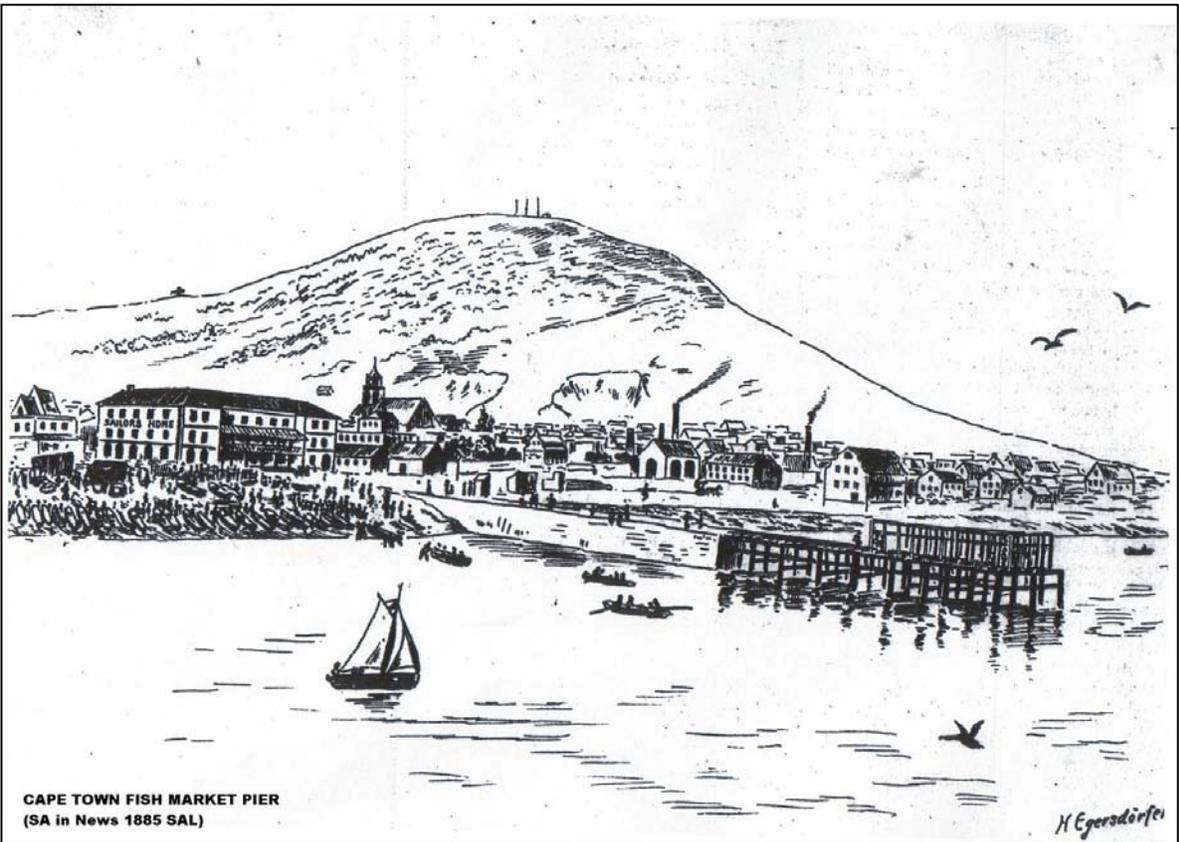
**6 APPENDIX A**

**SEQUENCE OF HISTORIC PHOTOGRAPHS SHOWING SCENES FROM  
ROGGEBAAI AND LOWER ADDERLY STREET**





ROGGEBAAI FISH MARKET  
(Album of SA views C1888 SAL)



CAPE TOWN FISH MARKET PIER  
(SA in News 1885 SAL)



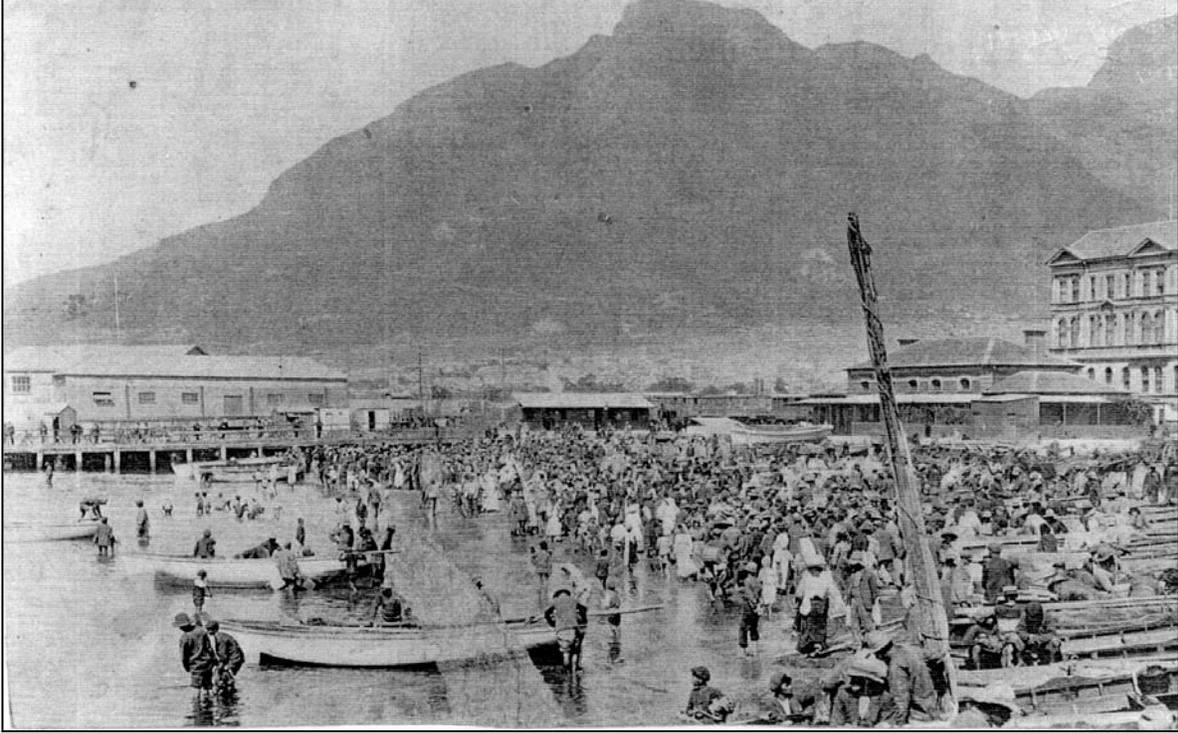
HAULING IN THE BOATS  
(Cape Times Weekly 16/1/1907)

