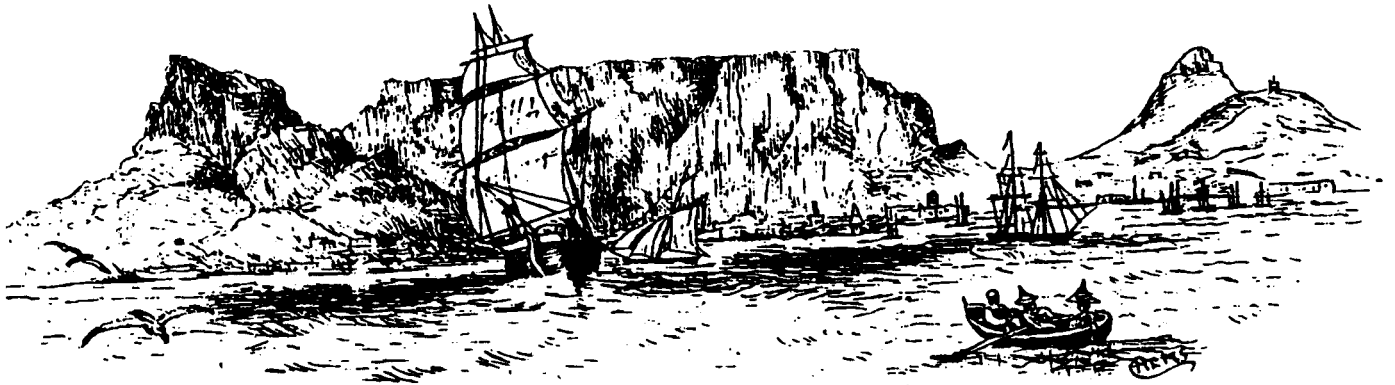


The Seaport, Table Bay



An Archaeological and Historical Perspective

ECU Research Report No. 8

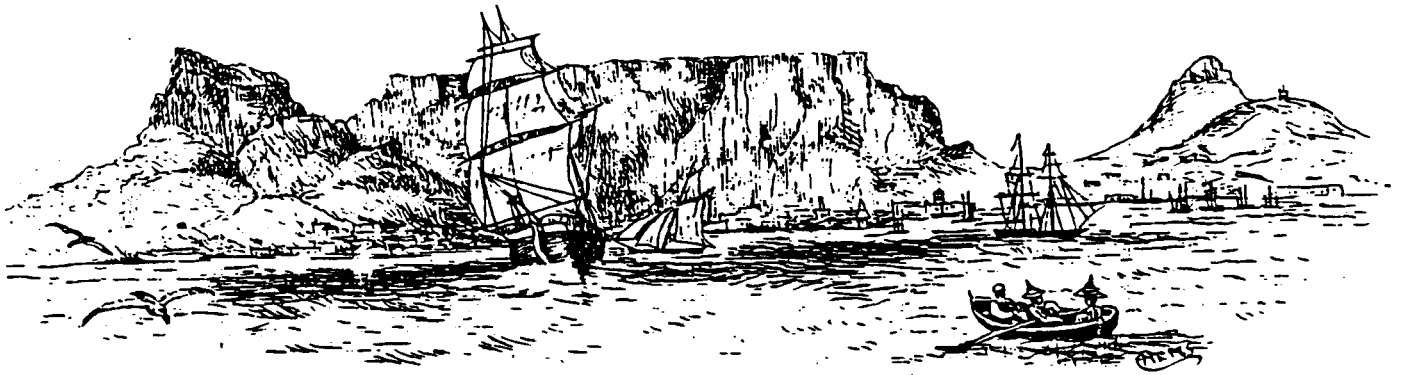
by
Lynn B. Harris



*The Program in Maritime History
and Nautical Archaeology*

1993

The Seaport, Table Bay



An Archaeological and Historical Perspective

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Lynn B. Harris

January, 1993

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INTRODUCTION

The history of Cape Town is closely linked to maritime activity. In 1772, a visitor described the Cape as "an inn for travelers to and from the East Indies, who, after several months sail may here get refreshments of all kinds, and are then about halfway to the place of their destination, whether homeward or outward bound."¹ Although the Portuguese had discovered and named the Cape during the fifteenth century, the Verenigde Oost-Indische Compagne (VOC) formed a more permanent base here in 1652.²

Unfortunately, the Cape did not entirely fulfill the expectations of the founders as a refreshment station for shipping. Despite the Company's attempts to construct breakwaters and jetties, the Cape anchorage, Table Bay, had exceptionally high shipping losses. The Cape also became a venue for smuggling and illegal private trade among seamen, local citizens, and Cape-based VOC employees, at further financial loss to the Company.³

The VOC's hesitancy to spend any money on the upkeep of the Cape's military installations led to the capture of the Cape by the British in 1795. The British acted because their enemy, France, seemed poised to take Cape Town from the Dutch. The directors of the English East India Company warned their controlling committee and the acting-home secretary, Sir Henry Dundas, that France with her strategic island possessions such as Ile de France and Reunion, in addition to

the Cape, could seriously damage their Company's trade in the Far East.⁴ From 1806 to the mid-1970s the Royal Navy maintained a presence in South Africa. Initially, the British used the Cape as a base from which to oppress the West and East African slave trade. During the Second Anglo-Boer War (1899-1902), captured boers were shipped from the Cape to prisoner-of-war camps such as Bermuda, Ceylon, St. Helena and the West Indies. During World War I and World War II, the Cape was a focal point for troop ships voyaging between the Indian and the Atlantic Oceans. This activity congested Table Bay but also stimulated harbor developments.⁵

Passenger shipping services to South Africa developed during the nineteenth century. The Union Castle Line (formed by the merging of the Union and the Castle Lines in England) held a contract to carry mail between England and South Africa. These mail ships, whose passenger complements in later years exceeded seven hundred per trip, became household names. New ships arriving at the Cape attracted both crowds of people and press coverage.⁶

South Africa's development is still associated with the sea, and the country's prosperity depends largely on maritime activity. The coastline remains one of the world's major trade routes because it represents the only viable alternative to the Suez canal for ships voyaging between Europe and the East. Unfortunately, little has been done to preserve the maritime heritage of South Africa (although a national maritime museum and underwater archaeology program

are under consideration). Published historical research devoted to South Africa's maritime history has only begun to explore available sources. In addition, potential archaeological evidence in the form of shipwrecks litters the Cape's coastline. Tragically, urban development in Table Bay Harbor and salvage operations have destroyed many of these sites. As a local author maintains, "It is strange that the descendants of European settlers who came over water to a sub-continent, where two great oceans divide, have done so little to preserve their maritime heritage."⁷

In light of this situation, the objectives of this project are to utilize historical and archaeological sources, particularly those which relate to the VOC in the seventeenth and eighteenth centuries, in the vicinity of Cape Town, South Africa (Figure 1). The successes and failures of the Dutch East India Company and her overseas possessions has been approached by researchers from various perspectives. The fate of the Company has sometimes been explained in terms of national capital, the balance of power between the merchants and the government, or external developments such as international relationships. In terms of national capital, little attention has been focused on two major contributing factors - shipwrecks, which involve the loss of valuable cargoes, and the role that contraband and other illicit activities played in the Company's history. The Cape Archives and South African Library, both in Cape Town, contain a wealth

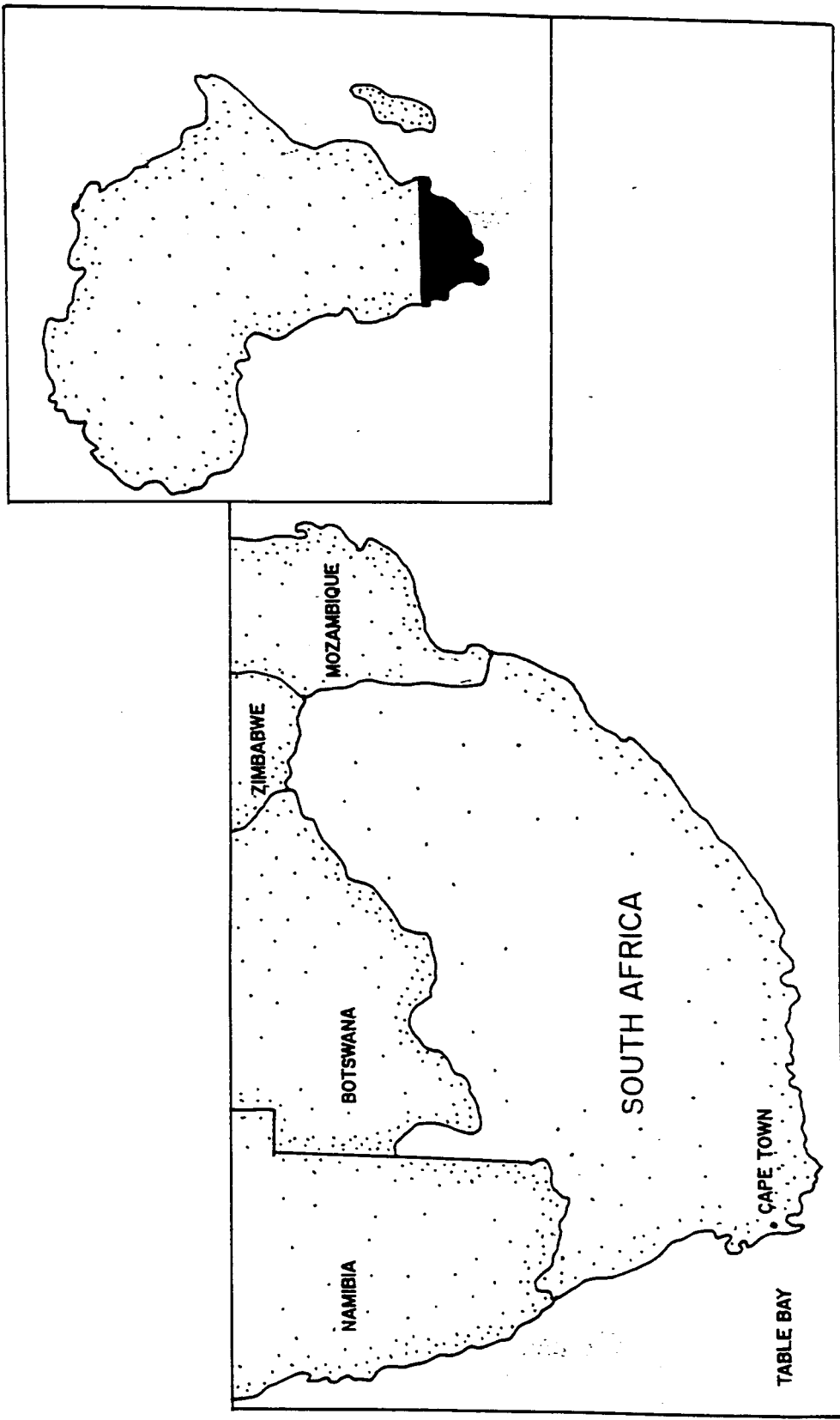


Figure 1. Cape Town, South Africa.

of sources which provide abundant evidence to establish the role the "Tavern of the Seas" played in South Africa's maritime history.

VOC records in the Archives are made up of a three-part collection: the "VC" (Verbatim Copies), "C" (Council of Policy) and "LM" (Leibbrandt's manuscript Pfcis) series. The VC series is comprised of original documents from the Algemeen Rijksargief in Holland, the Berlin State Library, the National Archives of Zimbabwe, the Dutch Reformed Church Archives in Cape Town and various other local and overseas repositories. These valuable documents, selected because of their relevance to the Cape's history, include hand-written and typed copies, manuscripts, and photocopies.

The C series consists of copies of the records of the Council of Policy. This Council was the government of the VOC at the Cape under the leadership of the Commander. The Council of Policy passed legislation, issued instructions on all kinds of matters, imposed taxes, made appointments, granted land, heard petitions, and managed all military and naval affairs. Registers and indexes for this series are virtually non-existent or incomplete. The sources which were used most frequently were the "Resolutions" (minutes or proceedings of the Council from 1651 to 1795), correspondence between the Cape VOC officials and those in Batavia and Holland, and journals which recorded the Cape's daily events from 1691 to 1794. Hiatuses in the C series are covered by originals in the VC series. Leibbrandt's pfcis, the

LM series, are literal transcripts of many of the C and VC documents. They are often in better condition and more legible than the other documents.

Maps of the VOC settlement in Cape Town are available from both the Cape Town Archives and the map collection at the Jagger Library of the University of Cape Town. These documents identify the locations of shipwreck sites, fortifications, rivers, and farmers' properties which complement the information obtained from the text.

The valuable works of O.F. Mentzel, housed in the South African Library, focus on life in the Cape during the mid-eighteenth century. Mentzel's original documents were translated from German into English by graduate students at the University of Cape Town and published by Cape Town's local historical organization, the Van Riebeeck Society.

Analysis of Dutch - Asiatic Shipping records, listing information on all the vessels owned by the VOC, reveals that a high number of vessels, often entire fleets, were lost along the Cape coastline. More information about these shipwrecks is available from reference guides such as the South African Library's shipwreck catalog and a manual on shipwrecks of the southern Cape published by a local sport diving club. In addition, a survey of shipwreck sites located in Table Bay was conducted. The nearshore area (approximately 500 meters from the shoreline) from Bloubergstrand (Blue Mountain Beach) to Greenpoint was investigated. A known Dutch East Indiaman site

at Oudekraal (Old Village) was also examined (Figure 2).

Determination of approximate site locations and the feasibility of conducting underwater archaeology in the Table Bay area was carried out by compiling information from old maps, charts, aerial photographs and past surveys done by authorized salvors, sport, and scientific divers. Archaeological problems and solutions were contemplated. Artifacts recovered by divers from shipwreck sites in the survey area prior to this project, and collections donated to the South African Cultural History Museum, were recorded and photographed. The paucity of this sample material and non-systematic recovery demanded cautious assessment. Perhaps when more comprehensive archaeological projects are conducted in the Cape this material will provide more reliable, extensive evidence.

On the basis of the information compiled on Table Bay, a magnetometer survey to locate and identify sites with the assistance of volunteer sport and scientific divers was undertaken. Sites and magnetic anomalies were plotted and investigated.

This thesis constitutes a preliminary exploration of the potential of maritime historical and archaeological sources in Cape Town using inter-disciplinary research methods. This will provide information on the role the Cape station played for VOC shipping and a data base which will contribute towards future underwater archaeology research in Cape Town.

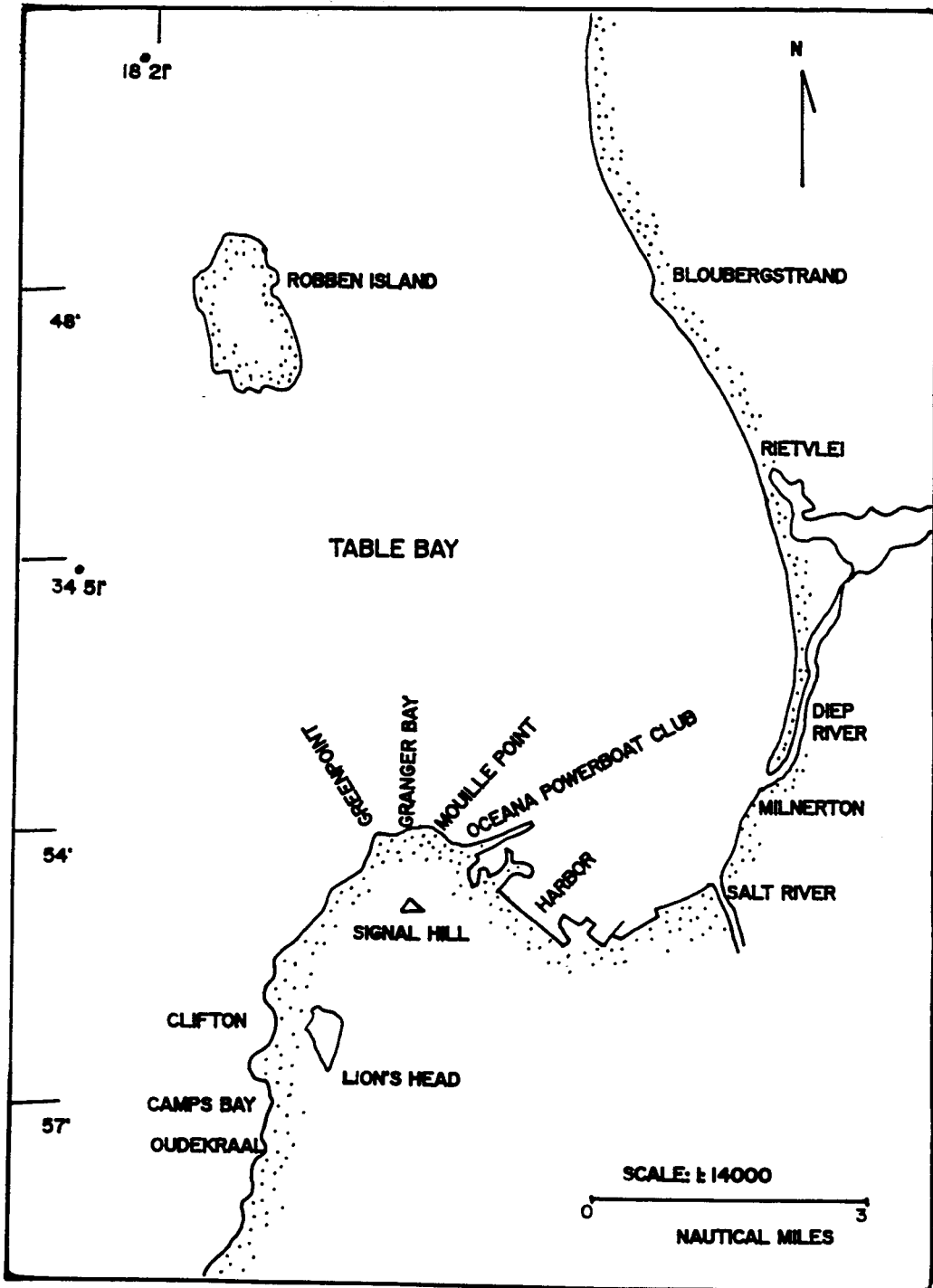


Figure 2. Project area.

INTRODUCTION ENDNOTES

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2. VOC is the abbreviated form for "Verenigde Nederlandse Octroyeerde Oost-Indische Compagne" which can be translated as the Honorable United Chartered Dutch East India Company. It is more commonly referred to by scholars as the Dutch East India Company or the VOC.
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CHAPTER 1

THE DUTCH EAST INDIA COMPANY AND CAPE TOWN

The discovery of the southern African route to the East Indies and the growing importation of American silver to Europe are generally recognized as the two major forces behind pre-modern world economy in the sixteenth century. Although the implications for the economic history of Europe has long been a popular topic, and recently emphasis has been placed on the economic history of Asia, scholars have paid little attention to Africa, in particular the Cape. The Cape's first port, Cape Town, was initially a Dutch shipping station rather than a colony.¹ The Cape's strategic position on the Eastern route significantly influenced the maritime history of Holland as well as the local history of Cape Town.

The European agency that first developed the Cape was the VOC. The historical background to the VOC's composition, maritime, and mercantilistic policies will be discussed. Cape Town's role as a refreshment station - the local administration, economy, illegal trade, and shipping losses will also be considered.

(I) THE DUTCH EAST INDIA COMPANY-COMPOSITION AND POLICIES

The VOC was composed of an amalgamation of several competing companies formed at various times since the late sixteenth century. The primary objective of these companies was to invade the Portuguese monopoly of Eastern trade, particularly that of highly profitable spices, which were

important ingredients for food preservation.² The Company's charter was issued for the first time by the Netherlands States-General in 1602. Periodically renewed until 1796, the charter granted the Company a monopoly of trade between the Cape of Good Hope and the East Indies.³

The VOC was a joint-stock company representing a fusion of public and private interests. The high price of the limited amount of land available and the heavy rate of land taxation in the Netherlands made shares in shipping, mills, fishing, or trade voyaging more favored forms of investment.⁴ The Company was also closely connected to the Dutch Government which supported merchants by exempting them from certain state duties and supplying them with selected armaments. In the late seventeenth century the VOC in turn supported both the Government by lending funds and the Admiralties by lending⁵ ships.

The VOC consisted of six kamers (chambers): Amsterdam, Delft, Enkhuizen, Hoorn, Middelburg and Rotterdam (Figure 3). The division of the Company into geographic chambers had mixed results. By involving more cities in their activities, the VOC directors created a national trading company. On the other hand, extending authority outside Amsterdam created new management problems of communication, logistics, and authority. Although each chamber could independently appoint and keep accounts, a chamber was still limited by the executive⁶ council, the Chamber of Seventeen. This Council, composed of

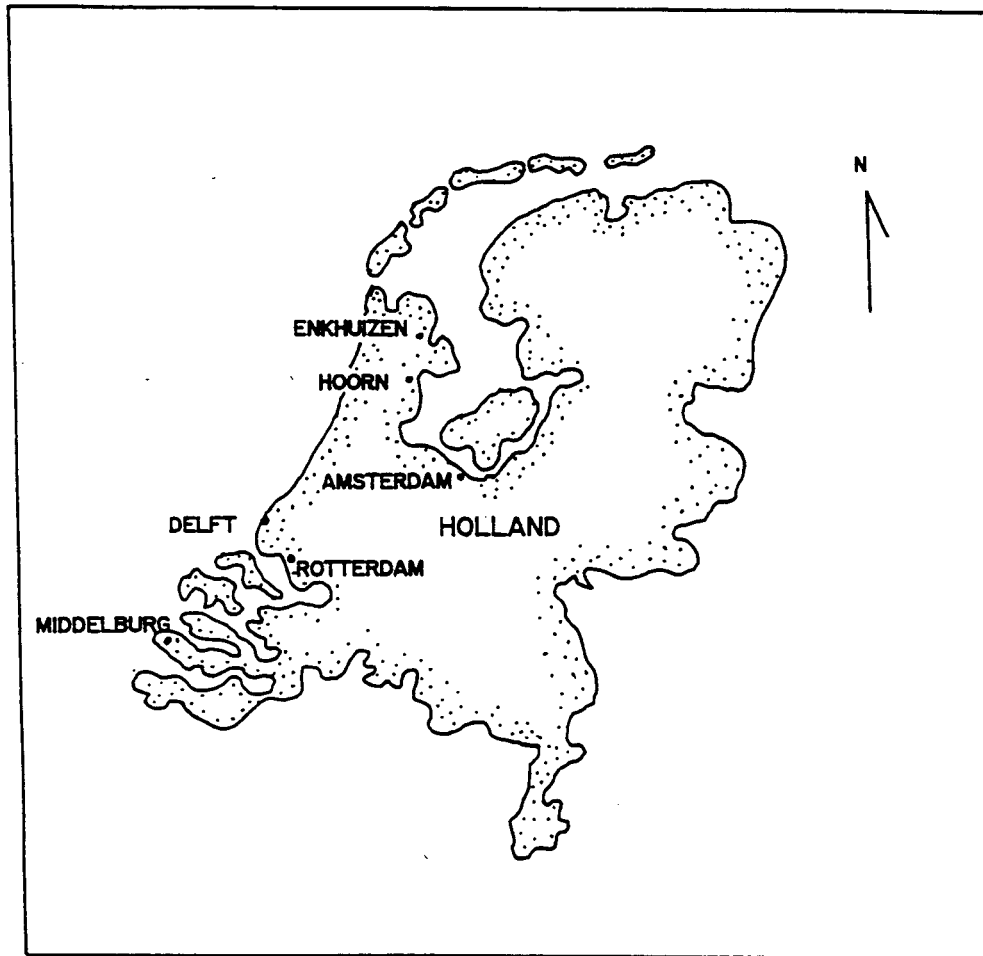


Figure 3. Locations of the six VOC chambers.

seventeen delegates from the various chambers, only met three times a year to discuss important issues relating to trade and colonial governments. The capital of the VOC Empire was in Batavia, the capital of Java, Asia. Here the Governor-Generals of the Council of India were seated. Their task was to regulate Dutch trade and government in Asia. Subordinate to Batavia were buiten comptoiren (branch offices) in Amboyna, the Cape, Ceylon, Macassar, the Moluccas, and the north-east coast of Java (Figure 4).

The VOC wielded great power. It had the authority to make treaties, wage war, and appoint military and civilian officials. The order of rank was governor, director, commander, and head. This complex bureaucratic system hampered the Company enormously. Eventually, dependence on unreliable officials who conducted private business and abused their office at the trading posts, including the Cape, contributed to the decline of the VOC. Many critics have humorously argued that VOC stands for Vergaan onder Corruptsie (Collapse through Corruption).

(II) MERCANTILISM

The magnitude and significance of Holland's colonies to her economy, as well as to the rest of Europe, are apparent in a statement by an Englishman during the early eighteenth century:

It hardly produces a thing, and yet has the wherewithal to furnish other people all they can have need of. It is without forests...and there is not seen anywhere

else so many carpenters which work in naval construction either for war or merchandise. Its lands are not fit for the culture of viners.. and it is a staple mart of wines which are gathered from all parts of the world. It has no mines or metal, yet there is almost as much gold and silver as in Peru or Spain....The wheat and grains there hardly suffice for nourishment to a part of its inhabitants...Its neighbors receive it either for subsistence or trade....Its warehouses are so full, and its'mercants seem to carry so much to strangers, or that strangers come to load in its ports, that there is not a day, and it may be said, a moment, that ships do not come in and go out, and frequently in entire fleets.⁹

The Dutch were experienced shippers who voyaged between the Baltic and the Bay of Biscay. They handled grain cargoes from North Germany and Eastland, iron and copper from Sweden, timber from Norway, salt from Biscay and Portugal, and herrings from the North Sea. Their economy was based on a system of seaborne trade in which, as middlemen, they bought, sold, and traded with the rest of Europe. The ship which carried the burden of this activity was the Dutch fluit, known to the English as the flute. Designed as a freighter in 1590, the fluit was round in the stern, broad-bottomed, narrow in the deck, and cheap to build and operate. It was ideal for carrying bulk cargo and sufficient food for long voyages.¹⁰

In the late sixteenth century, soon after the fluit had been introduced, Dutch merchants initiated their first voyages to the Far East. Dutch traders had experienced difficulties in obtaining spices from the Portuguese. Prices were exorbitant and Dutch sailors were often molested and robbed. For these reasons Holland challenged Portugal for control of

11
the spice trade. Although the first voyages to the Far East did not reap great financial profits, the fact that they established direct contact with the East caused tremendous enthusiasm in Holland. After the VOC had been formed in 1602, profits and the number of ships sent to the Far East escalated steadily.¹²

(III) CARGOES

The major cargo component of ships voyaging to the Far East was precious metals. A compilation of VOC cargo records indicate that on average other goods only represented six per cent.¹³ Europe could not supply Western exports at prices that would generate enough revenue for the purchase of Asian goods. Although Europe had scientific and technological superiority, Asia had lower labor costs and a long history of handicraft skills. Asian and European markets were not particularly complementary. This was further reflected in the wide disparity of price levels in the two regions. Thus, the only major item with which Europe could supply Asia was silver.¹⁴ Holland was possessed the largest European stocks of imported South American silver. Spain, burdened by war taxes and loans, was forced to trade silver for Dutch foodstuffs and manufactured goods. In this way, Holland claimed a large portion of South American silver long before it even reached the mother country.¹⁵ So, because of the idiosyncrasies of Asian and European markets, Dutch silver was traded for Asian spices.