7



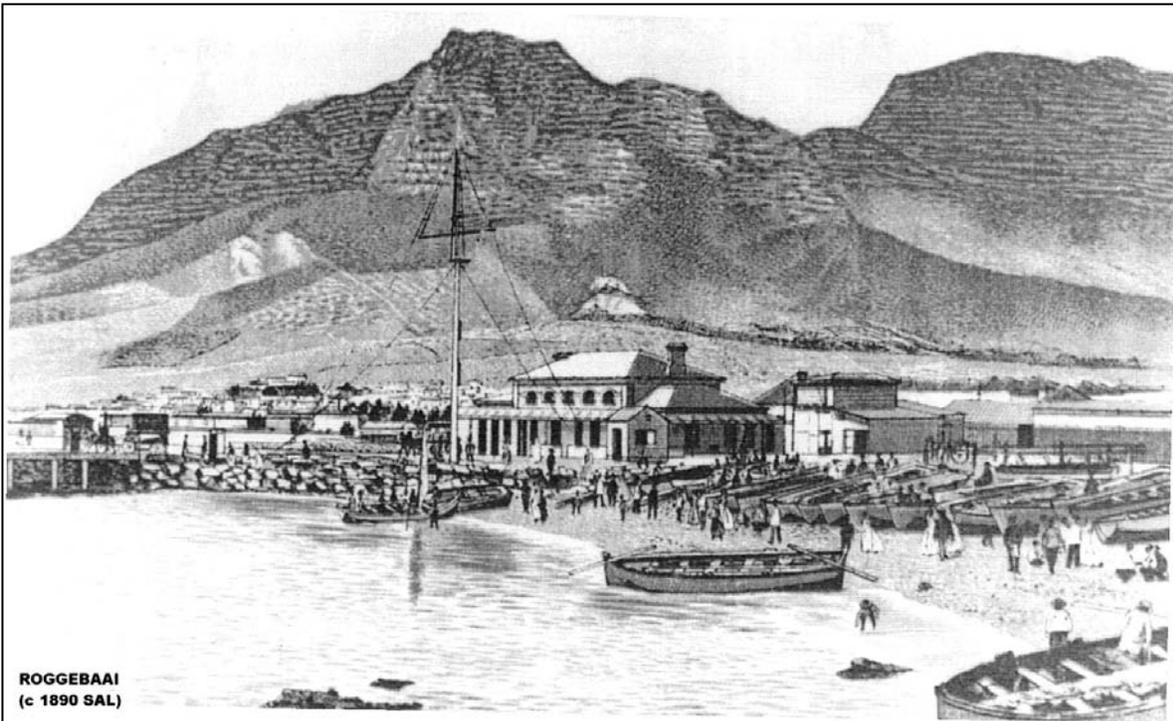
ROGGEBAAI  
(GNA 406 SAL)

ROGGEBAAI  
(Roggebaai SAL)



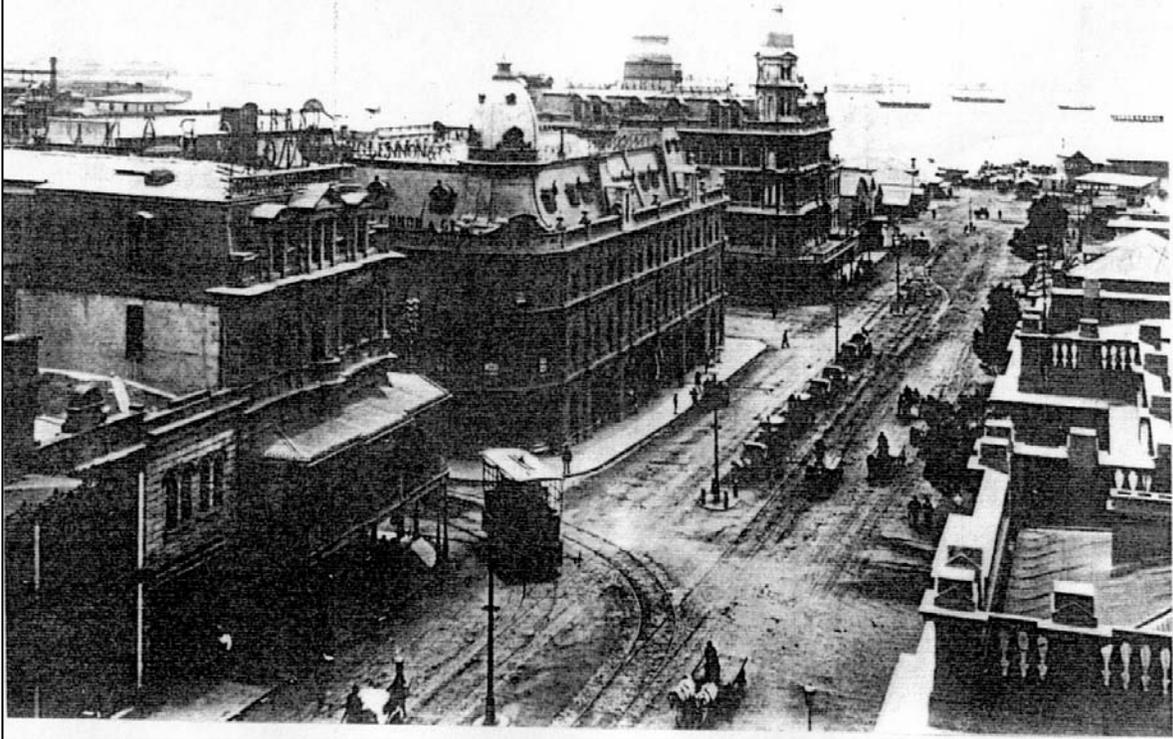
BRINGING IN THE CATCH AT ROGGEBAAI ABOUT 1880  
(Roggebaai SAL)

ROGGEBAAI  
(Kodak SA from Cape Town  
Chamber of Commerce)



ROGGEBAAI  
(c 1890 SAL)

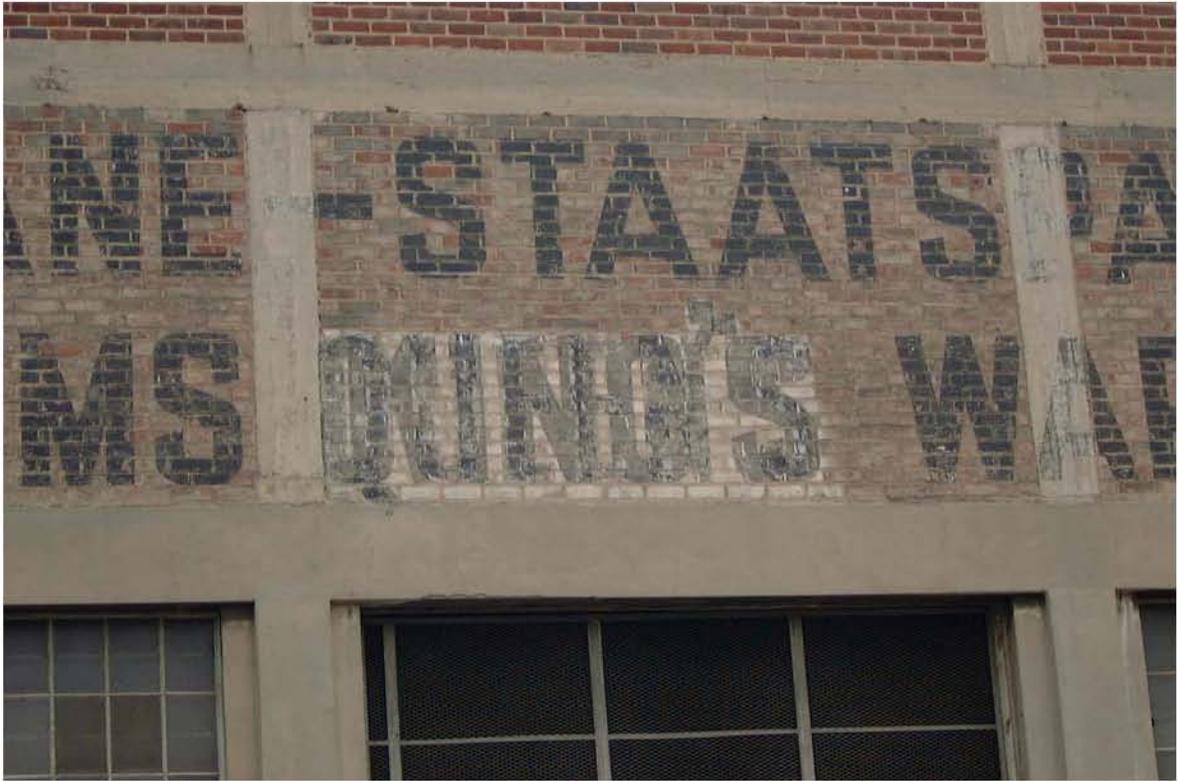
ADDERLY STREET c 1898  
(after Rosenthal E., 1977 Fish Horns and Hansom Cabs)



ADDERLY STREET AND FORESHORE  
SHORTLY AFTER RECLAMATION  
(SAL)

8 IMAGES OF QUEENS WAREHOUSE (August 2003)





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## **9 REPORT BY GLENDA COX**

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### **9.1 *Executive summary***

After considerable research the only structure that appears to lie beneath the Conference Centre site is the Random mole built in 1926. Its concrete foundations may still exist. Artefacts from the 20<sup>th</sup> century will most probably be found. It is however possible that early 20<sup>th</sup> century maps are incorrect.

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## 9.2 Introduction

The aim of this document is to evaluate the archaeological potential of the site comprising Erven 221 and 222. The Long Street extension traverses the site with Coen Steytler Avenue to the southwest, the Heerengracht on the southeast and the elevated eastern Boulevard to the north and northeast.

This report will provide background information on the developments of the coastline in the vicinity of the Conference centre. This will involve tracing the history of this piece of land. Information will be included under three main headings:

A 'baseline information' section will provide a detailed account of developments in Table Bay. The changes to the coastline and harbour development will be outlined. This section will be placed in time blocks under the headings: 1800's and 1900's. Specific emphasis will be placed on the history of:

- 1) Old Cape Town Pier built in 1913-this structure represents an intriguing and colourful part of Cape Town's past that many Capetonians are unaware of.
- 2) Random Mole Block (c.1926) this structure will almost certainly lie in the path of the foundations for the centre. Its history will be discussed

These two structures are close to and possibly partially exist near to the conference centre site.

- 3) An attempt will be made to source the nature of the fill used during land reclamation.
- 4) Maritime archaeologists have also been involved in an assessment. They have done considerable research on the fill. (Please refer to their report)

The 'Anticipated impacts' will be outlined. Potential archaeological finds will be discussed according to whether they are very likely to be found. Sites and finds will be 'graded' in terms of their significance as heritage resources according to the criteria set out in the heritage legislation.

My recommendations will be closely tied to the current legislation.

### 9.2.1 Baseline Information

The Table Bay coastline has changed remarkably since colonial settlers first arrived in 1652. However during this early period little was done to set up a permanent working harbour. Fortifications were built to defend the coastline.

1800

The only jetty at this time was the original one that was much altered built by Jan Van Riebeeck. In Figure one (top) it is visible near the Castle and is referred to in the literature as the South Jetty. It was felt by the Dutch (1652-1795), Batavia (1803-1806) and the British (1795-1802; 1806 until independence) that the expense involved in building a breakwater and improved harbour was not justified by the level of economic activity in the Colony. Individuals and private organisations took the initiative in building better harbour facilities. A regular ship repair yard was proposed and the government allocated a piece of land for this purpose in 1822, on the beach next to Muntingh's Whale-fishery at the end of Bree Street in the vicinity of the Amsterdam Battery.

The Cape Government in an effort to improve maritime safety in Table Bay built the Green Point Lighthouse in 1824. Increased pressure by the people of Cape Town, after a gale in June 1828 drove four ships ashore in Table Bay, saw the government draw up plans for a stone jetty.

Construction of a stone pier began in 1833. Situated just south of the Amsterdam Battery it was protected slightly by a small reef.