Consumer trends in Europe and the availability of items in the Far East effected Asian-Dutch trade. Although spices were the VOC'S initial commodity in the Far Eastern trade, and they constituted a major portion of the cargoes in the first half of the seventeenth century, textiles overtook spices after 1650. Tea and coffee also gained popularity (Table 1). For instance, tea was initially very expensive and sold only in pharmacies for "fat people and those who have hot yellow gall or suffer from the vapors or have too much sleepiness." ¹⁶

By the time textiles replaced spices in importance in VOC cargoes, the "Indian Craze" had overtaken Europe. This was evident in all forms of attire. One observer related,

...few think themselves well-drest till they are made up in Calicoes, both Men and Women, Calico Shirts, Neckcloths, Cuffs, Pocket Handkerchiefs for the former, Headdresses, Nightrolls, Hoods, Sleeves, Aprons, Gowns, Petticoats and whatnot, besides Indian stockings to both Sexes. ¹⁷

Satisfying consumer demand was important, but the VOC also had to load their vessels to near maximum capacity in order to make their voyages to the Far East profitable. At the bottom of the ship, anchors and metals were stowed. Wood cargo was often used as a lining between the rib and knee braces. This lowest level constituted the ballast. Bags of spices, such as black pepper and cloves, were often included as a protective garnier (filling). Sometimes an extra ¹⁸ kroeberg (flooring) was also used to strengthen the vessel.

As a rule, six layers of commodities rested above the

TABLE 1.

CHANGES IN THE COMPOSITION OF
EASTERN CARGOES FROM 1619 - 1700

Percentage in Years: 1619-21	1648-50	1668-70	1678-1700
1. Spices.....17.55	17.85	12.05	11.70
2. Pepper.....56.45	50.34	30.53	11.23
3. Sugar..... -	6.39	4.24	0.24
4. Tea & Coffee..... -	-	-	4.24
5. Drugs & Dyes..... 9.84	8.52	5.84	8.29
6. Saltpetre..... -	2.07	5.08	3.92
7. Metals..... 0.10	0.50	5.74	5.26
8. Textiles.....16.06	14.16	36.46	54.73
9. Sundries..... -	0.17	0.06	0.39

ballast. The first smooth layer, extending from the bulkhead to in front of the mainmast, consisted of chests of china. From the mainmast to the bulkhead, parcels of cotton, yarns, and drugs were stowed. White pepper was laid along the shipboard. The second layer was comprised of textiles, and also had white pepper along the shipboard. Textiles, often bales of Persian and Bengali silk, comprised the third layer. Valuable commodities, such as expensive tea and nutmeg cakes, were stored in cabins under the responsibility of a crew

¹⁹ member. The Company's officers and crew were legally permitted to carry back a small amount of goods to Holland in the form of "privilege tonnage." Volume was proportionate to each man's rating and length of stay in the Far East. This private import was not documented in the vessel's inventory. In addition, smuggled goods made up a large portion of cargoes. On one occasion, the Chamber of Amsterdam seized

²⁰ goods worth more than 171,000 florin.

Content and proportion of both privilege tonnage and smuggled goods are only superficially considered in Company records. Occasionally, greedy crews overloaded ships with private cargo "with a subsequent risk to navigation."

²¹ Further archaeological research on shipwreck sites should yield more evidence in respect to private cargo.

(IV) THE CAPE ROUTE TO THE FAR EAST

VOC outward-bound fleets left for Batavia each year in January, February, and March. Ships carrying return cargoes from Batavia left in October or November. As trade increased towards the end of the seventeenth and the beginning of the eighteenth centuries, larger numbers of ships and fleets left Batavia between October and March. Returning ships arrived in the Netherlands during the summer. Cargoes were auctioned in the autumn. Equipping ships took place in the late summer and the new year. Conditions of war or peace determined whether ships sailed together in fleets or small convoys.²²

Initially, the Dutch sailed to the Far East via the achter-om (back-way) route around the British Isles to avoid head winds in the English Channel. They crossed the Atlantic to South America, and then sailed east to the Cape of Good Hope. From there, vessels coasted up East Africa, then cut across the Indian Ocean to India or to the Malay Archipelago. Beyond the Cape, the route was slow and dotted with dangerous islands and reefs causing many a shipwreck. As a result,²³ vessels stopped only briefly at Madagascar and Mauritius (Figure 4).

In 1613, a VOC captain, Hendrick Brouwer, discovered a faster route from the Cape of Good Hope to Java using the westerly winds and avoiding the south-west monsoons. In this way Cape Town became a convenient halfway landfall and refreshment station. Initially, VOC vessels stopped at the Cape only on outward-bound voyages. The island of St. Helena,

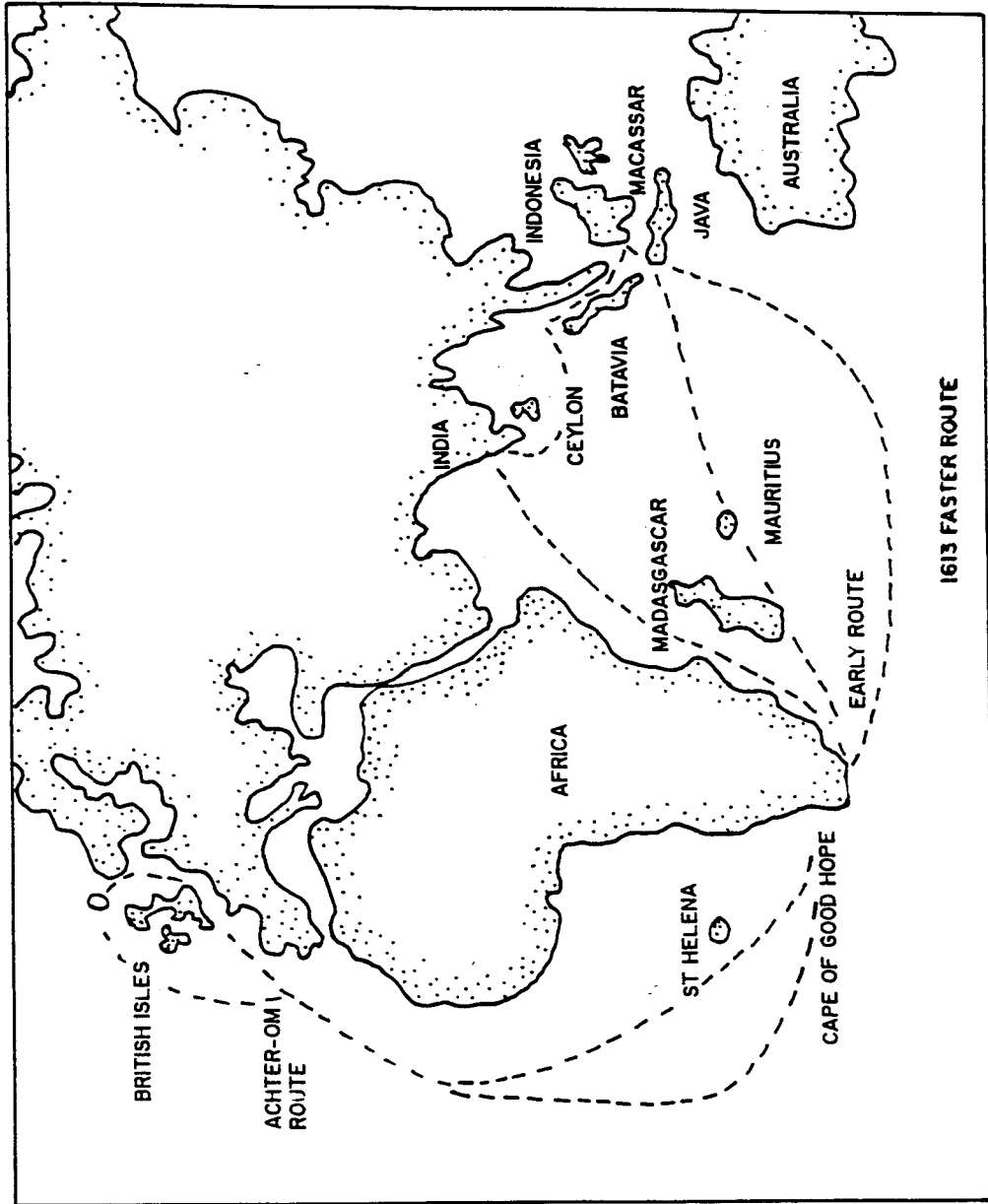


Figure 4. VOC sea-route to the East.

located 1,700 miles north-west of the Cape in the South Atlantic, became a popular return port.²⁴

Two factors convinced the Dutch to settle permanently the Cape port. First, wild pigs and goats on St. Helena had all been eaten, and the fruit and vegetables available there were minimal. Secondly, in 1647 the surviving crew of the wrecked Haarlem discovered that a variety of fruit and vegetables could be grown at the Cape.²⁵ A recommendation by Leendert Janszen and Mathew Proot, two VOC officials who took charge of the group of survivors, suggested that not only would the Cape provide an essential refreshment station, but would also improve the health and performance of ship crews on long voyages; dreaded scurvy took a heavy toll on life. Additionally, if the Cape were not occupied by the Dutch, it might be used by Spanish or Portuguese enemies. The Cape was therefore strategically important to the Dutch.²⁶

In December, 1651 two ships and a yacht, the Drommedaris, the Olifant, and the Goede Hoep, left Holland with artisans and soldiers under the command of Jan van Riebeeck. The ships arrived at Cape Town in April, 1652. The Commander carried out instructions to build a fort capable of holding eighty people, to plant vegetable gardens, and to purchase cattle from the indigenous Khoisan population. Although he faced many practical difficulties, Jan van Riebeeck possessed great energy and ability. By 1662, a settlement had been established at Cape Town. A hospital,

workshops, mills, corn granaries, houses, and fruit and vegetable gardens were situated in close vicinity to the fort at Table Bay.²⁷

(V) VOC ADMINISTRATION OF THE CAPE

The Cape was administered by local VOC officials who were instructed by both the Chamber of Seventeen and the Governor-General in Batavia. Confusion often resulted when contradictory orders arrived from Batavia and Holland. Instructions were sent to the Cape in the form of correspondence with the fleets. Occasionally, visiting commissioners would inspect and instruct. Many commissioners accused Cape administrators of inefficiency, inaccurate record-keeping, and delaying correspondence.²⁸

Cape law was based on the Batavian code, the "Statutes of India," known as the Cape placaaten (ordinances). The routine day-to-day administration of the Cape was the task of the local Council of Policy which proclaimed resolusies (resolutions). The primary goal of the Council was to "protect and support the interests of the VOC at the Cape." This was to be carried out with as little expense to VOC as possible; this meant meager salaries for their Cape employees. The Council of Policy used its combined legislative and executive powers to punish offenders, to fill vacant positions, and to govern the Cape as if it were a ship's provisioning and hospital station.²⁹ VOC Cape governors like Jan van Riebeeck, but more particularly his successor,

Simon van der Stel, greatly influenced the decisions of the Council of Policy. Cape governors had long terms in office (thirteen years on average, twenty-one years in the case of Simon van der Stel). They were also known to use and abuse their executive powers to protect their private trade and land ownership interests of their friends. The Cape, geographically and administratively remote, fell prey to bureaucratic corruption. Official greed led to deprivation and bitterness among the burghers (civilians), who smuggled cargoes from VOC vessels. Although such malpractices harmed the Company as a whole, local civilians probably suffered more. Severe penalties such as death sentences were administered to burghers for as little as picking up wreckage on the beach.

(VI) ECONOMY, ILLEGAL TRADE, AND SHIPPING LOSSES

Many Cape officials were discharged from Company service to become farmers. These burghers were still required to do duty at the garrisons, particularly during the wars against France and England between 1675 and 1713. Produce from their farms Company-controlled and dedicated to supplying ships. Farmers were allowed to sell to visiting ships only after VOC warehouses were adequately stocked. In addition to the Company's monopoly, farming activities were limited by transport problems - unnavigable rivers, high mountains, and ox-wagons as the sole means of transport. Thus, most farms were situated close to the coast. Wheat and grapes were the

only really successful plantation crops produced in this
31
environment.

Wheat became an increasingly important export product. The Dutch Eastern Empire demanded an especially large Cape wheat supply during the eighteenth century. Cape wine production also increased during this century, but not much was exported. Most wines were of a poor quality and were in
32
high demand at local taverns.

Despite the relative success of wheat-farming and viticulture, most VOC employees sent to the Cape were ex-sailors, soldiers, and clerks, and therefore not suitably experienced in agricultural work. As a result, slaves were imported from Formosa and Java, where VOC officials had been favorably impressed by their farming skills. The Council of Seventeen had expressly forbidden the enslavement of the indigenous population, the Khoisan, with whom Cape employees were required to maintain a beneficial cattle-trade relationship. Black slaves were obtained from Angola and West Africa in 1658 and 1659, and from Madagascar from 1670 onwards. Indonesian slaves were often excellent masons, house-painters, confectioners, cooks, and fishermen. The women were skilled seamstresses, and, apparently, mistresses of European seamen. African slaves were used for harder labor such as loading and unloading vessels. Slave labor was favored by the VOC because it was less expensive than paying
33
their own officials to do these tasks.

While slaves took care of manual labor necessary to

maintain the shipping station, officials indulged in private trade. As all public trade was subject to a strict monopoly by the Company, any private trade was largely surreptitious and illegal. Commodities for private trade were obtained directly from ships, from merchants in Holland, or from local auctions.³⁴

Civilians, sailors, and soldiers carried out this illegal activity. Prices were never stable and depended on the type of cargoes carried by VOC vessels, the quantity of goods available at the moment, and the prospect of speedy replacement by the fleets. Tobacco and soap were staples because there was always a ready market for them. Yet these goods did not yield as much profit as silks and spices. Strict Company rules regulated importation and distribution of spices; no-one was allowed to "trade spices at the Cape unless he purchases from the Company's store at the fixed price of one ducaton per pound."³⁵ Nevertheless, there is evidence that private trade and smuggling were a primary occupation at the Cape. One observer noted,

...smuggling goes on and it is a fact that it is possible to purchase spices at the Cape at a lower price than charged by the Company. A strict scrutiny is made with the object of discovery of smuggled spices - both at the port of departure - Batavia - and at the port of landing. At the Cape dire punishments await the individual who is found in possession of smuggled spices. Nevertheless, the trade goes on and even were these scrutineers Argus-eyed they would fail to detect all channels of illicit imports and trade. I might give illustrations of some methods that these smugglers adopt, but I shall desist, lest I interfere with

the small earnings of some otherwise worthy fellows.³⁶

Judging from VOC records, vessels were not always subject to such strict scrutiny at the Cape. The Council of Policy resolutions reads:

Contraband goods on return ships which according to orders from Holland are to be searched.... Fiscal van Heugh, however wished the directors to be informed that a thorough search between decks is not always practical without partly discharging the cargo which would cause great delay on account of the south-east and north-east gales.³⁷

Another lucrative economic enterprise at Cape Town was keeping boarders. Boarding houses also provided locations for illicit trading. Apart from the legitimate charges for board and lodging, sailors who had saved up money at stations in the Far East for lack of opportunity to spend it found the Cape to be a most pleasant place for diversions. It was not uncommon to find a "half-tipsy sailor calling for twelve bottles of wine at a stroke..., order a complete new outfit, coat, hat, shoes, hose, and underwear complete..., and order a coach and four to drive him in style...."³⁸ Sailors were known to sell all their possessions to continue going from "one low tavern and house of ill-fame to another."³⁹ These activities sometimes resulted in embarrassed sailors staying at the Cape or returning to the East rather than continue home penniless to their wives and families. This was true not only of the VOC sailors but also of the vessels of other nations that visited the Cape.⁴⁰ In this way Cape Town earned the adage,

"Tavern of the Seas."

Why did the VOC continue to use the Cape as its halfway station when corruption of employees was rampant and shipping losses high? Perhaps Holland felt a greater danger and expense lay in another European naval power, such as France or England, controlling the Cape's fresh provisions and strategic location. Additionally, if the VOC had taken more rigorous steps to prevent illicit trading activities at the Cape, higher salaries would have been required to persuade officials to enforce regulations.⁴²

Many lives were lost as a result of shipwrecks. The Cape refreshment station was intended to decrease crew mortality on VOC vessels, but a high death rate continued after the establishment of the hospital, granary, and gardens. Ship and cargo losses were also a serious problem. Cargoes such as bullion could be saved, but textiles and spices quickly deteriorated once submerged in salt water. Furthermore, crews of vessels, Cape officials, and locals probably profited more from allowing a vessel to be wrecked, rather than attempting to refloat her. When a VOC vessel completed a successful voyage, the merchant who had ordered the goods had to pay the money owing plus thirty per cent interest; if the vessel were wrecked, neither the payment nor the interest were payable. Seafaring men commonly took out a transportbrief (transport letter) as insurance against the loss of pay due to shipwreck. A transport letter entitled a sailor to draw installments from his pay before a voyage had

been completed. Married men could make allowances for their wives and families, and indulge in business speculations. If the vessel were wrecked, the crew's salaries would not be paid, although their debts would be canceled. This principle held good only if the vessel became a total wreck. If it were stranded, or refloated and repaired, all obligations were binding. If the ship were wrecked, but the goods were salvaged and sold at a profit, either through VOC agents or the merchant's agents, payment was not due.⁴⁰ This feature of the Company shipping policy leads to speculation about the crew making a more profitable deal by selling the goods at ports like the Cape if the vessel were a "wreck." In any case, how would the Company know exactly how much had been salvaged and sold locally?

In spite of being strategically located on the East India trade route, Cape Town's potential financial value to VOC mercantilism was detrimentally affected by inadequate local administration, illegal private trade practices, and shipwrecks. At best, the Cape was a colorful Tavern of the Seas; at worst, a treacherous port which contributed to the VOC'S decline towards the end of the eighteenth century. Ironically, private trade and smuggling, induced by the tight-fisted policies of the Company, stimulated the development of a flourishing international seaport.

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CHAPTER 2

TABLE BAY

The use of Table Bay as an anchorage and provision depot at the Cape during the seventeenth and eighteenth centuries was linked primarily to its proximity to a fresh water supply from the Varsche Rivier which flowed down from Table Mountain into the Bay. Sailors waded through the surf to replenish their water supplies until 1649 when the Company constructed a wooden jetty near the river mouth. The water was also used to drive the mills of the Company and to water their fruit and vegetable gardens essential for provisioning ships.¹

(II) ANCHORAGE TO HARBOR

Despite the convenience, Table Bay not being a true harbor, was a dangerous anchorage. It was described as "no real harbor,... merely this Bay, formed by a rounded indentation of this coastline, and so large that fifty or sixty ships can lie in it at anchor."²

During the first decade of VOC involvement at Cape Town the Company lost two important vessels, the Mauritius Eylandt (1644) and the Haarlem (1647). Towards the end of the seventeenth century the loss of the Waddingsveen (1697) and Oosterlandt (1697) prompted the Council of the East Indies to seek some way of ensuring the safety of their Eastern fleets. One possibility was to use a safer anchorage such as False Bay during the winter months (Figure 5). However, Cape officials rejected this proposition claiming

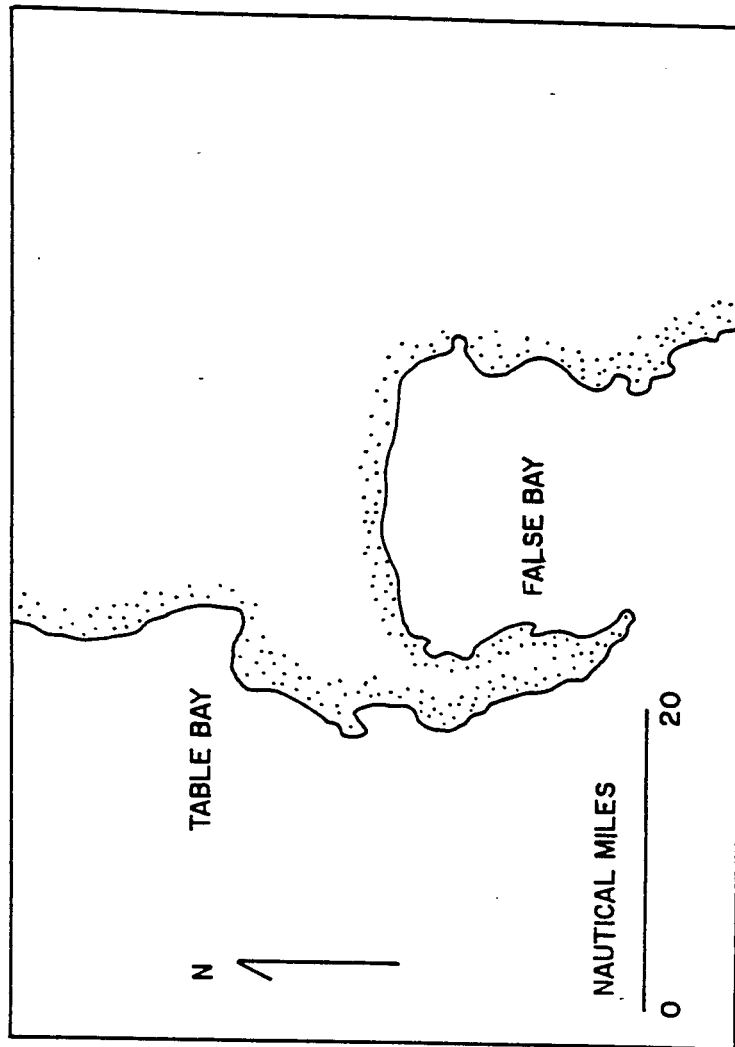


Figure 5. False Bay and Table Bay.

that the bay was too small, too rocky, and too infertile to grow vegetables. Table Bay, where the Company had just started developing facilities such as wharves and jetties, would have had to be abandoned. Yet, False Bay had not been properly investigated. Only the western bight was surveyed³ and charted.

Simon van der Stel, Governor of the Cape, suggested another alternative: using the Salt River estuary on the eastern shore of the Bay as an anchorage. As this was also one of the locations where ships frequently ran aground during gales, he ordered the digging of a channel through constantly forming sandbanks. Soon small sail boats could enter the sheltered lagoon via the channel. Unfortunately, deepening the channel for larger vessels was beyond the finances and the labor capabilities of the Cape, and the idea of the Rietvlei (Reed Lagoon) harbor was abandoned.⁴

The Company continued to suffer serious shipping losses in Table Bay. Outward-bound Dutch East Indiamen, including the Rotterdam, Schotse Lorrendrayer, Standvastigheid, and Zoetigheid, as well as the Chandos, Nightingale, and Addison from England, lay anchored in the Bay in mid-June 1722 when strong north-west winds were blowing. Enormous waves crashed against the hulls of the vessels and the masonry of the castle overlooking the Bay. As the Governor and his Councilors stood helplessly on the castle battlements, one ship after another dragged anchor or broke

ropes and drifted towards the shore. As usual, the only action taken was to send some soldiers down to the beach to prevent looting and to collect anything that washed ashore. By dawn the following day, the vessels had been washed ashore and their hulls had been reduced to timber fragments. The Cape north-wester spared neither ship nor sailor. The Standvastigheid lost 219 of her crew of 234, the Rotterdam⁵ only had thirteen survivors.

In 1728, three more vessels were lost - the Haarlem, the Stabroek and the Middenrak - virtually in the same place. The Haarlem broke loose and stranded near the Castle where the Lakeman had gone aground. The Stabroek was driven onshore almost exactly where the Nightingale had been wrecked and the Middenrak drifted towards the second Salt River mouth. This vessel did not break up, but had "sunk into the sand and disappeared" like the Haarlem in 1647.⁶

During these years the Chamber of Seventeen, the administrative branch representing the Company in Holland, began considering the prospects of constructing a breakwater in Table Bay. A scheme designed by Michael Landtsheer, Assistant Quartermaster to the chamber of Zeeland in Middelberg, was sent to the Cape. The breakwater would project out from a reef on the western shores of Table Bay. Landtsheer stressed the importance of this artificial harbor to protect the fleets upon which the Company was so financially dependent.⁷ The local Cape Government objected believing the breakwater would require a vast amount of

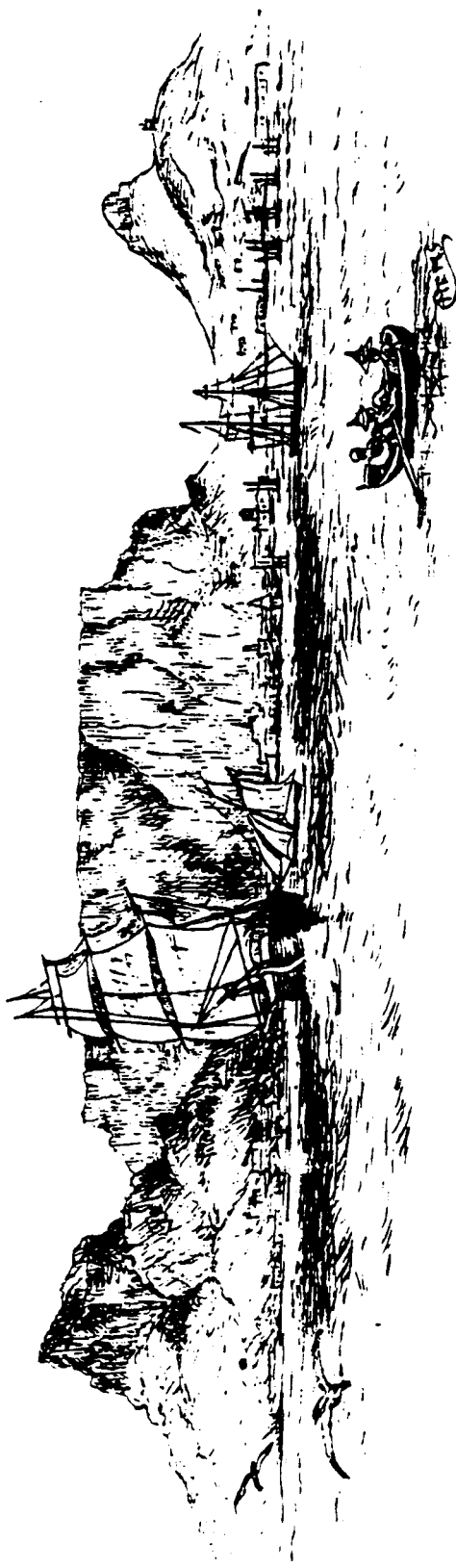


Figure 6. Table Bay with Table Mountain, Lion's Head,
and Signal Hill in the background.

funding and labor, take many years to complete, and be washed away easily by the next ferocious winter storm.⁸

In the meantime, shipwrecks continued, and the Dutch East India Company was forced to issue instructions to their vessels to bypass the Cape in winter. Despite these instructions, some ships still stopped at the Cape through necessity. Some remedy was required. In 1729 Cape authorities were instructed again to investigate the possibility of establishing a permanent winter anchorage in False Bay, and again, Cape officials insisted that the Bay was too small for their fleets.⁹

In March 1731, a program was initiated to save "ships, profits and cargoes" by Governor-General Valckenier and the Council of the East Indies.¹⁰ This program included leaving Europe earlier to avoid summer monsoons in the Indian Ocean, using a third anchor to moor ships arriving at the Cape in the winter, and creating yet another scheme to construct a breakwater.¹¹

This program was not very satisfactory, as it did not really provide a solution. The Cape could not always be avoided, particularly if bad sailing weather extended the length of the voyage. In 1737 the loss of another return fleet had a devastating effect on the Company's economy. The Buis, Duinbeek, Flora, Goudrian, Paddenburg, Roodenrijs, Voorsigheid, Westerwijk and the Ypenroode were all wrecked in the vicinity of the Salt River mouth. A report on the

attempts to salvage the cargo of the wrecks mentions that the "coffee and mace saved from the wrecks was found to be worthless, and it was decided not to save anymore."¹²

Although the spices lost their value, more cargo was saved from these wrecks than those of 1722 and 1728. The Commander, Willem van der Stel, asked the Council of Policy to "obtain some wagons from the burgers (citizens) for carrying the cargoes from the eight wrecks."¹³ The Council instructed,

...all property belonging to private individuals be returned to them, if alive, but should the owners be dead, to be sold and their estates be credited with the amounts, that is such goods as they are in lawful possession...¹⁴

After the 1737 wreckings, a breakwater tax to help finance the Moulje (breakwater) project was established. When work started on the breakwater in February 1743, there was less labor than usual because the slave population had been reduced by a jaundice epidemic. Governor-General van Imhoff imported Asian convicts from Batavia, but most of them succumbed to the local epidemic as well.¹⁵ In any case, the breakwater was not a very stable structure. Möller, the Quarter-Master, in charge of construction, had neither seen nor built a breakwater. The nascent breakwater was destroyed¹⁶ by the next winter storm.

In 1762, the Chamber of Seventeen sent Willem van Cloppenberg, the newly appointed Independent Fiscal whose duties were to regulate finances and act as public prosecutor, to investigate resuming the breakwater project.

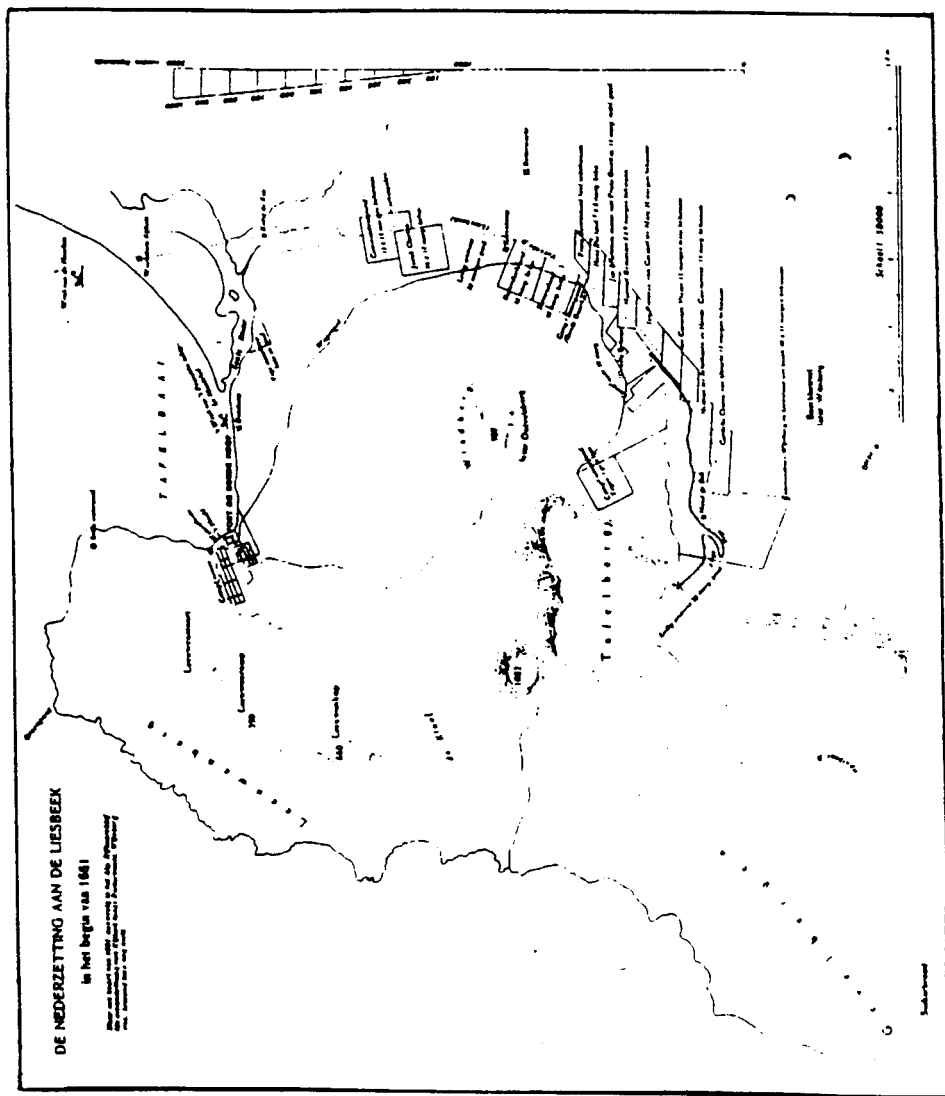


Figure 7. Map showing the location of two seventeenth-century shipwrecks.

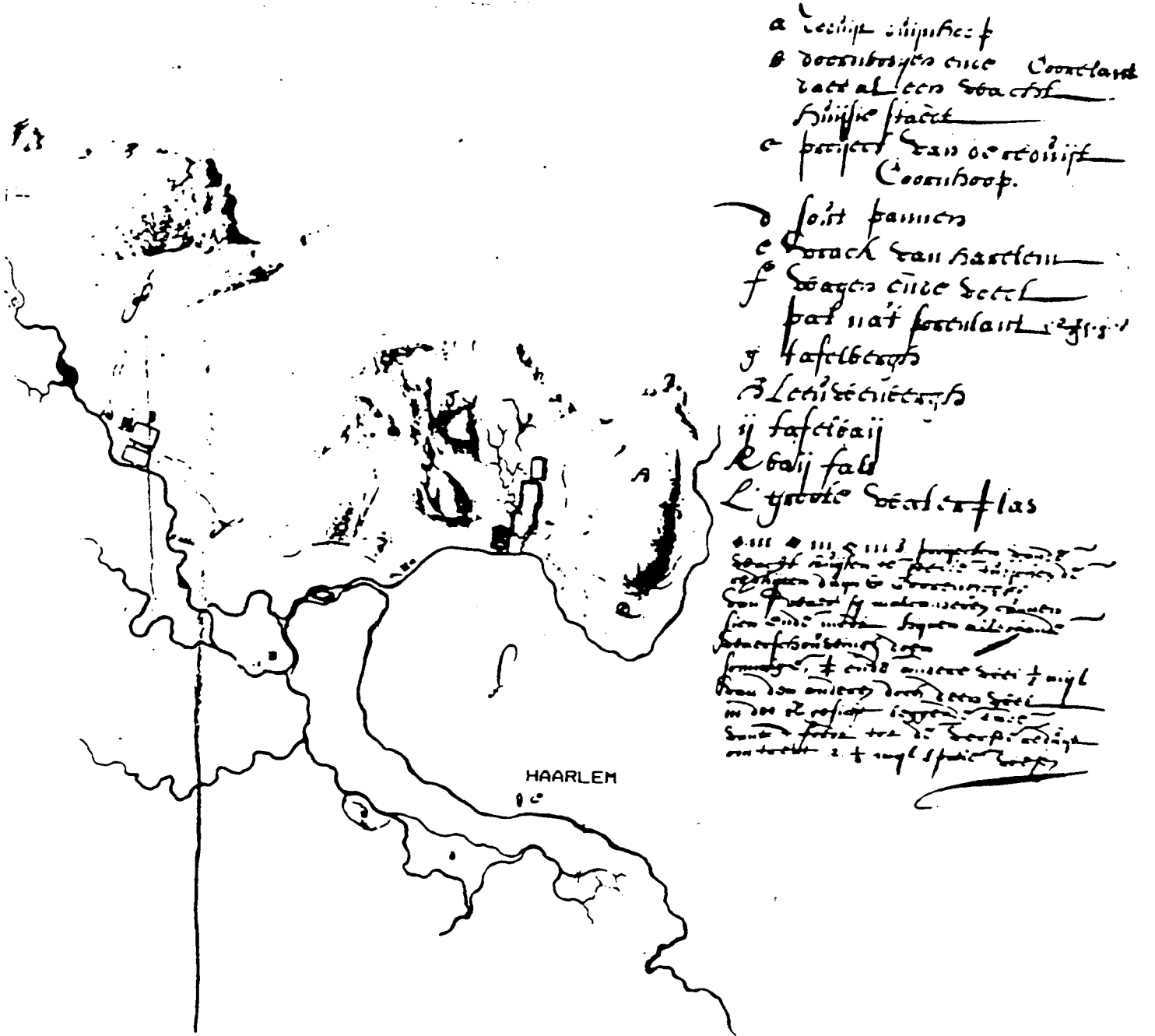


Figure 8. Historical map showing the location of the Haarlem (1647).

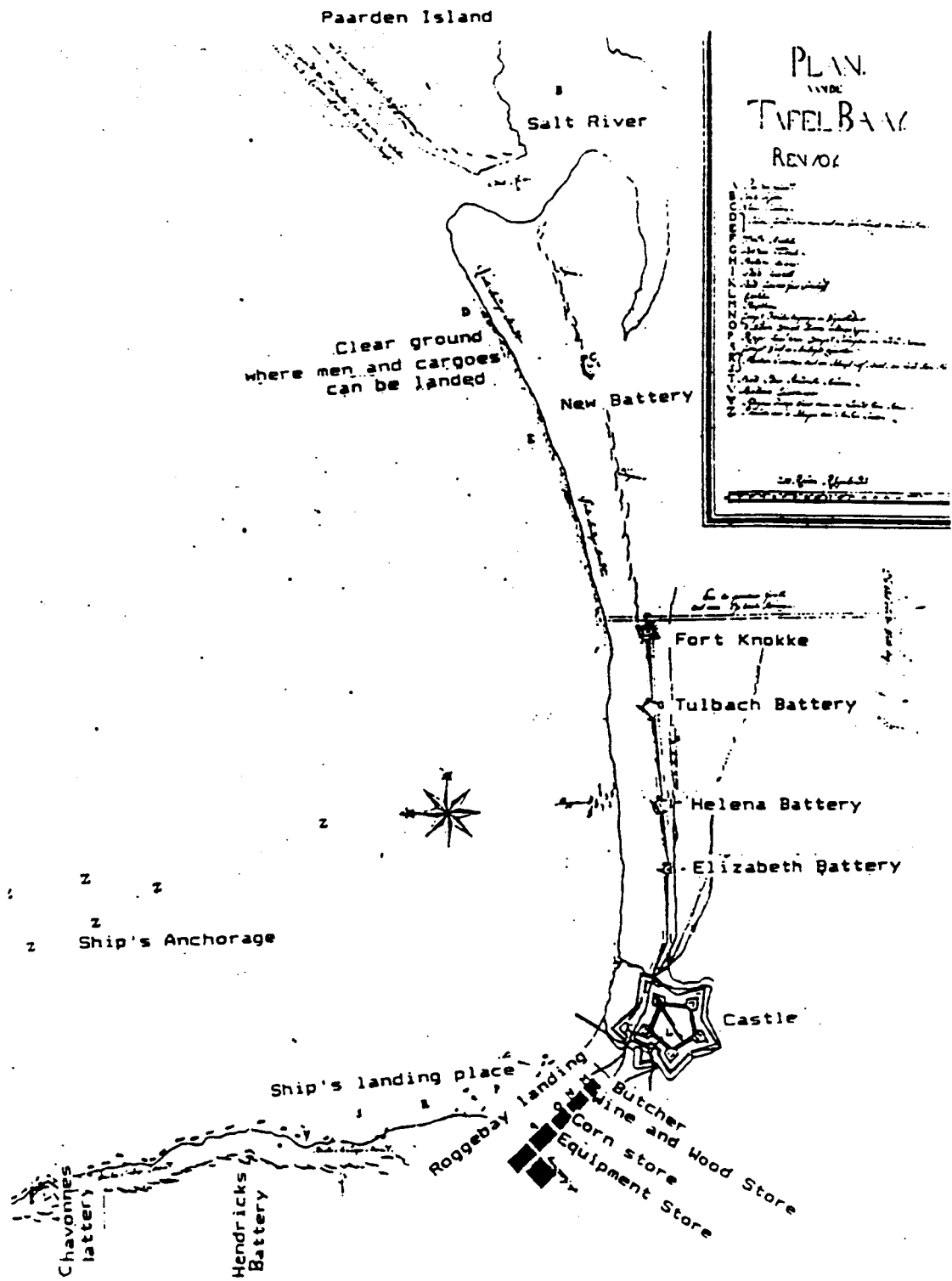


Figure 9. Table Bay settlement.

Van Cloppenberg had regarded this project as ridiculous from the outset. He opposed completing a structure that would probably silt up an anchorage in a few years and make the Bay impractical for shipping.¹⁷ On the basis of this pessimistic report the VOC ultimately abandoned the hope of harboring their ships safely by means of a breakwater at the Cape.

Approximately thirty-five vessels were wrecked at the Cape out of the total one hundred and five lost world-wide¹⁸ by the VOC in the seventeenth and eighteenth centuries. Ninety per cent of the Cape wrecks occurred in the Table Bay anchorage. The Cape port was reputed to be a 'moneyloser' for the VOC; every year the officials closed their books with a¹⁹ deficit.

Successful construction of a safer harbor at the Cape can be attributed to the British rather than the Dutch. Captain Vetch, Harbor Surveyor to the Admiralty, stated in 1857 that "the value of a secure and ample harbor at the Cape cannot be overlooked."²⁰ He stressed that the Cape was a "great turning point in navigation subject to violent storms,²¹ and as such no good refuge exists." The advantages of a secure harbor at the Cape, Vetch argued, included acting as:

1. A naval station in time of war
2. A place of call and depot for ocean steamers
3. A refuge for vessels repairing and refitting
4. An administration center for commerce generally between Europe and the East.²¹

Thus, in August 1860, a Board of Commissioners was established and the Table Bay Dock and Breakwater Management

for the Supervision and Construction of Harbor Works was created to supervise building a harbor in Table Bay. Despite the severe gales and setbacks, a safe harbor was constructed by the end of the nineteenth century.

In the two hundred year period between 1657 and 1857 at the Cape, over two thousand lives were lost due to shipwrecks. The loss of property from 1853 and 1859 was estimated at 138,000 pounds.²³ Recurring loss of life and property had given rise to various schemes for the protection of shipping, including associated tax laws that adversely affected the economy. Schemes in the eighteenth century, such as digging a channel into Rietvlei and building breakwaters, were unsuccessful due to inadequate technology, labor, and funds. Until the British constructed a sheltered harbor, most shipping losses were due to exposure of anchored vessels to storms. Since then, the causes of maritime disasters have been inaccurate charts, too few lighthouses, wartime casualties, and the severe and rapidly changing weather conditions at the Cape.²⁴ While shipwrecks did not end, the harbor provided safer refuge.

(II) LOCATIONS OF SHIPWRECK SITES

In the event of a shipwreck in Table Bay during the rule of the VOC, the approximate location of the wreck and the property washed ashore were reported to Company officials. Locations were generally described in reference to landmarks such as fortifications, outposts, rivers, mountains, vleis

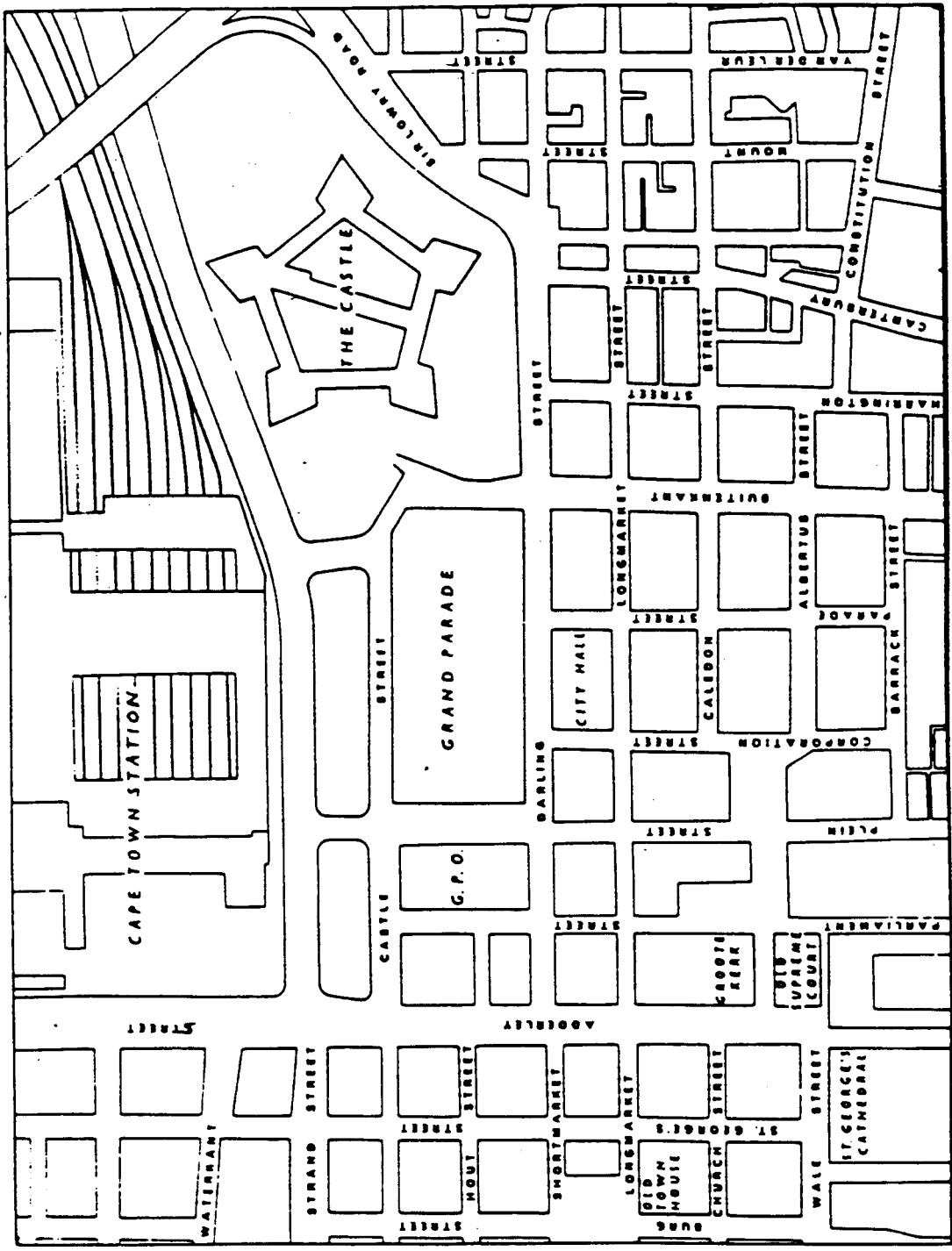
(lagoons) and the properties of local farmers. The officials of the VOC dutifully recorded these reports, in addition to their attempts to salvage the wreckage or vessel in their daily daghboeke (journals). Correspondence concerning vessel and cargo damages was dispatched to Batavia; sometimes salvage instructions followed in response.

Many of the landmarks mentioned by the Cape officials are extant. Historical maps drawn by the Company during the seventeenth and eighteenth centuries are particularly helpful. Some even mark the position of wrecks (Figures 7 and 8), whereas others include landmarks. The landmarks shown on the Plan of Table Bay are fortifications (Figure 9). The Castle on the slopes of Devil's Peak was built to keep a lookout over Table Bay. Although it commanded a good view of the Bay, it was situated in a vulnerable position. In addition, most of the Bay was out of reach of the cannons. As a result,²⁵ additional fortifications were constructed.

In 1726 another independent fort named Mauritius was erected. In 1744 it was renamed the Chavonnes Battery. This fort was located on the shoreline rocks, and armed with 16 cannons that could be shot low over the water. In 1741 sea lines were laid to form a defense system along the western shore of Table Bay. It consisted of a line of small batteries: the Tulbach, Helen, Elizabeth and the Charlotte. Fort Knokke formed its northern end. The sea lines also created a connecting line of defense between the Castle and Fort Knokke.²⁶

According to the historical journals and reports of the VOC, many potential shipwrecks sites should be located between the Castle and Fort Knokke. This area of the Bay was reclaimed during harbor developments in the late nineteenth and early twentieth century. By superimposing a present-day map of Cape Town over seventeenth- and eighteenth- century Table Bay anchorage in the vicinity of these fortifications, it is evident that the zone around Cape Town station currently occupies this area (Figure 10). A wreck-site was actually discovered during the building of the Civic Centre situated next to the station.²⁷

Another key feature in locating shipwreck sites is the position of the mouths of the Salt River during the seventeenth and eighteenth centuries. This river flowed from Vissershoek (Fisherman's corner) to within a mile of the fort.²⁸ It had two mouths: the southern mouth near the fort was fed by the Swart (Black), Liesbeck, and Diep (Deep) rivers, and the northern mouth also by the Diep river which flowed out of the tidal lagoon, Rietvlei. Paarden Island, as the name indicates, was embraced by these two arms of the river and resembled an island. The opening of the river mouths was probably dependent on the sea tides or the season which seems apparent from contemporary eighteenth century maps in the Cape Town Archives.²⁹ Another map refers to the mouth as oude mond (old mouth) which suggests that the position of the mouth may have changed through time as well.³⁰



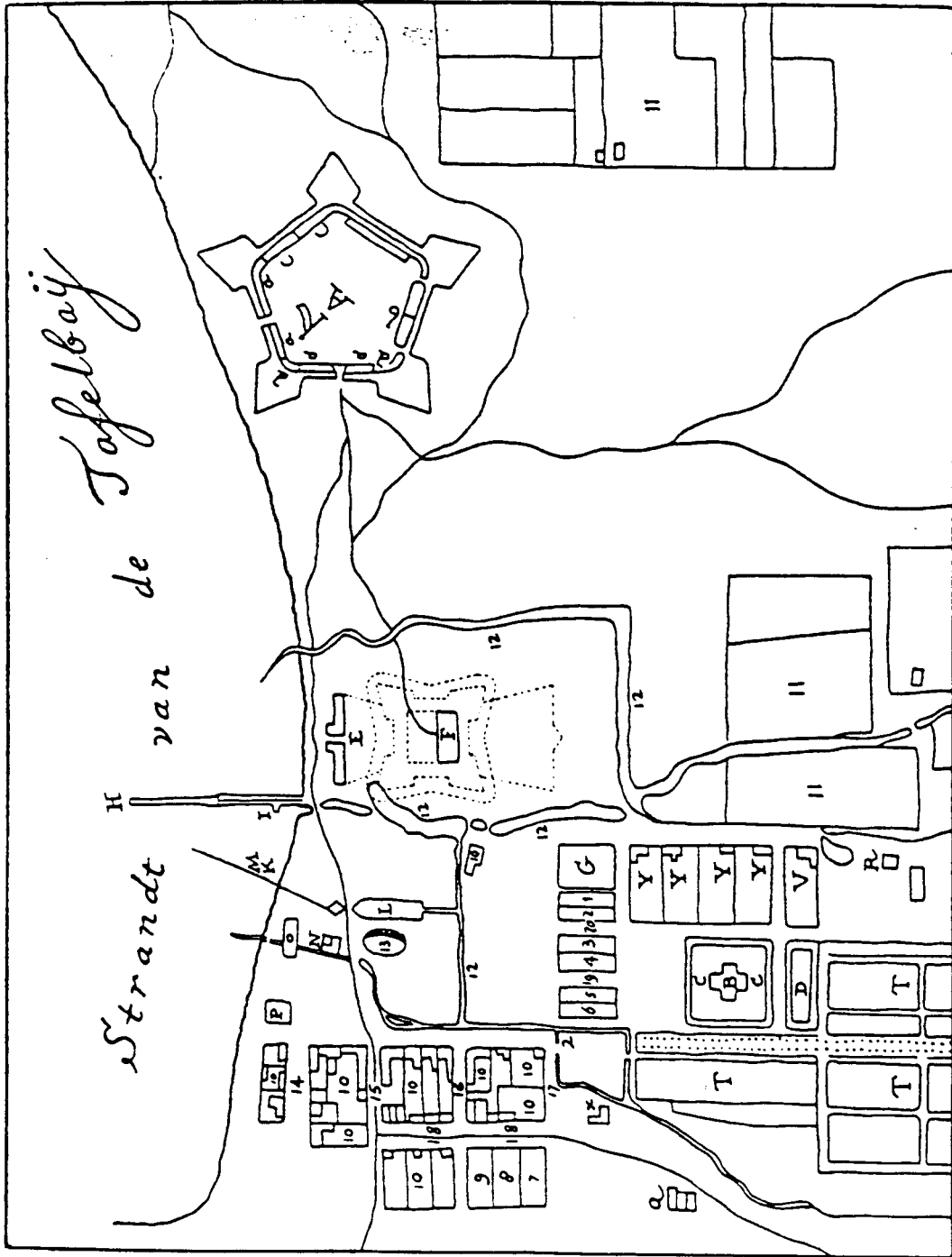


Figure 10. Urban developments in Table Bay.