A small jetty ('Central Jetty') was built near the Castle to take pressure off the old South Jetty (See Figure 1). It was situated at the end of Adderley Street with Rogge Bay beach on the north side of it. The old fish market, established in the 19<sup>th</sup> century was at the bottom of St Georges St at Rogge Bay. Fishing was a staple occupation in Table Bay from the earliest times. Despite initial enthusiasm, Lord Stanley, the current colonial secretary, suspended the Stone Pier construction because of the immense cost. Eventually the Stone Pier eroded away and plans were made to construct the new and more modestly proportioned North Jetty of wood and stone.

The construction of the North wharf or jetty began in 1839 and it was opened for trade in 1842 (Figure 1). It was located at the bottom of Bree Street. The exact dimensions of the North wharf are not known but archival evidence suggests that it was repaired and extended several times.

Interestingly, a survey of maps kept at Portnet House at the Waterfront depicting the history of the harbour, show the North Jetty and a Coaling jetty to the south of the Amsterdam as early as 1846. It has been assumed in published material and on many modern maps with historic overlays that this jetty was only constructed in 1883. After a detailed search at the archives it seems that the 'Coaling Jetty' constructed in 1883, a different jetty altogether, being part of the greater harbour plan proposed by Sir John Coode (see below).

Coaling became one of the major industries in Cape Town. The first bunkering facility was a large corrugated iron building erected next to the Central Jetty and was completed in 1854. Mail ships began arriving at the Cape from 1857 and they needed proper landing facilities.

It was only once the colonists had gained representative government that plans for the harbour drawn up by Sir John Coode were finally approved. Sir George Grey was the governor at the time and he cleverly announced that Prince Alfred, as part of his visit to the colony, would launch the scheme. On 17 September 1860 in a lavish ceremony the Prince tipped the first load of stones into the water to commence the construction of the breakwater. The Alfred Basin and Robinson dry dock were subsequently built. It was obvious from the moment these initial harbour developments were completed that they would need to be expanded upon. Huge increases in imports and exports placed pressure on facilities but it was still a huge improvement over the sandy beach and small jetty.

Extensions to the Outer harbour, proposed by Sir John Coode proceeded in the 1880's. In 1893 the first truckload of rock was tipped to start the construction of the South Arm (See Figure). The years 1893 to 1895 saw the completion of the outer or Victoria Basin.

The increasing shipping traffic and huge 10 000 ton Union- Castle mail ships drew attention to the inadequacy of the Victoria basin. Proposals were put forward for additional berthing on the opposite side of the South Arm and reclamation of the adjacent shoreline.

In 1896 the area between the Coaling jetty and the North Wharf had been approved for land reclamation and this area became known as 'Combrink's Concession'. This fill provided the foundation for the Imperial Cold Storage building.

During the 1900's, dramatic and rapid changes were being made to the harbour and foreshore. It was time for the old to make way for the new and for land use to be maximized. In 1903 further landfill occurred and the original shoreline with the famous North Jetty was buried. The foreshore area had become overcrowded and with harbour developments and the new railway centre it had become "...a most unworthy gateway to the mother city..." (Veitch 1994:85).

In 1907, a scheme to develop the foreshore was drawn up but there was a considerable lapse of time (mostly due to World War one) before the scheme was implemented.

In 1913 'The Pier' was built at the foot of Adderley Street. The Pier went 300 meters out into the bay. It is incorporated a tower, concert pavilion, restaurant and swimming and boating facilities. It brought the townspeople to the sea and was a very popular outing for many Capetonians. Marine Drive curled around the bay. It was lined with palm trees and the English seaside tradition seemed complete.

It was however never a financial success despite it's popularity and the demands of harbour expansion led to its demolition in 1938. The remains of the Pier are said to still lie beneath the traffic circle on Heerengracht Street.

The harbour was extremely busy during the First World War and after the war with industry booming and large Union-Castle ships arriving at the Cape. The breakwater was lengthened and the South Arm of Victoria basin was widened.

In 1926 building began on the Random Mole constructed from huge concrete blocks. It was positioned slightly north of the Municipal Pier, it extended out into the Bay and then turned sharply north west toward the New basin entrance.

This southern scheme was completed in the mid 1930's. It was soon realised that the design was flawed and liners were not properly sheltered from the strong south-easter wind. So in 1935 new plans were made for a giant new dock. The new basin was to be sited some distance out in the bay and 2 million m<sup>2</sup> of land needed to be reclaimed.

A Dutch company got the contract and 11.5 million m<sup>3</sup> of offshore and near shore sand and clay was dredged to get the correct depth and dumped in front of Marine Drive. Huge amounts of sand from near the present day CT International airport site were dumped together with rubble from different sites. The last concert was held on the Pier on 27 March 1938 and it was demolished. The Duncan dock was finally completed in 1945 after World War two had ended. In 1947 the Foreshore plan was drawn up with a grand entrance to Cape Town proposed. These plans were never put in place and the reclaimed land on the Foreshore provided parking for many years. The erven on which the Conference Centre will be built has served as a parking area since the 1940's.

The more recent developments are not relevant to this discussion. It is also worth noting that the above outline is brief and has focused only on those aspects of Cape Town's history that will assist in our prediction of the archaeological impact of the construction of the Conference Centre on the Foreshore.

#### Fill and contamination

The fill used for reclamation has been discussed above. A concern was expressed by the CHAND that the soil in the area might be contaminated. As an archaeologist I am not qualified to comment on soil contamination. GIBB Africa completed a report in August 1999 on "Environmental contamination and geotechnical conditions " for the Culemborg-Black River area and perhaps a similar report could be completed for the Canal and Conference centre locations?

The basins in the Victoria and Alfred Basin had to be cleaned up after a report in 1989 found that they contained illegal discharges of various pollutants (Birkby 1998). The remains of the North

Wharf were excavated in 1989 and the archaeologists involved commented that at about 3 meters below the surface there was water seepage. The water was polluted but no tests were performed on the nature of the pollution.

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### **9.3 Anticipated Impacts**

The following section is a discussion of anticipated impacts. The archaeological material has been placed into categories: wrecks, historical archaeological artefacts and structures. These categories have been placed in order with the least likely to be found archaeological material described first. They have also been graded according to the assessment criteria laid out in the National Heritage Resources Act of 1999.

1) The impact on maritime archaeological sites has not been discussed in this report as it forms part of separate study. However I must emphasize that there is strong likelihood that the remains of wrecks will be found. The recommendations of the maritime archaeological assessment must be considered along side this report.