The Salt River was an important natural resource for the Cape settlement. As bartering with the indigenous population was undependable, the vessel crews relied on fish from the Salt River. The Salt pans also provided salt to preserve both fish and meat. Van Riebeeck wrote in his journal that he:

...sent the crew of the Roode Vos and some men from the shore with the sampan to fetch a load of salt. This is very plentiful and is much needed by us for salting the abundant supply of fish we catch there from time to time, and to serve to the men as additional food with rice. They would otherwise have to eat rice dry as there was nothing to serve it with as often happens when no fish can be caught. 31

Fishermen living in huts along the lower reaches of the Salt River also performed other important functions for the new settlement. From 1662 onwards the sale of liquor, smuggling, and inn-keeping were the main forms of local trade in the Cape. Illegal liquor stocks were brought ashore in the dead of night from ships at the mouth of the Salt River. This was no doubt a convenient spot for the fishermen to have taverns! A VOC official recorded,

The Governor has for a long time been considering the smuggling on shore of all kinds of liquor from from out and homeward bound ships, notwithstanding the existing ordinance on the subject. He suspects the Salt river to be the spot where during the night illicit traffic is carried out, notwithstanding the beach is regularly patrolled when there are ships here. 32

Clearly, crews of vessels anchored close to the southern mouth of the Salt river near the location of the fishermen's taverns were motivated by the prospects of a meal of fresh fish and liquor. This had to have contributed to the

numerous wreckings that occurred in the vicinity of the southern mouth. Company records also refer to ships anchoring near the duintjies (dunes) which are a feature of the second or northern Salt River mouth towards Blouberg "where the anchorage is always bad and sandy." ³³ Many vessels would have dragged anchor on the shallow sandy sea bed and created another high density shipwreck site area.

Another important landmark for locating shipwrecks is the outpost Kijck-uit (look-out) situated at the second mouth of the Salt river. This outpost kept a lookout for bad weather conditions indicated by a cloud over Lions Head Mountain and reported the arrival of ships in Table Bay. The Kijck-uit also took care of flotsam and jetsam such as drowned ³⁴ sailors, wrecks, and stranded whales.

Using a combination of references to historical landmarks, documents, and maps the approximate positions of seventeenth and eighteenth century shipwrecks sites in Table Bay can be compiled (Figure 11).

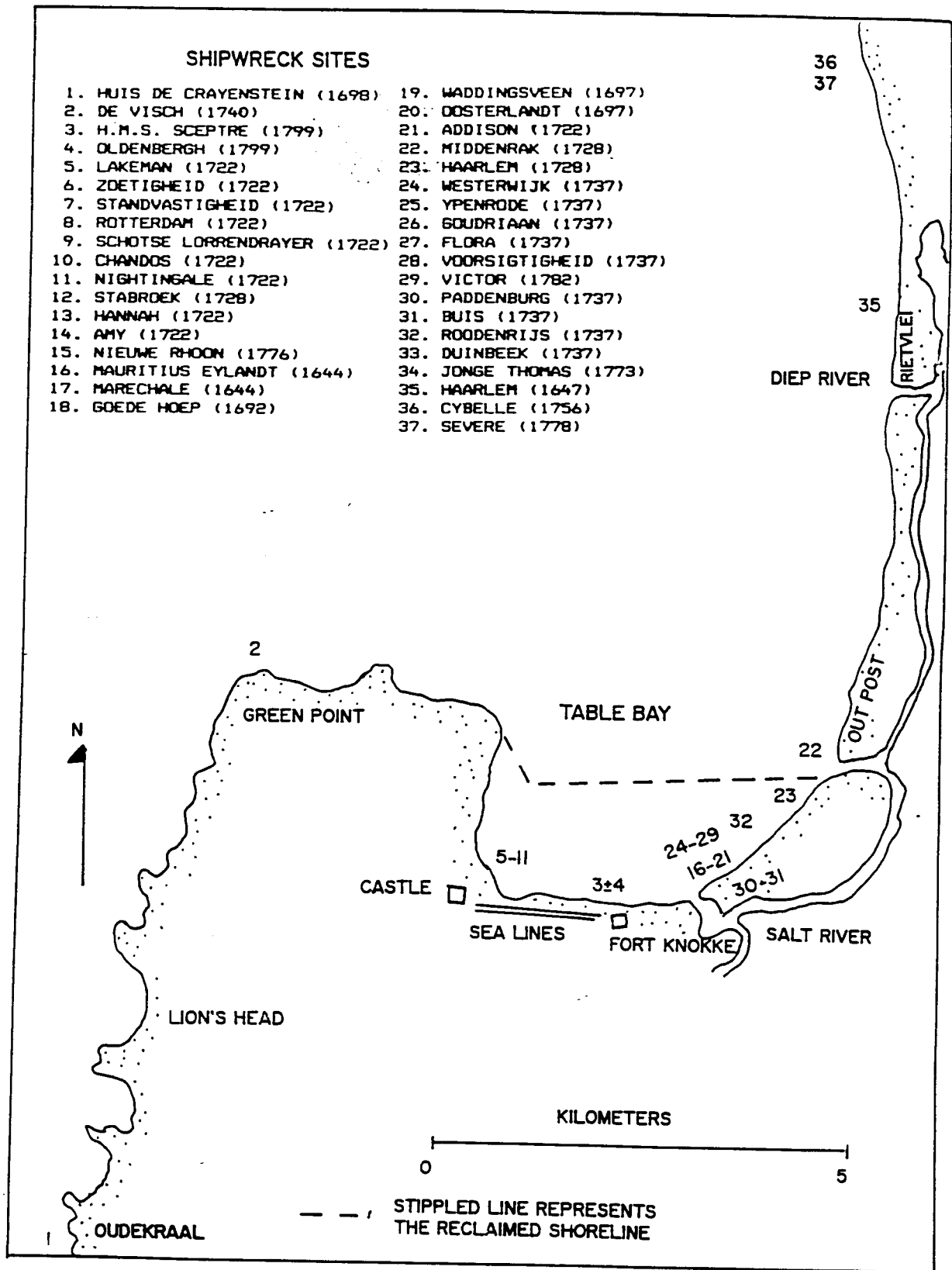


Figure 11. Approximate locations of shipwrecks in the vicinity of Cape Town.

Table 2. Vessels Wrecked in the Vicinity of Cape Town, 1644 - 1799. 35

Name of Vessel	Date Wrecked	Location	Nationality	Vessel Type	Built	Equipped	Captain	Crew	Cargo and Value
<u>Mauritius Eylandt</u>	7/2/1644	Salt River	Dutch	East Indianan	Amsterdam	Amsterdam	Pieter Thienizs		
<u>Haarlem</u>	25/3/1647	Rietvlei	Dutch	East Indianan 500 tons	Amsterdam	Amsterdam	Pieter Pieterz	120	Eastern Trade Goods Value - 183,078 gld.
<u>Marechale</u>	19/5/1660	Salt River	French						
<u>Goede Hoop</u>	4/6/1692	Salt River	Dutch	East Indianan	Amsterdam 1688	Amsterdam	Anthonie Pronk	94	Eastern Trade Goods Value - 898,260 gld.
<u>Oosterlandt</u>	24/5/1697	Salt River	Dutch	East Indianan 1123 tons	Zeeland 1685	Amsterdam			Eastern Trade Goods Value - 372,692 gld.
<u>Waddingsveen</u>	24/5/1697	Salt River	Dutch	East Indianan 751 tons	Rotterdam 1691	Rotterdam	Elbert Franz	85	Eastern Trade Goods Value - 393,799 gld
<u>Huis de Crayenstein</u>	27/5/1698	Behind Lion's Head Mountain	Dutch	East Indianan 1154 tons	Zeeland 1697	Zeeland	Jan van der Vijver	275	Bullion and Supplies
<u>Addison</u>	17/6/1722	Salt River	English	East Indianan					

Table 2 (cont.). Vessels Wrecked in the Vicinity of Cape Town, 1644 - 1799.

Name of Vessel	Date Wrecked	Location	Nationality	Vessel Type	Built	Equipped	Captain	Crew	Cargo and Value
<u>Amy</u>	1776/1722	Castle	Cape-Dutch	Brigantine					
<u>Chandos</u>	1776/1722	Castle	English	East Indiaman					
<u>Hannah</u>	1776/1722	Castle	American						
<u>Lakeman</u>	1776/1722	Castle	Dutch	East Indiaman 600 tons	Enkhuizen 1718	Enkhuizen	Herman Branus	150	Bullion and Supplies
<u>Nightingale</u>	1776/1722	Castle	English	East Indiaman					
<u>Rotterdam</u>	1776/1722	Castle	Dutch	East Indiaman 800 tons	Rotterdam 1716	Zeeland	Gerrit Fiers	225	Bullion and Supplies
<u>Schotse Lorrendrayel</u>	1776/1722	Castle	Dutch	East Indiaman frigate		Zeeland	Adriaan Hijpe	50	Bullion and Supplies
<u>Standvastigheid</u>	1776/1722	Castle	Dutch	East Indiaman 888 tons	Amsterdam 1706	Zeeland	Jan Kole	225	Bullion and Supplies

Table 2 (cont.). Vessels Wrecked in the Vicinity of Cape Town, 1644 - 1799.

Name of Vessel	Date Wrecked	Location	Nationality	Vessel Type	Built	Equipped	Captain	Crew	Cargo and Value
<u>Zoetigheid</u>	17/5/1722	Castle	Dutch	East Indiaman 600-ton fluit	Delft 1718	Delft	Abraham van der Ceel	150	Bullion and Supplies
<u>Haarlem</u>	4/12/1728	Salt River	Dutch	East Indiaman 850 tons	Amsterdam	Amsterdam	Anthonie Biermans	180	Bullion and Supplies
<u>Nienderak</u>	3/7/1728	Salt River	Dutch	East Indiaman	Amsterdam 1818	Amsterdam	Hendrik Jurriaan van Beek	120	Bullion and Supplies
<u>Stabroek</u>	3/7/1728	Castle	Dutch	East Indiaman 900 tons	Amsterdam 1722	Zeeland	Barend van der Zalm	180	Bullion and Supplies
<u>Buis</u>	21/5/1737	Beach - Salt River mouth	Dutch	East Indiaman 600 tons	Enkhuizen 1737	Hoorn	Hendrik Orsel	81	Eastern Trade Goods Value - 248,156 gld.
<u>Duinbeek</u>	21/5/1737	Beyond Salt River mouth	Dutch	East Indiaman 800 tons	Zeeland 1727	Zeeland	Jan van Thiel	106	Eastern Trade Goods Value - 368,732 gld.
<u>Flora</u>	21/5/1737	Salt River	Dutch	East Indiaman 850 tons	Amsterdam 1730	Amsterdam	Gerritt Pik	115	Eastern Trade Goods Value - 134,915 gld.
<u>Goudriaan</u>	21/5/1737	Salt River	Dutch	East Indiaman 650 tons	Delft 1719	Delft	Jurriaan Zeeman	88	Eastern Trade Goods Value - 237,992 gld.

Table 2 (cont.). Vessels Wrecked in the Vicinity of Cape Town, 1644 - 1799.

Name of Vessel	Date Wrecked	Location	Nationality	Vessel Type	Built	Equipped	Captain	Crew No.	Cargo and Value
<u>Nieuwe Rhoon</u>	31/1/1776	Jetty	Dutch	East Indiaman	Zeeland	Amsterdam	Jacob Kelders		Eastern Trade Goods
<u>Severe</u>	15/10/1778	Blouberg	French	Naval					
<u>Victor</u>	24/9/1782	Salt River mouth	French	Corvette					
<u>Oldenburgh</u>	5/11/1799	Fort Knokke	Danish	Naval					
<u>H.H.S. Sceptre</u>	5/7/1799	Fort Knokke	English	Naval					

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CHAPTER 3

SHIPWRECKS AND SALVAGE

In order to interpret a shipwreck site the "extracting filters" which re-arrange or remove a vessel and her contents should be carefully examined. Two significant extracting filters include (1) the mechanical forces which operate during and after the wrecking, such as the wind, waves, and currents. These forces can affect the deposition of the material (discussed in Chapter 4, p.67) and (2) salvage work, both in the past and present, which removes content from the site.

As most of the shipwrecks in the vicinity of Cape Town are likely to be exposed to both salvage operations, heavy sea conditions during the winter, and nearshore surf the extracting filter approach is essential for planning surveys and underwater archaeology projects in Table Bay.

(I) EIGHTEENTH-CENTURY SALVAGE

During the eighteenth century, much salvage work was undertaken by the English diver, John Lethbridge. Lethbridge was the inventor of the "most famous diving engine." This apparatus was constructed by a metal-worker in Stanhope Street, London. According to Lethbridge's description, it was a round wooden barrel with iron hoops fitted inside and outside to strengthen it. The detachable barrel head had glass approximately four inches thick in direct line with his

eyes. Openings were made so that his arms could be thrust into watertight sleeves. Two holes were drilled into the upper part of the barrel, filled with air by means of bellows, and stopped by plugs before the diving operation started² (Figure 12). The apparatus permitted Lethbridge to salvage a wreck for about half an hour. The barrel would then be raised and replenished with fresh air. He would often remain in the barrel for six hours at a time, being constantly raised and lowered.³ He even worked in depths of up to twelve fathoms.

When word of Lethbridge's invention reached Cape Town, the VOC offered him a contract to salvage the contents of the 1722 shipwrecks: the Lakeman, Schotse Lorrendrayer, Rotterdam, Standvastigheid, and the Zoetigheid. These vessels were all outward-bound East Indiamen carrying valuable cargoes of bullion. Lethbridge and his diving companions arrived at the Cape in 1727. Cape officials were instructed by the Company to provide the diving crew with "...rations, board, (and) money, as long as they are employed in their work and in accordance with the salary on the usual scale of the Company."⁴ The VOC was quick to stress that a clerk should always be present to note what was recovered.

Lethbridge successfully recovered silver worth more than fifty thousand pounds sterling. An inventory of this cargo consisting of reals and staves bearing the Chamber of Middelburg stamp was sent to Batavia.⁵ He also recovered:

1 anchor of 10 or 12 hundred pounds,
1 metal gun of 64 ball, 1 of 34 ball,

1 six pounder, 3 eight pounders,
 1 twelve pounder, 3 cannon balls
 - 1 of 3 lbs, 2 of 4 lbs, 14 of 64 lbs,
 14 of 84 lbs, 17 of 12 lbs,
 6 clubs of 6 lbs, one 12 pounder fit
 only for ballast. 6

Lethbridge and his companions were still in Cape Town when the Haarlem, Middenrak and the Stabroek wrecked in Table Bay in 1728. Although the cargoes from the SHaarlem and Stabroek wrecked "this side of the Salt River mouth" were saved, Lethbridge was asked to try to recover the Middenrak's cargo. This attempt was not successful as the vessel had disappeared in quicksand on other side of the Salt River mouth.
 7

In March 1729 the English divers requested a passage home as nothing more could be recovered from the Table Bay wrecks. They kindly left their diving apparatus behind at the Cape with the Harbour Master, Jacobus Moller. Lethbridges equipment was to be "made use of when required, and when some of the Company's servants have practiced the art of going down in them."
 8

After the Lethbridge enterprise, salvaging wrecks at the Cape was tackled by putting the goods, particularly the money chests, into lifeboats or dragging the goods into the shallows. No record could be found referring to local divers actually using the diving apparatus, even after the 1737 wrecks: the Buis, Duinbeek, Flora, Goudriaan, Paddenburg, Roodenrys and the Westerwijk. The cargoes that the

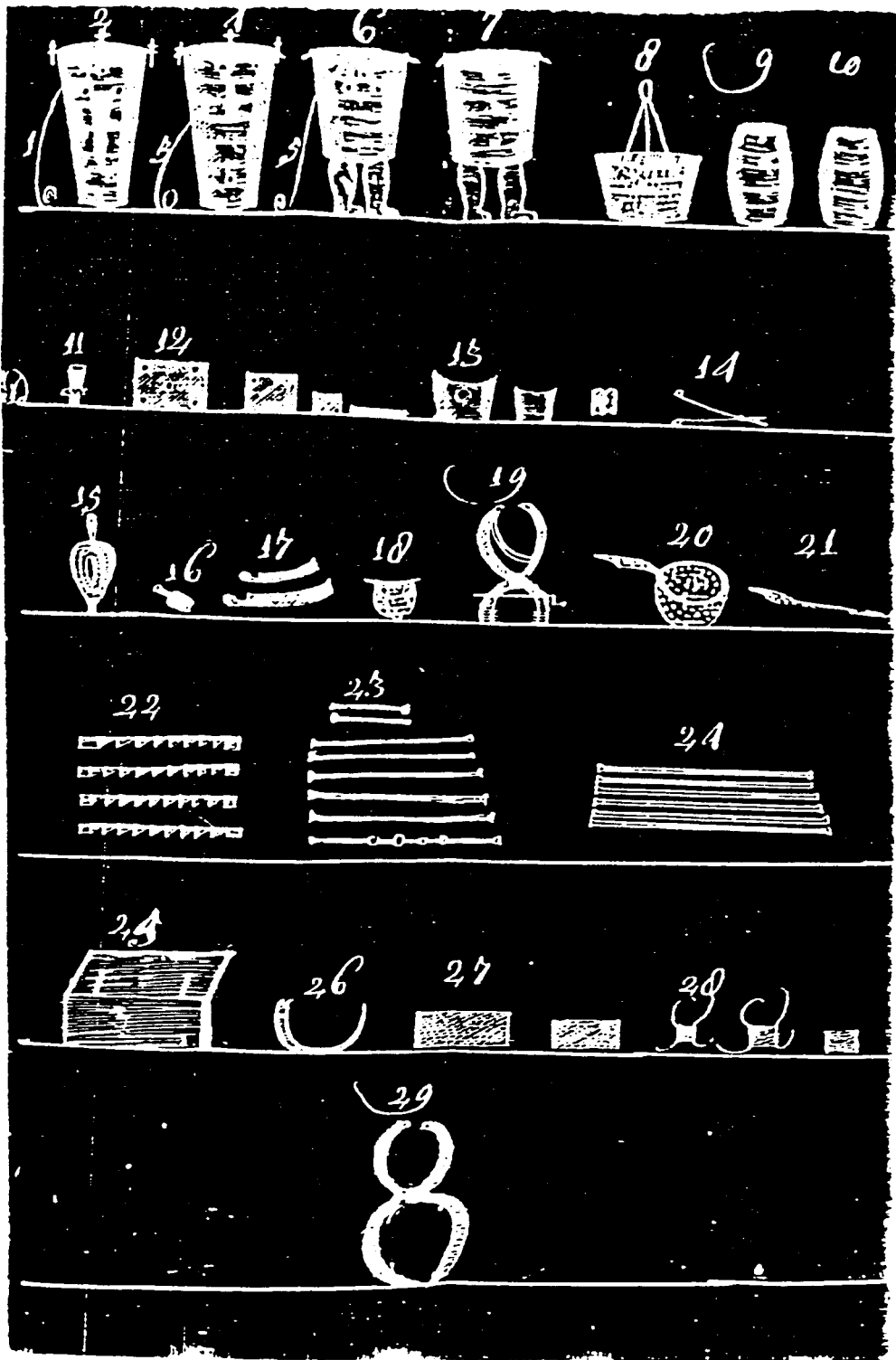


Figure 12. Diving equipment used by John Lethbridge during the eighteenth century.

1ste het Nijverheids geteekenschap van
 Johan Lod. Christ. hadde de volgende nombers
 1ste de Sijn of Lijf Lijn
 2ste het vat van waeren waer mede hij leyt onder vissen
 3ste de beejseels om het vat vast te maken
 4ste het vat van Agteren
 5ste de Lijf Lijn van het vat Niet Laarsen
 6ste het vat waer mede hij gaed van waeren
 7ste de vat van agteren
 8ste Een balie waer mede de geviffte goed van waeren afgheld
 9ste Een kintje balie van waeren om gits te laten springen
 10ste de vage van agteren
 11ste Een schroef bytje tot de kintje vateren
 12ste Een stekel Ierd om de sagen te doen woerksaam sijn
 13ste Een stekel Ierd om in de vat om te doen waer het gelaef
 14ste Een hand tungen om de saken de kintje te hoemen
 15ste Een braad balk om wind in de vater te blaaffen
 16ste Een geld schootje
 17ste Sijn bise ijer, sagen om ijer woerk doorte sagen
 18ste Een sachte om ander het vat te hangen
 19ste Een pangen om de geld kisten mede te lighen
 20ste Een bejgeel saks om te sijn geld mede te vissen
 21ste Een schroef om in de geld kisten te schroeven
 22ste Sijn de sagen waer mede hij ander het vater woerk
 23ste Sijn de slaven tot de sagen
 24ste Sijn keopere pijpen om in de kintje vater te schroeven
 25ste Een kint tot de geselschapen
 26ste Een schied naalde om ander daer het Ierd te hoemen
 27ste Sijn de schiffen ander sijn laest als hij in 2 vat leyt
 28ste de kintje ander sijn kintje in het vat
 29ste Een pange waer mede hij het Ierd boven held

Figure 12. Diving equipment used by John Lethbridge during the eighteenth century.

FIGURE 12 - DESCRIPTION OF THE EQUIPMENT USED BY LETHBRIDGE
AND HIS DIVERS.

"ALL THE DIVERS EQUIPMENT ACCORDING TO NUMBER"

- (1) The line or life line.
- (2) The barrel in which he lies facing forward.
- (3) The fastening for the barrel.
- (4) A rearview of the barrel.
- (5) The lifeline attached to the barrel.
- (6) The barrel in which he lies facing forward.
- (7) The barrel from behind.
- (8) The basket in which he brings recovered goods up.
- (9) A small container barrel.
- (10) A rearview of the container barrel.
- (11) A pipe attachment to the container barrel.
- (12) Pieces of lead necessary to use for working in these apparatus.
- (13) Lead for use in the barrel.
- (14) Hand tongs to probe between stones.
- (15) Bellows to blow wind into the barrel.
- (16) A trowel.
- (17) Two saws to saw iron.
- (18) A little bag to hang on the end of the barrel.
- (19) Tongs to lift the money chests.
- (20) A sieve to sift out the smaller money.
- (21) A screw to screw into the money chests.
- (22) Saws used to work underwater.

- (23) Handles for the saws.
- (24) Copper pipes screwed into the container barrels.
- (25) A chest for the equipment.
- (26) A hook needle to
- (27) Cushions which are placed under his chest when he lies in the barrel.
- (28) Cushions under his legs in the barrel.
- (29) Tongs which he uses to climb up onto the wreck.

crews managed to save by bringing ashore were stored in a large room near the Company's garden that they rented from a widow named van Laer.⁹

The survivors of the wrecked vessels were often employed to pick up the wreckage washed onto the beach and to retrieve lost anchors. As much of the wreckage washed up in the vicinity of the Salt River mouth, soldiers were stationed there to ensure protection of the Company's property from fishermen. Furthermore, any unauthorized person found recovering goods there was hanged at the spot. For this purpose the Company erected gallows on the beach.¹⁰

In 1793, the Sterrenschans and the Zeeland were wrecked. The Company recovered and inventoried a large quantity of the cargo.¹¹ Such inventories and reports of goods salvaged provide valuable data about the contents of cargoes. These documents are particularly important since many eighteenth-century wrecks are likely to have been destroyed during the reclamation of Cape Town's foreshore. Thus, in the absence of extant wrecks these records have the potential to reveal information about the East India trade and the early history of Europeans in Cape Town.

(II) NINETEENTH- AND TWENTIETH-CENTURY SALVAGE

Salvaging activity increased during the nineteenth and twentieth centuries as diving technology improved. Henry Adams, an experienced "diver and wreck dredger," claims to have "been engaged upon about fifty wrecks, many of them

between Mouille Point and the Salt river." His advertisement in a local newspaper announced,

I beg to inform collectors of curiosities and the public of a sale at my residence of a quantity of very old china, tea sets and smelling bottles recovered by means of my diving apparatus from a ship in Table Bay upwards of one hundred and 15 years. 12

In the 1880s two partners, Jan Steyn and John Courtney, also conducted salvage work in Table Bay. Goods they recovered and exhibited at the Commercial Exchange were: "a large horse pistol covered with shells, the barrel of a brass cannon, porcelain in various shapes, (and) a Chinese idol in marble..."¹³

During the early 1900s a South African company, known as the African Salvage Company and represented by Tromp van Diggeln, was formed. The company held a license from the Government of the Union of South Africa granting it a monopoly to salvage any wreck in Union waters. This concession named one hundred and eighty-five wrecks, of which some one hundred and sixty-six were located in Table Bay. However, as a suitable salvage vessel, equipment and personnel were not available in South Africa, the company negotiated with an Italian salvage firm to bring to Cape Town its salvage steamer, the Arpione.

Lawrence Green, a local South African writer, described how the crew of the Arpione conducted their salvage operations. He said,

It was a grab with steel prongs, weighing four tons and suspended from heavy chains.

Poised above the sea, the prongs are opened, they fall, the sharp ends plunging into the sea and surrounding some of the objects they encounter...most of the time the grab only releases mud on the deck. Copper sheathing which the old wooden sailing ships used to protect their hulls below the waterline comes to the surface....blackened oak timbers, bits of pottery, more timber. Two old cannon emerge but the ivory and the silver elude us. 14

The African Salvage Company, also initiated another salvage agreement with an Amsterdam diving Company (Appendix A). This agreement granted the latter Company an "exclusive right to recover treasure from abandoned wrecks along the coast of the Union for a period of five years." There is no doubt that many historical sites in Table Bay were destroyed by the African Salvage Company's attempt to locate commercially valuable items. However, the company did leave valuable records concerning the locations and identities of shipwrecks and cargoes in Table Bay (Appendix B).