2) It is unlikely that the remains of the Cape Town Pier lie in the path of the Conference centre development (Grade II)( See map). It must be pointed out that we cannot rely precisely on the positions of features shown on old maps as these were sometimes inaccurately plotted. Foundations of the Random Mole dissect part of the erven under survey.

3) It is likely that archaeological artefacts from the 1900's and possibly earlier will be found during excavation (Grade II). Artefacts in this context would need to be collected.

### **9.4 Legislation**

National heritage resources Act (Act No 25)

I thought it would be appropriate to quote a few of the sections pertinent to archaeological remains. The Act is now part of the 'parliament' website if any queries arise.

In this Act "archaeological" means:

"...material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artefacts, human and hominid remains and artificial features and remains..."

Heritage assessment and criteria:

Section 7 (1):

"...a) Grade I: heritage resources with qualities so exceptional that they are of special national significance;

b) Grade II: heritage resources which, although forming part of the national estate, can be considered to have special qualities which make them significant within the context of a province or region; and

c) Grade III: Other heritage resources worthy of conservation

Section 34 (Structures)

"...No person may alter a demolish any structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority..."

Section 35 (Archaeology, palaeontology and meteorites)

“...Any person who discovers archaeological or paleontological objects or material...in the course of development...must immediately report the find to the responsible heritage resources authority...”

Section 38 (Heritage resources management)

“...any person who intends to undertake a development...must at the very earliest stages of initiating such a development notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development...”

The legislation then describes the expected content of an impact assessment report. The report above satisfies the terms and conditions laid out above. This report must be handed to, in this case, the National Monuments Council, for their perusal. They should then consult with the developer about the plan of action that should be followed in the interest of all parties affected.

### **9.5 Recommendations**

Based on the results of the research the following recommendations are made:

It must be emphasised that maps drawn in early 20<sup>th</sup> century may not be accurate. The overlay (Figure 2) suggests that the old central jetty and municipal pier do not lie beneath conference centre site. However this needs to be treated with caution. These structures are protected by the heritage act and if found a permit would need to be acquired which would delay building.

I recommend that an archaeologist be on site to monitor the bulk earthmoving operations. The archaeologist will therefore be available in case any structures are found and can also check the contents of the fill and look for any archaeological dump sites.

Please also refer to recommendations of maritime archaeologists.

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## 10 REPORT BY NEPTUNE

### **10.1 INTRODUCTION**

Neptune Research cc., a maritime archaeological contracts company, was commissioned by Chand Environmental to conduct a desktop archaeological investigation of aspects of the Foreshore precinct, Cape Town. This investigation was aimed at assessing the maritime archaeological potential of the area demarcated for the development of the Cape Town International Convention Centre, between the lower ends of Long and Adderley Street. This study includes a brief historical summary of the area in question and some of the environmental factors that played a role in the creation and distribution of maritime archaeological sites. Also included are maritime related structures, such as piers or jetties, which may be effected by this development as well as a list of potential shipwrecks in the area. Finally, as a result of concerns expressed regarding possible soil contamination, some research related to the origin of the landfill used during land reclamation is presented.

### **10.2 BASELINE ENVIRONMENT**

#### **10.3 TABLE BAY – ENVIRONMENTAL BACKGROUND**

Table Bay is located to the north of the Cape Peninsula, Western Cape province, South Africa and has an approximate surface area of 20 square miles. It is relatively shallow, with the greatest depth of approximately 35 metres being recorded in the channel between Robben Island and Green Point. The channel is also commonly referred to as “the bay entrance”.

Approximately half of the swell entering Table Bay comes from a southwesterly direction, a quarter from a westerly and northwesterly direction and a negligible amount from a southerly direction. Research indicates that swell in Table Bay generally maintains significant magnitude throughout the year (van Ieperen 1971). In all instances, prior to harbour construction and land reclamation, the southeastern and southwestern beaches of the bay were significantly more protected compared to the eastern ones.

Wind data indicates that southeasterly winds occur most frequently and have the highest velocity during the spring and summer months. In winter, there is a significant increase in the frequency and velocity of winds from the northwesterly quarter (van Ieperen 1971). Severe storms are common in winter, bringing gale force wind (above 65 km/h) and heavy swell and, as the historical record indicates, it is under conditions such as these that several ships were wrecked within a matter of hours.

#### **10.4 2. TABLE BAY – MARITIME HISTORICAL BACKGROUND**

While there is speculation of a possible voyage round Africa made by Phoenicians as early as the 5<sup>th</sup> century BC, the first concrete evidence of such an undertaking points to Portuguese explorers during the second half of the 15<sup>th</sup> century. Records show Bartolomeu Dias to have rounded the Cape of Good Hope in 1488. The earliest recorded shipwreck in Table Bay, however, dates to the beginning of the 17<sup>th</sup> century.

The founding of the Cape colony in 1652 brought about increased maritime traffic year round. Both outward-bound and returning VOC fleets were encouraged to make a stopover to acquire fresh victuals. The presence of vessels from other maritime nations depended on the current wars and political situation. Charting of the bathymetry of the bay in the 1730's identified certain reefs and sandbanks, which were hazardous to shipping, and established a safe area for anchorage. This area is presently under the Duncan and Ben Schoeman docks.

The fall of the VOC and the British take-over at the end of the 18<sup>th</sup> century saw an even more profound increase in traffic. Yet, ironically, the only facility available for the servicing of vessels at anchor in Table Bay for close to two hundred years of Dutch and British occupation was a small wooden jetty close to the Castle. From there, boats would ferry goods and passengers across the surf to the ships in the anchorage. Its inadequacy was apparent and sometimes ships would remain in the Cape for much longer than needed, as they had to wait to be serviced.

The fact that for a long time no artificial protection was offered to ships, coupled with the infamous gale force winds and heavy swell, has led to the wrecking of more than three hundred vessels in Table Bay during the past four centuries. The majority of these incidents was caused by northwesterly gales and took place along the south and southeastern beaches of the bay in the Castle and Woodstock areas. Technological advances in seafaring and the building of the Victoria and Alfred harbour in the second half of the 19<sup>th</sup> century reduced the number of incidents significantly. However, vessels in the anchorage were still in danger of becoming prey to adverse weather. This was rectified to a large extent with the construction of the Duncan and Ben Schoeman docks in the 20<sup>th</sup> century.