(III) PRESENT-DAY SALVAGE

Currently the National Monuments Council (NMC), based in Cape Town, issues permits to commercial salvage companies to recover artifacts from historical shipwrecks located in the CCape's southwestern territorial waters. These permits have a proviso that records of the project must be submitted to the Council, and a percentage of the artifacts be donated to the South African Cultural History Museum. Two such permits have been issued to salvage companies to work in Table Bay. Although these progress reports were not available from NMC at the time, representatives of these companies helpfully

provided information on their survey and recovery work in Table Bay to date. They also displayed artifacts recovered from various sites in the project area. These collections, in addition to collections donated to the South African Cultural History Museum, were photographed for the purposes of this project. No substantial collections or records exist of the structural remains of any Table Bay wrecks other than that excavated beneath the Civic Centre. Although these timbers are no longer available for research, an extensive photographic record was provided by Bob Lightley for the purposes of this study.

Salvage activities, since the seventeenth century to the present, are important features of Cape Town's maritime history. Both documentary and material evidence of salvage constitute a vital link in reconstructing and understanding non-renewable cultural resources such as shipwreck sites.

The Excavation of the Nieuwe Rhoon (1776)
at the Cape Town Civic Centre.

In 1970, workmen building a Civic Centre on the reclaimed foreshore, which extends approximately one kilometer into Cape Town city, uncovered the remains of a shipwreck site. The builders, supervised by Bob Lightly, a building inspector and model-ship builder, exposed, photographed, and recovered timbers and artifacts on the site. The surviving structure comprised parts of the lower hull on either side of the keel. Photographs were taken of the sheathing, frames, ceiling, and keelson. A record of the excavation progress was maintained by taking aerial photographs of exposed sections of the site from the building scaffolding. Although no timbers were preserved, these photographs are extant. Among the artifacts found were a large variety of shot, and clay pipes bearing factory marks that gave a date range for the wreck of 1730 to 1780. Other items included a pottery jar and Kwangtung Chinese porcelain bowls.

Evidence from both the timbers and the artifacts suggests that this site is the Nieuwe Rhoon, built in 1764 and lost in 1776. This wreck was a relatively new vessel as indicated by the pine sheathing below the waterline which had only been nailed once upon the underbody. Three or four successive sheathings were likely during a ship's lifetime. The Nieuwe Rhoon was twelve years old. The age of the wreck

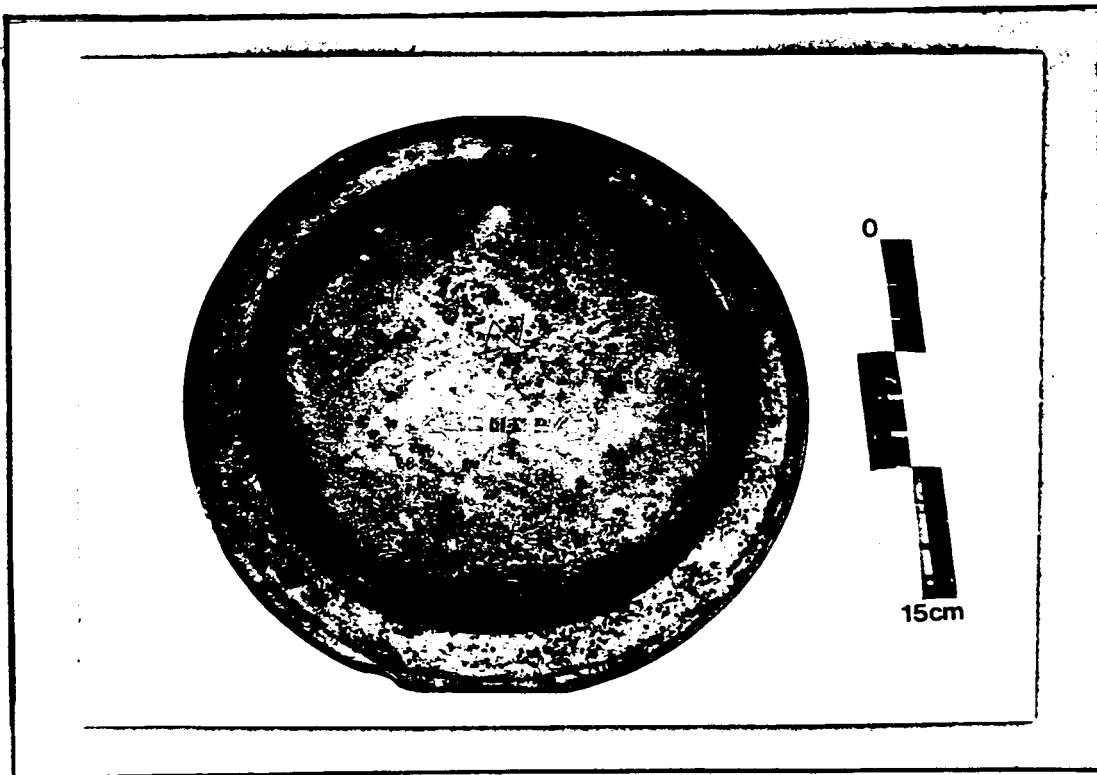


Figure 13a. Pewter plate from the Visch (1740).

Figure 13a. Pewter plate from De Visch (1740).

During the seventeenth and eighteenth century, pewter crafting flourished in Amsterdam, due to a steady migration of craftsmen from Belgium and Germany. During the seventeenth century, eighty-three pewterers were married in Amsterdam.¹⁵

The crowned rose was the mark reserved for fine quality pewter and originated from the Tudor rose. The original old fine pewter mark, the hammer and crown, was replaced by the rose in 1613. The maker's initials were incorporated in the crown (or the rose at a later stage) or on either side of it.¹⁶

Pewter marks and maker's initials were used right up to the eighteenth century and appear on ninety per cent of Dutch pewter. Unfortunately, it is difficult to identify many of the pewter markings because touchplates were lost during the Dutch wars. Pewter spoons are more commonly found on VOC shipwreck sites than plates.

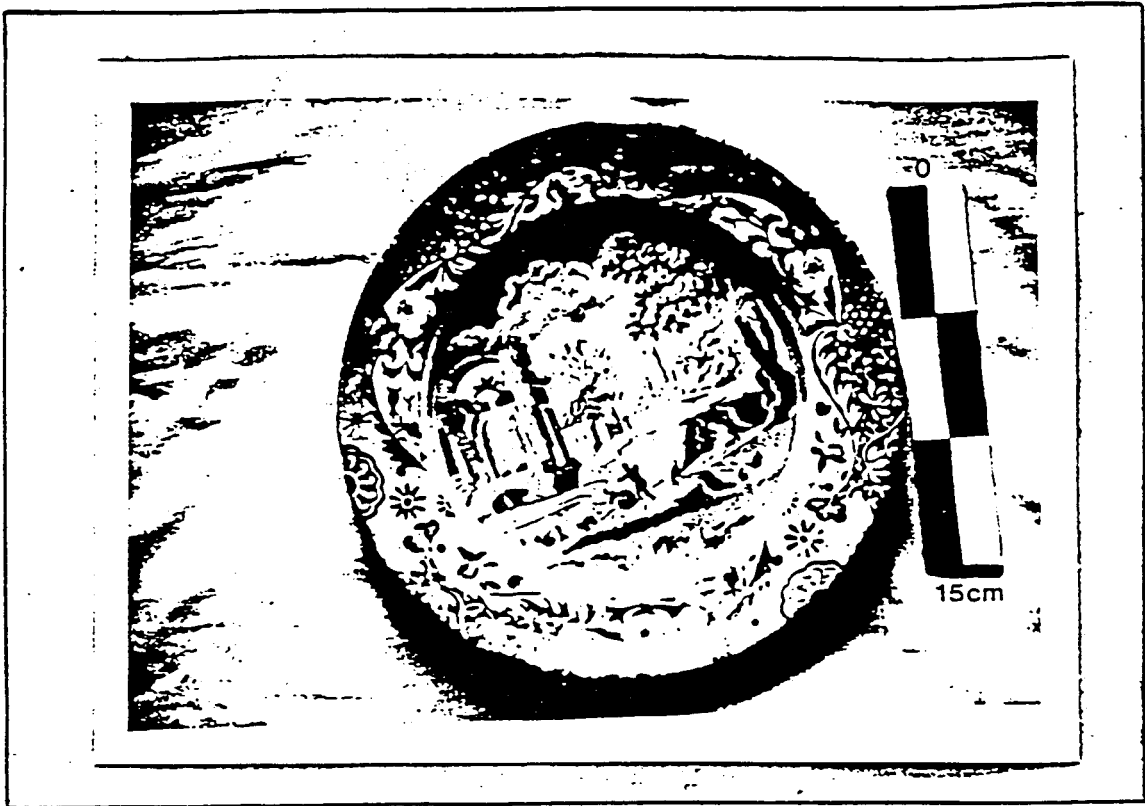


Figure 13b. Stone China plate from the Seafarer (1966)

This earthenware plate, decorated with a fine underglaze print, was part of a dinner service produced at relatively low cost for English home and export markets. The ware, Stone China or New China, was introduced in 1805. Josiah Spode purchased the manufacturing rights, and named it 'Spode.' The potting is thinner and crisper than later wares such as Mason's Ironstone services. Most patterns owe their origins to Chinese porcelains.

After Spode died in 1827, William T. Copeland and Thomas Garret purchased the business. The partners operated the firm until 1847. Although this plate is registered as an artifact from the Seafarer (1966), evidence suggests it came from an earlier adjacent wrecksite, such as the Mulgrove Castle (1839).

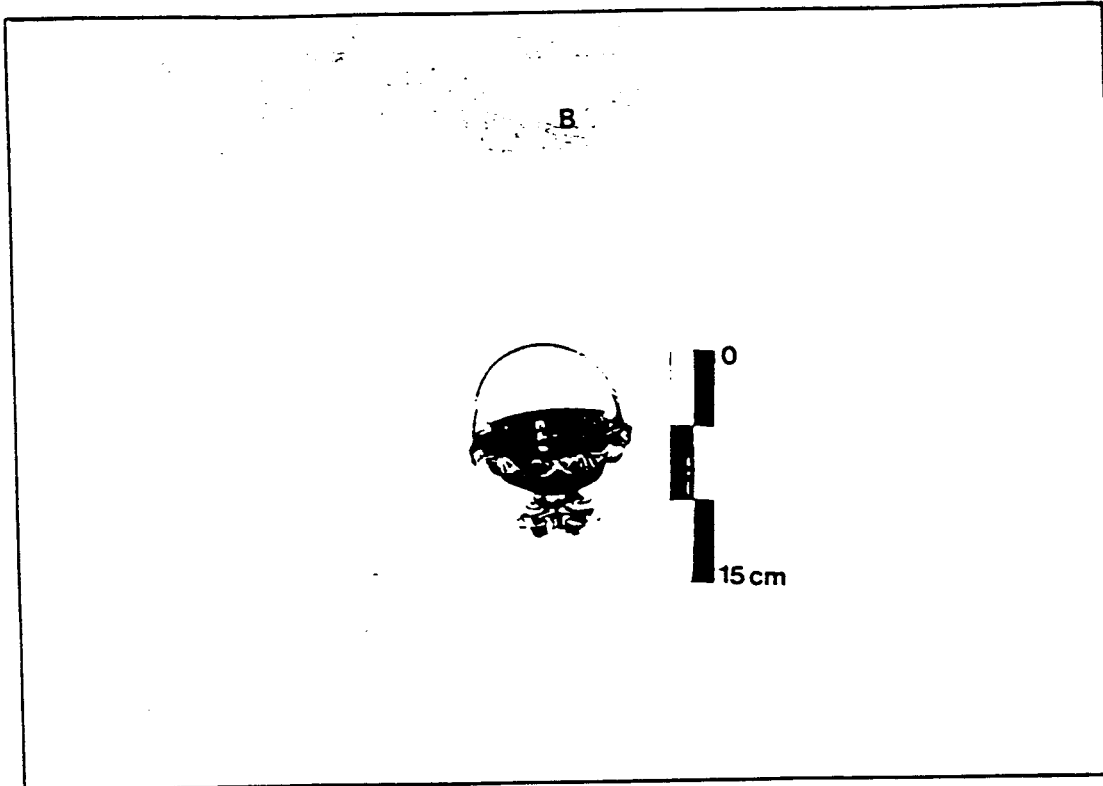


Figure 13c. Glassware from the Helen (1865).

Figure 13c. Glassware from the Helen (1842)

Nineteenth-century glass retained many features of eighteenth-century wares. These wares included many ordinary domestic storage containers (A). The greatest break with the eighteenth century was the production of colored glass. Ruby glass, ranging from a light rose to a ruby red, was very rare in the early part of the century (B is a light rose color). Around 1830 it became more popular with the English.

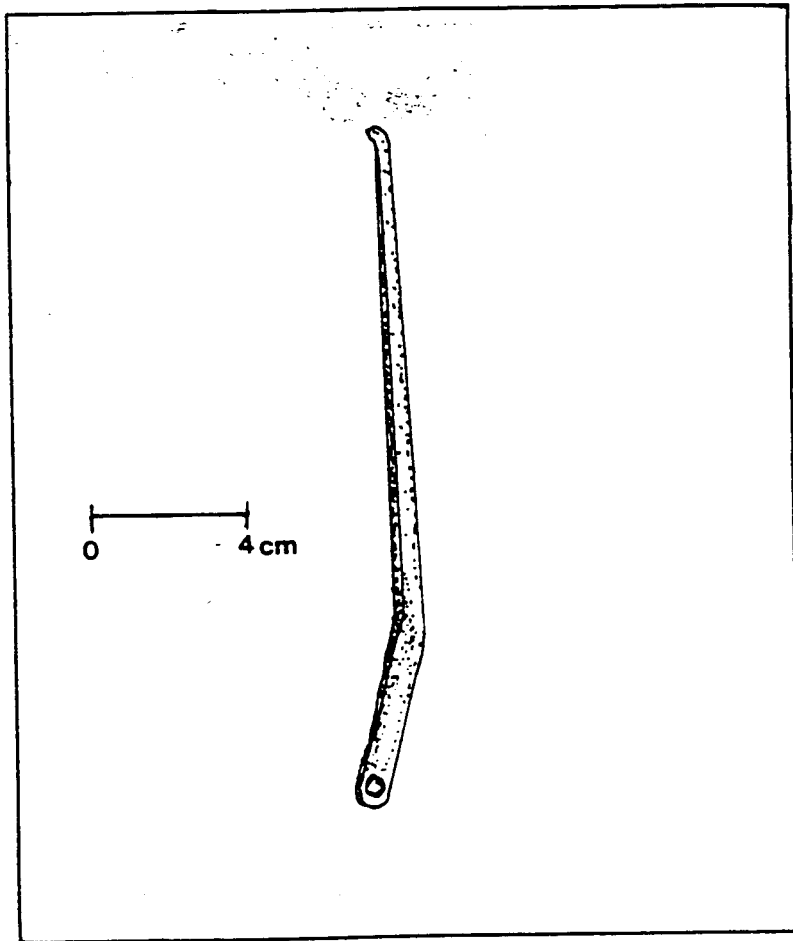


Figure 13d. Sailmaker's needle from the Athens (1865)

The Athens was a sail-steamship of the Union Steamship
19
Company. As the vessel had sails, equipment associated with
the sailmaker's trade was on board. However, as the Athens is
situated in close proximity to other shipwreck sites of the same
date (See Chapter 5, Figure 17) and earlier, the needle could
belong to another vessel.

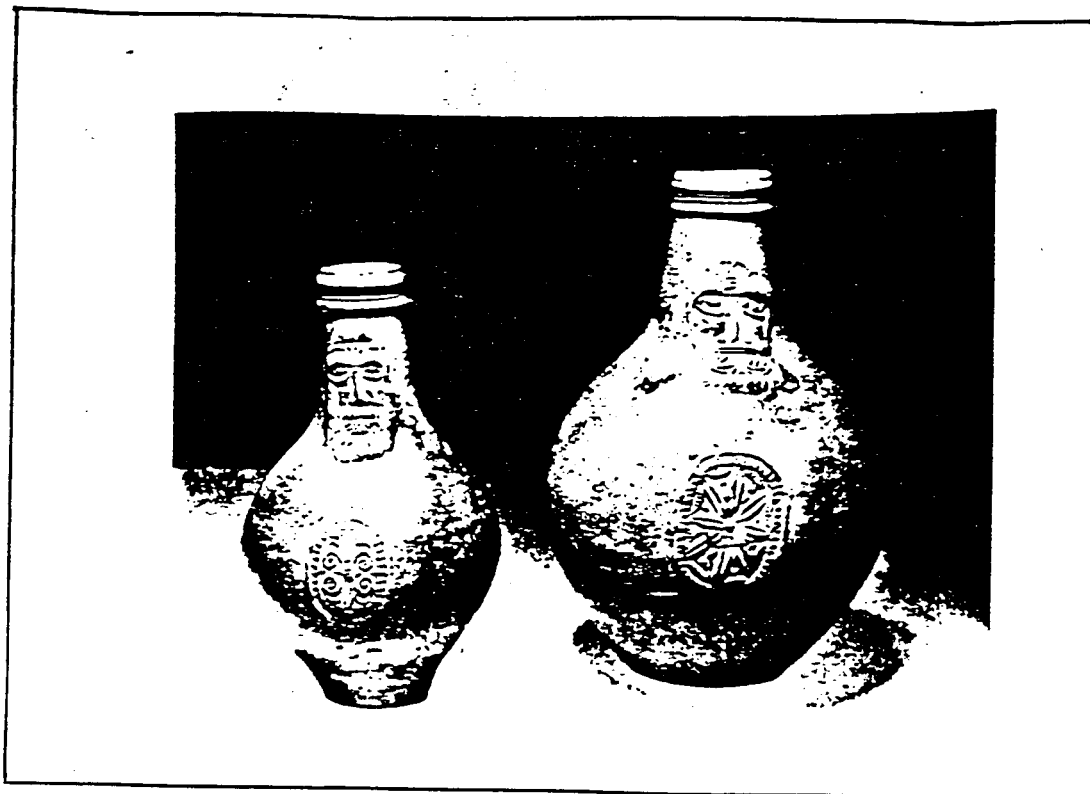


Figure 13e. Bellarmine bottles recovered from Table Bay during the reclamation operations.

Bellarmines, Rhenish stoneware bottle manufactured from the late sixteenth to the late eighteenth century, were popular with the Dutch. Human and semi-human faces ornamented the necks of these bottles, and one or more armorial or pseudo-armorial medallions decorated the body. The late sixteenth-century and early seventeenth-century bottles had well-modelled human faces with long flowing beards and paternal expressions. In the second quarter of the seventeenth century, faces and beards became more stylized and were reduced to a series of strokes. Simultaneously, the previously rounded body became a more elongated pear-shape with a smaller base. The two Bellarmines recovered from Table Bay fit this description and can be associated with the second quarter of the seventeenth century.

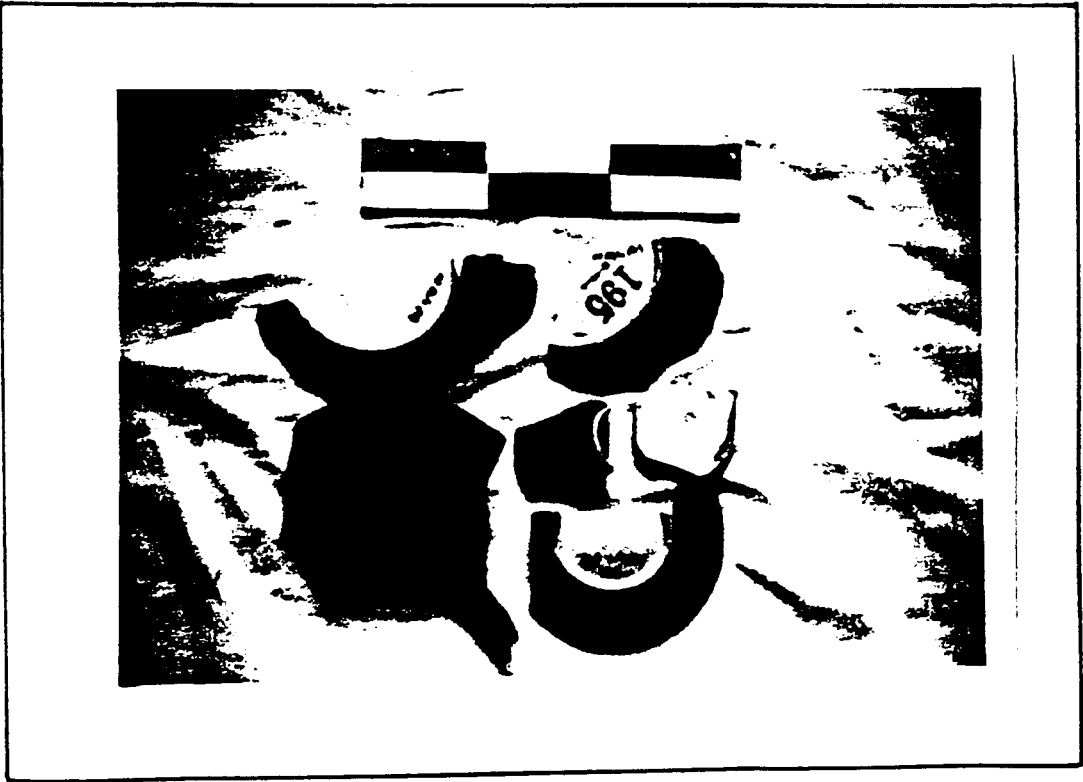


Figure 13f. Porcelain from the Haarlem (1647).

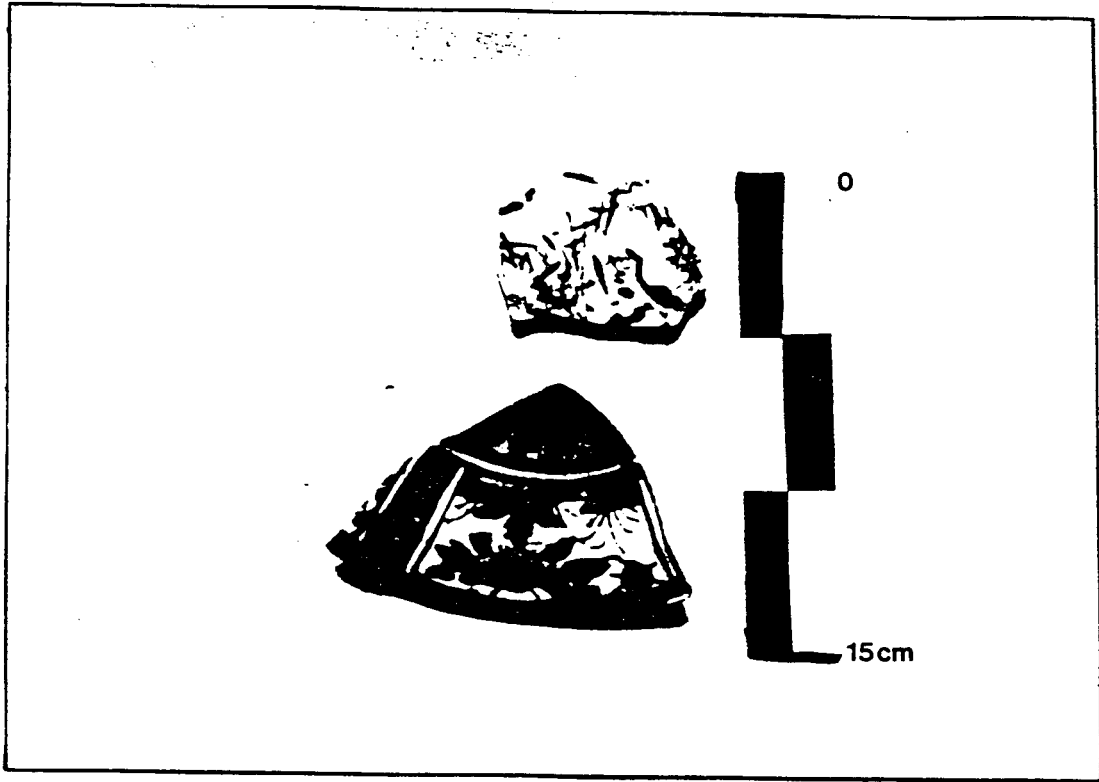


Figure 13f. Porcelain from the Haarlem (1728).

Figure 13f. Porcelain from the Haarlem (1647) and
Haarlem (1728)

Chinese porcelain, shipped in large quantities by the VOC, was made of a combination of kaolin clay and finely ground feldspathic rock. Its unique high gloss glaze was fused to the body and did not flake like its delFTWARE imitations. Decoration is most commonly in underglaze blue throughout the eighteenth century. Brown was also used, often as a surface wash covering the entire exterior of hemispherical tea bowls or with enameled reserves on larger bowls.²¹

China brought up by dredgers or washed ashore in Table Bay is usually described as being from the wreck of the Haarlem (1647). However, since most of these ceramic sherds are from China's K'ang H'si period (1662), or from Japan, they might also belong to any of the eighteenth-century VOC fleets wrecked Table Bay. Most of the good china specimens from the K'ang H'ai period²² recovered from Table Bay are in the British Museum.

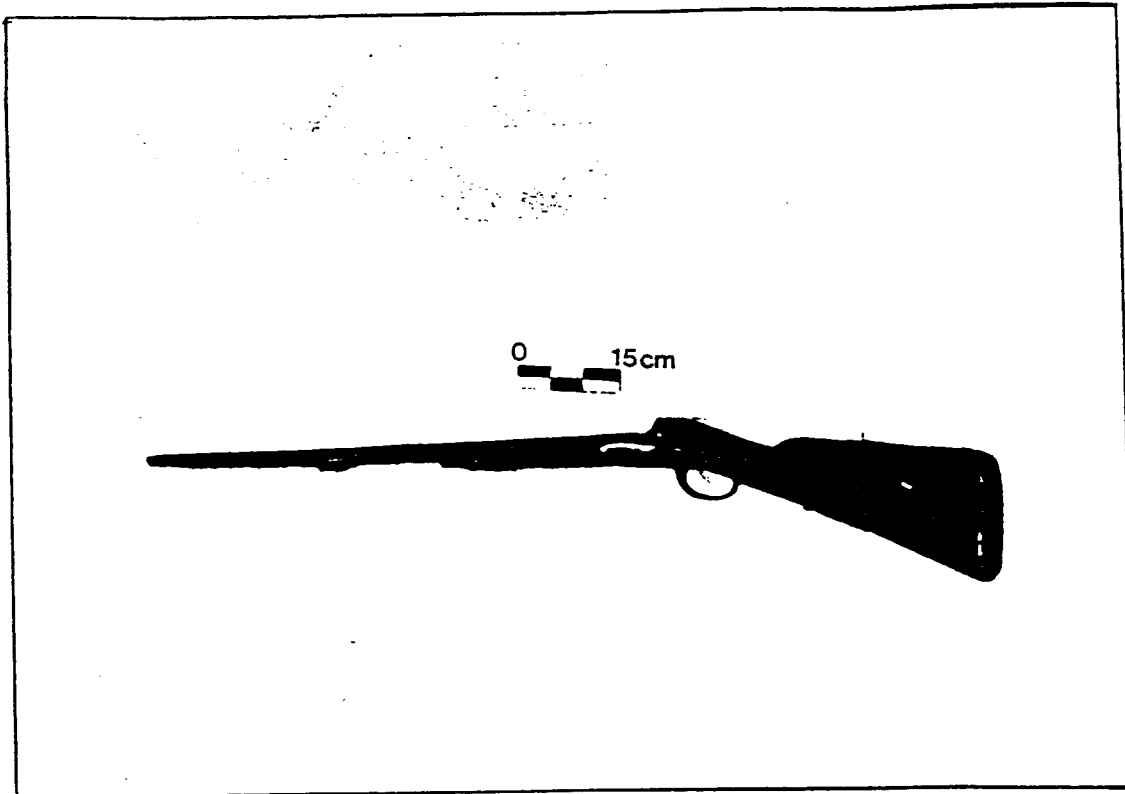


Figure 13g. Musket from the Captain Cook (1859)

Muskets, introduced in 1521, were the largest gun fired by a single man. Some were as long as ten feet and weighed one hundred pounds. By 1600 they had decreased in average size to around five feet in length. From 1700 onwards, the name musket was used to describe any sort of firearm shot from the shoulder.

The flintlock was replaced by the percussion lock in the 1820s. This musket is just under four feet long and has the letters K.A.R. and No. 3 inscribed on the back of the butt. The letters and numbers could be an acronym for the King's African Regiment, Third Regiment, because the Captain Cook was a British troop-ship.

The Excavation of the Nieuwe Rhoon (1776)
at the Cape Town Civic Centre.

In 1970, workmen building a Civic Centre on the reclaimed foreshore, which extends approximately one kilometer into Cape Town city, uncovered the remains of a shipwreck site. The builders, supervised by Bob Lightly, a building inspector and model-ship builder, exposed, photographed, and recovered timbers and artifacts on the site. The surviving structure comprised parts of the lower hull on either side of the keel. Photographs were taken of the sheathing, frames, ceiling, and keelson. A record of the excavation progress was maintained by taking aerial photographs of exposed sections of the site from the building scaffolding. Although no timbers were preserved, these photographs are extant. Among the artifacts found were a large variety of shot, and clay pipes bearing factory marks that gave a date range for the wreck of 1730 to 1780. Other items included a pottery jar and Kwangtung Chinese porcelain bowls.

Evidence from both the timbers and the artifacts suggests that this site is the Nieuwe Rhoon, built in 1764 and lost in 1776. This wreck was a relatively new vessel as indicated by the pine sheathing below the waterline which had only been nailed once upon the underbody. Three or four successive sheathings were likely during a ship's lifetime. The Nieuwe Rhoon was twelve years old. The age of the wreck

also pre-dates 1780 when copper sheathing began to come into general use, first in naval vessels and later in merchant vessels. Concretions of black pepper suggest that this vessel was a homeward-bound East Indiaman. The site is located close to the eighteenth century jetty where the Nieuwe Rhoon was beached. As the present low watermark is approximately 4.3 meters below the ground level of the site, the vessel must have beached in about 2.7 meters of water in the old Table Bay anchorage.

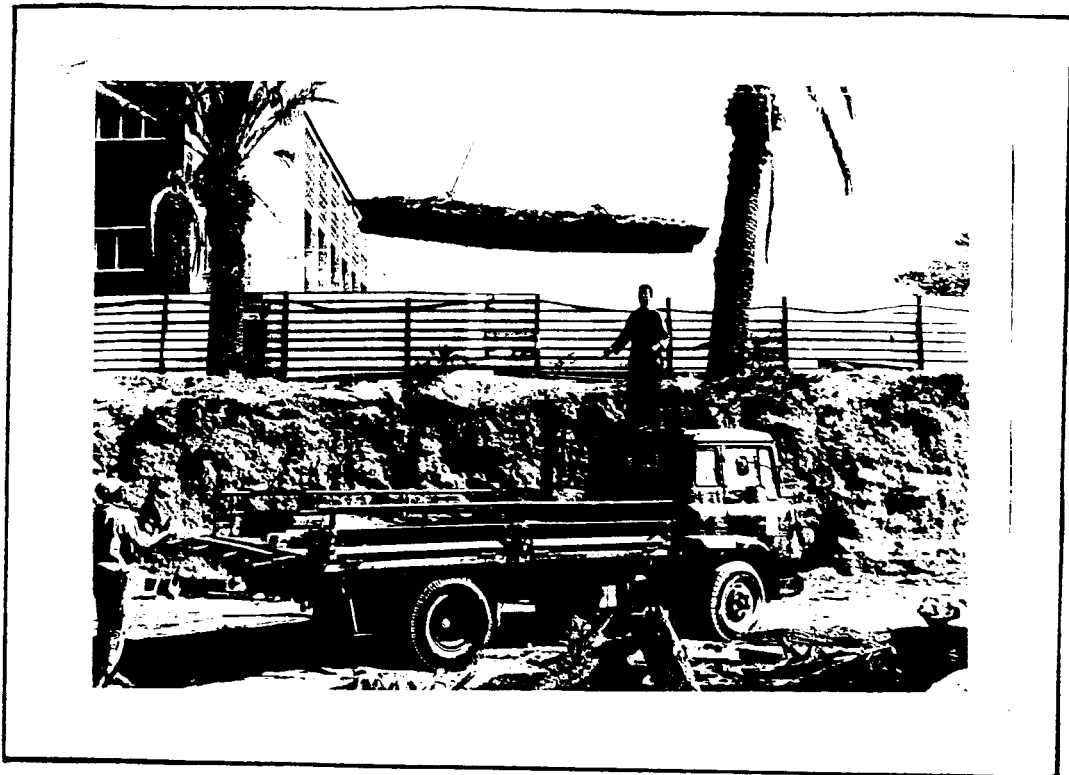


Figure 14a. Removal of Nieuwe Rhoon timbers.



Figure 14b. Cannon balls recovered by builders.

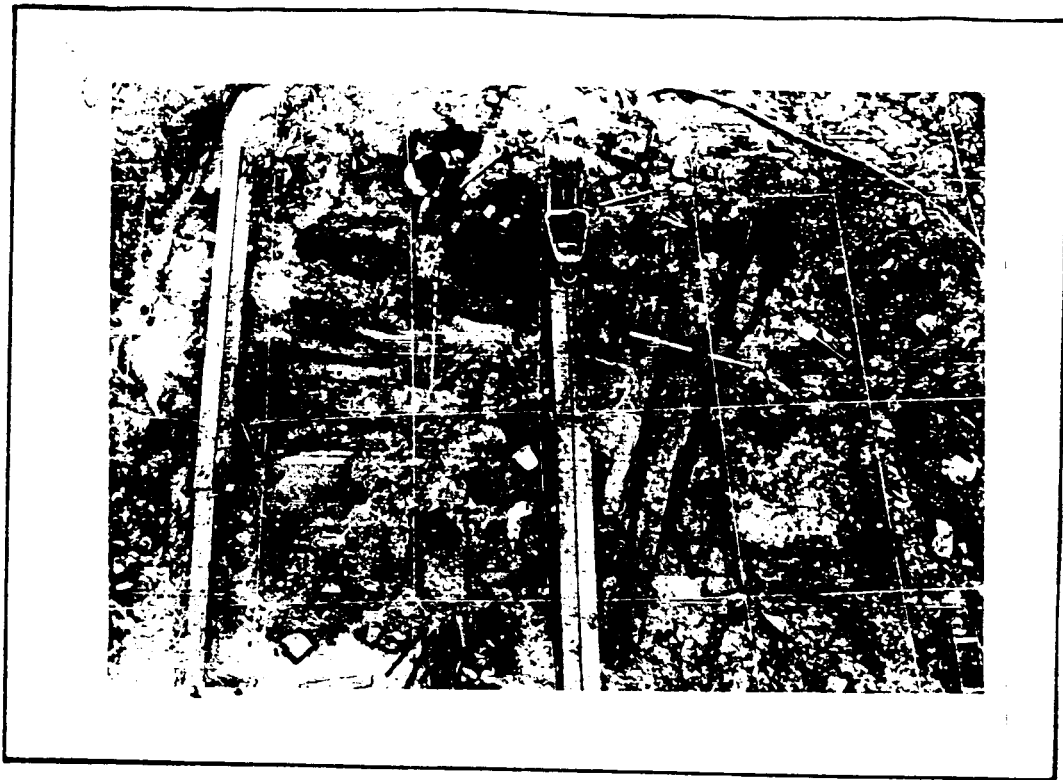


Figure 14c. Aerial view of exposed timbers towards bow.



Figure 14d. Oblique view of section aft of the bow.

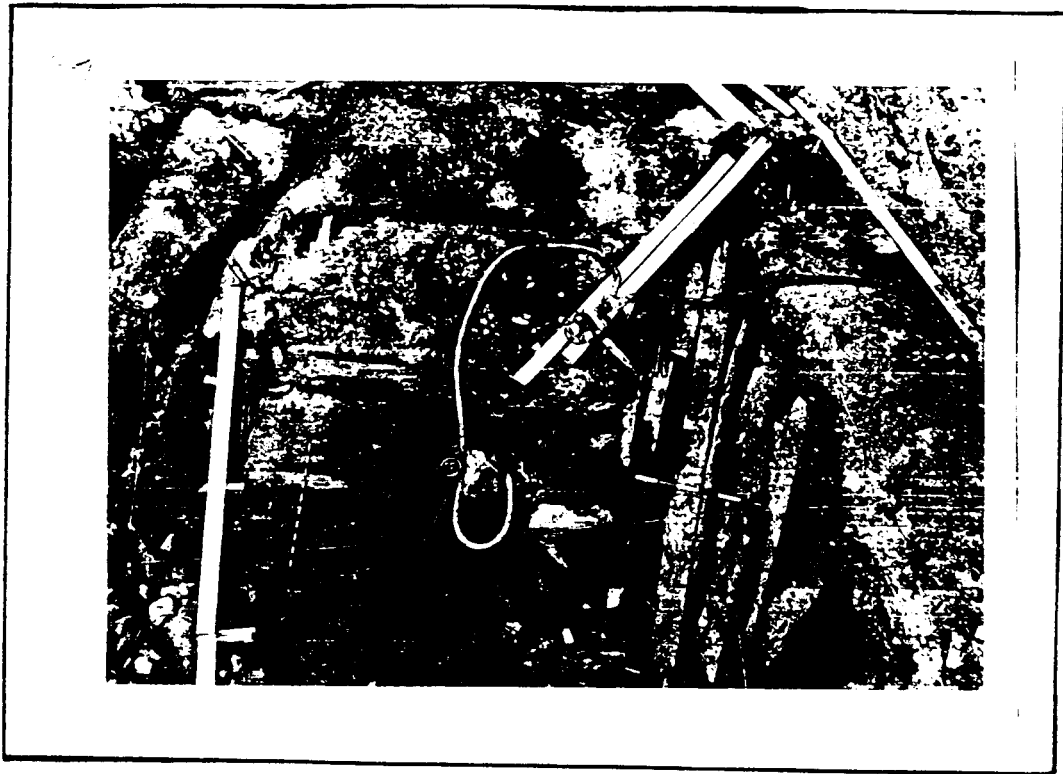


Figure 14e. Aerial view of timbers towards midships.

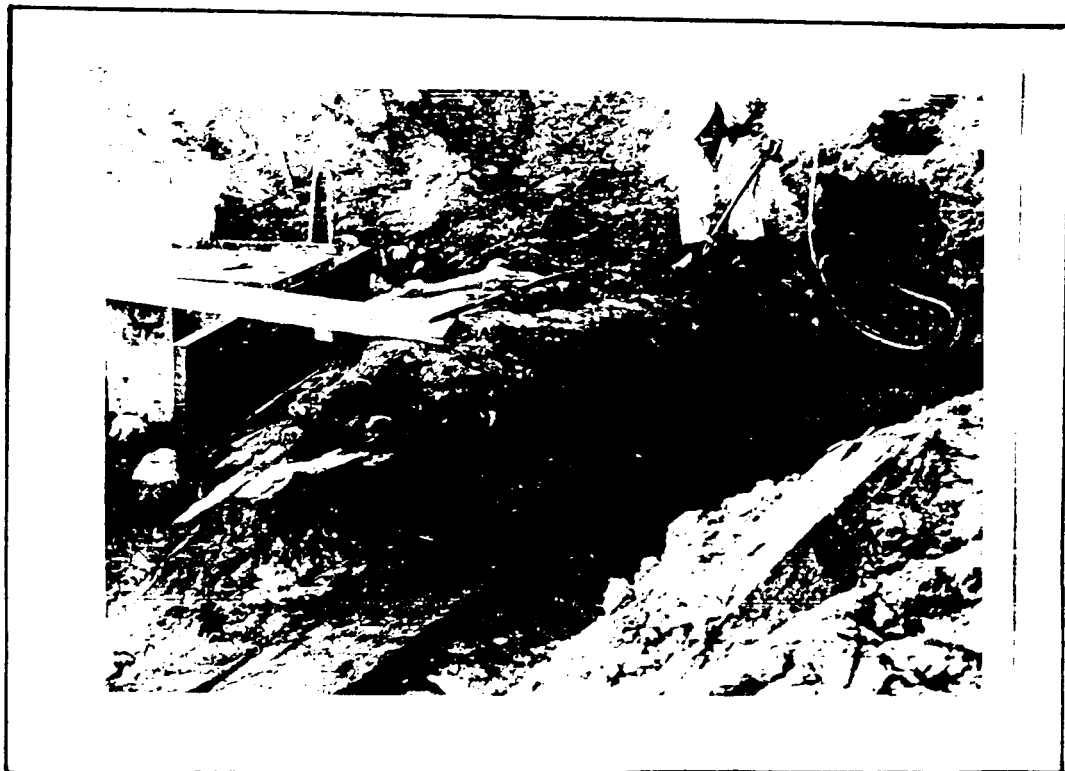


Figure 14f. Exposure of timbers and ballast on the west bank.



Figure 14g. Limber strake abutting keelson.

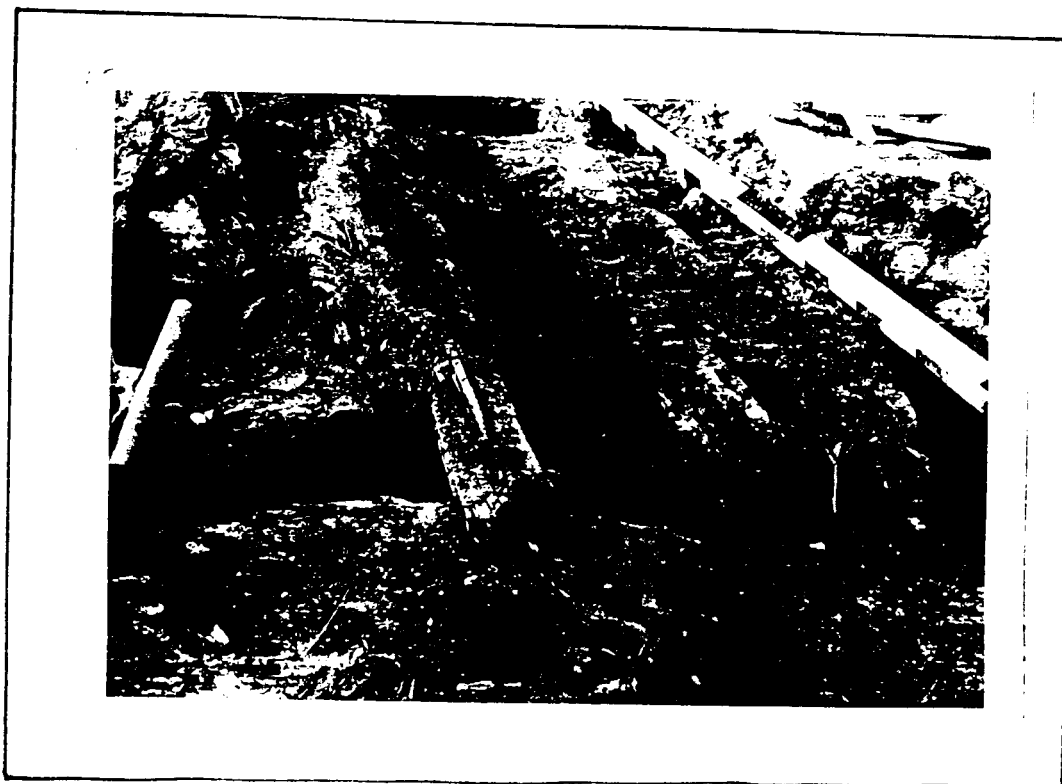


Figure 14h. Removal of limber abutting keelson.

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CHAPTER 4

THE GEOGRAPHICAL BACKGROUND: THE CAPE COAST AND
THE MARINE ENVIRONMENT OF TABLE BAY

Table Bay, located at 18° west longitude and 33° south longitude on the south-western Cape coastline, is associated with the cold, Benguela Current and high wave energy. The configuration of the Bay influences local sedimentary processes, which in turn affects shipwreck sites. An understanding of these natural transformation processes is important in planning underwater archaeology projects in Table Bay.

(I) CURRENTS

The Benguela Current flows northerly past the southwest and the west coast of Africa resulting in extensive cold areas, with surface temperatures between 10° and 14° Celsius (see Appendix E for conversion) from the Cape Peninsula as far north as Angola. These cold areas are brought to the surface under the influence of southeasterly winds which are sub-Antarctic in origin and blow predominantly in summer. All waters of the Benguela Current are rich in nutrients and associated with high marine productivity.¹

Close to the shore this current system is characterized by opposing coastal winds which occasionally cause current eddies. These currents have an average speed of two kilometers per hour, and play a major role in coastal shaping processes, namely erosion and accretion. Wave-induced

currents are also typical of the southwestern Cape coastline and play a major role in coast shaping. Maximum wave conditions (up to five meters in height) are formed by the effects of the southeastern gale winds blowing in the same direction as local storm waves: when both moving shorewards towards the west. Coincidence of these conditions with spring tides result in extensive modification of beaches.²

(II) WAVES

The waves along the Cape coast are generated either by local winds and storms or by distant storm centers in the high southern latitudes. The predominant local winds in the Cape are the south to southeast summer winds, alternated by the northwest winds in the winter months. Waves generated along this coastline tend to be choppy. The kelp beds have a profound effect on coastal stability. Sub-tidal rock platforms also contribute substantially to the dissipation of wave energy.³

(III) TABLE BAY

Table Bay is enclosed by two rocky headlands, one situated at Mouille Point to the south and the other at Bloubergstrand to the north; which cause wave diffraction and refraction. These two headlands are separated by a long beach. Robben Island, an African Alcatraz, lies approximately seven kilometers offshore from Bloubergstrand and is often referred to as the entrance to the Bay (Figure 15).

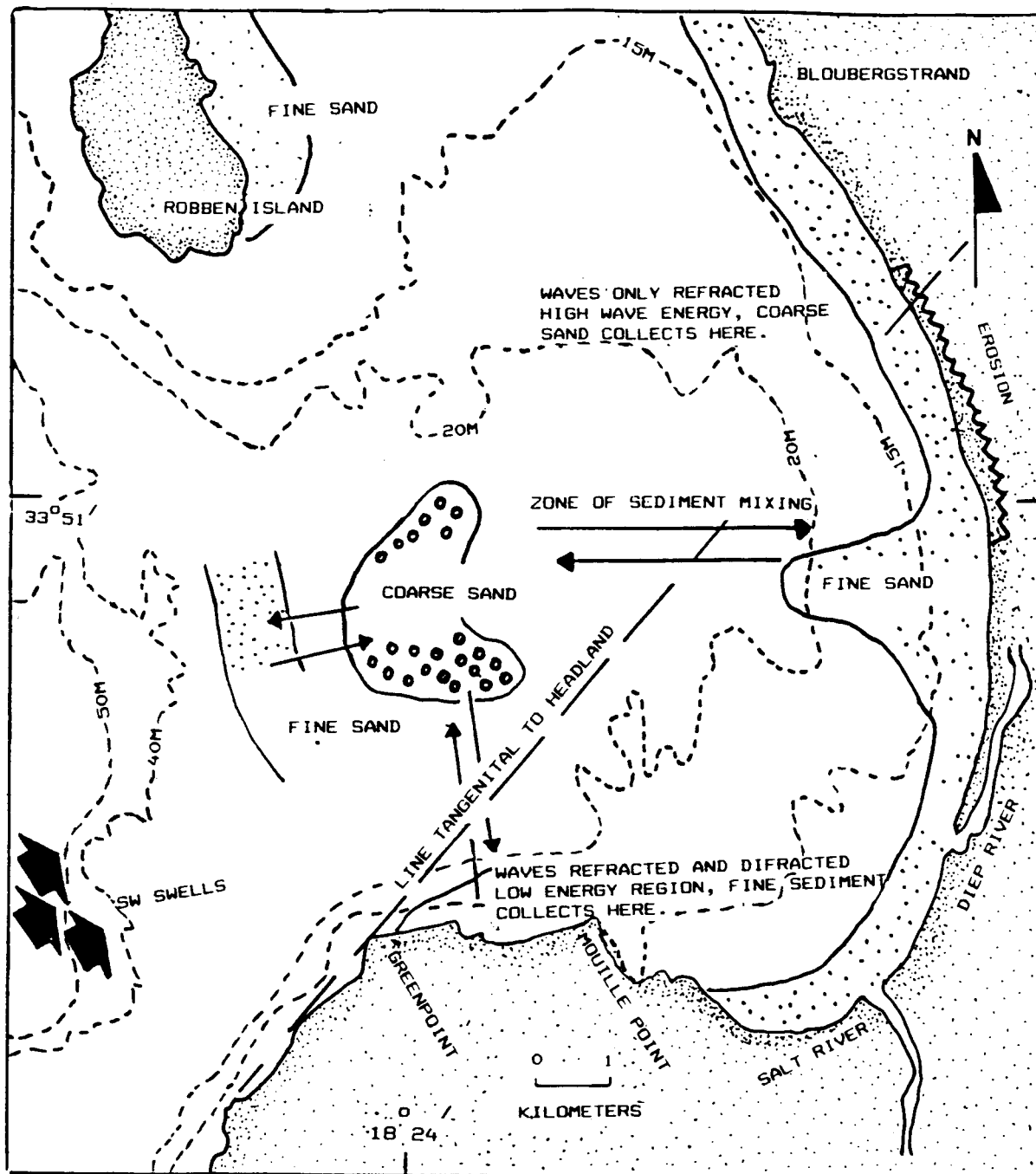


Figure 15. Present - day sedimentary processes in Table Bay.

This coastal configuration influences local fluvial processes as follows:

Approaching south-westerly swells are refracted and diffracted by the rocky prominence at Mouille Point so that wave energy is much weaker in this region, allowing fine sediment to collect here. North of a line drawn tangential to Mouille Point, coarser sediment will collect here as the waves are only refracted in this area and are therefore not as powerful.⁴

Accumulation of sediment off Milnerton Beach is attributed to being an area of active coastal erosion caused either by a change in the shape of the headland as a result of the construction of Table Bay Harbour or by the interaction between the slight northward littoral drift and a southerly circulating current. Fine sediment accumulates in the region of Green Point ridge across the Bay entrance and mixes nearby with coarser relict sediment.⁵ The discharges of the Diep and the Salt Rivers into the Bay also generate sediment processes. Many changes have taken place due to the development of Table Bay Harbour, as well as the migration of river mouths. Most obvious is the silting up of the tidal lagoon, Rietvlei, creating a large dry pan. There is still a small body of permanent water in the pan created by the excavation of material for the building of Table Bay Harbour in 1970.⁶

Early maps, especially Barbier's (1786), indicate that although the Salt River regime flows similarly today, during the seventeenth century the mouth was at least three kilometers downstream of the present Salt River mouth. The

existence of a paleo-river channel midway between the Milnerton lighthouse and Bloubergstrand indicates that the river discharged there as well and may have moved up and down the coastline during the Holocene (10,000 BP onwards).⁷ Sediment would then have collected in the area of discharge as is visually obvious from present-day aerial photographs of the Diep River (Figure 20, Chap.5).

Detailed information about the river system itself is provided by Fanshawes' map of the Salt River (1806). This plan suggests that the river was only fordable above Vissershoeck, which implies that the river was a lot deeper and possibly navigable during the nineteenth century (Figure 16). Thus, only the Table Bay coastline and the river systems appear to have changed considerably through time.

(IV) THE EFFECT OF THE MARINE ENVIRONMENT ON SHIPWRECK SITES

(1) Sites in the low-energy area from Mouille Point to the mouth are likely to be buried under more sediment than those in the higher energy area of Bloubergstrand and Milnerton. Buried sites are not likely to be located using visual search methods such as tow boarding or swim searches. Magnetometers and metal detectors would be more useful and dredging equipment would probably be necessary as well.

(2) The exposure of shipwreck sites in Table Bay is affected by prevailing sea and wind conditions. For example, a light southeasterly wind will flatten seas and subsequently dissipate wave energy. This would allow sediment to



Figure 16. The Salt River.

accumulate on the site, especially after a few days of flat sea conditions. The northwest wind accompanied by high wave energy would expose sites. These conditions are substantiated by personal observations diving in the area directly after a northwest gale and after a long spell of southeasterly winds. An "experienced wreck dredger" in Table Bay during the nineteenth century commented,

The sand accumulates in the south easters but is taken by the north westers. Sometimes our moorings which are in fifteen foot of water are buried by the sands. This has been the case for the last twenty years to my knowledge...There are some old Dutch wrecks lying near the Salt River in twenty foot of water. Sometimes I could see these wrecks for months, then I lost them altogether.⁸

(3) Different silting effects would occur in the in the Mouille Point/Salt River area to the Bloubergstrand/Milnerton area due to the configuration of Table Bay. The same wreck dredger commented:

I have often found silting up on the north side of the wrecks from Mouille Point to the Salt River; the position of the Bay then changes and the silting up occurs on the other side.⁹

This suggests that there is likely to be better preservation of wrecks on the side that silting occurs.