### **10.5 3. BOUNDARIES AND BRIEF HISTORY OF THE AREA DEMARCATED FOR DEVELOPMENT**

The area designated for the development of the Cape Town International Convention Centre is situated entirely on land reclaimed from the sea during the construction of Duncan Dock in the late 1930's and early 1940's. The idea of building a new dock came about as a result of the inability of the Victoria and Alfred harbour, built in the second half of the 19<sup>th</sup> century, to accommodate increased maritime traffic and larger ships. The new basin was planned to be 12m deep over the space of 116 hectares and would have 1800m of quay wall.

The siting of Duncan Dock some distance seaward from the 1938 shoreline enabled spoil to be mainly dredged from the new basin and deposited on the shallow sea floor on the landward side, thereby reclaiming an area of some 192 hectares between the dock and the shore. This land was to be used for extending and reorganising of railways and the CBD (de Kock 1999).

Construction started in 1938 and the dock was completed in 1945. The contract for the dredging and land reclamation was awarded to the Dutch firm Hollandse Aanneming Maatskappy. The material for this massive landfill operation was made up primarily of sand, mud and rock broken and dredged from the bottom of the new basin. The material was loaded on barges and transported to the site where a mixture of 80% water and 20% spoil was pumped through big pipes onto the area to be reclaimed. This hydraulic method was meant to assist quick consolidation. A total of 11.5 million m<sup>3</sup> of dredged material was used in the fill. Some dune sand was also transported in trucks from around the present day airport and deposited on the site. In addition, the scheme allowed building rubble from around Cape Town to be deposited on the site provided that it was "clean and selected". Municipal waste was also used in the fill (de Kock 1999).

During the construction of the dock, the Random Mole of 1933 and the Municipal Pier of 1913 had to be removed. The mole was originally built by first dumping rubble on the seabed and then putting large six-ton wave-breakers on top. The wave-breakers were removed by a crane equipped with a

grab-claw and were subsequently stacked ashore. The Municipal Pier was demolished to just above the high-water mark. The remains were buried in the fill (de Kock 1999).

Several plans for the use of the newly reclaimed land were put forward over the years. The site around the future Convention Centre, however, has remained very under-utilised. Aerial photographs from the 1950's, 60's, 70's, 80's and early 90's show that this site remained an open unused space all these years. Only recently parts of it were converted into parking space.

## **11 IMPACT ASSESSMENT**

### **11.1 1.MARITIME ARCHAEOLOGICAL SITES WHICH MIGHT BE AFFECTED BY THE CAPE TOWN INTERNATIONAL CONVENTION CENTRE**

#### Permanent structures

The one permanent structure of maritime nature, which the Convention Centre development is very likely to encounter, is the Random Mole of 1933. Even though it was largely demolished, some remains probably still exist on the seabed. If they are uncovered, a more detailed investigation will be necessary to establish their extent and state of preservation. It is unlikely that the remains of the 1913 Municipal Pier will be encountered as these are positioned several hundred metres south-east of the proposed development. Caution should be exercised, however, since this positioning is based on overlays of old and current maps and some discrepancies may exist.

It is important to note here that the landfill used during land reclamation is also likely to produce some decontextualised maritime archaeological material. As mentioned already, large amounts sand dredged from Table Bay were deposited in this area. In fact, some cannons and other wreck material were recovered during the dredging operations. Recent examples from building foundations have also shown this fill to contain ship's anchors and other artefacts. These should also be preserved regardless of their lack of context.

#### **11.1.1 Shipwrecks**

The possibility of the Convention Centre development encountering shipwreck sites is high. It depends largely on the depth of ground penetration pursued by the development and whether it will reach the old seabed. Excavations for the foundations of the Civic Centre in the 1970's uncovered a shipwreck only 7m below the present ground level (Lightley 1976). Test trenches will undoubtedly help in determining the stratigraphy and locating the old seabed.

In the case of the Convention Centre site the vagueness inherent in historical records is amplified by the fact that for centuries it was located close to the middle of Table Bay and away from landmarks, such as beaches or artificial structures. Yet, it is close to the old anchorage where many shipwrecks occurred as a result of adverse conditions. To account for this, the wrecks included in this report are divided into two categories: possible and possible but unlikely. The first category covers wrecks whose location is simply given as Table Bay or in the vicinity of the south-southwestern beaches and old harbour. The second category covers wrecks whose location is unknown or which occurred along the southeastern beaches, close to the Castle and Woodstock. As these beaches were some distance away from the proposed development, the wrecks associated with them are unlikely to be encountered.

It has to be borne in mind that the beaches in the vicinity of the proposed development were extensively utilised by the fishing community. The fish market at Rogge Bay and later the fishing harbour in front of the Amsterdam Battery undoubtedly produced heavy traffic of small sized vessels. Also, lost anchors, cables and other seafaring refuse have been discarded by ships in the

bay for as long as it has been a port of call. In this context, the possibility exists of these being encountered during development.

## SHIPWRECK LIST

Possible shipwrecks in the Cape Town International Conference Centre area

### 18<sup>th</sup> Century

Name of Ship	Nationality	Date Wrecked	Event	Comments
Namen	Dutch	1722 June 17	Wrecked	Table Bay
Standvastigheid	Dutch	1722 June 17	Wrecked	Table Bay, North-west Gale.
Erfprins van Augustenbug	Danish	1790 Apr 12	Wrecked	Table Bay.
Jefferson	American	1798 May 9		No Location.
Oldenburg	Danish	1799 Jan 15	Wrecked	Table Bay.
Prize		1799 Nov 5		No Location.
Sierra Leone	British	1799 Nov 5	Wrecked	No Location.