(4) In the Blouberg area the high wave energy generated for any length of time is likely to break up exposed wreckage and wash it ashore.

(5) As the Benguela Current is associated with a high level of marine life and productivity, it might be worthwhile

planning in the vicinity of Cape Town. These factors are essential for determining an optimal time to conduct project operations, to choose the most appropriate equipment and survey strategy, and to estimate the probable location of shipwrecks. A comprehensively planned survey will, in turn, save time and costs.

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CHAPTER 5

FIELDWORK

Surveys in and near the Table Bay project area have been conducted by the Geosciences Department at the University of Cape Town, the South African Institute of Maritime Technology, the South African Historical Shipwreck Society, and commercial salvage companies. Data from these past surveys was compiled. A magnetometer survey was undertaken in Table Bay and the cannon and anchors on the site of the Huis de Crayenstein (1698) were recorded and mapped.

(I) PREVIOUS SURVEYS IN THE VICINITY OF THE PROJECT AREA

The Sealit Syndicate, a commercial salvage company, currently has a permit issued by the South African National Monuments Council to survey and recover artifacts from historical wreck sites in Table Bay.¹ Information obtained from these projects included the approximate positions of some of the sites and local conditions which were likely to affect magnetometer readings. An EG and G Company magnetometer was used for the purposes of their project. This magnetometer had five modes of sensitivity to eliminate most background disturbances. It also recorded and displayed readings on a magnetic strip in a continuous manner which is an easy format to follow. Over the last two years, the syndicate located approximately twenty-one sites in the nearshore area between Bloubergstrand and Table Bay. Most of these sites date to the nineteenth and twentieth centuries. In 1982,

graduate students from the Geosciences Department at University of Cape Town conducted a side scan sonar survey of Table Bay in order to collect data on sediment distributions. Approximately 245 kilometers (Appendix E for conversion) of side scan sonar were run using a Klein Hydroscan (Model 422 101 AF, 100 KHZ fish, a 1 beam-angle with 200 meter/channel coverage and a dual-channel 2 521,521T recorder, with 19-inch wet paper). While this work did not include the nearshore area, the data provided insight into the potential effect of transformation processes on sites in the project area. Furthermore, the graduate students located a shipwreck site 1.4 kilometers directly north of the Table Bay breakwater (Figure 18). This work indicates that a side scan sonar survey might provide useful data about wrecks in the nearshore zone.

In 1984, the South African Historical Shipwreck Society conducted a survey of Granger Bay where developers were planning to build a small boat harbor (Figure 17). Remote sensing equipment was not available to the society, and extensive swim searches and hand-held metal detectors were employed. Five sites were mapped and identified. In addition, divers who previously donated artifacts from this area to the South African Cultural History Museum were approached for information and maps. Oral testimonies of several divers were compared and analyzed for accuracy.

Attempts were made to gain access to the Table Bay

Divers race against time at Granger Bay

By PETER FABRICIUS

Weekend Argus Reporter

SOME of South Africa's richest shipwreck treasures are being saved for posterity through the makeshift efforts of a group of amateur Cape Town divers using ropes and knitting needles for tape measures, plastic bottles for buoys, their own boats, petrol, cameras and diving equipment.

The dedicated divers of the SA Historical Shipwreck Soci-

ety are working against the clock in their spare time to map and record the many wrecks in Granger Bay before they are destroyed by the planned small-craft harbour there.

Historically, Granger Bay is one of the richest ship cemeteries in the world. At least 22 ships lie along a few kilometres of coastline.

"South Africa is one of the few countries lacking facilities

for maritime archaeology and research," says Lynn Hugo-Nichols, secretary of the society.

"It is the responsibility of the country to look after its cultural heritage and we feel that this is an important part of it."

In spite of a complete lack of outside funds, the society's divers are successfully undertaking a proper maritime archaeological "dig".

Granger Bay owes its grim status to its proximity to Table

Bay harbour and its position in the path of ships driven by the notorious north-westerly gales. Many of its wrecks date from two of the worst gales, in 1857 and 1865.

The divers are using all available time to map, identify and research the wrecks. They are hampered by poor visibility because of a sewage outlet, rough water, poor weather — and time

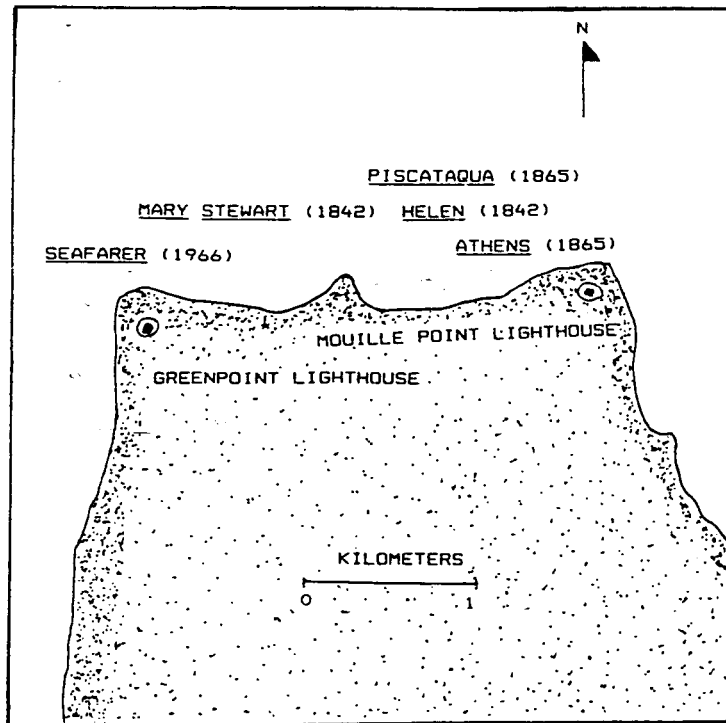


Figure 17. Shipwrecks in Granger Bay.



Figure 20. Aerial view of targets located in Table Bay during magnetometer survey.

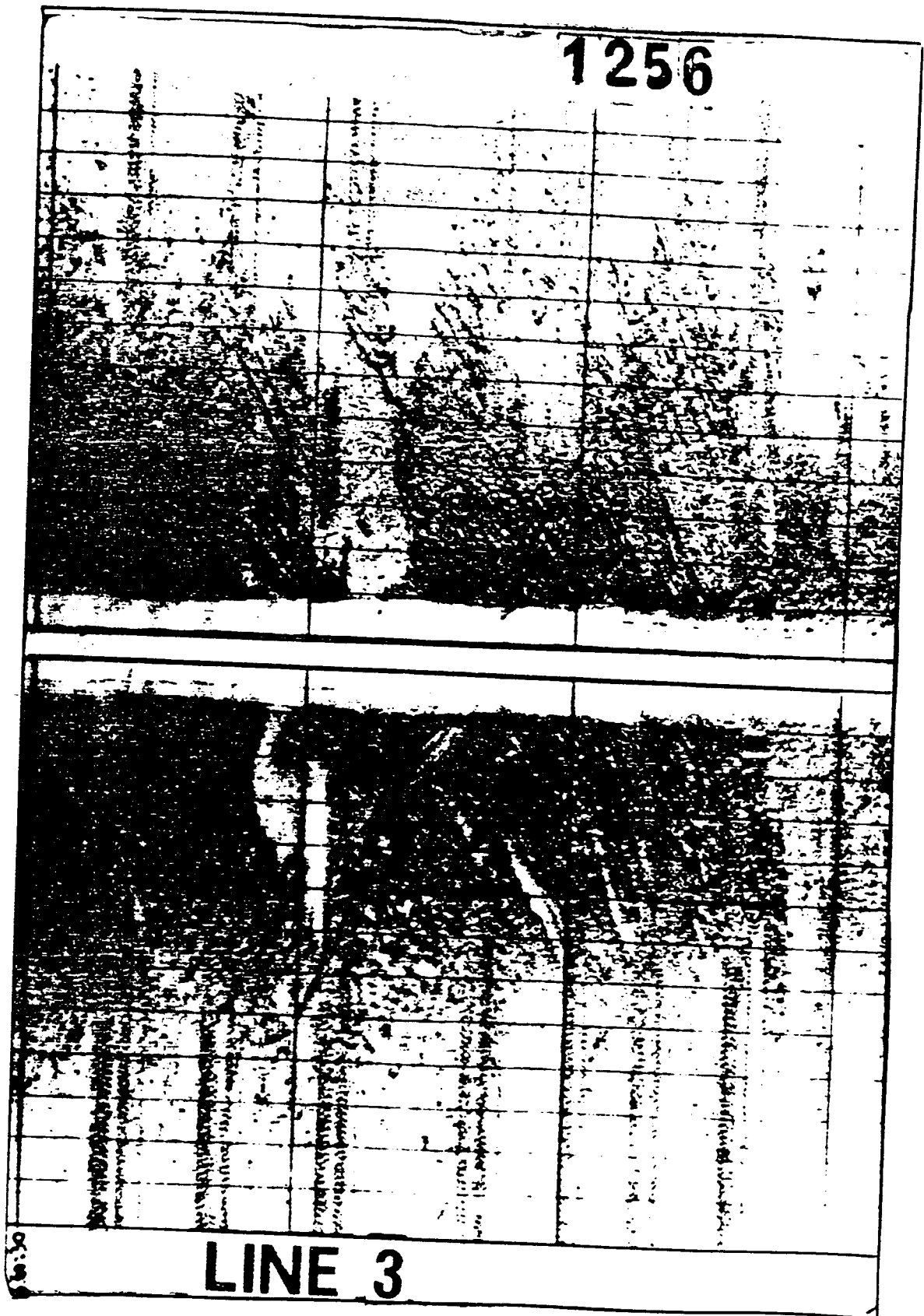


Figure 18. Side scan sonar image of a shipwreck in Table Bay.

underwater mapping on the Huis de Crayenstein could still be carried out. A week was devoted to these operations. In addition, time was spent plotting buoys marking sites. When heavy seas were not daunting, beach walks were organized in the hope of finding wreckage that washed ashore.

(III) EQUIPMENT

East Carolina University provided a proton precession Littlemore Scientific Smallboat Magnetometer and slates for underwater mapping. The magnetometer digital read-out was not operational. This may have been a limitation in detecting targets. Unfortunately, no tracking and positioning equipment were available for the duration of the project. Sistema, a commercial marine geophysical company generously offered the use of their sophisticated positioning equipment for three specific days, but inclement weather forced the arrangement to be canceled. Thus, approximate positions of sites were plotted using compass bearings and landmarks. The South African Institute of Maritime Technology donated two theodolites for a one-week period to plot buoys on the site of the Huis de Crayenstein.

A member of the Oceana Power Boat Club provided skipper services and a boat - a twenty-four foot fiberglass catamaran with twin 135 hp. engines. Although the catamaran was more favorable for surf conditions than a monohull design, the former has a tendency to capsize when maneuvering in a direction other than broadsides to the surf or swell. As a

result, some anomalies could have been missed by the magnetometer if wrecks were lying at right angles to the direction in which the survey vessel was traveling and the sensor was towed over a neutral area rather than one of the poles at the extremities.

(IV) METHODS

Prints of 1:30,000 aerial photographs depicting the area from Table Bay Harbour to Bloubergstrand were overlaid with plastic. Prominent landmarks visible from the survey vessel and magnetic target zones and sites located during past surveys were marked on the plastic with a waterproof pen (Figure 20). Most of the targets were located 200 to 300 meters offshore in 6 to 10 meters of water. The shoreline between Rietvlei and Milnerton lighthouse was a high density target zone and therefore selected as a priority area. It is also the probable area of the Haarlem (1647) wrecksite, which would have been a significant discovery.

Lane spacing of 20 meters was considered suitable for this survey. This was based on two factors: Barto Arnold's suggestions that lane spacing of 50 meters for water of depths less than 9 meters⁴ and speculations that anomalies would be passed over twice and confirm initial readings. The survey track started approximately 350 meters out from the shoreline and ended as close as possible to the breaking surf. On days when sea conditions were good this might be as close inshore as 50 meters and as shallow as 4 meters; on other days

the survey was carried out 150 meters from the shoreline in about 25 meters of water or more.

The sensor was towed at a speed of 2 to 3 knots at a distance of 35 meters away from the survey vessel. This was necessary to prevent the twin motors from creating a magnetic disturbance. The motor on the side of the cable attachment was switched off during towing to lessen water turbulence. A float was secured to the sensor which was towed a meter or more below the surface. This decreased the disturbing effects of surface chop.

Buoys were thrown overboard to mark target areas and compass bearings and ranges were taken to record the approximate positions of the buoys. Divers investigated buoy-marked target areas through swim searches.

Results:

Seven sites were located during the magnetometer survey (Figure 20). Two sites, discovered during previous surveys, were re-located: the Rastede and Captain Cook, both wrecked near Rietvlei in the 1850s. The former vessel was carrying a cargo of coal - small quantities were found in close proximity to the site. A brass plate bearing the name Rastede was included in the artifacts recovered from the site by commercial divers. They also salvaged a number of muskets from the Captain Cook.

Four other sites could not be positively identified. In the vicinity of Rietvlei, north of the Rastede and

Captain Cook, 2 cannons and 3 anchors were located (Target 1). They had similar dimensions to those sketched and measured on the VOC wreck, the Huis de Crayenstein. However, without more substantial evidence these artifacts probably do not constitute a site. Crews often jettisoned ballast and heavier items such as cannons and anchors when vessels were in distress situations.

Between Rietvlei and the Milnerton lighthouse three sites of unidentified wreckage, partially buried in the sand and covered in a heavy growth of black mussels, consisting of metal structural remains, concretions, and anchors with chain and iron stocks were located (Targets 2, 3 and 4).

In the vicinity of the Salt River mouth, a popular surfing spot, a site was found when investigating a shadow on the water. Partially exposed keelson and frames of a wooden vessel were discovered (Target 5). Unfortunately, problems were encountered when relocating this site for further mapping operations. Subsequent discussions with surfers confirmed that this site, the "giant fishbone," periodically appeared and disappeared in the sand depending on prevailing weather conditions.

Two additional targets near Bloubergstrand were investigated but no evidence of wreckage was found by divers. It is possible that these readings represented some form background magnetic disturbance, or else the sites were buried under the sand (Targets 6 and 7).

Possible Identities of Targets:

Target 1: Cannon and Anchors. These artifacts might be associated with a seventeenth- or eighteenth-century wrecksite. The Haarlem (1647) was the only vessel recorded to be wrecked in the area during this time period. Most other wrecks occurred in the vicinity of the Table Bay anchorage or the Salt River mouth.

Target 2, 3 and 4: There are three possible identities for these targets: the Akbar which was wrecked "broadside onto the beach" in the vicinity of Rietvlei in 1859. This ship carried, "5000 boxes of cassia, 1,224 bags of rice, 301 boxes of sticlac, and 1,0335 pieces of Japanwood." 2. Target 3 may be Onni, a Russian bark, which carried a cargo of coal wrecked in 1850. 3. The Oste, target 4, a Hanoverian brigantine, which carried a cargo of coal and window glass and wrecked in 1859.

Target 5: This target was not located with the magnetometer. The site could be the VOC vessel, Middenrak (1728), wrecked at the second (northern) Salt River mouth.

Targets 6 and 7: These targets could be the Arago, a Hamburg bark, lost near Bloubergstrand in 1858 as a result of a drunk captain. Other possibilities include the Orie, a bark, lost near Blouberg in 1890; the Severe, a French naval vessel, wrecked in 1784; and the Cybelle, a French vessel carrying slaves wrecked in 1756.

The magnetometer survey indicated that there are several shipwrecks in the nearshore Table Bay area - most of them dating to the nineteenth and twentieth centuries. These results can be attributed to a number of factors; many earlier sites were probably destroyed by urban development, wood structural wreckage cannot easily be located using a magnetometer (only metal fastenings can create a magnetic signature), and anchors and cannons are more difficult to locate than a larger target constituting the metal structural remains of a later vessel. Any timbers that have been preserved are likely to be covered by sediment, and possibly exposed periodically under certain weather conditions.

(V) THE WRECK OF THE HUIS DE CRAYENSTEIN (1698)

Historical Background:

The Huis de Crayenstein, an outward-bound Dutch East Indiaman, drifted ashore at a bay near Oudekraal one night in calm, foggy weather. Shortly thereafter the ship was smashed against rocks by a strong current. On 28 May 1698, the Council of Policy wrote to Amsterdam,

To our great sorrow the Huis de Crayenstein, which left for Holland on the first of February last, after a quick voyage, without any sick or dead, ran yesterday (27 May) on the rocks behind the Lion's head just below the 'Red Sands' (Oudekraal). 9

Information about the disaster was sent to Cape officials by a French vessel in the company of the Huis de Crayenstein. Company officials at the Cape took measures

to salvage the wreck. Sixteen chests of specie were saved out of a total of nineteen carried onboard. On 29 May, Governor Simon van der Stel attempted to visit the wreck. The road behind the kloof was impassable either on foot or by horse, and as he was already an old man, he turned back.

Subsequently, he wrote to Amsterdam that two money chests

....were taken from their cleats, and in the consequence of the bumping of the ship, slid through the ports into the sea. The third had been broken open and plundered by some wicked person who likewise hacked open the drawers of the saloon tables and threw overboard the ship's pay books, which were afterwards recovered with great difficulty by the skipper and the junior merchant. 10

Following this report, the Court of Justice in the Cape conducted an investigation into the wrecking of this vessel. The skipper, Jan van der Vyver; the chief mate, Jacob Brun; the junior mate, Francois Mortier; and the third watch, Joost van Breen were all "deprived of office, rank and pay, declared unfit henceforth to serve the Company in any employment whatever, and are condemned each in solidum to refund the loss of the vessel and its cargo; to be valued by trustworthy¹¹ appraisers."

Since the seventeenth century, more artifacts have been recovered, including coins and brass cannons.¹² In the 1960s, a salvage expedition led by Tom Asaro recovered specie in addition to "two swords, some spoons of pewter and lead caps for containers" which he donated to the South African Museum (Appendix C).

Mapping the site:

Today, all that remains on the Huis de Crayenstein site are seven cast-iron cannons, five anchors (both cannons and anchors are covered in rust and concretion), conglomerate, and small ceramic sherds. The wrecksite is situated in a sheltered bay and easily accessible for shore diving. It is therefore a very popular site for sport dive clubs.

The main objective of our project was to plot the positions of the cannons and anchors and record their dimensions. This exercise in calm sea conditions would give the volunteer diving assistants some experience mapping sites in Table Bay where conditions were not as ideal. It might also provide comparative data for the identification of other anchors and cannons found in Table Bay.

(VI) METHODS

A baseline, with a northeast orientation, was laid along the shank of a large anchor, around which the other cannons and anchors were clustered. Buoys were secured to either end of this baseline and plotted from the shoreline using two theodolites. The relative positions of the anchors and cannons were mapped using the northeast extremities of the baseline for triangulating. The features of the anchors and cannons that required measuring or recording were listed on underwater slates and given to the divers (Appendix D).

Discussion:Cannon:

The concretions, kelp, and positions of the cannons - wedged between rocky crevices, on top of each other, or upright on the bore or cascabel - made it impossible to record all the required detail. Two of the cannons, lying partially buried in the sand, are in better condition, although some features, such as the reinforcing rings, have been scoured away by the sand.

The dimensions (bore diameter and length) of the cast-iron cannons suggest cannon 1 to 5 fall between the 9- to 12-pound shot range. It is possible that these cannon are the Dutch finbacker of the mid-seventeenth century.¹³ Although the bores of cannon 6 and 7 could not be measured, their shorter lengths might represent a 3- or 4-pound shot range. The presence of cast-iron cannon on the Huis de Crayenstein and many other Dutch East Indiamen sites refutes Marx's commonly accepted statement that, "the Dutch used bronze cannon almost exclusively on all of their ships, including the majority of merchant men."¹⁴ The Huis de Crayenstein would have carried armament other than these nine recorded cast-iron cannons. An unknown number of bronze cannon have been recovered from the site by salvors.¹⁵ There are probably more cast-iron cannons and still buried in the sand. Heavy growths of kelp make systematic swim searches in this area impossible. Alternatively, the crew may have thrown them overboard further out in the bay before the vessel drifted towards the shore. A

third possibility is that these cannon were recovered, as they often were, by the VOC to use as ballast aboard other vessels.

The accepted view of cannon technology is that breech-loading, wrought-iron cannon, introduced in the fourteenth century, remained the most common form of ordnance until the middle of the sixteenth century. These cannons were gradually replaced by muzzle-loading ordinance of cast-bronze. Initially only available in small numbers, bronze cannon gradually became more common in the seventeenth and eighteenth centuries. Muzzle-loading, cast-iron cannon, technically inferior but cheaper to those of bronze, were introduced in the sixteenth century. A third type of cannon, a composite design consisting of copper, lead, and iron was also used in the seventeenth century. A VOC vessel could be carrying all three types of cannon. Regulations issued by the VOC in 1630 stated that vessels should carry thirty-two cannon - twenty-four strong iron guns, six bronze cannon and two mignon cannon. This corresponds closely with the cannon complement of the Batavia wrecked in 1629 on the coastline of Western Australia. This vessel carried twenty-two iron cannon, six bronze, and two composite mignons which provided new insights on cannon manufacturing techniques.

Anchors:

The five anchors probably represent the Huis de Crayenstein's full complement. The size range of the anchors found on other VOC wreck sites such as the Kennermerland

TABLE 3.

DIMENSIONS OF THE CANNONS AND ANCHORS
ON THE HUIS DE CRAYENSTEIN SITE
IN FEET AND INCHES.

<u>CANNON</u>	<u>LENGTH</u>	<u>DIAMETER1</u>	<u>D2</u>	<u>D3</u>	<u>BORE</u>	<u>OTHER FEATURES</u>
1.....	10'2"	1'11"	1'7"	1'3"	4"	possible gun-carriage
2.....	8'2"	1'7"	1'3"	11"	4"	cascabel and breech
3.....	7'10"	-	1'3"	11"	4"	cascabel, trunnions and breech
4.....	6'10"	1'3"	11"	11"	4"	-
5.....	6'6"	1'7"	1'3"	11"	4"	cascabel and trunnions
6.....	4'3"	1'11"	1'7"	11"	-	trunnions, first reinforcing-ring
7.....	3'7"	11"	11"	8"	-	upright position

<u>ANCHOR</u>	<u>SHANK-LENGTH</u>	<u>FLUKE1</u>	<u>FLUKE2</u>	<u>STOCK</u>
1.....	13'1"	4'3"	3'9"	-
2.....	9'6"	4'3"	3'9"	-
3.....	6'10"	3'9"	3'9"	-
4.....	6'10"	3'9"	3'9"	-
5.....	4'3"	3'9"	3'9"	-

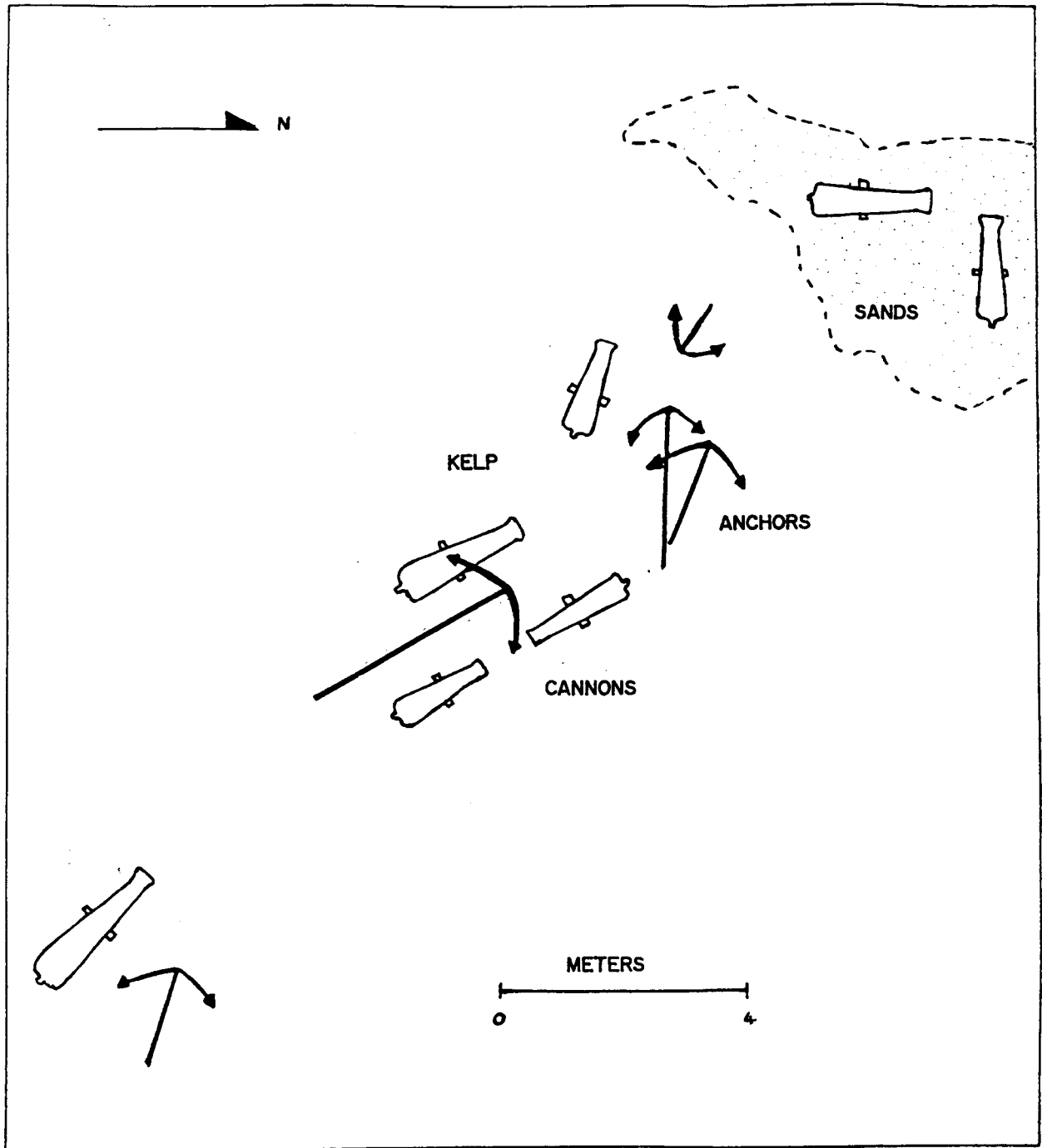


Figure 22. Relative positions of cannons and anchors on the Huis de Crayenstein site.

(shank-length around 6 to 10 feet, and flukes around 3 feet) is similar. Unfortunately, no specific study has yet been conducted on types of Dutch anchors. Different size anchors were possibly used for various sea conditions, substrates, and depths. Between four and nine anchors were usually carried by European vessels in the seventeenth century. The exact number depended on the conditions in the local anchorage and the size of the vessel.¹⁸ Upon reaching port, extra anchors were often obtained from officials or other vessels. Since the Huis de Crayenstein drifted onto the rocks on a calm night, five anchors obviously were either not enough or improperly deployed.

Lead caps, clay pipes and pewter spoons:

Lead caps, clay pipes, and pewter spoons recovered by Tony Asaro (Appendix C) in the 1960s are artifacts typically associated with VOC wreck sites. Numerous pewter caps with a high content of lead, and the bottles to which they belong, were found on the sites of wrecks such as the Lastdrager (1653), De Liefde (1711), and the Vergulde Draeck (1656).¹⁹

Pipe-smoking, introduced to the English in the late sixteenth century, became a common habit in England and Holland in the seventeenth and eighteenth centuries. Early pipes had short, three and a half-inch stems on average. By the end of the seventeenth century pipes lengths had reached twelve-plus inches.²⁰ Pipes were carried on board vessels by the crew. On Dutch East Indiamen, smoking was only permitted

on the beak-head and the fore-upper deck, the wettest and
windiest places on board.²¹

Pewter spoons were a common cutlery item on Dutch East Indiamen and have been found on most sites. Pewter crockery is not as common. Although pewter was at a high point in production in the seventeenth and eighteenth centuries, and became an everyday household item amongst affluent families, a greater part of the working population never purchased pewter. On the Swedish shipwreck, Vasa (1628), pewter was only found in the officers' quarters.²²

A combination of historical and archaeological research on the Huis de Crayenstein yielded important information about seventeenth-century Dutch maritime artifacts such as ordnance and anchors, as well as everyday items like the pipes and cutlery used by crew. This evidence has contributed to our understanding of the VOC's maritime history.

CONCLUSION
ACCOMPLISHMENTS AND PROSPECTS FOR FUTURE RESEARCH

The survey of shipping casualties in the vicinity of Cape Town during the seventeenth and eighteenth centuries revealed that the majority were VOC wrecks located in the Table Bay anchorage and near the southern mouth of the Salt River. Most of these sites, with the exception of the Haarlem (1647), Huis de Crayenstein (1698), Middenrak (1728), and De Visch (1740), were buried or destroyed during the reclamation of the foreshore and the construction of Table Bay harbor. Buried shipwreck sites have also been found in port cities in the United States such as New York and San Francisco.²³ The Ronson ship (1780), located on Water Street, New York, was carefully recorded and excavated by maritime archaeologists. In San Francisco, the discovery and excavation of the steamer, Niantic (1848), instigated an investigation of archival sources to ascertain whether more shipwreck sites were located in the other developing waterfront areas. The results of this research led to the creation of a policy of pre-construction archaeological testing procedures designed to detect the presence of shipwreck remains well in advance of construction activities.²⁴ A similar policy might be adopted in South Africa.

Historical research indicates that the Cape port did not benefit VOC shipping as much as it could have if the Company had selected False Bay, instead of Table Bay, as their anchorage. Smuggling from ships, illegal private trade among

seamen, local citizens and Cape-based VOC employees further increased the Company's financial losses at the Cape. The loss of vessels and cargoes was a serious problem. A ship was an important financial asset to the Company, and most wrecks at the Cape were damaged beyond repair by the heavy surf. Although John Lethbridge salvaged the bullion and ordinance from the outward-bound 1722 and 1728 wrecks, spices and textiles on the homeward-bound 1737 fleet were not worth recovering after being submerged in salt water.

More research about the cargoes of these VOC wrecks could be conducted in repositories in the United Kingdom and Holland. More information about John Lethbridge's salvage operations would be useful. Inventories of VOC ships wrecked at the Cape might be housed in the Hague Archives. The overall effect of the known economic deficit caused by the Cape shipwrecks could be more accurately assessed by researching VOC financial records in Holland. This would provide some insight into simultaneous losses the Company experienced beyond the Tavern of the Seas. For example, how did the wars affect the VOC if the Company gave shipping support to the Admiralties? How many wrecks did the Company salvage successfully around other regions such as the British Isles, Australia, and the Far East? To what extent was the VOC able to compensate for shipping losses by recovering cargoes at the Cape during the seventeenth century?

The Cape's long history of salvage and destructive seas are incentives to research and preserve any remaining material

evidence of an international and local maritime heritage. Many artifacts still adorn the homes of local divers. In California, artifacts taken by divers from the vessel Winfield Scott (1853), wrecked in the Channel Islands National Park, were gathered and analyzed with interesting results. This might be a worthwhile project to conduct with dispersed collections from Cape Town shipwrecks.

The magnetometer survey in Table Bay did not produce sufficient archaeological evidence to positively identify targets. A preliminary survey cannot offer much in the way of conclusions, only suppositions. Until comprehensive, carefully sampled work underwater is accomplished, the true range of material culture and the historical data shipwreck sites in the vicinity of Cape Town can yield will remain unknown. Two potential wreckage areas, target 1 (possibly cannons and anchors from the Haarlem) and target 5 (structural remains of a wooden vessel, possibly the Middenrak), should be investigated more thoroughly. These operations should ideally be carried out between January and April when diving conditions are more favorable in this area. The study of sediment processes in the Bay indicates that these sites might be exposed when the sea has calmed down following a northwest wind. Air-lift equipment to remove sand from the sites would probably still be necessary to further expose the sites for mapping purposes. Target 5 is likely to be better preserved than target 1 because it is located in a lower energy zone and

covered and protected by a greater quantity of sand. Mapping and measuring the timbers could provide some significant clues to the identity of the vessel.

A number of nineteenth-century sites were located during the magnetometer survey. The objective of the survey was to locate and identify seventeenth- and eighteenth-century shipwrecks; thus, later sites were neither mapped nor researched thoroughly. A particular problem in sketching and measuring features on these sites were the heavy mussel growths which obscured details. Nevertheless, these shipwrecks will provide an excellent opportunity to conduct a multi-cultural study of a variety of vessel types and international shipping history at the Cape.

This project only covered the nearshore area due to limited finances and technology. Mutually beneficial interdisciplinary projects could be organized with other marine research groups such as; hydrographic survey, marine geosciences, marine biology, and maritime technology. Many maritime casualties are recorded further out in Table Bay. Side scan sonar surveys, run in conjunction with magnetometer surveys using more sophisticated positioning and tracking equipment might be undertaken in future. The clarity of the image of the wreck near the Table Bay breakwater indicates that side scan sonar might be a useful tool for establishing the orientation and extent of these deeper sites. The greater depth will also be a factor in favor of better wreckage preservation.

The Huis de Crayenstein site has been heavily depleted by salvage operations. Still, artifacts which are not of much commercial value, such as cast-iron cannons and anchors, can yield important archaeological information. When facilities are available for recovering and conserving such artifacts, these cannons should supplement existing information about construction methods and cannon typology. Shipwrecks, located in sheltered bays like the Huis de Crayenstein, can also be used for training archaeology students in underwater research techniques and for recreational-educational activities of local diving clubs. Despite the incomplete nature of a nearshore site like this wreck, an abundance of local maritime historical sources can complement and substantiate archaeological research.

More preliminary historical and archaeological surveys in areas associated with high density shipping casualties need to be conducted along the Cape coast. The results of these surveys form an important data base for understanding the early maritime history of South Africa, for formulating cultural resource management policies, for selecting priority shipwreck sites on which to conduct more intensive archaeological/ historical research, and for educational and recreational activities.

CHAPTER 5 AND CONCLUSION ENDNOTES

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African Salvage Corporation Ltd.
 98 (A) Long Street. 3
 Copy
 July 4/59

Cape Town, 20th August, 1936-

July Address:
 Freshwater

Meesters Van Wienen's Sluis Zand Duik Maatschappij,
 De Lairessestraat 82,
 Amsterdam.

Dear Sirs,

We have to acknowledge your favour of the 4th inst. with enclosure, all of which we have carefully considered together with the reports forwarded to us by our Mr. Tromp van Diggelen. For purposes of record, we enclose copy of our cable despatched to you on the 18th inst.

We consider it essential that your Mr. C.A.G. van der Doon and Mr. V. van Wienen should visit this country to inspect for themselves the boundless possibilities as soon as possible.

We understand from Mr. van Diggelen, that you are willing to pay the expenses of this trip to South Africa, provided that we contribute £100. towards the cost thereof.

We hereby notify you that we are willing to pay £100. towards the cost of the expenses of your two members coming out here.

In order to avoid any future misunderstanding, however, we would state that it is clearly understood that you will pay the rest of the expenses including the cost of the investigations which you may require to make as regards the wrecks and prospects which we shall point out to you. We trust that you will agree that this is a very fair arrangement, as we ourselves know the value of our proposition, and have proved the existence and value of these wrecks and will therefore be only proving them again for your satisfaction and ultimate profit.

In this connection we would advise you to book your steamer tickets to the port of East London, as off that port lies the first wreck which we would like you to investigate.

As regards your suggestions for the basis of an Agreement, we consider these suitable to remain as a basis for discussion between us. We consider that the scope of the Agreement should be extended to cover all work done in South Africa or in South African waters with your apparatus, and our share of the gross proceeds thereof should not be less than 50%.

We consider that a clause should appear in the Agreement between us that you undertake not to negotiate with or work with any other person or Company during the course of our Agreement and for 5 years thereafter.

We think that our proportion of the proceeds in the event of your financing the whole exploitation should be 25%, but this and all outstanding questions could be settled personally, when your representatives are in South Africa. Instead of a year's option we would suggest that we undertake not to enter into agreements with any other Company, until you have had the opportunity of investigating our proposition and agreed to or refused same, provided that you undertake to come out to South Africa as soon as possible and give us a definite reply within a reasonable time.

Our fine weather season is just commencing and we are of the opinion that you should arrange to leave for South Africa as soon as possible after the receipt of this letter. Please be careful when coming to South Africa, to bring with you full written authority to negotiate and complete agreements with us, which will be binding upon your Company in Holland.

As regards your suggestion that Mr. van Wienen should have sole charge of the work in South Africa, to this we would give a qualified approval. Mr. van Wienen should have sole charge of the work on any wreck, but we should be allowed to have a representative present. We would place all our experts at your disposal, but in the general policy of operations, we would expect your Company and Mr. van Wienen, in full collaboration with our Board of Directors. As regards our concession this is too bulky to quote in full in this letter, but we will give your representatives full access to this and all our documents and rights, when they arrive here. In the meantime we would quote you the following paragraph from the Union Government to ourselves, dated the 10th August 1935:

"The Minister of Finance has instructed me in reply to your letter of the 5th ult. to state that he is prepared under certain conditions to grant you the exclusive right to recover treasure from abandoned wrecks along the coast of the Union for a period of 5 years."

We trust that this letter has covered all the points that you raised and that we shall receive a cable from you indicating the date of sailing of your representatives.

Assuring you of our confidence that this venture will result in very substantial profits to our mutual advantage.

Yours faithfully
 AFRICAN SALVAGE CORPORATION LTD.
 Mr. C. Welford Francis

Secretary and Director

Encl.

Appendix A. Extracts from Letters Written by the
 African Salvage Company..

Name of Vessel	Location of Wreck	Contents if known	Date of Wreck	Further Particulars	Name of owners
do. unknown	Between Red light Mouille Point and the Thermopylae wreck.	Contents unknown.		do. 6th Nov. 1907.	Abandoned
do.	Near that of the Tantalion Castle, Robbin Island.	do.		do. do.	do.
do.	Off Dassen Island.	do.		do. 22nd August 1908.	do.
do.	Off Woodstock Beach.	Coal.		Acquired by Africa purchase, royal-Salvage ty not payable Corpora on this cargo. tion Li	
do.	do.	[Whisky and Lead.]			Abandoned
Marichal.	Near Mouth of Salt River.	Unknown.	May 1660		do.
Goede Hoop.	do.	do.	5th June 1696.	Most cargo recovered.	do.
Hoogergieet.	do.	do.	do.	Complete wreck.	do.
Orange.	Near Mouth of Salt River.	Unknown.	5th June 1696.	Complete wreck, English ship.	Abandoned
Dageraad.	Western side off Robbin Island.	Specie and General	20th Jan. 1694.	Some cargo recovered, most specie lost.	do.
Kaddingsveen.	Salt River mouth.	[Valuable cargos.]	24th May 1697.	Severe blow to Company.	do.
Dosterland.	do.	do.	do.	do.	do.
Ruis te Oryens-tuin.	Rocks behind Lions Head.	Unknown.	27th May 1696.	Outward bound to Batavia.	do.
Amg.	Near Castle.	do.	17th June 1722.	In use at Cape.	do.
Chandos.	do.	do.	do.	English Indianan, home ward bound from Bengal.	do.
Toesigtheid.	Between Castle and present pier.	details unknown.	do.		do.
Lakeman.	do.	do.	do.		do.
Standvestigtheid.	do.	do.	do.		do.
Rottendam.	do.	do.	do.		do.
Schotsche.	do.	do.	do.	Property valued at nearly 1/4 million sterling lost.	do.
Lorrendraayer.	do.	do.	do.		do.
Souda.	do.	do.	do.		do.

Appendix B. Shipwreck Sites Surveyed by the African Salvage Company.

Ship Name	Location	Date	Notes
Adelphi	Between Castle and present pier.	1722	Property lost at sea.
Adelphi	South Salt River	do.	do. by 1/4 million
Charles	do.	Unknown	4th Dec. 1723. Money chests lost.
[Redacted]	do.	Specie and 4th July General.	1728. Money chests lost.
Starbrook	do.	Unknown	do. Some cargo saved.
Teyenoord	do.	do.	2nd July 1736. do. do. do.
Yperroods	Close to mouth Salt River.	do.	21th May 1737. Total wreck. do.
Goudriaan	Mouth of Salt River.	do.	do.) do.
Flora	do.	do.	do.) do.
Paddenburk	High up on beach.	do.	do.) do.
Duys	do.	do.	do.) Articles and goods valued f160,128 washed up on beach.
Duynbuk	Beyond Salt River mouth.	do.	do.) do.
Roodenryk	do.	do.	do.) do.
Visch	Above Castle.	do.	5th May 1740. Outward bound, a few money chests saved.
Voorsigtigheid	Salt River mouth	do.	8th June 1757. Provision ship from Batavia. do.
Jonge Thomas	Beyond Salt River mouth.	do.	1st June 1773. Outward bound. do.
Crea	Near Salt River mouth.	do.	15th Oct. 1776. French ship, homeward bound, some cargo saved.
Victor	Beyond Salt River mouth.	do.	24th Sept. 1782. French corvette. do.
Severe	Maauwberg.	do.	24th Jan. 1784. do. man-o-war.
Hoop	Close to Mouille Point.	do.	7th July 1784. Ran ashore.
Maria	Near Salt River mouth.	do.	12th April 1790. Genoese barque.
Erasmus v. Augustenberg	do. driven ashore.	Pine Ship.	do. Danish Company's Pine ship.
Scepter	Close to Fort ...		

Cape salvor harvests pieces of eight

ST. GEORGE'S STREET, Monday.

'Pieces of eight' squawked the photo's parrot. 'Pieces of eight!'

TODAY pieces of eight are scattered on my desk in The Tavern and a blue-bearded mariner watches over them.

These pieces are not disk coins but oblongs and rough diamond shapes on which Spanish Main symbols are stamped. They are made of Potosi silver, an alloy of silver and copper. For 269 years they have lain on the sea-bed over which the Oudekrans breakers pound between Camps Bay and Llandudno.

Now coin collectors of the world are rarin' to know more about these pieces of eight — pieces worth more than their weight in gold. Oh, much, much more.

Examine them: they feel snappy and as heavy as lead. They have a lustrous hue. The markings on them are faint but discernible. Strikingly they were backed out of silver metal with a wool like a blunt pair of tin snips, or possibly a chisel. They are the treasure for which the parrot got to see the plunder of the Spanish Main.

In fog

Any one of these pieces would have bought for a major a week's drink and wages in the Tavern of De Kame or in the Mill Inn of Boksap in the



My ancestor friend Tony Anaro sucking a salvaged clay pipe possibly smoked last in the fog of May 26, 1698, when Het Huis te Crayenstein struck the rocks at Oudekrans.

days of good old Bismarck van der

On the night of May 26, 1698, the Dutch ship Het Huis te Crayenstein (we'll call her Crayen) was anchored in a fog below the line of the Twelve Apostles. Her cargo parted and she drifted to the rocks.

Spilt in the sea

The Cape salvor lifted her and she pounced on the rocks. The crew were all saved and so were 16 of the 18 money chests she had aboard. Those had been destined for Batavia.

The Monarchist blamed the skipper and made for allowing the Crayen to drift ashore. Governor Simon van der Stel was reprimanded for not saving the vessel.

There was no road or path out to Oudekrans and the usually

THE WANDERER'S TALK at the TAVERN



ARGIE has swished miles 411 yards 2 feet in seven days. He has three more days to go before the Ideal Human Exhibition opens in the Cape Showgrounds, Goodwood.

conversive Bismarck had not the time or the energy to walk over the rocky coastline.

Two of the missing money chests may have been broken by wreck contact, but one broken and split its contents into the sea.

Treasure poured out

Tom van Noorden, of the S.A. Museum, knew where to take Antonio Anaro when Anaro (Tony) to palm with crowd the hostelry; he conducted in Lamp Street; invented a new type of sea-bed pump.

'This pump,' said bearded Tony as he pumped his pieces of eight in my Tavern, 'is like a vacuum cleaner and a cream separator. With it I can lower burrowed openings in the sea bed, pump them up and catch valuables in a screen as the water pours through. A petrol motor works the invention.'

Cannon found

In his 30ft. fishing craft named Ticker, Tony set out with the museum's Tom and three divers, Andy Ruper (28), Fred Casaru (23) and Leo Castro (28). They are members of the syndicate registered as Anaro Investments.

Tom showed them the spot at which tradition held that the Crayen was wrecked. They set to work. The wreck is still there on the bottom in three sections, wedged between rocks. There are three cannon seven feet long (they

'World looks at S. Africa' and sees —

THE world is taking a new look at South Africa,' says Dr. Diedericks.

And what does the world find? A nation searching for oil, worrying about the world price for its gold, worrying about the disposal of its record maize crops, worrying about inflation, playing games, drinking brandy — and gloating over the hold up of world traffic through Namibia's Dutch.

would throw a 6in. cannon ball 800 yards) and four smaller cannon, all 17½ feet from the beach and in 45 feet of water.

Swords, too

Their patent pump worked on the bottom like a vacuum cleaner and threw up on deck 150 pounds of money worth R5 each (that was the best of the payable booty) and three two swords, some spoons of pewter and lead caps for combats.

Most of these things the Anaros gave to Tom for the South African Museum.

A cannon ball was found: 'But,' said my bearded friend, 'it was so corroded that I could crush it in one hand (slowly closing his stretched fingers) like that! Pinks!'

Explained

Cdr. Wilfred Copenhagen, romantic analyst, cleared up the pieces of eight by circumspect to 'mint condition' and Dr. Frank Mitchell (chairman of the numismatists) told me:

'These are all cob-type eight-real pieces. The rectangular piece and the diamond-shaped piece are, I think, from the Spanish City mint from the reign of Philip IV of Spain (1621-1665).'

The rounder pieces were, he added, struck during the reign of Charles II (1687-1700). I will go chancier than that and say that one of the rounder pieces was struck in 1690, probably at Potosi (Bolivia) or in Mexico City.

Romance

Well, that is the first successful treasure hunt I have reported for many a year. It justifies some of the optimism of treasure hunters Tromp van Diggelen and Peter Wulmerans who believed that our beaches were underlaid with pieces of eight.

Today in Amsterdam, in London, in New York and in Mexico City antiquarians will be asking why was Het Huis te Crayenstein, a Dutch trader, carrying possibly eight in considerable chests to Batavia. Don't they properly belong to Nomers Dooe Bay?



promise with the word stop it means one thing: Stop! The S.A. Railways had the word stop at all level crossings. The public interpreted this as meaning stop if a train is coming.

PIECES OF EIGHT, a piece a soon that have been edified after being on the sea-bed at Oudekrans for 269 years. The makers of the pipe still manufacture clay pipes in Holland.

NAME: _____
DATE: _____

CANNON
NO. _____

LENGTH	DIAMETER1	DIAMETER2	DIAMETER3	BORE	OTHER FEATURES

ANCHOR
NO. _____

SHANK	LENGTH	FLUKE1	FLUKE2	STOCK	LINE/CHAIN	OTHER FEATURES

FEATURES TO BE OBSERVED

MEASUREMENTS TO BE TAKEN

Appendix D. Diver's form to record Cannon and Anchors.

APPENDIX E

Units of Measure and Weight used by the VOC at the Cape

<u>Measurements:</u>	<u>Cape unit</u>	<u>Decimal unit</u>
	1 Dutch foot	0.305 meters
	1 Roede	3.660 meters
	1 Amsterdam mile	7.4 kilometers
<u>Weights:</u>	1 Amsterdam pound	0.494 kilograms
	1 last	1 600.6 kilograms (Cape)
	of:	2 400.84 kilograms (Dutch)

(Compiled from C.R. Boxer, Dutch Seaborne Empire, 304-307)

Conversions for metric system

1 Meter	=	3 feet 3 inches
1 Kilometer	=	0.026 miles
1.85 Kilometers	=	1 nautical mile = 1.16 miles
0	=	0
1 Celsius	=	1.8 Fahrenheit

(Both English measurements - feet and inches - and metric measurements are used in the archaeology section of this thesis (Chapters 4 and 5). Archaeologists normally use metric measurements when recording sites. English measurements are used for recording the dimensions of ships and artifacts such as cannon and anchors. This system is more appropriate because English measurements were originally used in the construction of ships and artifacts with maritime associations)

APPENDIX FCurrency used by the VOC at the Cape and in HollandIn Holland:

Stuiver	=	the unit 1 (approx. 1 English Penny)
Duppeltje	=	2 Stuivers
Unstamped Skilling	=	5 and a half Stuivers
Stamped Skilling	=	6 Stuivers
Gulden	=	20 Stuivers
3-Gulden	=	60 Stuivers
Silver Ducaton	=	63 Stuivers
Ducaton	=	105 Stuivers

In the Cape:

The following Dutch coins circulated, but with changed value:

Stuiver	Gulden
Duppeltjie	3-Gulden Piece
Stamped Skilling	Ducaton

Dutch coins worth more at the Cape (a visitor to the Cape made approximately 8 per cent profit on the Skilling and 23 per cent on the Ducaton)

Unstamped Skilling	=	6 Stuivers
Silver Ducaton	=	78 Stuivers

Coins specific to the Cape:

Cape Gulden	=	16 Stuivers
Cape Rjiksdaalder	=	48 Stuivers

(Compiled from Mentzel, Life at the Cape, 77)

APPENDIX GMeasurements for a VOC Vessel carrying 700 Lasts of Cargo

Width of a ship at it broadest point above water	=	42 feet
Length of the keel	=	182 feet
Breadth of the keel	=	2 feet
Thickness of the keel	=	2 feet
Height of the cargo space	=	17 feet
Height of the second deck	=	7 feet
Height of the third deck	=	5 feet
Height of the bulwarks	=	5 feet
Length of the galleon in the fore part of the ship	=	32 feet
Breadth of the galleon in the fore part of the ship	=	28 feet
Height of the stern from the keel to above the rudder or below the cabin	=	28 feet
Height of the cabin	=	9 feet
Height of the deckhouse above the cabin (where the captain's quarters are situated)	=	7 feet
Height of the mainmast	=	170 feet
Height of the foremast	=	140 feet
Height of the mizzenmast	=	70 feet
Length of bowsprit	=	80 feet
Breadth of crows-nest on the mainmast	=	18 feet
Weight of each of the three large anchors	=	38-40 cwt.
Weight of the largest sheet anchor	=	45-46 cwt.

(Compiled from Mentzel, Life at the Cape, 164)

APPENDIX HWages of the Crew on a VOC VesselOfficersGulden per month

The captain - according to the length of time he has commanded a ship.....	50 - 80
First mate.....	40
Second mate.....	30
Two third mates (<u>Derde Waacks</u>) each.....	20
Bookkeeper (<u>Seur</u>) when there is not an undermerchant on board.....	30
Doctor.....	30
Sick comforter (<u>Domaine</u>).....	20
Boatswain.....	20
Boatswains mate (<u>Schiemann</u>).....	20
Gunner.....	20
Upper ship's carpenter.....	24
Commander or sergeant of the soldiers.....	20
Steward (<u>Bottlier</u>).....	20
Cook.....	20
Upper sailmaker.....	20
Upper cooper.....	20
Second docter.....	20
Master carpenter.....	20
Under ship's carpenter.....	20
Trumpeter-when there is one.....	20

Appendix H (cont.)

Petty Officers

Under-boatswain.....	14
Under-boatswain's mate.....	14
Three under-gunners each.....	14
Under-stewart.....	14
Under-cook.....	14
Under-sailmaker.....	14
Under-cooper.....	14
Under-carpenter.....	14
Two under-ships carpenters each.....	14
Under-docter.....	14
Ship's corporal-who is either a smith or a locksmith.....	14
Four quartermasters each.....	14
Two soldiers (<u>landpassate</u>) each.....	12
Provost.....	12

Soldiers

Six, eight or ten adelborsts-who are in fact nothing but common soldiers, but who are favoured and receive extra pay each.....	10
Fifty soldiers each.....	9

Sailors

Forty to fifty experienced sailors-able to perform all the work of a ship each.....	11
Forty to fifty experienced sailors.....	10
Forty to fifty less experieced men-but having a knowlege of the compass and able to steer each.....	9

Appendix H (cont.)

Twenty to twenty-four <u>hooploopers</u> -boys gaining their first experience of sailing each.....	7-8
Ten cabin boys each.....	5
Ten scrubbing boys.....	5

(Compiled from Mentzel, Life at the Cape, 163-165)

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