### 19<sup>th</sup> Century

Name of Ship	Nationality	Date Wrecked	Event	Comments
Hunter	American	1805 March 11		No Location.
Abby and Sally	American	1807 Dec 6	Condemned	No Location.
Twee Gysbert	Danish	1808 Dec 18	Condemned	No Location.
Creole	French	1809 Jan 31	Broken up	No Location.
Reliance		1809 Dec 16	Broken up	No Location.
Valentine	American	1812 Nov 16	Broken up	No Location.
William	American	1818		No Location.
Triangle	British	1822 Aug 11	Condemned in Simons Bay	Broken up in Table Bay.
Good Intent	South African	1822 July 21	Wrecked	Table Bay.
Adriatic	British	1822 July 14		Table Bay
Olive Branch	British	1822 July 21	Wrecked / Stranded	Table Bay.
Ceres		1823 July 20		Table Bay
Nautilus	British	1826 March 31	Wrecked	Table Bay.
Emperor Alexander		1835 May 25	Condemned	Table Bay.
Le Juene Edward	French	1839 March 1	Condemned	Put in for repairs with cargo of sugar. Table Bay.
Anna	Portuguese	1841 Nov 1	Condemned	Table Bay.
Conde de Souza	Portuguese	1842	Wrecked	Near the Amsterdam Battery
L'Adolphe Fanny	French	1842 March 11	Condemned	No Location.
Unknown Vessel		1843 Aug 23	Broken up	Table Bay. Slaver.
Commandant		1843 Aug 23		Table Bay.
Regular		1843 May 13		No Location.
Sociedade	Portuguese	1843 Oct 30	Condemned / Broken up	Table Bay. May be called Souidade.
Josephine		1844 Jan 29	Broken up	Table Bay. Slaver.

Henrequetta		1844 Feb 5	Broken up	Table Bay.
Bella Angela	Portuguese	1844 Sept 10	Condemned	Table Bay. Brought in to be sold.
Blackstone	American	1846 Jan 4	Broken up	Table Bay. Put in for repairs and was condemned.
Zaphiro		1849	Grounded	Table Bay.
Dordrecht		1856 Dec 1		Table Bay
Helena		1857 June 5	Beached	Table Bay. Driven ashore.
John	Danish	1857 June 5	Grounded	Table Bay. Broke cables and drifted ashore. Assisted from the shore.
Fox		1857 June 20	Grounded	Table Bay. Parted cables and drifted ashore
Susan		1862 Sept 22	Wrecked	Table Bay, opposite market.
Deutan	Spanish	1863 Feb 20	Broken up	Table Bay.
Wasp	British	1863 March 25	Capsized	Outside the Breakwater
Libra		1865		No Location
Briton		1865 May 17	Grounded	Table Bay
Frederick Basil		1865 May 17	Wrecked	Table Bay
Various Small Craft	Various, mostly South African	1865 May 17	Wrecked / Grounded / Condemned	Table Bay
Stag	British	1865 May 17	Wrecked	The Anchorage
Water Kelpie		1865 May 17	Lost	Table Bay
Wasp		1867 March 25	Capsized	Outside Breakwater
Constantia		1868	Broken up	Table Bay. Went ashore after parting cables.
Shepherd	British	1874 August 9	Ran Ashore	Northern Side of the Breakwater
Founding		1874 Nov 22	Exploded	Table Bay.
Neree		1878 July 21	Grounded	Sailor's Home in Rogge Bay
Tiger	British	1899 Nov 30	Wrecked	Table Bay.

### 20<sup>th</sup> Century

Name of Ship	Nationality	Date Wrecked	Event	Comments
George Schwabe		1902	Hulked	Fish Harbour
Irene		1906 Jan 4?	Condemned(?)	Put into Table Bay June 16 1903. No departure date.

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Possible but unlikely shipwrecks in the Cape Town International Conference Centre area

### 17<sup>th</sup> Century

Name of Ship	Nationality	Date Wrecked	Event	Comments
Jaeger		1619 July 27		Woodstock Beach
Oliphant	Dutch	1656 April 17		No Location.

Zwarte Leeuw		1697 May 24	Wrecked	Near Castle Wharf
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### 18<sup>th</sup> Century

Name of Ship	Nationality	Date Wrecked	Event	Comments
Chandos		1722 April 17	Wrecked	Near Castle
Amy		1722 June 17	Wrecked	Woodstock Beach
Gouda		1722 June 17	Wrecked	Near Castle
Lakenman		1722 June 17	Wrecked	Near Castle
Schotsche Lorrendraaier		1722 June 17	Wrecked	Near Castle
Zoetigheid		1722 June 17	Wrecked	Near Castle
Saxenburg	Dutch	1729 Sept 1		No Location.
De Knokke		1786		No Location.
Avenhoorn		1788 May 17	Wrecked	Woodstock Beach
Helena Louisa		1790 Apr 12		No Location.
Zeeland	Dutch	1792 May 22	Wrecked	No Location, possibly Woodstock Beach.
Anubis		1799 Nov 5	Wrecked	Woodstock Beach
Hannah		1799 Nov 5	Wrecked	Near Castle

### 19<sup>th</sup> Century

Name of Ship	Nationality	Date Wrecked	Event	Comments
L'Atalante		1805 Nov 3	Grounded	Woodstock Beach
Charles		1805 Nov 4		No Location.
Hoop		1808 Oct 24	Grounded	Woodstock Beach
La Espirance		1808 Dec 1	Wrecked	Woodstock Beach
Clipper		1811 Dec 28	Wrecked	Near Battery, Woodstock Beach
Concord		1816 Nov 5	Wrecked	Woodstock Beach
Woodbridge		1816 Nov 5	Grounded	Near South Wharf
Elizabeth	British	1818	Grounded	Possibly re-floated.
Industrie		1818	Foundered	Table Bay.
John		1818 Jan 1	Wrecked	Woodstock Beach
Tarlton		1818 May 17	Wrecked	Near Castle
Jane		1818 May 18	Wrecked	Near Wharf at Castle, Woodstock Beach
Pacquet Real		1818 May 18	Wrecked	Jetty
Rambler		1818 May 18	Wrecked	Near Castle
Prins Willem I		1819 July 26	Grounded	Merchant's Wharf
Anna		1821 Jan 4	Grounded	Woodstock Beach
Ceres		1823 July 20		Table Bay
Jane		1823 Nov 1	Wrecked	Woodstock Beach
Lady East		1824		Possibly re-floated.
Woodburne		1826 Aug 8	Grounded	Woodstock Beach
Importer		1828 June 15	Condemned	Woodstock Beach
Silence		1830 June 4	Wrecked	Near South Wharf
Alfred		1830 July 4	Wrecked	South Wharf
Vine		1831 July 16	Wrecked	Woodstock Beach
Calpe		1831 July 17	Wrecked	Woodstock Beach
Canadian		1831 July 17	Wrecked	Offshore Reef, Woodstock Beach
Rambler		1831 July 17	Condemned	Woodstock Beach

Usk		1831 July 17	Condemned	Woodstock Beach
Antelope	British	1836 Aug 13	Wrecked	Near Jetty.
Falcon		1836 Dec 31	Grounded	Possibly re-floated
Antelope		1837 Aug 18	Wrecked	South Wharf
Howard		1840 July 16	Wrecked	Near Castle
Hamilton Ross	South African	1842 Aug 28		Ship of the same name still in service 1843
John Bagshaw		1842 Sept 9	Wrecked	Near South Wharf
Ann and Mary	British	1843 Aug 23	Grounded	No Location. Ship possibly called "MaryAnn"
Aberfoyle		1847 Aug 18	Foundered	Left Table Bay on this date. Possibly foundered while leaving the Bay.
Bosphorous		1853 Jan 27	Grounded	Probably got off and left the Bay on Jan 30 <sup>th</sup> .
Seagull		1854 July 15	Grounded	Woodstock Beach
Anne Jane		1856 Aug 6		Woodstock Beach
William James		1857 June 10	Wrecked	Near Castle Battery
Fanny & Leoncine		1860		No Location.
City of Peterborough		1865 May 17	Wrecked	Sceptre Reef
Clipper		1865 May 17	Wrecked	Near Battery, Woodstock Beach
Deane		1865 May 17	Wrecked	Woodstock Beach
Esther		1865 May 17	Wrecked	Woodstock Beach
Otago		1867 June 1	Condemned(?)	Put into Table Bay and never left.
Madagascar		1868 July 1		Possibly not a wreck.
Duke of Buccleugh		1870 Aug 10		Put into Table Bay with cargo of coal on fire. Got under control. Probably not a wreck
Susan Parden		1871		Possibly named "Susan Pardew". May not be a wreck.
Oni		1875		No Location. Possibly named "Onni", a Russian ship wrecked at Blaawberg.
Tiger		1899 Nov 30		Harbour area.

### 20<sup>th</sup> Century

Name of Ship	Nationality	Date Wrecked	Event	Comments
America		1900 May 29		
Alice		1901 July 15	Wrecked	Woodstock Beach
City of London		1902 Jan 1	Grounded	Woodstock Beach
Kaiser	German	1902 Aug 14		Possibly not a wreck. Seems to have left Table

				Bay. Ship named "Kaizer" is still in service in 1903.
Dunvegan Castle		1902 Oct 1	Collision	Involved in a collision at the Pier. Possibly not a wreck.
Canton		1909		No Location, no detail.

#### 11.1.1.1 Unknown Dates

Name of Ship	Event	Comments
George Thomas	Wrecked	Woodstock Beach

## 11.2 Soil Contamination

It is unlikely that soil contamination at the Convention Centre site has taken place to the degree encountered at the Culemborg-Black River site. In the case of the latter, heavy industrial use has resulted in the presence of large amounts of coal refuse and other industrial pollutants. Prior to the construction of Duncan Dock, some of the sewer material pumped into the sea along the south-southwestern beaches of the bay may have been deposited on the seabed. However, it is likely that swell and currents would have carried the majority of it away. There is no indication that during the land reclamation scheme the site for the Convention Centre was the recipient of major contaminants, besides possibly pollutants dredged from the Table Bay seabed and municipal refuse. The use of building rubble, however, may have introduced building materials containing asbestos and other contaminants. The fact that the site remained unused until very recently excludes the possibility of major contamination having taken place after the completion of the land reclamation scheme. The above, however, is merely a speculation based on this study and should in no way be considered as expert opinion. Only thorough geotechnical analysis may clarify the issue of soil contamination.

## 12 RECOMMENDATIONS

1. It is recommended that a qualified maritime archaeologist or archaeologist be present during construction in order to monitor the initial excavation process and to ensure that wreck or archaeological material is not disturbed or destroyed without proper archaeological intervention.
2. Should a maritime archaeological site be uncovered, certain procedures are recommended and no further disturbance of the site should take place until the proper authorities are contacted:
  - 2.1. John Gribble, the maritime archaeologist at the SAHRA should be immediately notified.
  - 2.2. It is recommended that Jaco Boshoff at the National Maritime Museum in the V&A Waterfront also be contacted.
  - 2.3. Maritime Archaeologists at Neptune Research cc or other contracted archaeologists should be contacted should they not be present on site.
3. Having examined the site or the materials that have been uncovered, the final decision regarding the future of the site lies with the SAHRA. It is recommended, however, that the developer be prepared to include at least two weeks in the construction schedule for a possible maritime archaeological investigation of a site. Added to this, it is recommended that the project budget be amended to include the eventuality of hiring qualified personnel to enter upon an archaeological excavation. The developer should also be prepared to deploy certain equipment such as bulk earthmovers to the archaeological investigations should they so require. This will ensure speedy completion of work being undertaken.

4. In order to minimise the risk of encountering an archaeological site, the developer could excavate a series of test pits along the construction site to the maximum depth of its foundations. These will help in determining stratigraphy and the depth of the old seabed. Should these trenches reveal the presence of archaeological material, a revised construction plan could be devised which would allow archaeological investigation to take place concurrently with the development of the area. The use of ground penetrating radar could also be employed, although its efficiency may be limited due to debris below the surface.
5. Display/conservation of recovered archaeological material or permanent structures should be borne in mind. Should any permanent structures such as the Random Mole be uncovered, it is the belief of Neptune Research that their restoration and incorporation into the project would enhance its character and add further focus and interest to the Convention Centre development. Recommendations regarding the nature of the display can only be made following discovery and assessment of maritime archaeological material.
6. Archival work locally and possibly internationally will need to be completed if wreck materials or permanent structures are uncovered. This will enable researchers to acquire as much data as possible in order to better contend with recovered objects or artefacts.

### **13 CONCLUSIONS AND SUMMARY**

This report outlines the environment and history of the area demarcated for the construction of the Cape Town International Convention Centre. Documentary research has indicated that there is a high possibility of the development encountering shipwreck sites, decontextualised maritime archaeological material and maritime structures of permanent nature. Recommendations regarding the discovery and investigation of such sites are also provided. Due to the fact that they are a heritage resource and therefore are protected by the law, it is the responsibility of the developer to ensure their proper archaeological investigation. Since land reclamation in the Foreshore area of Cape Town has destroyed and sealed off many maritime archaeological sites, it is important that those revealed through development are fully recorded and documented.

### **14 PROFESSIONAL TEAM**

Neptune Research	Jonathan Sharfman Nikolay Mavrodinov
Consultants	John Gribble (SAHRA)

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